



FATHER MULLER CHARITABLE INSTITUTIONS

**RESEARCH BULLETIN
2024-25**



DIRECTOR'S MESSAGE



“But whoever lives by the truth comes into the light, so that it may be seen plainly that what they have done has been done in the sight of God.” — John 3:21

It gives me immense joy to present the Research Bulletin 2024–25 of the Father Muller Research Centre (FMRC), a humble yet profound testimony to the spirit of inquiry that dwells within our Institution. Over the years, and especially in this past academic cycle, funding support from FMCI for research has seen a significant rise. I am heartened to see how our faculty and students have embraced this opportunity with sincerity and purpose, bringing forth studies that not only advance knowledge but also serve the greater good of humanity.

As we stand on the anvil of becoming a University, research has moved from being a supportive arm to becoming the spine of academic progress. In this new chapter, publications, trials, formulations, devices, and patents will define our contribution to science, innovation, and society. They are not merely academic accomplishments but milestones in our journey of self-development and institutional excellence.

This editorial marks a personal milestone too, as it will be my last message in this capacity. As I reflect upon the journey, I offer my heartfelt blessings and prayers for the continued growth of the Research Centre—a unit that has remained close to my heart throughout my tenure. May it flourish further under the guidance of Divine Providence and the dedication of every researcher who walks its path.

I must acknowledge the service of Dr B. Sanjeev Rai who made FMRC to take off from nothing to a greater height. With his contribution, the FMRC got a “Big Push” a momentum to what we are today. Thanks to Dr Rai, the former Chief of Research and Dr Muralidhar, the Head of Research. Now the Centre is in the hand of Dr Ramesh Bhat as the Head of Research. I wish him and the entire team of FMRC all the best.

Let ethical, moral, and humane research continue to be the cornerstone of our endeavours at Father Muller’s. And may our collective voice in science resonate not just within academic circles, but across the world—as a beacon of light, guided by truth and compassion.

God bless you all.

Rev. Fr Richard Aloysius Coelho
DIRECTOR

MESSAGE



It is a fact that new realities are emerging with the world changing constantly due to geo-political impact, global warming, food pollution by the use of chemical pesticides and fertilizers, water and air pollution. There is need for newer ways of addressing the health issues of people. Hence, the constant search to remedy the illnesses is the need of the hour. The diseases like cancer, diabetes and heart ailments need lasting solutions and easier treatments.

The Father Muller Research Centre is well equipped with the state of the art facilities and the faculty and the students are continuously engaged in research activities. The centre has created a name all over India and has undertaken numerous projects. The Research

Bulletin show-cases these activities.

My wish is that the centre comes up with user-friendly, pro-poor methods of medication facilities so that the world will be happier.

I wish the Centre and the Bulletin All the Best.

Rev. Fr Faustine L. Lobo
Designate Director – FMCI &
Administrator FMHMC&H

MESSAGE



In the ever-evolving landscape of healthcare, research remains the foundation upon which meaningful progress is built. At Father Muller Medical College Hospital, we take pride in being a dynamic platform where clinical care and scientific inquiry intersect. The trends in current research—be it translational, clinical, or device-based—underscore the importance of having state-of-the-art infrastructure, technologically advanced instruments, and a responsive hospital ecosystem that enables discovery, learning, and innovation. Our hospital has strategically procured cutting-edge diagnostic and therapeutic equipment, many of which have found relevance and application in ongoing research. These instruments are not just tools of care but also gateways to deeper understanding

and innovation, enhancing both treatment outcomes and scientific output.

The Office of the Administrator has remained a pillar of support in this journey—facilitating collaborations, guiding procurement negotiations, and enabling smoother research operations through effective engagement with partners and vendors. We remain committed to ensuring that researchers are not only well-resourced but also well-supported.

Research at our institution is uniquely grounded in the hospital's rich clinical environment. From patients and caregivers to systems of care, every facet of our hospital is a potential source of insight. These lived experiences form the bedrock of real-world, ethical, and human-centred studies, offering new learnings that can translate into improved hospital practices and impactful public health solutions.

As we look to the future, let us continue to foster a culture where research thrives—anchored in compassion, driven by inquiry, and focused on service. Together, let us ensure that our care is guided by science, and our science is rooted in care.

May the grace of God bless all your endeavours.

Rev. Fr George Jeevan Sequeira
Administrator
Father Muller Medical College Hospital

MESSAGE



Dear Esteemed Faculty and Students,

Welcome to this edition of our research bulletin, a vibrant showcase of the groundbreaking work that defines Father Muller Charitable Institution. As the Administrator, I am thrilled to embark on this intellectual journey with you, as we celebrate the spirit of discovery and innovation that permeates our halls. It is an honor to witness the dynamic fusion of knowledge and curiosity that you bring to life each day. In this bulletin, we delve into the profound impact of your research, which continues to blaze new trails in medical science and push the boundaries of what is possible.

"Research is creating new knowledge," said Neil Armstrong.

This profound statement encapsulates the essence of our mission at our Institution. Each study, experiment, and hypothesis add to the vast tapestry of medical knowledge that not only transforms healthcare but also enriches lives globally. As members of this vibrant academic community, you hold the unique ability to influence the present and future of medical science. In the past year, our faculty and students have made significant strides in various research areas. These efforts have led to numerous publications in reputed journals, as well as collaborations. However, the journey of research is never complete. It is a perpetual quest for answers, understanding, and solutions.

To our faculty, I urge you to continue guiding our students through the intricacies of research with patience, dedication, and enthusiasm. Mentor them to think critically, question fearlessly, and innovate boldly. Your expertise and mentorship are invaluable resources that can ignite a lifelong passion for research in our students. Encourage them to explore untrodden paths and support their inquisitive minds, for they are the torchbearers of tomorrow. To our students, I encourage you to dive into the world of research with curiosity and zeal. Embrace the challenges and failures as stepping stones to greater discoveries. Seek opportunities to engage in research projects, attend conferences, and collaborate with peers from other disciplines.

Together, as a collaborative community, let us strive for excellence in research. Let us challenge conventional boundaries, question established norms and contribute meaningfully to the field of medicine. Our commitment to research is our commitment to societal betterment, and it is a legacy we are building for future generations.

Thank you for your unwavering dedication and passion. Together, we can achieve remarkable feats in the world of medical research.

With sincere appreciation,

Rev Fr Ajith B Menezes
Administrator
(FMCI, FMCOP, FMCOAHS)

MESSAGE



The Father Muller Research Centre is at the forefront of encouraging research related activities in the Campus. The centre is organising Research week and it gives me immense pleasure to extend best wishes to the team. Research forms the cornerstone of any institution's operations. In education, research holds a higher priority than in any other sector due to the vast and dynamic nature of learning. Teachers impart knowledge to students, who become future leaders and educators, perpetuating a continuous cycle of learning. Teachers who conduct thorough research are considered to provide significantly better guidance than those who do not. Educational research helps students apply their knowledge to practical situations.

Research aims to identify problems, which is the first step toward finding solutions. By raising awareness of issues within the educational system, researchers can drive necessary changes. Research is important for building knowledge, facilitating learning, understanding issues, increasing awareness etc. Research in the Medical field improves services and treatment. It helps develop new tests for diagnosis, treatments and processes that could eventually help the future generations.

While I greatly appreciate the active involvement of all the participants, hope this research week will enlighten the young minds in the field of innovation and research.

Dr Antony Sylvan D Souza
Dean, FMCC

MESSAGE



Research is crucial in both education and personal life, as it fosters critical thinking, expands knowledge, and informs decision-making. In education, research identifies effective teaching methods and informs policy, while in personal life, it helps us understand the world, solve problems, and make informed choices.

The Father Muller Research Center is making significant strides in fostering quality research, motivating faculty and students to develop innovative ideas and strategies for diagnosing and managing various disorders and diseases. I want to extend my congratulations to the FMRC team for their initiatives and support in advancing scientific approaches to research and innovation. This research bulletin is a masterpiece of the commendable work done by the FMCI and I wish that the Father Muller Research Center continues to thrive and achieves even greater milestones in delivering high-quality research in the fields of medicine and disease management.

Prof. Cynthia Santhmayor
Father Muller College (Speech and Hearing)

MESSAGE



Research is the corner stone of any institution's progress. This bulletin is a reflection of dedication and commitment towards research. It is a celebration of effort and insight which led to innovative research in every discipline of Father Muller Charitable institutions.

I extend my heartfelt congratulations to all contributors whose work is featured in this edition. May this bulletin inspire further inquiry and serve as a catalyst for future research endeavours. Let us continue to foster a culture of inquiry, ethics, and excellence in all our pursuits.

My congratulations go out to the Research department team as well for collecting ,compiling and publishing it every year

Dr Hilda Dsouza
Principal, FMCOAHS

MESSAGE



I am pleased to extend my sincere appreciation to the Research Centre for their tremendous effort in compiling the Annual Research Bulletin 2024-25. This initiative brings together a comprehensive overview of the research activities conducted across all our Institutions, providing a collective snapshot of our progress and achievements.

This annual bulletin serves as an excellent platform, highlighting not only the advancements in research but also the dedication and hard work of our faculty and researchers. This initiative is a source of great inspiration for all of us. It motivates our staff to engage in meaningful research, explore new areas of inquiry, and collaborate with fellow Institutions. I look forward with hope to see the greater impact this endeavor will have in fostering a culture of research, innovation, and collaboration across our Institutions. Thank you to everyone involved in making this possible.

Sincerely,

Sr Dhanya Devasia
Principal
Father Muller School and College of Nursing

GLIMPSES OF RESEARCH



Healthcare, Teaching and Research are the 3 pillars of medical education. It is important to have strength in all these 3 pillars for a successful health care institution. Father Muller Research Centre encourages research, innovation and publication from students and faculty of all institutions under FMCI. This research bulletin highlights the glimpses of research activities of these institutions.

Dr Ramesh Bhat
Head of Research, FMRC

FATHER MULLER MEDICAL COLLEGE

Anaesthesiology

Research Projects 2024:

S.No	Title of the Project	Investigator(s)	Funding Source	Grant
1	Identifying and Prioritizing Technical and Non-Technical Skills for Simulation-Based Curriculum in Anesthesiology: A Delphi-Based Needs Assessment	Dr. Divya Vincent, Dr. Priya Mitali, Dr. Lulu Sherif	No	No
2	Postoperative Analgesic Efficacy of Erector Spinae Plane Block vs. Serratus Anterior Plane Block in Patients Undergoing Modified Radical Mastectomy	Dr. Divya Vincent, Dr. Hezil S, Dr. Kishan Shetty	No	No

Publications:



Dr. Divya Vincent

Title: Serratus Anterior Plane Block for Multiple Rib Fractures-A Novel Pain Management Technique

Journal: International Journal of Critical Care and Emergency Medicine

Published year: 2024

Abstract:

Context: Rib fractures are mostly traumatic. Commonly seen in patients suffering from multiple injuries due to road traffic accidents or fall from height, conventional treatment is with intravenous/oral analgesics or opioid patches. The innervation of the ribs passes through the Serratus Anterior Plane and hence we aim to administer anaesthetic in this plane to achieve reliable and quality pain relief. **Methods and materials:** 20 patients presenting with a rating of 8 on the visual analogue scale, whose pain was not relieved by intravenous analgesics and showed signs of rapid shallow breathing were administered SAPB unilaterally using

ultrasound guidance. **Results:** The patients pre-block median pain scores were 60 minutes Post block the median pain scores were. There were no complications due to the block the 24-hour postblock period was uneventful. **Conclusions:** Patients with multiple rib fractures (MRF) can be treated with SAPB with very good results and should be tried when patients are in severe pain not responding to intravenous anaesthetics and with deterioration of pulmonary function.

Keywords: Regional anaesthesia, rib fractures, serratus anterior plane block, ultrasound



Dr. Ananth Srikrishna Somayaji

Title: Effect of ROX Index on the Ventilator Free Days in High Flow Nasal Oxygen and Early Invasive Mechanical Ventilation in Adult COVID -19 Patients

Journal: International Journal of Health and Research

Publishing year: 2024

Abstract:

Background: High flow nasal oxygen (HFNO) is used as an alternative respiratory support in hypoxemic respiratory failure in COVID -19. However, the use of HFNO was associated with a lower risk of invasive mechanical ventilation and duration of stay in ICU. This study is aimed at comparing ventilator free days and duration of ICU stay between early mechanical ventilation and HFNO use in COVID -19 to predict the clinical outcome. **Methods:** We performed a unicentre prospective observational analytical study on subjects with respiratory failure due to COVID -19 comparing effect of ROX index on ventilator free days with use of HFNO therapy and mechanical ventilation on first day of intensive care unit admission. Each group had 20 subjects. Clinical outcome was measured in terms of ventilator free days between two groups. Standard statistical comparisons were used to compare the length of ICU stay as secondary outcome. APACHE II and SOFA scores were compared and analysed between two groups. **Results:** 40 adult subjects critically ill due to COVID -19 were included in the study with 20 in each group. Subjects in HFNO group had higher ventilator free days than those who were put on early mechanical ventilation with significant difference. Whereas the duration of ICU stay was prolonged in HFNO group but there was no significant statistical difference. **Conclusions:** In this prospective study HFNO had better clinical outcome in terms of ventilator free days compared to early mechanical ventilation. Duration of stay in ICU had no difference.

Title: Intraperitoneal instillation versus port-site infiltration or subcostal transversus abdominis plane block for post-operative analgesia following laparoscopic cholecystectomy

Journal: International Journal of research and opinion in anaesthesia and intensive care

Publishing year: 2024

Abstract:

Background: Although pain after laparoscopic surgery is less compared with open cholecystectomy, pain management in the first 24 to 72 h in the postoperative period is tricky and most patients complain of pain with cough, breathing and mobilization during the initial hours. The aim of this study was to evaluate the most efficacious route of analgesia in patients following laparoscopic cholecystectomy by comparing port-site wound infiltration, intraperitoneal infiltration and subcostal transversus abdominis plane block in providing post-operative analgesia following laparoscopic cholecystectomy. **Methods:** This was an observational study performed on patients who underwent elective laparoscopic cholecystectomy at a tertiary care hospital in Mangalore. Group A received bupivacaine instilled in gallbladder fossa after removal of gall bladder before closure. Group B received Bupivacaine as an infiltration into the skin incision site (fascia, muscle, preperitoneal space) at each of the four port sites based on the length of the skin incision before closure. Group C received bupivacaine as subcostal transversus abdominis plane block under ultrasound guidance immediately post-closure. Collected data was entered in Microsoft Excel 2007 and analyzed using SPSS version 22.0 to find frequency, Mean and SD. Significance was assessed using Kruskal–Wallis test, χ^2 test and ANOVA for repeated measures. **Results:** Hemodynamic parameters, i.e. the heart rate and mean arterial pressure were comparable at the end of 2 h and 4 h. At 6 and 8 h postoperatively however, visual analog scale was significantly better in group C compared with groups A and B. Time until the first analgesic request in group C was 359.35 ± 45.55 min which was significantly lesser than the other two groups. Only three patients from group B had shoulder tip pain which was not seen in the other two groups. **Conclusion:** Infiltration of bupivacaine at port sites is helpful in providing effective analgesia for upto 2 h post operatively whereas intraperitoneal instillation is both effective at meeting analgesic requirements as well as preventing shoulder tip pain. However, the substantial finding of our study is in providing further evidence to existing data that Subcostal transversus abdominis plane block can produce effective analgesia for laparoscopic cholecystectomy, effectively reduces analgesic requirement, and ensures faster recovery.

Keywords: analgesia, laparoscopic cholecystectomy, subcostal TAP



Dr. Kishan Shetty

Title: Comparative evaluation of tap and local infiltration of 20 ml of bupivacaine 0.25% for postoperative analgesia in open inguinal hernia repair.

Journal: International journal of scientific research

Publishing year: 2024

Abstract:

Background and aim: Transversus abdominis plane block (TAPblock) is a novel procedure to provide postoperative analgesia following inguinal hernia surgery. The utilization of ultrasound has greatly augmented the success rate of this block and additionally avoiding complications. The aim of our study was to gauge the analgesic efficacy of ultrasound-guided TAP block in patients undergoing unilateral open inguinal hernia repair. **Materials and methods:** 60 male patients scheduled for elective inguinal hernia repair were selected for the study. At the end of the surgical procedure, they were randomly divided into two groups. Ultrasound-guided TAP block was performed with 20 mL of 0.25% bupivacaine or local infiltration with 10 mL of 0.25% bupivacaine. Visual analog scale (VAS) scores were used to assess pain. Paracetamol was given if $VAS > 3$ and tramadol was used when $VAS > 6$. Patients were monitored for VAS scores and total analgesic consumption for the 24-hour period. **Results:** The TAP block with bupivacaine reduced VAS scores at 4, 6, and 12 hours. There was no distinction in VAS scores at 0, 2, and 24 hours between the two groups. The duration of analgesia for TAP block with bupivacaine lasted for 390 minutes. Total analgesics consumption was also significantly reduced in TAP with bupivacaine than the group with local infiltration. No complication was reported in both the groups. **Conclusion:** The ultrasound-guided TAP block provides good postoperative analgesia, reduces analgesic requirements, and provides good VAS scores with fewer complications following open inguinal hernia surgery.

Awards:

- **Dr. Lulu Sherif**, Head of Simulation and Professor in Anaesthesia, received the prestigious Lifetime Achievement Award from the **Indian Society for Simulation** during Simulcon at GSL Medical College, Rajahmundry



Presentations:

- Three faculty members **Dr. Prithi Jain**, **Dr. Lulu Sherif**, and **Dr. Divya Vincent** participated in the National Conference in Health Professions Education in November 2024, where **Dr. Vincent** presented an E-poster.

Development of a Simulation based curriculum for Anaesthesiology residents- A Needs Assessment to identify areas of concern

Presented by **Dr. Divya Vincent** -Assistant Professor ; direxvin@fathermuller.in; 8971023187
Department of Anaesthesiology, Father Muller Medical College, Mangalore -Karnataka

Introduction

The integration of simulation based teaching into the Anaesthesiology residents' training curriculum is essential to ensure coverage of rare scenarios and common skills, this entails identifying both technical and non-technical skills best suited for simulation-based instruction through a needs assessment with the goal of developing said curriculum. Today's tech-savvy generation of students often find traditional teaching methods less engaging, gravitating towards active participation and experiential learning facilitated by technology and innovation, particularly within the boundaries of SBE (Simulation based training). Furthermore, it has been recently proposed by the National Medical Council (NMC), that we include non-technical skills into the residents CBME (competency based medical education) curriculum.

Methods

To effectively explain the purpose of the needs assessment and get quantitative data regarding the specific skills and scenarios that would best benefit from simulation based teaching, we created a multiple-choice and manual entry questionnaire on Google Forms. The form covered relevant questions using a resource tool for formulating needs assessment published by medical education journals, the content based on information obtained through informal discussions with peers and residents. Colleagues and postgraduates reviewed it for face validity before we obtained institutional ethics approval. We then distributed the form, along with a participant information sheet, to medical colleges in our region (Karnataka) ISA (Indian society of Anaesthesiology) members, and alumni of our institution.

Results

A total of 77 anaesthesiologists from 32 institutions responded, achieving data saturation in the open ended questions. Through the quantitative data, we could narrow down topics that needed attention through simulation based training. The keywords identified for the curriculum were "practice ready," "confidence," and "better communication." Majority selected "failed airway management, Circulatory failure, anaphylaxis, malignant hyperthermia, maternal and fetal collapse" as scenarios that can benefit from simulation training. Technical skills such as surgical airway, needle decompression of pneumothorax, orotracheal intubation, and point of care ultrasound scored the highest. All participants agreed that non-technical skills, such as inter-professional and hierarchical communication, could benefit from simulated practice.

Conclusion

Needs assessment using the above methods helped us figure out what we need to teach and how we can effectively teach it. Using this we:

1. Highlighted curriculum expectations and gaps
2. Gathered information about what students know and can do.
3. Obtained feedback that helps teachers, students to make good decisions to guide instructions.

Additionally, using technology, we will be able to:

1. Motivate students to learn better.
2. Motivate and encourage teachers to meet the identified needs of students.

References

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Anatomy

Research Projects 2024

SL No	Title of the Project	Investigators	Funding Source	Grant (Rs)
1	Correlation of serum folic acid level with knowledge and practice of periconceptional folic acid intake among pregnant women	Dr. Varsha Shenoy, Dr. Prathima Prabhu, Dr. Shivashankara	Intramural	16,000
2	Circulating serine peptidase inhibitor, Kunitz type 1 (SPINT1) – A biomarker of pregnancies with poor placental function and fetal growth restriction	Dr. Divia Paul A, Dr. Joylene Diana D'almeida, Dr. Ranajit Das, Dr. Ashwini Prabhu	Intramural	20,400

Publications:



Dr. Varsha Shenoy

Title: Awareness of Periconceptional use of Folic Acid to Prevent Neural Tube Defects in Young Females of Dakshina Kannada Region, India: A Cross-sectional Study

Journal: Journal of Clinical and Diagnostic Research

Published Year: 2024

Abstract:

Introduction: Neural Tube Defects (NTDs) are one of the common congenital anomalies leading to miscarriages and serious disabilities in newborns. NTDs are the second most common type of birth defects. Even though the aetiology of NTDs is multifactorial, Folic Acid (FA) deficiency is the most common cause. There are limited Indian studies on awareness of FA usage in the general public. **Aim:** To assess the awareness and usage of FA to prevent NTDs in young ladies of Mangaluru, Dakshina Kannada (DK) district, Karnataka, India. **Materials and Methods:** It was a community-based cross-sectional study conducted at Father Muller Medical College in Dakshina Kannada district, Mangaluru, Dakshina Kannada

(DK) district, Karnataka, India from August 2023 to October 2023. A total of 300 young Indian females aged 18-35 years, residing in the study district, were randomly chosen as participants. Data were collected by an interviewer using a semi-structured questionnaire with two components. Part 1 focused on socio-demographic details, while Part 2 gathered information on the awareness of FA supplements, dietary sources of FA, the best time, and dosage of FA supplements to prevent NTDs. Descriptive analysis of the data was done. **Results:** The study included 90 married and 210 unmarried females. The average age of the participants was 23.7 ± 5.7 years. The study results observed that only 103 (34%) of the participants had heard about FA supplements. A total of 240 (80%) of them said they were not aware of the preferred time for FA. Only 9 (3%) females could mention the correct dose of FA. **Conclusion:** The study results indicate a gross lack of awareness about FA supplements to prevent NTDs in the general population of the region.



Dr. Divia Paul Aricatt

Title: Conceptual differences about willingness of body donation among southern, eastern, central and northern population of India: Single centered approach.

Journal: Indian Journal of Clinical Anatomy and Physiology

Published Year: 2024

Abstract:

Background: Cadaveric dissection cannot be compensated by virtue table concepts or computerized learning aids. The present study was aimed to evaluate the conceptual differences and perceptual clarity about willingness of body donation relevant to regional practice among four inter-state population of India. The study objectives focused to assess the understanding level about general and special concepts and attitudes about body donation in Southern, Eastern, Central as well Northern parts of India and to compare differences about the concepts of understanding and willingness about body donation between four inter-state populations. **Materials and Methods:** A cross-sectional single center study with a differential rating scale questionnaire was conducted. Four hundred participants equally divided among four medical colleges of Southern, Eastern, Central and Northern India were the samples. All ethical principles for human research were followed. Completing a special course of ethical training and non-willingness to participate in the study were regarded as the criteria of a subject to get excluded from the study. **Results and Conclusion:** The given

questionnaire was completed by various participants from different zones: eastern, western, central and southern. We found significant difference in the educational level of the participants across various zones. Unsurprisingly, most likely due to the literacy rate, participants from the south are much more familiar with 'body donation' for research and education compared to participants from other three zones. Provisions to improve the body donation should concentrate on multi-directional tasks.

Title: Identification of novel genetic variants associated with oral squamous cell carcinoma (OSCC) in South-West coast of India using targeted exome sequencing.

Journal: Gene

Published year: 2024

Abstract:

Oral squamous cell carcinoma (OSCC) is a subset of head and neck squamous cell carcinoma (HNSCC). This study explores the genetic landscape of oral squamous cell carcinoma (OSCC) in a cohort of 33 patients from Southern India using targeted exome sequencing. Our analysis revealed a diverse range of mutations across the cohort, with missense mutations being the most prevalent. Pathogenic mutations, as classified by ClinVar, exhibited significant individual variation, highlighting the heterogeneity of OSCC. Seventy-five genes were identified to harbor pathogenic or potentially pathogenic mutations, with notable recurrence in genes such as TP53, PDGFRA, and RAD50 among others. Comparison with high-frequency mutation genes in HNSCC from TCGA database revealed significant overlap, emphasizing the relevance of these mutations across different populations. Additionally, several novel mutations were identified, including those in CHD8, ITPKB, and HNF1A, shedding light on potential genetic risk factors specific to this population. Functional annotation and pathway analysis underscored the involvement of these mutated genes in various cancer-related pathways. Despite limitations such as sample size and the need for further validation, this study contributes to a deeper understanding of OSCC pathogenesis and highlights potential genetic markers for prognosis and targeted interventions, especially in the Indian context.

Title: Association of Serum Secreted Protein Acidic and Rich in Cysteine (SPARC) Levels with the Severity of Coronary Artery Lesion in Type 2 Diabetic Patients with Coronary Heart Disease Among South Indian Population.

Journal: Acta Morphologica Et Anthropologica

Published year: 2024

Abstract:

Type 2 diabetic patients have high plasma secreted protein acidic and rich in cysteine (SPARC) levels. We aimed to find the association between SPARC levels, type 2 diabetes

mellitus (T2DM) and incidence of coronary artery disease with the objectives to investigate SPARC levels with the severity of coronary artery lesion in T2DM patients with and without coronary artery disease (CAD). A single center cross sectional study was conducted with 160 samples. All ethical principles were followed. The patients were categorized in to group A (C), group B (T2DM only), group C (CAD with T2DM), D group (CAD only) for SPARC analysis by Elisa. Gensini score was calculated for coronary stenosis. Patients with liver and kidney dysfunctions were excluded. We found a highly significant difference and association between the serum SPARC level and Gensini score between groups. This study identifies the possibility of SPARC as a new early biomarker for diagnosing CAD in diabetic patients.

Title: Interprofessional education module on stress management through healthy diet and regular exercise habits: A team based learning approach.

Journal: Yemen J Med

Published year: 2024

Abstract:

Interprofessional education (IPE) is an integral feature of forward thinking university health education programs. The project aims for stress management through healthy diet and programmed exercise by self-directive learning module for medical students of first year domain. 1. Develop an educational module for stress management through healthy diet and exercises using the principles of team-based learning approach. 2. Implement the module to the first-year undergraduate students. 3. Evaluate the outcomes of the implementation of stress management educational module. A quasi experimental study was conducted using convenience sampling. The study subjects were ninety healthy volunteers from first year MBBS students. Students who agreed to participate were included and those who follow regular exercise and life style were excluded. Informed consent was taken. Before the execution of the education module, a Google form based questionnaire was sent to all the participants via personal email. Total post-test correct responses were significant than pretest responses for every categories in terms of percentage of involvement. Gender wise both males ($P = 0.004$) and females ($P = 0.001$) post-test response was significantly improved, further revealed that the improvement in post-test score was more significant in the females. Out of the 25 categories, 23 showed no significant changes. However, there was notable reduction in anger towards uncontrollable factors post-intervention ($\chi^2 = 9.24$, $df = 4$, $P = 0.05$) and also reduction in the use of stress relief medications for insomnia over the last six months ($\chi^2 = 8.39$, $df = 4$, $P = 0.08$). The intervention program significantly improved daily workout routines and participant feedback indicated enhanced concentration and motivation among students. Sustainability to pertaining diet and exercise habits helps for effective stress management.



Dr. Sainu Susan Oommen

Title: Wheatgrass (*Triticum aestivum*) Extract Reduces Inflammatory TNF-Alpha Response in Experimentally Induced Gastric Ulceration in Rat Model.

Journal: Journal of Natural Remedies

Published year: 2024

Abstract:

Background: The term ‘peptic ulcer’ refers to the ulcers that occur in either the stomach or the first part of the small intestine that leads out of the stomach, called the duodenum. **Aim:** The present study aims to examine the protective consequence of wheatgrass (*Triticum aestivum*) extract on ethanol-induced gastric ulceration in Albino Wistar rats. **Methods:** The extract of wheatgrass significantly reduced gastric ulceration in rats in comparison to the control ethanol group. **Results:** Consequently, a remarkable decrease in the inflammatory activity of the TNF- α was observed in ethanol-induced ulcerated rats receiving treatment with wheatgrass extract. The gastric volume and ulceration increased with oral administration of ethanol. A drastic decrease in the total acidity and ulcer index was observed in rats treated with wheatgrass extract. In the protective index percentage, a substantial increase was observed with doses of the wheatgrass extract. **Conclusion:** These results suggest the gastro-protective effect of wheatgrass extract.



Dr. Dane Chandy

Title: Tissue Processing using Microwave Oven: A Boon for Histology Slide Preparation.

Journal: Int J Anat Res

Published year: 2024

Abstract:

Background: Tissue processing is an important step in histology laboratories. Routine tissue processing is time-consuming. Due to the same time factor, microwave tissue processing is now increasingly being used in many histology and pathology laboratories. **Objective:** To compare the time taken to process the tissues using the routine conventional and microwave oven methods. **Methods:** The study was conducted in the Histology laboratory. 100 slides (50 conventional method + 50 microwave method) were processed using both methods, sectioned, stained, and analyzed by an independent observer who was unaware of the processing method. **Results:** The study showed a significant decrease in processing time by the microwave method (p -value $< .0001$). **Conclusion:** The present study concluded that the time taken for dehydrating, clearing, and embedding the tissues in paraffin wax was found to be considerably lower than that taken for the conventional method of tissue processing. Chloroform was used here as a clearing agent, and it had desirable effects.



Dr. Neha Samapriya

Title: A Review of the Effect of *Andrographis paniculata* on the Pancreas: Emphasis on Hyperglycemia.

Journal: Frontiers in Health Informatics

Published year: 2024

Abstract:

Andrographis paniculata (AG) is a plant well known in southern India for several of its medicinal properties and it is also called the king of bitter. This plant is often used as a part of traditional medicine in treatment of diabetes mellitus and detoxification of the body. The AG plant exhibits antibacterial, anti-inflammatory, anti-cancer, anti-hypertensive, hepatic and cardio protective properties. This study is a search on the consolidated effect of AG on hyperglycemia along with its overall effect on the pancreas.

Presentations:

- **Dr. Somesh M S** presented a Poster presentation on the title: **“Giant cell tumor of tendon sheath: A cadaveric incidentaloma”**.
- **Dr. Varsha Shenoy** presented an Oral presentation on the title: **“Ultrasonographic assessment of fetal position of conus medullaris”**. She also presented an e-poster on the title: **“Ultrasonographic study of fetal transcerebellar diameter to estimate the gestational age of foetus”**.
- **Dr. Pallavi** presented an Oral presentation on the title: **“Anatomical variations in the origin of segment IV hepatic using MDCT”**.
- **Dr. Divia Paul A** presented an Oral presentation on the title: **“Circulating serine peptidase inhibitor, Kunitz type 1(SPINT1) A biomarker of pregnancies”**.

Biochemistry

Publications:



Dr. Maitreyee Dojode Satyanarayan

Title: “Evaluation of effectiveness of an online Self-directed Learning Programme in Biochemistry for First Year Medical Undergraduate Students: A Quasi-experimental study.

Journal: Journal of Clinical and Diagnostic Research

Published year: 2024

Abstract

Introduction: Self-directed Learning (SDL) has been suggested as a principle of adult learning to promote lifelong learning abilities among students. Though SDL is not a new concept, there is a lack of uniform implementation across the institutions in India. The Competency-based Medical Education (CBME) proposed by the National Medical Commission in 2019 has emphasised SDL for medical students. **Aim:** To evaluate the effectiveness of an online, case-based SDL activity in Biochemistry for the first-year MBBS students. **Materials and Methods:** This was a quasi-experimental study conducted at Father Muller Medical College, Mangaluru, Karnataka India from May to July 2021. A purposive sampling technique was used, and 138 first-year MBBS students were enrolled for the research. The topic of lipid metabolism was chosen for SDL. Parallel to the online didactic lectures, a case-based, team-based, online SDL was implemented. Students were provided with case scenarios and were instructed to discuss the case scenarios and find answers to the accompanying questions in allotted groups for 15 days. A three-hour session was held for the presentation of the SDL, followed by a post-test and reflections of students. The data were analysed using Statistical Package for Social Sciences (SPSS) version 25.0. The significance of the difference in pretest and post-test scores was assessed by paired t-test, and the level of significance was set at a p-value <0.05. Qualitative data were subjected to descriptive statistics, and thematic analysis of reflections was conducted. **Results:** The average post-test score of the participants was significantly higher by 99.3% compared to the pretest score (p-value <0.001). On average, 108 out of 138 (78.2%) agreed (agree/strongly agree) that SDL helped them to achieve the learning objectives, 115 (83.3%) agreed that SDL helped them to develop as lifelong learners, 115 (83.3%) agreed that SDL helped them to develop as a health professional, and 83 (60.1%) agreed that enjoyed learning in online mode. The inclination of

110 (79.7%) students to have more SDL sessions in the future shows a behavioural change in favour of SDL. Time constraints and internet connectivity were the main challenges. **Conclusion:** SDL was effective and was received positively by the majority of the students. It is the need of the hour to develop lifelong learning and critical thinking among medical students and to make learning interesting with the use of case scenarios. Future research should assess the intermediate and long-term outcomes of case-based SDL on learning, behavioural changes, and its impact on patient care and the health of society.

Title: “Verification of laboratory information system – An observational study”

Journal: RGUHS Journal of Allied Health Sciences.

Published year: 2024

Abstract:

Background: Laboratory information system (LIS) plays a vital role in the patient and data management in hospital settings with a well-established laboratory. If the LIS is interfaced with analyzers and hospital information system, it is imperative to verify the LIS interfaced to analyzers to avoid any errors in the data transfer that can lead to improper patient care. **Aims/Objectives:** The study aimed to verify the LIS interfaced with analyzers for accuracy of data transfer of different tests performed in the analyzers, across different steps in the reporting process. It also aimed to address any of the non-conformities (NCs) in the accuracy of data transfer by taking corrective and preventive actions after performing root cause analysis. **Methods:** The study was conducted in the Biochemistry laboratory of a tertiary care hospital. Data were collected using a checklist at different phases of laboratory automation. About 128 samples were verified for accuracy of data transfer according to the quality system procedure of the laboratory. Fourteen samples were verified as a follow-up for the corrective action taken. **Results:** The accuracy of data transfer from the two auto-analyzers to the LIS was 99.2%. The NC was 0.8%. **Conclusion:** The LIS and auto-analyzers demonstrated effective performance in transferring patient results during laboratory upgrades, minimizing manual data entry. Regular verification and assessment of the LIS are essential following changes to auto-analyzers, LIS software updates, the introduction of new tests, or laboratory relocations.

Keywords: Accreditation, Automation, Hospital information system, Laboratory diagnosis, Laboratory information system, Root cause analysis



Dr. Shivashankara A.

Title: “Assessment of knowledge, attitude and practice of chemical safety among technical staff and trainees working in Medical laboratory of a Tertiary Care Hospital”.

Journal: Iranian Journal of Health, Safety and Environment.

Published year: 2024

Abstract:

Safety of the laboratory workers has been the major concern as laboratory workers are being exposed to various health hazards in daily life. It is very essential for them to develop good knowledge and possess right attitude about chemical safety which will be reflected in correct practice of chemical safety in the laboratory. The aim of this study was to assess the knowledge, attitude and practice of chemical safety among laboratory technicians and technician trainees in a tertiary care hospital, using a self-administered questionnaire. In this cross-sectional study conducted in Father Muller Medical College Hospital Laboratory, Mangalore, for a period of six months, eighty technical staff, medical laboratory technology interns (BSc MLT) and medical laboratory technology postgraduates (MSc MLT) were the participants. Knowledge, attitude and practice were assessed by a questionnaire on chemical safety. The obtained results were tabulated, and the percentage of responses under each criteria of the questionnaire was analyzed. Technical staff had better knowledge of chemical safety (50% of the staff scoring > 90%) than BSc MLT interns (21.4% scoring >90%) and Postgraduates (41.7% scoring >90%). The attitude of the participants was found to be good with the variant degree of their response. Majority of the participants had good attitude towards the chemical safety, with average of 67.1% of the participants possessing strong attitude (strongly agreeing for safe practices) towards chemical safety and 32.9% possessing good attitude (agreeing for safe practices). Assessment of safety practice using a questionnaire revealed overall very good compliance (saying yes for the safety practice of working) with regard to chemical safety practice and much better practice among technicians (Average of 91% saying yes) than the interns (average of 71.2% saying yes) and postgraduate students (66.7% saying yes). Periodic training, assessment and retraining are essential in the process of continual quality improvement regarding chemical safety.

Title: “Effectiveness of a faculty development programme on essential teaching skills for allied health sciences educators”.

Journal: RGUHS Journal of Allied Health Sciences.

Published year: 2024

Abstract:

Background: There is a need to use innovative teaching-learning methods to promote motivation and learning among students. Students of allied health sciences (AHS) generally have a difficulty in understanding medical terminologies and concepts of various subjects taught to them. The faculty of AHS need to develop skills to use innovative methods to promote students’ learning. There is paucity of research on effectiveness of faculty development programs for AHS. **Objectives:** The present study aimed to assess the effectiveness of a training program on “essential teaching skills” for the AHS educators. **Methods:** One day training on teaching and assessment skills was conducted for twenty six faculties of AHS. Qualified faculties from medical education unit of medical college conducted the training to know the learners, teaching methods, assessment methods, motivating students and self-directed learning. Effect of training on learning was assessed by pre-test and post-test knowledge questionnaire. The perceptions of participants were collected. **Results:** The post-test knowledge score was significantly higher than pre-test score ($P=.000$). Interactive nature of the training, time management and motivation to use learner-centric strategies were appreciated by the AHS educators. The educators expressed favourable perceptions of the training, which enhanced their confidence in effective teaching skills, imparted knowledge on innovative teaching and assessment methods, and improved their confidence in classroom management. **Conclusion:** The interactive training of AHS faculties significantly improved their knowledge of teaching and assessment skills, and received favourable perceptions on its effectiveness. Periodic training of teachers is essential to enhance their teaching abilities and to impart quality education to students.

Keywords: Allied Health Sciences, Educator, Effective teaching, Faculty development, Interactive lecture, Learner-centric methods



Dr. Arun Kumar

Title: “Establishment of reference range for free thyroxine hormone (FT4) in Neonates: A cross Sectional Study.

Journal: African. J. Biomed.

Published year: September 2024

Abstract:

Introduction: Reference intervals play a crucial role in clinical laboratory test interpretation and patient care. Accurate reference intervals for free thyroxine (FT4) in neonates are crucial for diagnosing and managing thyroid-related conditions but are currently lacking due to neonatal-specific physiological variations. This study aims to establish precise FT4 reference ranges to improve neonatal thyroid function assessment and clinical care. **Aim:** To establish a reference range for free thyroxine hormone (FT4) in neonates. **Materials and Methods:** This cross-sectional study was conducted at the Obstetrics and Gynecology (OBG) and Neonatal Intensive Care Unit (NICU) of Father Muller Medical College and Hospital, Mangalore from January 2019 to December 2019. A total of 240 healthy term neonates (37-42 weeks of gestation) with no congenital anomalies, infections, or significant perinatal complications were included in the study. Serum free thyroxine (FT4) levels were measured using the Roche Cobas e601 electrochemiluminescence method. Blood samples were collected from neonates within the first week of life. Data analysis was performed following Clinical and Laboratory Standards Institute (CLSI) guidelines. Medians, 2.5th, and 95th percentiles for FT4 were calculated to determine the reference range. Demographic parameters such as gestational age, birth weight, and sex of the neonates were recorded. **Results:** The established reference range for FT4 in neonates was found to be 1.4-4.1ng/dl. There was no significant difference between genders (p- value= 0.987), with male neonates having a range of 1.4-4.2 ng/dl and female neonates having a range of 1.4-3.68 ng/dl. **Conclusion:** This study highlights the importance of establishing accurate reference intervals for clinical decision-making. The reference range for FT4 in neonates differs from that in adults, emphasizing the need for age-specific reference interval. Further studies with larger sample sizes are warranted to validate and refine gender-specific reference intervals for FT4 in neonates.

Other projects:

<u>Post Graduate</u>			
Sl no	Title	Name of the student	Name of PI/guide
1	Effect of training on knowledge and attitude of total quality management among the technical and nursing staff of a hospital	Ms Chaithanya	Dr Shivashankara A.R
2	Comparison of percentage transferrin saturation in patients with and without iron deficiency anemia (IDA)	Ms. Deepika	Dr Arun Kumar
3	Verification of laboratory information system in a tertiary care hospital	Mr. Ganesh Poojary	Dr Maitreyee D.S
4	Knowledge, attitude and practice of incidence reporting in a tertiary care hospital laboratory	Mr Hemanth	Dr Shailaja A. Katti

Presentations:



Dr Shailaja A. Katti presented an oral paper on “**Development of Low-Cost Innovation using Foley’s catheter balloon for carotid pulse check in simulated cardiac arrest scenarios for teaching learners**” from 19-21st September 2024 at the National Conference, Skill Educon 2.0 FMCC, Mangalore. She presented a poster on “**Development of a low-cost Innovation using foley’s catheter Balloon for Carotid Pulse Check in Simulated Cardiac arrest scenarios for teaching learners**” from 28-29th Sept. 2024 at Hyderabad International Convention Centre



Dr Muruga presented an oral paper on “**Assessment of knowledge, attitude and practice of spillage Management and Fire safety among the trainees of clinical laboratory in a tertiary care hospital**” from 19-21st September 2024 at the National Conference, Skill Educon 2.0 FMCC, Mangalore.



Dr Puneeth presented an oral paper on “**Assessment of communication skills among the trainees of clinical laboratory in a tertiary care hospital**” from 19-21st September 2024 at the National Conference, Skill Educon 2.0 FMCC, Mangalore.



Ms Claudia presented an oral paper on “**Perception of allied health science students on laboratory rounds as the strategies to promote Self-Directed Learning**” from 19-21st September 2024 at the National Conference, Skill Educon 2.0 FMCC, Mangalore.



Dr Maitreyee D.S. presented an e-poster on “**Effectiveness of Faculty development program on debriefing skills**” from 21st to 23rd November 2024, NCHPE-2024 National Conference Lucknow

Community Medicine

Research Projects 2024

S.No	Title of the Project	Investigator	Funding Source	Grant Amount (Rs.)
1	Development of an Audio Dataset for Medical Speech Recognition	Dr. Sudhir Prabhu H	Eka Care (Extramural)	10,000/-
2	A Multi-Center Nanopore Sequencing-Based Pharmacogenomics Analysis of First-Line Anti-TB Drugs to Evaluate Personalized Dosing Potential in Pulmonary Tuberculosis Patients	Dr. Sowmya Bhat	DBT Ramalingaswami Grant	3,43,600/-

Publications:



Dr Achal Shetty

Title: Vitamin D and Metreleptin: A Therapeutic Alliance for Treating Depression Associated with Obesity.

Journal: Journal of clinical and diagnostic research

Published year: 2024

Abstract:

Vitamin D deficiency is often observed in obese individuals. Metreleptin, a synthetic form of human leptin, has demonstrated efficacy in promoting weight loss, alleviating depression among obese patients. Vitamin D's neurotrophic and immunomodulatory properties influence neurotransmitter regulation, including serotonin, dopamine, and norepinephrine, vital for mood stability. The presence of Vitamin D Receptors (VDR) in regions of brain linked to depression further supports its role in mood regulation. Metreleptin, as a synthetic leptin

analogue, has demonstrated significant efficacy in reducing obesity. Thus, the plausible combination of Vitamin D and metreleptin presents a potential novel strategy for managing depression in obese individuals.

Title: Revolutionizing Tuberculosis Management with Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)-CAS Technology: A Comprehensive Literature Review.

Journal: Cureus

Published year: 2024

Abstract:

Clustered regularly interspaced short palindromic repeats (CRISPR)-CAS systems technology, renowned for its ability to accurately target and modify genetic material, offers a promising solution to the limitations of current TB diagnostic methods, which often rely on time-consuming culture techniques or polymerase chain reaction (PCR)-based assays. It has high specificity and sensitivity, making them well-suited for detecting *Mycobacterium tuberculosis*, even in low-bacterial-load samples. Beyond diagnostics, CRISPR-Cas technologies show promise in studying TB resistance mechanisms and potentially treating drug-resistant strains. CRISPR-Cas systems have gained attention for their revolutionary potential in TB management, providing a novel approach to both diagnostics and treatment.



Dr. Agnes Moira Preethi Dsouza

Title: Knowledge, perception, and risk scoring of diabetes among rural non-diabetics in southern coastal Karnataka, India

Journal: Muller Journal of Medical Sciences and Research

Year of publishing: August 2024

Abstract:

Diabetes is one of the top 10 contributors to death globally. **Methodology:** A descriptive cross-sectional study was conducted in the rural field practice area of a medical college. A

total of 885 people participated in our study. IDRS questionnaire was used to determine the risk of diabetes. **Results:** About 65.8% of the study population had medium risk. There was a significant relationship between gender, body mass index, and IDRS. Only 31.5% knew that diabetes can cause complications in other organs of the body. **Conclusion:** To increase the activities that reduces the risk factors and complications of diabetes among the community.



Dr. Anissa Mary Thomas Thattil

Title: Eye of the Beholder: Prevalence of Binge Eating Disorder among Youth in Urban Coastal Karnataka, India

Journal: Indian Journal of Social Psychiatry

Published year: 2024

Abstract:

Eating disorders (EDs) are on the rise and can result in medical and psychiatric morbidities in children, adolescents as well as during adulthood. Our study was thus conducted over 5 months to estimate the prevalence of binge ED (BED) among adolescents and young adults in Mangalore, Karnataka. **Materials and Methods:** 300 participants between 15 and 24 years were administered the Questionnaire on Eating and Weight Patterns - 5. **Results:** Among 300 participants, 15 (5.0%) had a possible diagnosis of BN, while 4 (1.3%) had a probable diagnosis of BED, both were found to be more among females than males. **Conclusion:** It is essential to encourage healthy eating habits and physical activity at an early age along with the inclusion of screening for EDs in school health programs.

Title: No Child's Play: Under-five Child Feces Management in a Rural Area of Bengaluru Urban District, India

Journal: Indian Journal of Community Medicine

Published year: 2024

Abstract:

Inappropriate feces disposal leads to environmental contamination, and increases the risk of exposure to children. We aimed to estimate the proportion of rural households with

knowledge and practice of safe management of feces (SMoF) and to identify associated factors. **Materials and Methods:** A cross-sectional study was conducted over 2 months, using a face-validated semi-structured interview schedule. **Results:** SMoF was only practiced by caregivers of ambulatory children (52.6%). Households with older caregivers ($P = 0.01$) and those living in a pucca house ($P = 0.02$) with a latrine inside ($P = 0.04$) were found to practice SMoF. Caregivers >20 years were found to have better odds of SMoF compared to those <20 years. **Conclusion:** Awareness of SMoF is essential to reduce the incidence of diarrheal diseases and improve sanitation.



Dr. Pragadeesh Raja V

Title: Study on Suicide Pattern in Tertiary Care Hospital in Chengalpattu District, Tamil Nadu, India

Journal: International Journal of Pharmaceutical and Clinical Research

Published year: 2024

Abstract:

Background: Suicide is a significant issue in public health. Throughout the world every year, more than 700000 people lose their lives to suicide. **Objectives:** to study the pattern of suicide among patients in a tertiary care center and to assess the factors associated with suicide. **Methodology:** The cross-sectional study was carried out in a tertiary care hospital located in the Chengalpattu district of Tamil Nadu. Over a period of 8 months, specifically from September 2023 to May 2024. **Results:** Among the 90 patients admitted with suicide attempt, the mean age of patients was $31.48 \pm (12.24)$ SD years, ranging from 15-80 years. Among them, 62 (68.9%) were females. Poisoning was the most common cause among suicidal individuals. **Conclusion:** Concern is expressed about the rise in self-poisoning suicides in India. The primary causes of selfpoisoning suicide attempts were family conflicts, financial difficulties, and psychological problems.



Dr. Sowmya Bhat

Title: Putting TB notification into practice among private pharmacies in Mangalore city, India – Did we succeed?

Journal: Clinical Epidemiology and Global Health

Published year: 2024

Abstract:

Background: Globally, tuberculosis (TB) is the second leading infectious killer after Covid-19 with 1.18–1.43 million deaths in 2022. An estimated 3.1 million cases were missed globally, posing a challenge in breaking the chain of transmission. This study explored the role of sensitization of pharmacies in TB Case Notification in Mangalore city. **Methods:** In this study using a before and after intervention design was used on private pharmacies. The intervention was sensitization of the pharmacy owners and pharmacists by a trained field assistant and monthly reminder messages using a social media tool. **Conclusion:** Intensified sensitization improved the reporting mechanism of TB case notification by private pharmacies, though it did not translate into a concurrent rise in notification of TB cases in the district.



Dr. Narayana V

Title: Caregiver's burden: A study on the level of burden among the caregivers of the elderly in the rural areas of a medical college hospital in Mangaluru.

Journal: International Journal of medical science and advanced clinical research (IJMACR)

Published year: 2024

Abstract:

Introduction: The census 2021 has revealed that the elderly population in India is 138 million with most of the elderly living the rural areas. Physiological changes along with their morbid conditions make them vulnerable for the need of support & caregivers most of the time. **Aims & objectives:** 1. To assess the strain among the caregivers of the elderly using the modified caregivers strain index (MCSI). 2. To assess the dependency level among the elderly using the Katz index of activities of daily living (ADL). 3. to correlate the caregivers stress & the dependency of the elderly. **Material & methods:** A proforma based study was conducted from 24/05/23 to 23/08/23 in the field practice areas of Department of community medicine of Father Muller medical college. **Results:** 37.4% of informal caregivers experienced mild strain. 79.4% of the 155 elderly were fully functional. Strain level of the informal caregivers showed a negative correlation (- 0.267) with the dependency level of the elderly. **Conclusion:** With increasing dependency level of the elderly, informal caregivers strain was also proportionately increasing showing an association between activities of daily living (ADL) & modified caregivers strain index (MCSI).

Awards:

Dr Sudhir Prabhu Hwon Second prize in oral paper presentation during National Family Medicine and Primary care conference 2024 for the presentation titled “**Comparing treatment adherence rates and follow up in patients with Type 2 Diabetes managed in Primary health care settings vs in Tertiary hospital**”. The conference was organized by Association of family Physicians of India in association with Department of Community and Family Medicine, AIIMS, Rishikesh from 27th to 29th September 2024.



Dr Anissa Mary Thomas Thattil secured **first place** for her **poster** entitled **“Why should I be ashamed? A mixed methods assessment of fecal sludge operators in 2 districts of southern India”** and secured a partial fellowship to pursue her Master’s in Occupational Safety and Health 2024-2025 at ILO-ITC, Turin, Italy.



Presentations:



Dr Sudhir Prabhu H presented an **oral paper** titled **“Data collection for a mobile based tool to monitor pulse rate and Heart rate variability in primary health care and Intensive care unit settings”** at National conference of Indian Association of Preventive and Social Medicine 2024 conference held at KMC, Mangalore on 9th February 2024.



Dr Nishanth Krishna K presented on the topic **“Contraceptive Use and Unmet Need for Family Planning among People Living with HIV in India: Insights from NFHS-4 data”** at 51st Annual National Conference of Indian Association of Preventive and Social Medicine-IAPSMCON 2024



Dr Anissa Mary Thomas Thattil presented a poster titled **“Why should I be ashamed? A mixed methods assessment of fecal sludge operators in 2 districts of southern India”** at International Commission on Occupational Health (ICOH) 2024 Congress, Marrakesh, Morocco



Dr. Pragadeesh Raja, presented an oral paper titled “**Formative peer assessment for communication skills among undergraduate medical students**”. He has also presented an oral paper titled “**In-sites and challenges faced by the faculty in implementing simulation based medical education-A mixed method study**” in the three day national conference SKILL EDUCON 2.0 held from 19th to 21st September 2024 at Muller medical College, Mangalore.



Dr Narayana.V presented the oral presentation titled “**Caregiver’s burden: A study on the level of burden on the caregivers of the elderly in the rural areas of a medical college hospital in Mangaluru**”.

Dermatology, Venereology and Leprosy

Research Projects 2024

S. No.	Title of the Project	Investigators	Funding Source	Grant
1	To evaluate antibiogram and occurrence of bacterial biofilm in leprosy plantar ulcers	Dr. Michelle Fernandes	Extramural	IADV L Research Grant
2	Elucidating the dermatophyte spectrum through rapid multiplex PCR and detection of antifungal drug resistance caused by mutation in squalene epoxidase and 14- α -demethylase gene	Dr. Jyothi Jayaraman, Dr. Ramesh Bhat M, Dr. Sukumar D, Dr. Meghashree (Dept. of Dermatology, Father Muller Medical College, Mangalore), Prof. (Dr.) Indrani Karunasagar, Ms. Juliet Mohan Raj (NITTE University Center for Science Education and Research)	Extramural	IADV L Research Grant
3	Closing the cycle of marginalization: Migrant Workers and Neglected Tropical Disorders of Skin (NTDs) in South India	Dr. Rochelle Monteiro, Dr. Ramesh Bhat M	Extramural	DERMLINK 2024 (International) under the International Foundation for Dermatology through the International League of Dermatological Societies (ILDS)
4	Waves of wellness: Empowering Fishermen for skin health and prevention	Dr. Michelle Fernandes	Extramural	
5	Unveiling the consequences: enhancing patient and pharmacist knowledge on the impacts of over-the-counter steroid combined topical antifungals for dermatophytosis	Dr. Kiran	Extramural	

Clinical Trials:

S. No.	Title of the Project	Investigators	Funding Source	Grant
1	B7451094, Trial Title: A Randomized, Open-Label, Parallel-Group Study To Evaluate The	Dr. Ramesh Bhat M, Dr. Rochelle	Pfizer	₹26,97,208.80

S. No.	Title of the Project	Investigators	Funding Source	Grant
	Safety And Efficacy Of Abrocitinib 100 Mg And 200 Mg Tablets In Participants Aged 12 Years And Older With Moderate To Severe Atopic Dermatitis In India	Monteiro		
2	A Immuno-Dermatological disease registry to understand the burden of Atopic Dermatitis (AD), Alopecia Areata (AA) and Vitiligo in Indian Patients	Dr. Ramesh Bhat M	Pfizer	2,10,000
3	A Multicenter, Prospective, Randomized, Open Label, Two-Arm, Parallel-Group, Phase III, Active Controlled, Noninferiority, Comparative Study to Assess Efficacy and Safety of Tofacitinib Ointment 2% w/w to Pimecrolimus Cream 1% w/w in Patients with Mild to Moderate Atopic Dermatitis (AD)	Dr. Ramesh Bhat M, Dr. Jyothi Jayaraman, Dr. Alisha	Raptim	₹8,93,300
4	Clinical and demographic characteristics of Indian patients with Generalized pustular psoriasis flare (GPP): A retrospective case series	Dr. Ramesh Bhat M	Sekhmet Technologies Pvt Ltd	₹60,000
5	IIF-IN-RHCZ, A 24-Week Multicenter, Open-label, Single-arm, Phase 4 Study to Evaluate the Safety of Ixekizumab in Patients with Moderate-to-Severe Plaque Psoriasis and/or Active Psoriatic Arthritis in India	Dr. Ramesh Bhat M	Ely Lilly	₹3,00,000
6	A Phase 3, Multicenter, Open-label, Rater-blind, Active-controlled Study to Evaluate the Efficacy and Safety of Bedaquiline for the Treatment of Multibacillary Leprosy When Combined With Rifampicin and Clofazimine	Dr. Jacintha Martis, Dr. Rochelle Monteiro, Dr. Prajna Shetty	Johnson & Johnson Private Ltd	Bedaquiline arm ₹10,88,910, WHO SOC arm ₹10,86,660

Case Reports:

S. No.	Authors	Title	Journal
1	Monteiro Rochelle, Madhumita Monisha, Kumar H, Martis Jacintha	A mirror of metastatic destiny – A case series of cutaneous metastases	Clin Dermatol Rev
2	Kamath SD, Bhat MR, Marla NJ, Dandekeri S, Fernandes M, Martis J	An unusual case of recurrent cutaneous carcinomas over extragenital multicentric pigmented Bowen's disease	Indian Dermatol Online J
3	Ramith P Shetty, Sonal Fernandes, Jacintha Martis, Jyothi Jayaraman	Beyond boundaries: Navigating vulvar verrucous carcinoma and lupus on a shared path	J South Asian Fed Obstet Gynaecol
4	Satish Sneha, Fernandes Sonal, Bhat Ramesh M et al	An Unusual Cutaneous Manifestation of Tuberculoid Spectrum in Leprosy	Indian J Lepr

S. No.	Authors	Title	Journal
5	Chu, CY., Bhat Marne, R., Cheung, C.MT. et al.	Advanced Systemic Treatments in Patients with Moderate-to-Severe Atopic Dermatitis: Key Learnings from Physicians Practicing in Nine Asian Countries and Territories	Dermatol Ther (Heidelb)
6	Melissa Shruta, Bhat Ramesh, Martis Jacintha	Cutis Marmorata Telangiectatica Congenita with Kimura's Disease and Nephrotic Syndrome as a Sequele to Membranoproliferative Glomerulonephritis	Indian J Paediatr Dermatol
7	D'Souza Vinolyn, Bhat Ramesh M, D'Souza MJ, Fernandes MS	Expanding the dermatological acronym from BLEND TAN EGG to PEGG: A rare case of painful palmar neurofibroma	J Cutan Aesthet Surg
8	Satish S, Kiran, Bhat RM, Jose A	Iatrogenic Cushing's syndrome, cataract, and metabolic syndrome in an adult following topical steroid abuse for dermatophytosis	J Skin Sex Transm Dis
9	Janice Reema Lewis, Ramesh Bhat M, Archana Bhat, Michelle Serene Fernandes, Jacintha Martis	Successful outcome of performing CO2 laser ablation in a middle-aged female with angiokeratoma of Fordyce	Int J STD AIDS
10	Paul NA, Bhat RM	Facial plaque with cut-guava appearance	Indian J Paediatr Dermatol
11	Monisha Madhumita, Rochelle Monteiro, Kelly Kimbal	Look beyond what you see – integrating narrative medicine into dermatology residency training	Int J Dermatol
12	Monteiro RC, Fernandes M	Dermatology and the media – Embracing the scars	Indian J Dermatol Venereol Leprol

Publications:



Dr Ramesh Bhat M

Title: Immunohistochemical analysis of chronic and recurrent dermatophytosis.

Journal: Mycoses.

Published Year: 2024

Abstract:

Background: Dermatophytosis has assumed epidemic proportions with rising resistance, recalcitrance and recurrence, especially in tropical regions. While various factors contribute to high prevalence worldwide, yet little is known about the interactions between host defence mechanisms and dermatophytes, particularly in chronic and recalcitrant dermatophytosis.

Objectives: We aimed to compare the population of various immune cells in specimens of chronic recurrent dermatophytosis and those with acute superficial dermatophytosis.

Methods: We investigated the density of various immune cells-Langerhans cells (CD1a+), macrophages (CD68+), dermal dendrocytes (Factor XIIIa+) in the skin of chronic dermatophytosis patients and those with successfully resolved lesions (controls).

Results: Langerhans cells were significantly decreased in the epidermis of patients, both in affected and unaffected areas in comparison with controls. In the dermis, however, no differences in the density of immune cells (macrophages and fibroblasts) were observed.

Limitations: The limited sample size and immune cells evaluated could be expanded further in future research. **Conclusion:** These results indicate that the decreased number of Langerhans cells could be a potential risk factor for the development of chronic and recurrent dermatophytosis.

Keywords: CD1a+; CD68+; Factor XIIIa+; Langerhans cells; dermatophytosis; macrophages.

Title: Dapsone – Reinventing the wheel or rekindling possibilities?

Journal: Clin Dermatol

Published year: 2024

Abstract:

Dapsone, once a fabric dye, is a versatile pharmaceutical for treating diseases like leprosy, malaria, and HIV-AIDS-related pneumonia. Discovered in 1908 but not utilized for its antimicrobial properties until the 1930s, dapsone faced initial setbacks due to toxicity, prompting the development of a safer derivative, Promin. Chemically, dapsone's lipid-soluble nature allows for extensive distribution throughout the body and involves complex metabolism, with a variable elimination half-life. Its clinical efficacy is due to its bacteriostatic action, inhibiting dihydrofolic acid synthesis, and its anti-inflammatory effects on neutrophils. Dapsone's dosing is tailored to the individual's condition and is approved for various dermatological conditions. However, its use is limited by contraindications in certain anemic conditions and potential side effects such as hemolytic anemia and methemoglobinemia, necessitating careful monitoring and management strategies to mitigate risks. Despite these challenges, dapsone's broad therapeutic utility and ongoing research into its mechanisms maintain its status as a significant medical therapy.

Title: Clinico-mycological validation of dermatophytosis severity score and its correlation with patient-reported outcome measures.

Journal: *Mycoses*.

Published Year: 2024

Abstract:

Background: Dermatophytosis impacts a significant portion of the global population. Recent shifts in the disease's presentation, severity and response to treatment, primarily due to emerging drug resistance, underscore the need for reliable assessment tools. The Dermatophytosis Severity Score (DSS) aims to standardise the evaluation of the disease's severity and monitor therapeutic responses. **Methods:** In a cross-sectional pilot study, 25 adults with clinically diagnosed dermatophytosis were evaluated using the DSS. The study also aimed to establish the correlation of DSS with different stages of treatment, dermatophyte species and patient-reported outcomes. Participants were recruited from a dermatology outpatient clinic, and the DSS was applied at baseline, Weeks 4 and 8. The validity and reliability of the DSS were assessed using statistical measures, including Cronbach's alpha and intraclass correlation coefficient. **Results:** The study comprised of a near-equal distribution of male (52%) and female (48%) patients, primarily within the age group of 20-39 years. A high recurrence rate of dermatophytosis (60%) was noted, and more than half of the patients (56%) had used topical steroids before presentation. The mean DSS significantly decreased from baseline to the final visit, mirroring the substantial reduction in the 5D itch scale and Dermatology Life Quality Index, with strong positive correlations observed between these measures. **Conclusion:** The DSS demonstrated high inter-rater reliability and internal consistency, indicating its utility as a reliable clinical tool for assessing dermatophytosis severity. The strong correlation of DSS with itch intensity and quality of life validates its role in patient-centered care. Continued use and further validation of the DSS are recommended to enhance dermatophytosis management and treatment outcomes.

Keywords: dermatomycosis; dermatophytosis; tinea corporis.



Dr Shaheema A M

Title: Serum ferritin levels in chronic spontaneous urticaria in association with autologous serum skin test: A cross-sectional study.

Journal: *Indian J Allergy Asthma Immunol*

Published Year: 2024

Abstract:

Background: Chronic spontaneous urticaria (CSU) is a common clinical condition presenting with wheals or along with angioedema. It has a complex pathogenesis having a considerable impact on quality of life. In patients with chronic spontaneous urticaria (CSU) exhibiting poor response to conventional treatments, the presence of hyposiderinemia suggests that oral iron therapy could potentially lead to resolution of the urticaria symptoms. **Objectives:** (1) To estimate serum ferritin levels in patients with CSU. (2) To assess the correlation between urticarial activity score, autologous serum skin test (ASST), and serum ferritin levels in CSU. **Materials and methods:** This prospective study enrolled 37 cases of clinically diagnosed CSU attending the dermatology outpatient department from December 2019 to November 2020 after Institutional Ethics Committee approval. ASST and serum ferritin level estimation were done on all patients. The severity of urticaria was calculated using the Urticaria Activity Score. Statistical analysis was done by frequency, standard deviation, and Chi-square test. **Results:** Among ASST-positive patients, only 4 (19%) had low ferritin levels. No association was found between ASST and serum ferritin levels ($P = 0.342$). Mean serum ferritin levels in ASST-positive patients were high $91.34 \pm 87.24 \mu\text{g/L}$ which was statistically significant compared to mean serum ferritin levels in ASST-negative patients $49.64 \pm 46.91 \mu\text{g/L}$. There was significant involvement of palms and soles in ASST-positive patients ($P = 0.038$). **Conclusion:** Although there was no significant correlation of serum ferritin levels with CSU, oral iron supplementation may be considered an add-on treatment in case of refractory urticaria.



Dr Priya Anusha D Souza

Title: Beyond the Surface: Decoding Pityriasis Versicolor Through Clinical, Dermoscopic and Microbiological Exploration.

Journal: Indian Journal of Dermatology

Published Year: 2024

Abstract:

Background: Pityriasis versicolor (PV) is an asymptomatic, superficial fungal infection caused by the *Malassezia* species and causes discolouration of the skin leading to altered pigmentation. It is usually a clinical diagnosis, but in doubtful cases wherein potassium hydroxide (KOH) mount is unavailable, alternative modalities like dermoscopy aid in the management. **Aims and objectives:** To evaluate the clinical and dermoscopic patterns in PV and correlate with the associated risk factors and study the fungal culture. **Materials and methods:** A cross-sectional observational study was conducted for 12 months. A total of 115

patients clinically diagnosed with PV showing positivity on KOH mount were recruited. Dermoscopy was done, following which the scales were scraped and cultured in the laboratory on Saborauds dextrose agar and modified Dixon media, and the results were analysed after 3 weeks. **Results:** Among the 115 participants, on clinical evaluation, 79 patients had achromic and 36 patients had chromic lesions. The dermoscopic features were categorized into domains such as scaling, pigmentation and other features. Fine scaling was the most common feature observed in 88.7% of the patients. Pigmentary changes were noted in all the patients with non-uniform pigmentation being the most common. We have also observed and described newer dermoscopic findings such as barbed wire fence appearance of ridges and furrows, fluffy cotton ball appearance of hypopigmented perifollicular lesions and sprinkled pepper appearance of pigmented dispersion. Out of the 115 KOH mount positive cases, 51 (44.3%) showed growth on fungal culture with *Malassezia furfur* being the most common species to be isolated in 18 patients. **Conclusions:** Dermoscopy is a new, popular non-invasive diagnostic modality, which shows specific features like fine scaling, pigment alteration, ridges and furrows with perifollicular involvement, and can be used to diagnose doubtful cases of PV as an adjunct or substitute to a KOH mount.

Keywords: Dermoscopy; fungal culture; pityriasis versicolor.



Dr M K Mrunalini Rayi

Title: “Role of neutrophil – lymphatic ratio as a prognostic marker in SJS / TEN patients”

Journal: Archives of Dermatological Research

Published Year: 2024

Abstract:

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are severe mucocutaneous reactions, usually to drugs, characterized by blistering and epithelial sloughing. SCORTEN is an established prognosticator index employed in SJS/TEN patients to evaluate their severity degree and mortality risk. Many studies done in the recent past have indicated that neutrophil-lymphocyte ratio (NLR) is related to disease activity in several dermatological diseases. Hence, this study has been performed to correlate the NLR of each patient with their respective SCORTEN values and assess whether NLR can be used as a prognostic marker in SJS/TEN. A single centre, retrospective, 4 year study was conducted at a tertiary care hospital. The required clinical and laboratory data were obtained from existing IP records of all cases of SJS/TEN disorders admitted in the last 4 years in our hospital between May 1st 2019 and April 30th 2023. The correlation coefficient and p value were

analysed using the Spearman's rank correlation. The total sample size of the study was 22 patients. A female preponderance (59.1%) with an age range between 10 to 74 years was noted. Drugs were the main triggering factor in all the patients and antiepileptics were the most commonly implicated drug group. On statistical analysis a weak positive correlation ($r = 0.182$) between NLR and SCORTEN was noted, however p value was insignificant ($p = 0.417$). Further, mean \pm SD of NLR was found to be higher in group II (patients with SCORTEN ≥ 3) as compared to group I (patients with SCORTEN < 3). On correlating NLR with each group separately, p value still remained insignificant. Elevation in NLR value reflects the systemic inflammation, but its role in predicting the severity of the disease needs further research involving larger sample size.

Keywords: Neutrophil–lymphocyte ratio; SCORTEN; Stevens–Johnson syndrome (SJS); Toxic epidermal



Dr Jyothi Jayaraman

Title: Antifungal drug sensitivity testing in clinical specimens from dermatophyte infection using E-strip disk diffusion technique.

Journal: Muller J Med Sci Res

Published Year: 2024

Abstract:

Context: The wide range of antifungal agents available poses a difficulty in choosing an effective medication to avoid drug resistance. There is a need for a standard antifungal susceptibility testing method that would guide a practicing dermatologist to prescribe antifungal agents effectively. **Aims:** The aim of the study was to determine the prevalence of each species of dermatophytic infections and to determine the resistance pattern to common antifungal agents. **Settings and Design:** A cross-sectional interventional study was conducted at a tertiary health care center. **Subjects and Methods:** Two hundred consecutive patients diagnosed with dermatophytic infections were examined, and scrapings were sent for 10% potassium hydroxide (KOH) mount examination and culture. Further, antifungal drug susceptibility pattern was tested using the E-strip to determine the minimum inhibitory concentration (MIC) for fluconazole (FCZ), itraconazole (ITZ), clotrimazole, ketoconazole (KTZ), and voriconazole. **Statistical Analysis Used:** Collected data were analyzed by frequency, percentage, standard deviation, mean and Chi-square test, and Fisher's exact test. **Results:** One hundred and thirty-four samples were found to be KOH mount positive, and 81 samples yielded growth on culture. Trichophyton mentagrophytes was the most commonly isolated species in 32 (39.5%) specimens followed by Trichophyton rubrum in 29

(35.8%) samples. *T. mentagrophytes* showed the least MIC for KTZ, ITZ, and voriconazole (0.032–1.5 mg/L). *T. rubrum* was seen to have a MIC in the range of 0.04–2 for ITZ, 0.06–1.5 for voriconazole, and 0.13–0.75 for KTZ and highest for FCZ (0.5–32 mg/L), respectively. **Conclusions:** There is currently no reference method available to test drug sensitivity, and E-test is a simple technique which can be employed for antifungal drug sensitivity testing with less workforce, quick results, and easy interpretation aiding effective treatment of dermatophytic skin infections.

Dissertations:

Post-Graduates

Sl no	Title	Name of the student	Name of PI/guide	Grant (extramural/intramural)
1	Serum tumor necrosis factor –alpha and c-reactive protein levels in psoriasis and their correlation with disease severity	Dr. Vinolyn D Souza	Dr Ramesh Bhat M	IADVL Research Grant Rs 50,000
2	Assessment of parameters of metabolic syndrome in patients with acne vulgaris	Dr Veril Vaz	Dr Michelle Fernandes	Nil
3	Clinico dermoscopic evaluation of acquired pigmentary disorders	Dr Shruta Melissa	Dr Jacintha Martis	Nil
4	Correlation of Serum INTERLEUKIN-19 levels in Acne patients with different clinical severities	Dr Mrunalini Rayi	Dr Rochelle Monteiro	Nil
5	Clinical spectrum and mycological delineation of tinea incognito using MALDI-TOF technology	Dr Gayathri Santhosh	Dr Ramesh Bhat M	IADVL Research Grant Rs 50,000
6	Association of thyroid disorders and Dermoscopic features in alopecia Areata patients	Dr Srishti Patil	Dr. Jacintha Martis	Nil
7	To evaluate the role of Serum S100B and serum Thyroid stimulating hormone levels in vitiligo and their correlation with disease activity	Dr Ramith P Shetty	Dr Michelle Fernandes	IADVL Research Grant Rs 50,000
8	correlation of interleukin-17A levels in serum and scales with the severity of psoriasis	Dr Hiloni Biren	Dr Ramesh Bhat M	IADVL Research Grant Rs 50,000
9	Evaluation of dermoscopic features of periorbital melanosis and its relation with hyperinsulinemia	Dr Sneha S		IADVL Research Grant Rs 50,000
10	Pattern of cutaneous adverse reactions of chemotherapy in cancer patients	Dr Ankitha Adiga	Dr. Jacintha Martis Dr Nishitha	Nil
11	Estimation of serum c3 and c4	Dr Swathi N	Dr Ramesh Bhat M	IADVL Research

	levels in chronic spontaneous urticaria and its correlation with the disease severity			Grant Rs 50,000 IADVL Karavali Research Grant Rs 30,000
12	Assessment of atherosclerotic risk in young, non obese women with female pattern hair loss	Dr Edna Maria Rodriguez	Dr Michelle Serene Fernandes	IADVL Research Grant Rs 50,000
13	Correlation of plasma oxidative stress markers with the severity of melasma	Dr Jiby V Benny	Dr Rochelle Monteiro Dr Shivashankar	IADVL Research Grant Rs 50,000
14	Estimation of androgen levels and body mass index in hirsutism	Dr Divya Madonna D souza	Dr Jacintha Martis Dr Sudeep	IADVL Research Grant Rs 50,000 IADVL Karavali Research Grant Rs 30,000
15	Comparison of serum COX-2 (Cyclooxygenase -2) levels in melasma patients healthy controls and it's correlation with disease severity.	Dr Surya Bramara	Dr Jacintha Martis	IADVL Karavali Research Grant Rs 30,000
16	Correlation of serum interleukin 31 levels in chronic spontaneous urticaria and its disease severity	Dr Janice Reema Lewis	Dr Michelle Fernandes	IADVL Karavali Research Grant Rs 25,000
17	Clinical and dermoscopic evaluation of Acquired Dermal Macular Hyperpigmentation and assessment of its severity by Dermal Pigmentation and Area Severity Index	Dr Athreya G	Dr Michelle Fernandes	Nil
18	Estimation of trans-epidermal water loss and eczema area and severity index in patients with mild to moderate atopic dermatitis receiving topical crisaborole 2 % vs topical tacrolimus 0.1%	Dr Aisha Salim	Dr Rochelle Monteiro	Nil
19	A clinical, dermoscopic and histopathological correlation of Seborrheic keratosis	Dr Divya Babu	Dr Ramesh Bhat M	IADVL Karavali Research Grant Rs 20,000
20	Clinico-mycological validation of dermatophytosis severity score and its correlation with the treatment outcome in dermatophytosis	Dr Pranjali Marlecha	Dr. Ramesh Bhat M	IADVL Karavali Research Grant Rs 30,000
21	Comparison of Interleukin 8 in Acne vulgaris and healthy controls and it's correlation with disease severity	Dr. Sucheta Sanjeev	Dr Jacintha Martis	IADVL Karavali Research Grant Rs 25,000

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Assessment of serum IFN gamma and CXCL10 in vitiligo and it's correlation with disease activity	Dr Ramith	Dr Michelle Dr Shivashankar	IADVL Karavali Research Grant Rs 30,000
2	Role of Neutrophil-Lymphocyte Ratio in SJS and TEN and it's correlation with the disease severity.	Dr Mrunalini Rayi	Dr Rochelle Montiero	Nil
3	A retrospective study on modified regimen of Rituximab in Pemphigus	Dr Vinolyn D souza	Dr Ramesh Bhat M	Nil
4	Hemolytic Anemia In Patients Taking Dapsone For Leprosy: Beyond The Veil Of Efficacy	Dr Jiby V Benny	Dr Rochelle Monteiro	Nil
5	Evaluating The Impact Of Dapsone-induced Hemolytic Anemia In Leprosy Patients With G6pd Deficiency: A Clinical Perspective	Dr Jiby V Benny	Dr Rochelle Monteiro	Nil
6	Epidemiological snapshot of dermatological conditions in a rural healthcare setting in India: A cross-sectional study in Belthangady, Dakshina Kannada District, Karnataka.	Dr Ankitha	Dr Ramesh Bhat M Dr Jacintha Martis	Nil
7	10-Year Retrospective Age-related Clinico-Epidemiological Study of Hansen's Disease in a Tertiary Care Centre in Coastal Karnataka	Dr Sneha	Dr Rochelle Monteiro	Nil
8	Unravelling single lesion Hansen's disease - a 10 year holistic retrospective study	Dr Swathi	Dr Ramesh Bhat M Dr Michelle Fernandes	Nil
9	Dermoscopy of clofazimine induced hyperpigmentation in leprosy patients on multibacillary multidrug therapy	Dr Edna	Dr Michelle Fernandes	Nil

Awards:

Faculty:

- Global Partnership for Education and Care (GPEC) Programme. The Department of Dermatology has partnered with Brawijaya University, Indonesia, for the Global Partnerships for Education and Care (GPEC) programme facilitated by the International League of Dermatological Societies (ILDS), selected as one of 12 institutes for the inaugural cohort out of 43 applicants worldwide, with Dr. Jacintha Martis is the Project Lead and Dr. Rochelle Monteiro as the secondary lead/Coordinator for the two-year programme

- **Dr. Ramesh Bhat M:**

- Received FMRC Grant of Rs. 73,640/- for his project “**Delineation of morphological features of different clinical types of tinea (Dermatophytosis) with specific dermatophyte species**”.
- Felicitated with Prof Kandhari Foundation award the highest award of IADVL (Indian Association of Dermatologists, Venereologists and Leprologists) for Lifetime Achievement award during DERMACON 2024 – National conference of IADVL at Hyderabad on 22nd February 2024
- Dr Ramesh Bhat M, selected to receive the Best Researcher Award 2024 by Indian Association of Dermatologists, Venereologists & Leprologists (IADVL) for the original article published in Mycoses journal. Bhat RM, Madhumita M, Jayaraman J, Antony B, Santhosh G, Benny J V, Ancy A. **Clinico-mycological validation of dermatophytosis severity score and its correlation with patient-reported outcome measures.**

- **Dr Rochelle Monteiro:**

- Awarded certificate of appreciation for service as Convener of IADVL Special Interest Group -Acne & Appendageal disorders (2022-24) @ DERMACON 2024, Hyderabad on 22nd-25th February.
- Dr Sanjeev Rai award for Best Staff Researcher 2023-24 during “**Muller Silvercon 2024**” conference held from July 25 to 27, 2024. This award is awarded annually to a faculty of FMCI for their contribution towards Research
- Selected to receive DERMASEVA award- Community Service Award

- **Dr. Jyothi Jayaraman:** Received appreciation certificate from the national IADVL Academy for a successful completion on one year tenure as IADVL Observership and Training Co-ordinator 23 during DERMACON 2024.

- **Dr Prajna Shetty:** awarded second prize in Free paper category titled “**A synergistic approach to the treatment of onychomycosis using laser assisted topical therapy**” during ACSICON 2024 held between 30th Aug to 1st September 2024 at Tamil Nadu

- **Dr Annabel Jose:** Awarded the second prize in PQ Practitioners Quiz during Pigmentarycon 2024 held on 21st & 22nd September 2024, at Deralakatte, Mangalore

Post Graduate:

- Dr Gayathri Santhosh final year PG Resident of Department of Dermatology has won the prestigious Dr B B Gokhale medal for the best paper presented in Award paper session at DERMACON - National Conference of IADVL held at Hyderabad from 22nd to 25th Feb 2024, under the guidance of Dr. Ramesh Bhat M, Head of Father Muller Research Centre and Professor of Dermatology FMCC



- **Dr. Vinolyn D'Souza**, a final-year postgraduate resident in the Department of Dermatology, mentored a team of second-year MBBS students who secured third place in the 'MULLER MEDITHON 2.0'—an interdisciplinary ideathon held on the 26th and 27th of July, 2024. This event was part of the National Conference Muller Silvercon 2024 at Father Muller Medical College, Mangalore.



- **Dr Swathi** awarded with the ACSICON post graduate scholarship award and amount of Rs 10,000 for her paper presentation held between 30th Aug to 1st September 2024 at Tamil Nadu. She was awarded the IADVL National Travel Grant of Rs. 50,000 to attend the EADV Congress held in Amsterdam from September 25th to 28th, 2024.
- **Dr Sneha** received Rs 25,000/- to attend EADV Congress held at Amsterdam from 25th to 28th Sept 2024
- **Dr Hiloni Biren** received IADVL travel grant to attend MID DERMACON held at Ranchi from 13th to 15th September 2024
- **Dr Edna Maria Rodriguez** secured Third prize in Award paper category and Dr. Divya Dsouza secured Second prize under speaking images category during CUTICON KN 2024 conference held from 8th to 10th Nov 2024 at Basaweshwara Medical College and Hospital, Chitradurga.



- **Dr Shruta Melissa** participated in the Manipal Biotech Hackathon 2024 organized in association with government of Karnataka on 6th Nov 2024 and won second prize
- **Dr Sucheta Sanjeev** secured first place in E-poster category during DERMAZONE SOUTH conference held in Chennai from Nov 15-17



Undergraduate Students

- **Ms Shreya Sathish**, final MBBS student of our college has secured first prize in UG case presentation competition at Cephalix-2024, organized by Shri Atal Bihari Vajpyee Medical College, Bengaluru on 15th and 16th of May 2024, for her case presentation titled '**Breaking The Mold: Unravelling The Complexity of Systemic Chromoblastomycosis**'. She was guided by Dr. Rochelle Monteiro.



- **Ms Ann Maria Joy** - MBBS 2020 Batch student won First prize in the Oral Case Presentation on "An Unforeseen Turn in a Life-Threatening Drug Reaction" during Medwave 2024 – IMA MSN West and Central Zone Conclave held at Goa Medical College, Bambolim on 5th and 6th October 2024 under the guidance of Dr. Jyothi Jayaraman, Dr Ramesh Bhat M and Dr Jacintha Martis.



Presentations:

Dr Jacintha Martis

- Delivered a lecture on “**Clinical Spectrum of Pigmentary Purpuric Dermatoses**” during the National Conference, DERMACON 2024 held at Hyderabad between 22 to 25th Feb 2024

Dr Ramesh Bhat M

International

- Gave a lecture on Dermatophytosis severity score at Rome, Italy on 16th May 2024 during Derma Explorer program.
- Lecture on Current scenario of Dermatophytosis management & Dermatophytosis severity Score for Dermatologists of UAE at Palazzo Versace, Dubai on 7th of June 2024.
- Attended EADV congress held from 25th to 28th September 2024 at Amsterdam. He presented e-poster on Dermatophytosis severity score and participated in tropical disease conclave during the event

National

- Faculty during DERMACON 2024 – National conference of IADVL at Hyderabad on 22nd February 2024
- Faculty for the webinar “**The fight against dermatophytoses**” organized by IADVL Karnataka on 28th March 2024
- Faculty in PIGMENTARYCON 2024 held at Deralakatte Mangalore on 21st and 22nd September 2024
- Faculty during DERMAZONE SOUTH 2024 conference held at Chennai from 15th to 17th November 2024
- Attended symposium on Ustekinumab and visited reliance life sciences factory which produces biosimulans on 07.12.2024
- Faculty during CUTICON Kerala held at Calicut on 30th Nov and 1st Dec 2024

Dr Michelle Fernandes

- Attended ROOTS VII - a national conference on Clinical and Therapeutic Dermatology held on 21st to 23rd June 2024 at Bangalore
- Participated in the discussion titled “**R’s in Leprosy**” during Virtual CME in association with Brawijaya University as a part of GPEC programme on 24th March 2024
- Faculty during Pigmentarycon 2024 held on 21st & 22nd September 2024, at Deralakatte, Mangalore
- Participated as faculty during CME on Clinical and Laboratory perspectives of autoimmune disorders held on 26th September 2024

Dr Rochelle Monteiro

- Guest lecture titled “**antimicrobial resistance in acne**” during the CME held on 21st January 2024 at Raddison blu Jaipur.
- Invited lecture on '**Acne and the exposome**' @ the National conference - DERMACON 2024 at Hyderabad on 22-25th February 2024
- Attended Hands on training on IPL, ResurFX Erbium Glass, ND Yag, Q Switch workshop and Workshop on Ultrapulse fractional CO2 laser, Acupulse Fractional CO2 laser at KMC Manipal on 15th & 16th June 2024.
- Delivered a lecture titled Beyond the draft: What it takes to get published during DERMA ADVANCE 2024 at FMMC on 24th & 25th Aug 2024
- Guest lecture “**Relevance of triple combination in the current era**” Pigmentarycon 2024 held on 21st & 22nd September 2024, at Deralakatte, Mangalore
- Guest lecture “Acne sequelae and their prevention” during CME on “**Exploring New Horizons In Acne**” at GSL Medical College and General Hospital, Rajahmundry on 6th Oct 2024
- Guest lecture on Thesis during Workshop on Manuscript writing from Dissertation held on 16th and 17th September 2024
- Guest lecture on “**Submission of manuscript**” during the workshop Essentials of Manuscript writing and Evaluation-Demystified-27th & 28th Nov 2024

Dr Jyothi Jayaraman

- Presented report of IADVL research grant study during IADVL Research grant session on 24th Feb 2024 and was awarded a certificate of appreciation
- Faculty and panelist in the panel discussion on geriatric dermatosis on 24th Feb 2024 during the National Conference, DERMACON 2024 held at Hyderabad between 22 to 25th Feb 2024
- Gave a talk on AIR on 2nd June 2024 on topic **“Beware and beware of topical steroids damaging the skin”**
- Participated as faculty during CME on **“Difficult to treat pruritus: an update”** on 16th June 2024 at Bengaluru.
- Speaker during Guiderm CME held on 30th June 2024
- Panelist during two panel sessions 1. Comorbidities in psoriasis 2. Hand Eczema during DAAS Summit held from 5- 7th July 2024 at New Delhi
- Session moderator for session on Regional pigmentation- How do I manage? during Pigmentarycon 2024 held on 21st & 22nd September 2024, at Deralakatte, Mangalore
- Guest lecture on **“Insulin resistance and Skin”** during DERMAZONE SOUTH 2024 conference held at Chennai from 15th to 17th November 2024
- Guest lecture on **“Know the villain and recent updates on drug resistance in dermatophytosis”** in the CME titled **“A day with dermatophytosis-agent to therapy”** held on 15th Dec 2024 at KMCRI, Hubballi, Karnataka
- Panelist in **“Management of dermatophytosis special scenario”** in the CME titled **“A day with dermatophytosis – agent to therapy”** held on 15th Dec 2024 at KMCRI, Hubballi, Karnataka
- Guest lecture on **“Recent updates in the management of Dermatophytosis”** and panelist for the session titled **“Current trends and Recent updates in Dermatology, Aesthetics”** held during PG ALUMNI CME – 2024 held at Ramaiah Medical College & Hospitals, Bengaluru on 24th Nov 2024

Dr Prajna Shetty

- Presented a Free paper category titled **“A synergistic approach to the treatment to onychomycosis using laser assisted topical therapy”** during ACSICON 2024 held between 30th Aug to 1st September 2024 at Tamil Nadu

Emergency Medicine Department

Presentations:

Dr. Shailaja presented E-poster entitled as “**Documentation of Process of conduct of a CME on Disaster management**” during NCHPE-2024 organized by Era University, Lucknow.

Dr. Niveditha presented an Oral Paper Titled “**Emergency Medicine as Elective in MBBS Curriculum and its effectiveness in Learning**” in the 3-day national Conference, Skill Educon 2.0 held from September 19th 21st 2024 at Father Muller Medical College, Mangalore.

Dr. Niveditha participated as Young Faculty at EMCON 2024 conference by the Society for Emergency Medicine India at Chennai between the 7-9 Nov 2024. 6 credit points from Tamilnadu Medical Council.

Oto-Rhino-Laryngology

Research Projects:

Sl No.	Title of the Project	Investigator(s)	Funding Source	Grant
1	Inter-professional education through simulated learning to sensitize medical and nursing undergraduates to safe surgery checklist	Dr. Vinay V. Rao	Nil	Self-funded
2	A study of intraoperative middle ear cleft bacterial culture and sensitivity pattern in patients with chronic otitis media and its impact on the outcome of middle ear and mastoid surgeries	Dr. Deekshith Shetty, Co-Investigator: Dr. Savita Lasrado	Nil	Self-funded
3	Otomycosis with tympanic membrane perforation: Treatment using clotrimazole soaked gelfoam	Dr. Deekshith Shetty, Co-Investigator: Dr. Blessy B. Prabha	Nil	Self-funded

Publications:



Dr. Sweekritha N Bhat

Title: “Pediatric extra-skeletal sinonasal Ewing’s sarcoma: Report of two cases with literature review”

Journal: Indian journal of surgical oncology

Published year: 2024

Abstract:

Ewing’s sarcoma is a malignant small round cell tumor that belongs to the primitive class of neuroectodermal tumors, generally arises in the long bones of the extremities, and sinonasal

localization of Ewing's sarcoma in pediatric population is an extremely rare event. The combination of histopathological examination and ancillary methods is extremely important to establish the diagnosis of Ewing's sarcoma. The treatment for Ewing's sarcoma includes a multidisciplinary approach with surgery, radiotherapy, and chemotherapy. Through this report, we try to communicate our experience and highlight the challenges encountered in diagnosing and approaching two extremely rare cases of pediatric sinonasal Ewing's sarcoma.



Dr. Vinay V Rao

Title: The role of a “Tracheostomy care training module” in improving the knowledge, attitude and practices among nurses in high dependency units.

Journal: Indian Journal of Otolaryngology and Head & Neck Surgery

Published Year: 2024

Abstract:

This study was conducted to assess the knowledge of nurses in high dependency areas at a tertiary care hospital with regards to tracheostomy care, to train them and to assess the impact of a tracheostomy care teaching module. Purposive sampling techniques were used to recruit 65 nurses from high dependency areas in Father Muller Medical College Hospital. With appropriate informed, a detailed evaluation was conducted with a pre-validated questionnaire that assesses the knowledge, attitude and practices with regards to tracheostomy care. The nurses then underwent a tracheostomy training programme with a teaching module that emphasizes on tracheostomy care.



Dr.Savita Lasrado

Title: Evaluation of an Otoscopy simulator and Traditional learning with Observation in teaching Ear diseases to Phase III Part I medical students.

Journal: Indian Journal of Otolaryngology and Head & Neck Surgery

Published Year: 2024

Abstract:

Simulation, in medical education has provided a novel way to impart education which will help students acquire the required skills to achieve their learning objectives. The aim of our study was to evaluate the performance of students exposed to otoscopy simulator-based learning versus traditional learning with observation and also to know the students' perceptions via a questionnaire at the end of the module. This was a prospective interventional study, conducted on third-year medical students, sixty in number, divided into two groups by the lottery method. Group A consisting 30 students was posted for traditional learning with observation and group B for learning on the otoscopy with a simulator. After the study students were assessed on usage of otoscopy by using an OSCE checklist to assess psychomotor skills. Seven parameters were observed and scored. After the OSCE, students were crossed over. A pre-validated 9-question survey, with both qualitative and quantitative components, assessed learner satisfaction about the teaching-learning method. When the OSCE scores of the two groups were compared, the otoscopy with simulation method was significantly better (6.37 ± 0.718) than the traditional method (5.60 ± 1.037). The perceptions of the students were assessed qualitatively and quantitatively with the 9-question survey of which the first 5 questions of the survey were scored on a 5-point Likert scale. The survey showed that 61.7% of the students strongly agreed that the simulation event improved their confidence, 38.5% strongly agreed that the simulation event stimulated interest. Besides, 81.7% strongly agreed that the overall quality of the event was positive. In addition, 66.7% of the students strongly agreed that the simulation method was better and 6.7% strongly agreed that the traditional method was better. Simulation is a great tool complementary to clinical study and plays a pivotal role in bridging the educational gap.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Study of Myofacial pain dysfunction syndromes in patients attending the	Dr.Avneesh Leekha	Dr.Kuldeep Moras	Self funded - Thesis

	outpatient department of a private Medical College Hospital in Mangalore India			
2	The effect of normal saline and hypertonic saline on mucociliary clearance in chronic sinusitis.	Dr.Aloysius Reuben	Dr. Vinay V. Rao	Self funded - Thesis
3	Status of contralateral ear in patients of unilateral chronic Otitis media and a its correlation with sinonasal disease	Dr. Stacy Perpetual Dsouza	Dr. Savita Lasrado	Self funded - Thesis
4	Occurence of sensorineural hearing loss in patients with hypertension	Dr. Kavya J.Vaipana	Dr. Vinay V. Rao, Co-Guide- Dr. Archana Acharya	Self funded - Thesis
5	Assessment of Hearing impairment in cases of Chronic Rhinosinusitis	Dr. Daivashish Sarathy G	Dr. Mahesh Bhat T.	Self funded - Thesis
6	A qualitative assessment on life after tracheostomy- a questionnaire based study	Dr.Tasnim Shajahan	Dr. Savita Lasrado	Self funded - Thesis
7	A comparative study on closure of post aural Incision in a single layer using Ethilon 2.0 vs Closure using Surgical Staples (6.7mm x 4.7mm).	Dr.Sushmitha S. John	Dr.Kuldeep Moras	Self funded - Thesis
8	Comparison of improvement of nasal symptoms in septoplasty with turbinoplasty versus septoplasty alone in patients with deviated nasal septum.	Dr.Madhan C.	Dr. Savita Lasrado	Self funded - Thesis
9	To assess the middle ear pressure changes in anterior nasal packing	Dr.Gouri Ramesh	Dr. Vinay V.Rao	Self funded - Thesis

Awards:

1. **Dr. Sweekritha Bhat** participated in Paragraph writing Competition conducted by Department of Pharmacology at FMCC as a part of pharmacovigilance week 2024 on the topic “**Diagnostic relevance in patient safety**” and secured First prize.



2. ENT PG's **Dr. Daivashish Sarathy G.** and **Dr. Tasnim Shajahan** participated in “**ENT Postgraduate Quiz – 2024**” organized by Department of ENT, K.S. Hegde

Medical Academy, Nitte in Association with The Association of Otolaryngologists of India, Karavali Branch, Mangalore on 13.12.2024 and won third prize.



Presentations:

Staff Presentations 2024

Name of the presenter	Title of presentation	Type of presentation	Event
Dr. Savita Lasrado	<i>"Evaluation of an Otoscopy Simulator and Traditional Learning with Observation in Teaching Ear Diseases to Phase III Part I Medical Students."</i>	Paper presentation	National Conference of Indian Academy of Oto-rhino-laryngology Head and Neck Surgery, held from 09.08.24 to 11.08.24, hosted by Dept. of Oto-Rhino-Laryngology and Head and Neck Surgery, Kasturba Medical College
Dr. Sweekritha Bhat	<i>"Quality of Life and Psychological Functioning of Caregivers of Head and Neck Cancer Patients."</i>		
Dr. Vinay V. Rao	<i>"Art as a Humanities Tool in Medical Education: Experimenting with Possibilities."</i>		SKILL EDUCON 2.0 National Healthcare conference on Clinical Skills Education Theme: Enhancing the clinical skills of health profession Educators held from 19.09.24 to 21.09.24
Dr. Savita Lasrado	<i>"Simulation in Otolaryngology: Evaluation of Otoscopy Simulator to Teach Otoscopy to Third-Year Medical Students"</i> .		

PG's Presentations 2024

Name of the presenter	Title of presentation	Type of presentation	Event
Dr. Kavya J. Vaipana	<i>"Correlation of Hypertension, Sensorineural Hearing Loss, and Retinopathy."</i>	Paper presentation	National Conference of Indian Academy of Oto-rhino-laryngology Head and Neck Surgery, held from 09.08.24 to 11.08.24, hosted by Dept. of Oto-Rhino-Laryngology and Head and Neck Surgery, Kasturba Medical College
Dr. Avneesh Leekha	<i>"Assessment of High-Resolution Computed Tomography (HRCT) Sensitivity and Specificity in Detecting Temporal Bone Cholesteatoma: Correlation with Intraoperative Discoveries – A Retrospective Study."</i>		
Dr. Daivashish	<i>"An Interesting Case of Retropharyngeal Hematoma Following a Road Traffic Accident."</i>	e-poster	
Dr. Gouri Ramesh	<i>"A Rare Neoplasm: Sinonasal Glomangiopericytoma."</i>		

Forensic Medicine and Toxicology

Publications:



Ms. Anya Mirium Abraham

Title: Sudden natural death: A retrospective 10-year review of postmortem cases in a tertiary care hospital

Journal: Indian Journal of Forensic Medicine and Pathology

Published Year: 2024

Abstract:

Sudden death in an apparently healthy individual usually arise suspicion among the public. Autopsies help to ascertain the exact cause of death. Objectives are to determine the incidence, sex and age wise distribution, causes of death in sudden natural deaths reported in the study centre, and to correlate the postmortem and histopathology findings in these cases. Sudden natural death cases autopsied over 10 years from January 2012 to December 2022 were studied retrospectively. About 93 cases of sudden natural death cases were autopsied. The age ranged from 15-80 years with 86% male prevalence. The cause of death was due to cardiovascular diseases (76.3%), cerebrovascular diseases (8.6%), gastrointestinal diseases (8.6%), respiratory diseases (4.28%) and genitourinary diseases (2.14%). The autopsy and histopathology findings helped to ascertain the causes of death.

Other Projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Estimation of age from ossification centres of the elbow joint in a tertiary care hospital	Mr. Agasthya VB	Dr. Nagesh KR	No grant

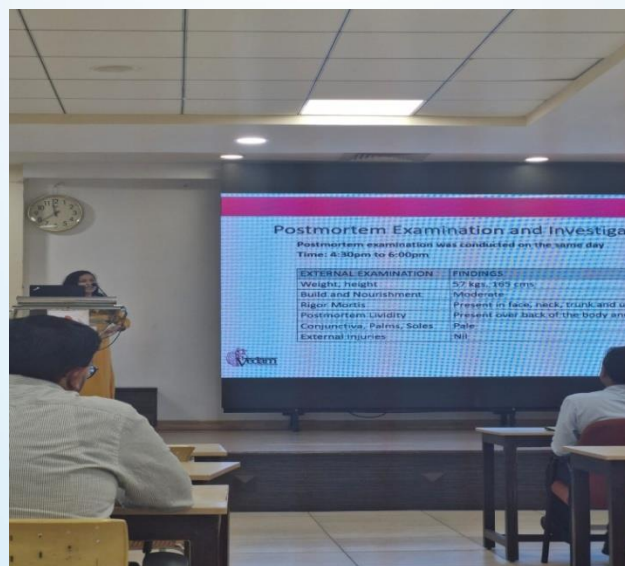
Awards:

Dr. Hareesh was the Chairperson and Judge of scientific session during the 32nd Annual Conference of KAMLS held on 8th & 9th November 2024. Dr. Hareesh has presented scientific paper and won 3rd prize in Faculty Oral paper presentation during the said conference.



Presentations:

Death due to *Klebsiella pneumoniae* - An Unsuspecting Colonizer of the GIT Oral presentation by **Ms. Sreesidha Saha** (MBBS batch 2021) guided by Dr. Nagesh KR



General Medicine

Research Projects:

Sl No	Title of the Project	Investigators	Funding Source	Grant
1	Randomized double-blinded, placebo-controlled study to evaluate the safety, tolerability, and efficacy of a multi-dose regimen of oral varespladib-Methyl in subjects bitten by venomous snakes (Bravo study-Broad)	Dr. Tushar G, Dr. Habib Ullah Khan S, Dr. Jennifer Miranda	-	-
2	Epidemiology and risk factors associated with mortality in patients with gram-negative bacterial bloodstream infection with special focus on the impact of multidrug-resistant bacteria	Dr. Prasanna Bhat, Dr. Anoop K Shetty, Dr. Ganesh Nayak, Dr. Kavitha	-	-
3	Effectiveness of simulation-based mastery learning in lumbar puncture for medical students	Dr. Archana Bhat, Dr. Lulu Sherif	-	-
4	Clinicomicrobiological profile of infections caused by carbapenem-resistant Enterobacteriaceae in ICU patients with focus on molecular analysis	Dr. Prasanna Bhat, Dr. Beena Antony, Dr. Ganesh Nayak	FMRC	Rs. 3,40,000
5	Glucose control in women with type 2 diabetes assessed by continuous glucose monitoring: the effect of the menstrual cycle	Dr. Smitha Bhat, Dr. Sudeep	ICMR	Rs. 5,41,121
6	Urinary acetoacetate or capillary beta-hydroxybutyrate for the diagnosis of ketoacidosis in the emergency department setting	Dr. Deborah Dsilva, Dr. Glen Fernandes	-	-
7	A study of clinical profile, laboratory parameters, and outcome in patients presenting with Leptospirosis in a tertiary care center in South India	Dr. Ganesh Nayak, Dr. Prasanna Bhat	Self-funded	-
8	Association of ferritin levels with severity and outcome of community-acquired pneumonia	Mr. Abhinav Damera, Dr. Veena Pinto	ICMR	Rs. 50,000
9	Assessment of biomarkers for diagnostic utility in patients with asthma and chronic obstructive pulmonary disease	Mr. Arjun Prathap Singh, Dr. Supriya P S	ICMR	Rs. 50,000
10	Stroke literacy among the general population: a community-based study	Ms. Joslyn Jays, Dr. Archana Bhat	ICMR	Rs. 50,000

Clinical Trials:

Sl No	Title of the Project	Investigator	Co-Investigator	Funding Source	Grant
1	Randomised evaluation of Covid-19 therapy RECOVERY trial – Empagliflozin	Dr. Archana Bhat	Dr. Venkatesha BM	ICMR	Rs. 11,91,990.00
2	Phase II, Multicenter, Randomized, Assessor-blind, Parallel-group, Active comparator Study to Determine the Efficacy, Safety, Tolerability, and Pharmacokinetics of Different Orally Administered Regimens of Use of ZY-19489 in Uncomplicated Plasmodium Falciparum Malaria Patients	Dr. Archana Bhat	Dr. Venkatesha BM	Zydus	-
3	Randomized Evaluation of Covid-19 Therapy - RECOVERY: An extension of the original RECOVERY Trial with the inclusion of two additional indications: Influenza and Community-Acquired Pneumonia	Dr. Archana Bhat	Dr. Venkatesha BM	ICMR	-

Case Report:

S. No.	Authors	Title	Journal
1	Shruthi Ashok Pai , Spoorthi Ashok Pai , Akshatha Rao Aroor	Serum uric acid in Diabetic retinopathy: A case control study.	International Journal Dental and Medicinal Sciences Research
2	Sundarsingh V., Kumar M., Kulkarni M. Mammo R Firas, Rodrigues P., YM Prashanth	Unusual presentation of Sjogren’s syndrome during pregnancy: a case report	BMJ
3	Jason Fernandes J, Subhoth RC.,	Comprehensive management of acute promyelocytic leukemia (APML) complicated	IJSR

S. No.	Authors	Title	Journal
	Nishitha shetty, Dinesh Shet	with intracranial haemorrhage and differentiation syndrome: A multidisciplinary case report.	

Publications:



Dr Srilakshmi M Prabhu

Title: Clinical and radiological correlation of pulmonary manifestations in rheumatoid arthritis.

Journal: Asian journal of medical sciences

Publication year: 2024

Abstract

Background: Rheumatoid arthritis (RA) is a chronic inflammatory arthritis with various extra-articular manifestations, pulmonary being the most involved. **Aims and Objectives:** This study aims to identify the radiological patterns in the lungs among patients with RA. **Materials and Methods:** A total of 39 patients with RA were chosen randomly. They were examined and imaged by chest X-ray and high-resolution computed tomography (HRCT) thorax, and findings were analyzed. **Results:** The mean age of patients was 53.9 and had a female preponderance of 74.4%. Among the 39 patients studied, 30 had no respiratory symptoms. The most common HRCT thorax findings were bronchiectasis and ground-glass opacities. **Conclusion:** Radiological pulmonary manifestations of RA identified in HRCT imaging are wide and occur in the majority of clinically asymptomatic patients.

Title: Pattern of pulmonary function tests in subjects recovered from Covid 19 infection. **National Board of Examination:**

Journal: Journal of Medical sciences.

Publication year: 2024

Abstract

Introduction and Aim: The pulmonary sequelae of COVID-19 have not been extensively studied in the Indian population. This study was taken up with the aim to assess the pulmonary function tests (PFT) in subjects recovered from COVID-19. **Material and Methods:** In this observational cross-sectional study PFT was assessed in 50 adults in the age group of 18-60 years. Rapid Antigen Testing was performed to rule out active COVID-19 infection. Subjects with acute or chronic respiratory illnesses that could affect lung functions were excluded. **Results:** We performed PFT on 50 subjects, with a mean age and BMI of 36.09 years and 25.17 kg/m². Fatigue and/or breathlessness were the most common complaints present post-recovery. A normal PFT was found in 22 participants and 28 showed a restrictive pattern. Based on the severity of the disease they had experienced the study population was classified into three groups mild, moderate or severe COVID. The three groups were found to be comparable in their demographic parameters, the PFT parameters were significantly different between the groups with significantly lower values seen in subjects who recovered from severe COVID. **Conclusions:** Restrictive pattern on PFT was the common abnormality found in patients recovered from COVID-19. This finding emphasises the need for long-term follow-up and establishment of a plan of assessment and management in patients recovered from COVID-19.



Dr Debora Dsilva

Title: Study of C-Reactive protein levels in type 2 diabetes mellitus and its correlation with microvascular complications.

Journal: IJSR

Publication year: 2024

Abstract

Background: Diabetes is a chronic disease, leading to many complications including microvascular (nephropathy, retinopathy, and neuropathy) and macrovascular (stroke, myocardial infarction, and coronary artery disease) which leads to a substantial decrease in the patients' quality of life. **Objectives:** To study the association of CRP levels in Type 2 DM and to correlate it with the microvascular complications. **Methods:** *Study design:* This was a case control study done after ethical clearance in 96 patients diagnosed with Type 2 diabetes at FMMC, Karnataka. Diabetic retinopathy and diabetic nephropathy were the two complications included in this study which was diagnosed using FBS, urine micro albumin, CRP and funduscopy. The statistical data was analyzed using student t test, chi square test

and rank correlation and p value <0.005 was considered significant. **Results:** A total of 96 participants were included in the study and divided into 3 groups as follows 30 were controls without diabetes, participants with diabetic complications were 34 and participants without the complications were 32. Among the group with diabetic complications Diabetic retinopathy alone was seen in 26.5%, diabetic nephropathy in 35.3% and both the complications were seen in 38.2%. Among the participants with DR, fundoscopy revealed mild NPDR in 59.09%, moderate NPDR 13.63%, severe NPDR in 4.54% and Proliferative DR in 22.7%. The CRP levels were higher in participants with diabetes however no significant correlation was seen among the 3 groups but between the controls and the group with and without complications statistical correlation was established. **Conclusion:** This study showed that CRP levels higher in participants with Type 2 DM when compared to non-diabetics but there was no significant correlation with micro vascular complications.



Dr Smitha Bhat

Title: Semmes Weinstein monofilament test for detection of diabetic peripheral neuropathy:sensitivity and specificity

Journal: Egyptian journal of Neurology, Psychiatry and Neurosurgery

Publication year: 2024

Abstract:

Background: Peripheral neuropathy predisposes to diabetic foot and this predilection is worsened by poorly controlled sugars. Diabetic foot increases the mortality and morbidity associated with diabetes. Thus, it is crucial to screen for diabetic polyneuropathy. Early detection of diabetic polyneuropathy improves foot care and decreases morbidity. This study aimed to assess the sensitivity of Semmes Weinstein monofilament test in the diagnosis of Diabetic Peripheral Neuropathy. Forty-three Type 2 diabetes mellitus patients availing IP/OP services of a Medical College Hospital were included for the study. Patients underwent Semmes Weinstein monofilament test, following which they were subjected to nerve conduction study of both lower limbs.**Results:**Forty six and half percentage of patients had diabetic peripheral neuropathy, taking NCS as gold standard. Of these 80% of the cases were also detected by the monofilament test. The specificity of the monofilament test was 100%. Positive predictive value was 100% and negative predictive value was 85.19% and the overall accuracy of the test was 90.7%.**Conclusions:**In this study, we found that sensitivity and specificity of the SWM test are fairly high; thus, it can be used as a valid screening tool for DPN in resource limited settings, such as India.



Dr. Supriya PS

Title: Trigger tool-based detection of adverse drug reactions- A prospective observational study.

Journal: Research journal of pharmacy and technology

Publication year: 2024

Abstract

Background: To prevent medication-related patient harm and improve healthcare safety and quality, the hospital needs to detect, report, and review adverse drug reactions (ADR) so that specific target safety interventions can be done. Triggers are clues or tools used to identify adverse events. **Methodology:** A prospective review of patient (n = 366) records using the Global Trigger Tool method was undertaken to detect ADRs for 6 months. The presence of ADRs was reviewed by three independent authors using 39 triggers, and the findings were validated by a physician and a clinical pharmacist. Data collected was entered in Excel and analyzed by using SPSS Version 29.0 **Results:** Among 366 patient records reviewed, 203 times triggers were observed; the most common trigger was antiemetics (32.02%). However, the most common trigger related to adverse effects was using the other medication module trigger (25.12%). A total of 47 ADRs were observed, of which 44 were associated with triggers, and three were reported spontaneously. The most common ADR was found to be constipation in 11 patients (23.40%), and the most common drug class associated with ADRs was observed to be antibiotics in 16 patients (34.04%). There was no association observed between the ADR and the patient-specific factors. **Conclusion:** The trigger tool can be a feasible method for identifying ADRs compared to the traditional ADR identification methods. To improve the quality of patient safety, trigger-tool-based identification of ADR can be used in routine settings.

Title: Retrospective analysis of sliding scale versus basal bolus insulin in the treatment of uncontrolled hyperglycemia in patients with type 2 diabetes mellitus and infections.

Journal: International Journal of Diabetes in developing countries

Publication year: 2024

Abstract

Basal Bolus Insulin (BBI) and Sliding Scale Insulin (SSI) regimens are the two choices for managing uncontrolled hyperglycemia in patients with Type 2 diabetes mellitus (T2DM). We

aimed to compare the glycemic control achieved and the duration of infection recovery in hospitalized Type 2 Diabetic patients with infections treated with SSI and BBI regimens. A retrospective comparative study was performed for 6 months; a total of 126 patients were divided into 2 groups, the SSI group (n = 63) and the BBI group (n = 63). Fasting Blood Glucose (FBG) levels and duration of antibiotic therapy during hospitalization were used to assess glycemic control and infection recovery duration, respectively. On the first day, the mean FBG values were 244.75 ± 81.72 in the BBI group and 191.21 ± 90.45 in the SSI group. On the last day, these values decreased to 159.40 ± 79.31 in the BBI group and 167.21 ± 61.81 in the SSI group. The statistical analysis revealed a significant improvement in glycemic control within the BBI group ($p < 0.001$), while in the SSI group, a statistically significant improvement in glycemic control was not achieved ($p = 0.106$). Better glycemic control was seen in the BBI group and overall infection recovery duration was lesser in the SSI group than BBI group.



Dr. Ganesh Nayak S

Title: Gram Negative Bacterial Blood Stream Infections with Focus on Carbapenem Resistance: An Experience at a South Indian Tertiary Care Hospital.

Journal: Online J Health Allied Sciences

Publication Year: 2024

Abstract

Aims & Background: There is a lack of studies which determine the clinical outcomes and the characteristics of Gram-negative bacterial bloodstream infections (GNBSI) from India. In this retrospective study, we determine the risk factors for mortality in patients admitted at a tertiary care hospital with GNBSIs with focus on carbapenem resistant GNBSIs. **Materials and Methods:** A total of 375 patients admitted to the hospital from August 2020 to May 2022, with monomicrobial GNBSI were included in the study. The baseline characteristics of the patients were compared based on the carbapenem susceptibility of the pathogen. The independent risk factors for mortality were assessed at 7 days and 30 days since the GNBSI episode by Cox proportional hazards model. A sub-analysis was also performed in the subset of patients with event of intensive care unit (ICU) admission during the hospital stay. **Results:** Carbapenem resistant GNBSIs were detected in 36.53% (137/375) patients. Overall crude in-hospital mortality rate was 40.8% (153/375) among patients. The most common

pathogens isolated were *Escherichia coli* (28.0%,105/375), *Klebsiella pneumoniae* (26.7%,100/375) and *Acinetobacter* species (17.3%, 65/375). Conclusion: Use of immunosuppressive drugs, ICU admission and need for vasopressors were independent risk factors for mortality. Among the 232 patients with ICU admission, carbapenem resistant *Acinetobacter* GNBSIs (CRA-GNBSIs) and Carbapenem resistant *Klebsiella pneumoniae* GNBSIs (CRKP-GNBSIs) were independent risk factors for mortality. There is a need for monitoring the carbapenem resistance and measures need to be taken to reduce it. Similarly, measures also need to be taken for early identification and effective treatment of GNBSIs to facilitate better outcomes.

Title: Enterococcus faecium Infections: An Emerging Threat.

Journal: Online J Health Allied Scs.

Publication year: 2024

Abstract

Introduction: Enterococci are major cause of health care associated infections and are resistant to commonly used antibiotics like cephalosporins. The study aims to find the proportion and characteristics of *Enterococcus faecium* isolates among the enterococcal infections at a tertiary care hospital. **Methods and Material:** A prospective cohort study was conducted in a tertiary care hospital in Mangalore, Karnataka for a period of 6 months from June to November 2023. The enterococci were isolated and identified and tested for antibiotic susceptibility by the standard methods. **Results:** Among the 132 enterococcal strains isolated from the clinical samples, 68 (51.51%) were *E. faecalis* and 61(46.21%) were *E. faecium*. *E. faecium* was significantly isolated more from the urine samples and from the inpatients. Also, the resistance to ampicillin (57.4% vs 14.7%), high level gentamicin (54.1% vs 36.8%), nitrofurantoin (37.7% vs 8.8%) and vancomycin (11.5% vs 1.5%) was significantly more among the *E. faecium* isolates, compared to the *E. faecalis* isolates. Resistance to linezolid was not found in the current study. **Conclusion:** In the present study, *E. faecium* strains were isolated in higher proportion compared to other studies. Therefore, there is an emergent need to combat this increase in *E. faecium* infections and the associated antibiotic resistance by scrutinising and encouraging appropriate antibiotic use in the hospitals and community.

Title: Clinico-microbiological profile of urosepsis patients in a tertiary care hospital in India:

Journal: Journal of Laboratory Physicians.

Publication year: 2024

Abstract

Objectives: Urosepsis is a life-threatening bacterial infection resulting from a complicated urinary tract infection. Early diagnosis of urosepsis, its causative agent, and the susceptibility pattern are most important for accurate treatment to prevent mortality. Diagnosis includes recognition of the presence of sepsis and the investigations that help in the management of patients. The most common organism causing urosepsis is *Escherichia coli*, followed by other members of the Enterobacteriaceae family. With this background, this study was conducted to determine the clinical-microbiological profile of urosepsis patients in our tertiary care hospital. **Materials and Methods:** This was a prospective observational study; patients with clinical urosepsis and growing identical bacteria from both urine and blood cultures taken simultaneously are included in the study. The details of the clinical presentation and laboratory investigation results were recorded on an Excel sheet. **Statistical analysis:** Statistical analysis was done using IBM Statistical Package for the Social Sciences Statistics V.23. The categorical variables such as demographic, microbiological, and other laboratory characteristics and clinical outcomes were analyzed and expressed in terms of frequencies and percentages. Continuous variables were expressed in terms of median. Independent t-test, Mann–Whitney U-test, Chi-square test, or Fisher’s exact test were used wherever applicable. **Results:** We found 87 urosepsis patients in one year with a mortality rate of 22.98%. The mean age of the patients was 61.5 years, with majority (42.42%) above 65 years. Gram-negative bacilli were frequently isolated, with the highest number of *E. coli* (68.96%), followed by *Klebsiella pneumoniae* (20.68%). Sixteen (18.4%) of Gramnegative bacilli were Carbapenem-resistant Enterobacteriaceae. Multiple risk factors were seen in 58/87 (66.66%) patients, with diabetes mellitus as the most common risk factor. **Conclusions:** Urosepsis is a critical condition with a high mortality rate. Meropenem can be used as an empirical therapy with careful observation of patients in view of the occurrence of carbapenem resistance. A multidisciplinary team approach comprising intensive care specialists, urologists, radiologists, and microbiologists is very important for the effective and rapid management of urosepsis.

Other projects:

Sl No	Title	Name of the student	Name of PI/Guide
1	Associatin of Ferritin levels with severity and outcome of community acquired Pneumonia	Mr Abhinav Damera	Dr Veena Pinto
2	Assessment of biomarkers for diagnostic utility in patients with asthma and chronic obstructive pulmonary disease	Mr Arjun Prathap Singh	Dr Supriya P S
3	Stroke literacy among general population: a community-based study.	Ms. Joslyn Jays	Dr Archana Bhat
4	Correlation between serum magnesium and type 2 diabetes mellitus, hba1c and microvascular; Complications of type 2 diabetes mellitus- a case Control study	Dr. Renita Maria Sequeira	Dr Smitha Bhat
5	Correlation of Haematological, Biochemical and sonological parameters in predicting esophageal varices in patients of chronic liver disease.	Dr.Amogh S	Dr.R.Arunachalam

6	Study of serum glucose potassium ratio in patients with intra cerebral haemorrhage	Dr Chrisel Sequeira	Dr.Archana Bhat
7	Hypercalcemia anywhere,TB Somewhere	Dr.Chrisel Sequeira	Dr Archana Bhat
8	An observational study of serum 25-hydroxy vitamin-D status in primary hypertension patients	Dr.Abhishek Patil	Dr.Prshanth YM
9	Correlation of neutrophil lymphocyte ratio and platelet lymphocyte ratio with Diabetic Nephropathy in patients with Type 2 DM	Dr.Aishwarya Mathew	Dr.Veena J Pinto
10	Liver function tests and it's correlation with outcomes in leptospirosis	Dr Lishal Anisha Misquith	Dr. Sowmya Matthew
11	Comparative study of American Diabetes association risk score and Indian diabetes risk score in predicting pre-diabetes and diabetes and its correlation with glycemic status	Dr.Iantha Jeanelle Martis	Dr.Smitha Bhat
12	Clinical profile of community acquired pneumonia in patients with chronic kidney disease	Dr.Paresh Makam	Dr.Venkatesha BM
13	Effect of iron deficiency anemia on Hemoglobin A1 C levels in diabetic individuals with controlled plasma glucose levels	Dr.Anmol Arvind Baleri	Dr.Akshatha Rao A
14	A case - Control study to assess effect of overweight and obesity on left ventricular diastolic function.	Dr.Eshan Madhu	Dr.Roshan M.
15	A study of non-tunneled double lumen dialysis catheter related bloodstream infection in patients undergoing hemodialysis at a tertiary care hospital in South India.	Dr.Thomas Joseph	Dr.Prasanth YM
16	To compare Neck circumference/ Height Ratio and metabolic syndrome parameters in normal , overweight and obese adults	Dr Shreya Giliyar Bhat	Dr Sowmya Mathew
17	Correlation of serum albumin with severity and short-term prognosis in acute ischemic stroke	Dr Gagan A	Dr Roshan M
18	Correlation of stress hyperglycemic ration with outcomes and killip class in acute st elevation myocardial infarction	Dr Vijaya Maria Colaco K	Dr Archana Bhat
19	Pattern of ST Segment changes in determining the extent of coronary artery disease acute anterior wall myocardial infarction with angiographic correlation	Dr Ranish Deelan Saldanha	Dr Archana Bhat
20	Correlation of red blood cell distribution width with severity and outcomes of acute exacerbation of chronic obstructive pulmonary disease	Dr Niveditha Malavika KG	Dr Veena Pinto
21	Clinical Profile of central nervous system tuberculosis in adults	Dr Ancia D souza	Dr Akshatha Rao Aroor
22	To assess the serum lipid profile in patients with parkinson's disease	Dr Neha Giridhar Patil	Dr Anoop Joseph
23	Assessment of Clinical Profile and tomographic paraparameters in patients with suspects keratoconus	Dr Mallepally Bharath K	Dr Prasanth Y M
24	Correlation of serum calcium with the neurological severity and short term outcomes in acute ischemic strokes	Dr Aaron Jovin Mathias	Dr Venkatesha B M
25	Correlation of ankle brachial pressure index with	Dr Deepak	Dr R

	Albuminuria in diabetic patients	BL	Arunachalam
26	Assessment of relation between aspartate aminotransferase to platelet ration and liver fibrosis in chronic liver disease	Dr Yathin R	Dr Smitha Bhat
27	Cervical longitudinal transverse myelitis post rabies vaccine.	Dr Vijaya Maria Colaco	Dr Archana Bhat
28	Neutrophil to lymphocyte ratio as a prognostic marker in patients with rattol paste consumption	Dr.Chrisel Sequeira	Dr.Archana Bhat
29	Monoclonal gammopathy presenting as acute kidney injury in a middle aged man	Dr.Aaron J Mathias	Dr.Akshatha Rao Aroor
30	Clinical and biochemical profile of empty sella syndrome - a retrospective study from a tertiary care centre in south india	Dr.Renita Maria Sequeira	Dr.Sudeep
31	Demographic clinical and laboratory profile of enteric fever in a tertiary care Centre in Dakshina Kannada	Dr.Chrisel sequeira	Dr.Archana Bhat
32	Mutiple myeloma in young female a case report	Dr.Renita Maria Sequeira	Dr.Sowmya Mathew
33	Antiphospholipid antibodies and the risk of recurrence after first episode of venous thromboembolism	Dr.Niveditha Malavika	Dr.Veena J Pinto
34	Neuromyelitis optica spectrum disorder short to long segment to necrotizing myelitis a case series	Dr.Vijaya Maria Colaco	Dr.Safwan Ahmed
35	A simple dengue fever complicated by a sinister pathogen pantoea dispersa blood stream infection	Dr.Shreya Giliyar Bhat	Dr.Sowmya Mathew
36	To assess lipid profile in sepsis in tertiary care centre	Dr Ashank Gowda M	Dr Venkatesha B M
37	Association between uric acid and AKI in sepsis Patients	Dr Akash Andy Dsouza	Dr Prasanth Y.M
38	Correlation of cognitive impairment in diabetic nephropathy	Dr.Sharon Christy	Dr.Veena J Pinto
39	Association of serum bilirubin with severity of acute ischemic stroke.	Dr Karna Pendakur	Dr Akshatha Rao Aroor
40	Correlation of morning serum cortisol and glycemic indices with apnea hypopnea index in patients with obstructive sleep apnea”	Dr.Vaishnavi Prakash	Dr.Smitha Bhat
41	Assessment of risk factors for diabetic foot disease in patients with type 2 diabetes mellitus in a tertiary hospital	Dr.Rahul Prasad J R	Dr.Anoop Joseph
42	Association of neutrophilic lymphocyte ratio with microvascular complications and glycemic control in type 2 diabetes mellitus	Dr.Ravikerthi P Goudar	Dr.Roshan M
43	Clinical Profile of young adults with acute coronary syndrome	Dr.Sushilkumar Anand H	Dr.Sowmya Mathew
44	Correlation of serum prolactin with the severity of chronic liver disease using child pugh score system	Dr.Suraj S Godi	Dr.Roshan M
45	A correlation of Microalbuminuria in Dengue fever and it's severity	Dr.Aniketh Pinto	Dr.Prasanth YM
46	Comparison of Efficacy of Pleural fluid/Serum bilirubin with Light's Criteria in patients with pleural effusion	Dr Glen Vivian Dsouza	Dr Akshatha Rao Aroor
47	Clinical profile of first episode seizures in adults	Dr.Hitesh N	Dr.R

		Gowda	Arunachalam
48	correlation between platelet WBC ratio and clinical severity of hepatic encephalopathy using west haven criteria in patients with cirrhosis	Dr.Prashanth M	Dr.Archana Bhat
49	Correlation between Indian diabetic risk score and lipid profile in patients with pre-diabetics.	Dr.Adarsha P S	Dr.Smitha Bhat
50	Clinical profile of Ebstein Barr virus meningitis:A case series from a tertiary care hospital in south india	Dr.Ancia Dsouza	Dr.Akshatha Rao
51	Clinical profile of pheochromocytoma cases in a tertiary care centre	Dr.Eshan Madhu	Dr.Roshan M
52	Clinical bacteriological profile and outcome of infective endocarditis a retrospective study from a tertiary care centre in Mangalore, Karnataka	Dr.Aaron Mathias	Dr.Venkatesha BM
53	Clinical profile of dermatomyositis:A retrospective case series from a tertiary care hospital in Mangaluru, Karnataka	Dr.Shreya G Bhat	Dr.Sowmya Mathew
54	Clinical profile of brucellosis a case series from a tertiary care hospital in south india	Dr. Niveditha	Dr.Veena Pinto
55	Clinico etiological profile of pancytopenia a retrospective study in a tertiary care hospital	Dr.Ranish Salodanha	Dr.Archana Bhat
56	Comparison of pleural fluid to serum bilirubin ratio with lights criteria in patients with pleural effusion	Dr.Glen Dsouza	Dr.Akshatha Rao A
57	Diagnosis of silent myocardial ischemia in type 2 Diabetes mellitus by treadmill test	Dr.Amey Usulkar	Dr.Venkatesha BM

Awards:

Faculty:

Dr. Roshan M, Professor and Head of Department, co-authored a chapter titled "*Serum Magnesium Levels in Pre-diabetics and Its Correlation to Body Mass Index*" in the book *Advancement and New Understanding in Medical Science* (Volume 8), published by Book Press International in February 2024, pages 153–166. The book carries the ISBN 978-81-970671-74 and eBook ISBN 978-81-970671-3-6.



Dr.Subhoth RC, Senior Resident: awarded **Third prize** in Category C national level e-poster contest conducted by ADR monitoring centre, Believers Church Medical College on 23.09.2024.

Post graduate Residents:

- **Dr. Venkataraman Sateesh Joshi**, PG Resident (2020–2023) honoured as a **Best outgoing PG Award** (Batch 2020-2023) with a Silver medal and a certificate of appreciation during graduation ceremony 2024.
- **Dr.Lishal Misquith**, PG Resident was awarded for **Best podium and Best E-poster** and **Dr. Shreya Bhat & Dr.Ranish Saldanha** PG Residents have **won III prize** in Post graduate quiz conducted during ARGENTUM 2024 at Fr.Muller Medical College,Mangaluru.



- **Dr.Sharon Christy and Dr.Ashank Gowda**, PG students in the department of General Medicine have secured **II place** in KIMS PG Mediquiz 2024-25 held at Kanachur Institute of Medical Sciences, Mangaluru on 03.08.2024.



- **Dr.Vaishnavi Prakash**, PG student in the department of General Medicine has been awarded as **First Runner- Up** in poster presentation PG category on “**Comparison of Diagnostic tools for Obstructive Sleep Apnea: Epworth sleepiness scale Vs. Stop-Bang questionnaire at a tertiary care centre**” during 9th Annual meeting of the IM ACP India 2024 held on 16th to 18th August 2024 at Lucknow.

- **Dr.Rahul Prasad**, PG student in the department of General Medicine has been awarded **First prize** in the Poster presentation during SEPSIMED 2024 conducted by the department of Medicine, KMC and Mangalore on 20.09.2024

Presentations:

By Faculty:

S. No.	Name	Title of Presentation	Event
1	Dr. Debora Sona DSilva	<i>Chronic Osteomyelitis with Secondary Infection Concealed by Melioidosis</i> (E-poster)	14th Annual Conference of Clinical Infectious Diseases Society, August 16–18, 2024, Hyderabad
2	Dr. Veena Pinto	<i>Effectiveness of Peer Assessment in Skill Training Among Postgraduate Students in Medical College</i> (Oral Paper)	National Conference – Skill Educon, September 19–21, 2024, Father Muller Medical College, Mangaluru
3	Dr. Sr Lakshmi M Prabhu	<i>Efficacy of Using Low-Technology Mannequins in Simulation-Based Learning Among MBBS Students</i> (Oral Paper)	

Post graduate Residents:

Presented during 41st annual conference of Association of Physicians of India – KAPICON 2024 held from 26th to 28th of July 2024 at MIMS Mandya

S. No.	Name	Title of Presentation	Event
1	Dr. Eshan Madhu	Prevalence of proteinuria and hypertension in adult chronic kidney disease patients attending nephrology clinics of a tertiary care centre	41 st annual conference of Association of Physicians of India – KAPICON 2024 held from 26 th to 28 th of July 2024 at MIMS Mandya
2	Dr. Amogh S	Outcome of stroke patient	
3	Dr. Ancia D Souza	Clinical profile of Epstein Barr virus meningitis: A case series from a tertiary care hospital in South India	
4	Dr. Abhishek Patil	Clinical profile and outcome of cryptococcal meningitis	
5	Dr. Shreya Bhat	Clinical profile of dermatomyositis: A retrospective case series from a tertiary care hospital, Mangalore, Karnataka	
6	Dr. Aaron Mathias	Clinical bacteriological profile and outcome of infective endocarditis: A retrospective study from a tertiary care centre in Mangalore, Karnataka	
7	Dr. Aaron	Clinical bacteriological profile and outcome of	

S. No.	Name	Title of Presentation	Event
	Mathias	infective endocarditis: A retrospective study from a tertiary care centre in Mangalore, Karnataka (Repeated)	
8	Dr. Yathin R	Clinico-etiological profile of autoimmune hepatitis: A retrospective study in a tertiary hospital in Mangalore, Karnataka	
9	Dr. Niveditha	Clinical profile of brucellosis: A case series from a tertiary care hospital in South India	
10	Dr. Anmol Baleri	Analysis of factors associated with portal vein thrombosis in adults	
11	Dr. Aishwarya Mathew	Clinical presentation of Hepatitis A: Case series from a tertiary care hospital in South India	
12	Dr. Adarsha P S	Clinical Utility of Fiberoptic Bronchoscopy for Respiratory Disease Diagnosis	9th Annual Meeting of the IMACP India 2024, 16th–18th August 2024, Lucknow
13	Dr. Vaishnavi Prakash	Comparison of Diagnostic Tools for Obstructive Sleep Apnea: Epworth Sleepiness Scale vs STOP–BANG Questionnaires at a tertiary care centre	
14	Dr. Bharath Kumar Reddy	Clinical profile of pancreatic adenocarcinoma at a tertiary care hospital in South India	TS APICON 2024, 19th–20th October 2024, Mamata Medical College, Telangana

General Surgery

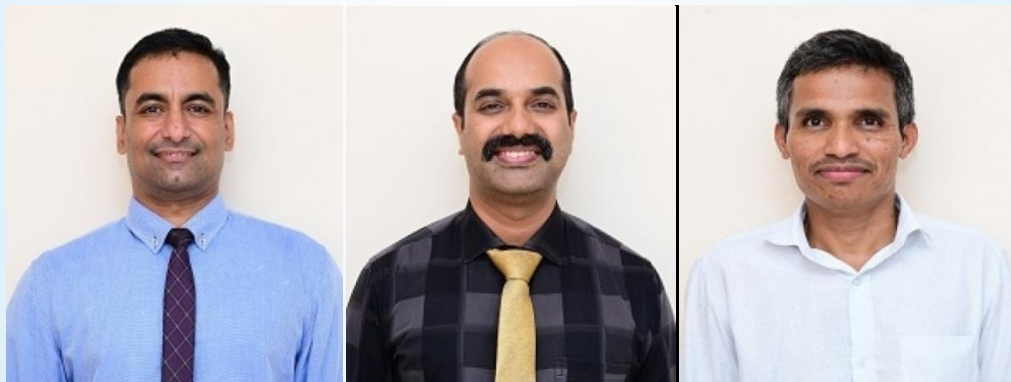
Research Projects 2024

Sl no	Title of the Project	Investigator	Funding Source	Grant
1	Activities of Matrix Metalloproteinases in Diabetic Foot Ulcers	Dr. Prathvi Shetty, Dr. Rohan Dsouza	RGUHS	₹1,66,000/-

Case Reports:

Sl no	Title	Investigator(s)	Journal
1	Axillary Fibroadenoma: An unusual clinical presentation	Maria L Rodrigues, Prathvi Shetty, Sueallen L D Dsouza	Cureus
2	Acute worsening of lower limb weakness in a treated case of Hansen's disease: a diagnostic challenge	Sucheta Chikodi, Ramesha M Bhat, Jacintha Martis, Vinoda Kumar, Christina Goveas	Leprosy Review

Publications:



Dr. Prathvi Shetty

Dr. Rohan Dsouza

Dr. Vinoda Kumar B

Title: Matrix metalloproteinase-9 as a predictor of healing in diabetic foot ulcers.

Name of the journal: Cureus

Published year: 2024

Abstract:

Background: Wound healing in diabetic foot ulcers (DFUs) is hindered by several physiological and biochemical abnormalities, including prolonged inflammation, an imbalance in extracellular matrix (ECM) synthesis and degradation, insufficient neovascularization, and reduced macrophage activity. In DFUs, excessive and uncontrolled

matrix metalloproteinases (MMPs) degrade the ECM and impede wound healing. Matrix metalloproteinase-9 (MMP-9) concentration plays a key role in inflammation and ECM degradation. This study explores the relationship between wound type in DFUs and MMP-9 levels, hypothesizing that a high MMP-9 environment may indicate inflammation and impaired wound healing. **Materials and methods:** Forty individuals with type 2 diabetes and foot ulcers were recruited for the study. The participants were divided into two groups: non-healing and healing, with 20 patients in each group. Biopsy samples were homogenized and MMP-9 activity was measured using an ELISA. **Results:** The MMP-9 concentration was significantly higher in non-healing ulcers compared to healing ulcers. Receiver operating characteristic analysis revealed that MMP-9 measurement was the most accurate predictor of wound healing, with an area under the curve value of 0.945 and high sensitivity and specificity. Although there was a weak correlation between MMP-9 concentration and glycosylated hemoglobin, it was not statistically significant. **Conclusions:** MMP-9 expression serves as a marker of poor wound healing. MMP-9 levels in the wound at the time of presentation may predict the healing trajectory and help tailor a specific treatment plan for each DFU patient.



Dr. Sheldon G Mathias

Dr. Vinod Kumar

Dr. Rohan Dsouza

Title: Role of Diosmin with hesperidin in treatment of Varicose veins and haemorrhoids.

Journal: Indian Journal of Applied Research.

Published year: 2024

Abstract:

Aims and Objectives: To evaluate the efficacy of diosmin plus hesperidin for the conservative management of hemorrhoids and varicose veins. **Introduction:** The great and small saphenous veins, as well as their tributaries that run between the fascia and the skin, are involved in varicose veins in the lower extremities. Age and family history are key risk factors for varicose veins, which are defined as subcutaneous dilated, convoluted veins bigger than or equal to three millimeters. One of the most prevalent anorectal is hemorrhoids. Split up into four grade levels. First and second grades are typically treated conservatively. **Methodology:** Retrospective study involving patients coming to tertiary care hospital

hospital for 2 years. Following factors were considered in the statistical analysis: demographic data, including sex, age, outcomes of disease and complications. Haemorrhoidal symptoms (pain, heaviness, bleeding, pruritus and anal discharge) and in the proctoscopic appearance of the haemorrhoids comparing the baseline visit. Varicose veins assessed by Venous clinical severity score (VCSS). **Results:** 52 cases of varicose veins and 66 cases of hemorrhoids were monitored for two years at a tertiary care hospital. Out of the 66 patients, 41 had improved symptoms (62%), and 24 (36.4%) needed surgery in the end. Of the 52 patients with varicose veins, 42 (80.7%) had improved symptoms, while 9 (17.3%) needed surgery in the end. One (1.9%) developed necrotizing fasciitis. **Conclusion:** Hemorrhoidal symptoms, such as pain, heaviness, bleeding, pruritus, and anal discharge, as well as changes in the hemorrhoids' proctoscopic appearance when comparing the results of the initial visit to the last appointment eight weeks following diosmin hesperidin treatment. After receiving treatment for two months, venous symptoms decreased. Diosmin plus hesperidin for the conservative management of hemorrhoids and varicose veins has great efficacy.



Dr. Reshmina Chandni Clara Dsouza

Title: Prospective evaluation of risk factors responsible for infection following retrograde intrarenal surgery.

Journal: Cureus.

Published year: 2024

Abstract:

Objective: The study aimed to identify the various risk factors for infective complications following retrograde intrarenal surgery (RIRS). **Materials and methods:** The study was conducted over one year, and the incidence of infectious complications after RIRS was calculated. Patients were divided into two groups based on the presence and absence of infective complications and were compared in terms of preoperative and operative characteristics. The complications were assessed and graded according to the Modified Clavien classification system (MCCS). The Fisher's exact test, Student's t-test, and Mann-Whitney U test were used for univariate analysis. Multivariate logistic regression analysis was used to identify independent risk factors for postoperative urinary tract infection (UTI). **Results:** Out of 165 patients in the study, 27 (16.7%) patients developed UTI within one month of undergoing RIRS. The most frequent complication was fever, which occurred in 13

(7.8%) patients. When stratified by MCCS, 13 were grade I, nine were grade II, four were grade III, and one was a grade IV complication. High stone burden, concomitant diabetes mellitus, and multiple renal stones were identified as substantial risk factors for postoperative UTI in univariate analysis. On multivariate analysis, preoperative UTI and prolonged operative time were found to have a significant association with postoperative UTI. **Conclusion:** The present study demonstrated that preoperative UTI and prolonged operative time are independent factors responsible for postoperative UTI. Large stone burden, stone multiplicity, and diabetes mellitus contribute to a higher risk for UTI following RIRS.

Title: Assessment of factors responsible for stone-free status after retrograde intrarenal surgery.

Journal: Cureus.

Published year: 2024

Abstract:

Aim: The study aimed to evaluate the predictive factors that determined stone-free rate (SFR) after retrograde intrarenal surgery (RIRS). **Materials and methods:** This prospective study was conducted on 183 patients undergoing RIRS for renal stones. Patients were categorized into two groups, depending on stone-free status one month following the procedure. SFR was defined as the complete absence of stones or stones <4 mm. The parameters studied included patient demographics, presence of hydronephrosis, presence of preoperative double J-stent, abnormal renal anatomy, and stone characteristics (stone burden, stone number, stone density, stone location, lower pole infundibulopelvic angle, and lower pole renal infundibular length (RIL)). Univariate and multivariate were performed to identify risk factors for residual stones. We assessed the predictive ability of the RIRS score and Resorlu-Unsal stone score (RUSS) for evaluating SFR utilizing receiver operating characteristic (ROC) analysis. **Results:** 183 patients were included in the study with a median age of 51 years. 131 (71.6%) patients were declared stone-free after the procedure. The mean stone size and density were 16.9 SD±7.5 mm and 1038 SD±342 Hounsfield units (HU) respectively. Stone-free patients had lower stone size (14.3 mm vs. 23.6 mm, $p<0.01$) and stone density (970 HU vs. 1211 HU, $p<0.01$) compared to non-stone-free patients. Patients with residual stones had steeper lower pole renal infundibulopelvic angle (RIPA) (31.3° vs. 40.7°, $p<0.01$) and longer RIL (26.6 mm vs. 21.1 mm, $p<0.01$). Stone multiplicity ($p<0.01$), lower pole stone location ($p<0.01$), and renal malformations ($p<0.01$) were significant influencing factors for residual renal stones after RIRS. Multivariate analysis revealed stone size, stone density (HU), and stone location as independent predictors for SFR after RIRS. Among the scoring systems, the RIRS score had the highest diagnostic accuracy for SFR (area under the curve (AUC): 0.882, 95% CI-0.828-0.936). **Conclusion:** Stone size, stone density (HU), and stone number are important predictors of SFR after RIRS. Lower pole stone location and abnormal renal anatomy play a substantial role in determining SFR after RIRS. In lower pole stones, a long RIL and acute RIPA negatively influence SFR. Additionally, the RIRS score was found to be a better predictor for SFR than the RUSS score.



Dr. Shankar Gururaj Kollampare

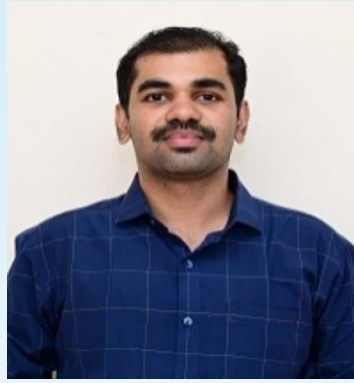
Title: Postoperative outcomes in patients undergoing transabdominal preperitoneal repair versus lichtenstein's repair for inguinal hernia: A prospective Cohort study.

Journal: Journal of Clinical and diagnostic research

Published year: 2024

Abstract:

Introduction: Transabdominal Preperitoneal (TAPP) and Lichtenstein tension-free repair are well-established methods for inguinal hernia treatment. There is a need to establish the short-term outcomes of both procedures. **Aim:** To determine the short-term outcomes of Lichtenstein and TAPP hernia surgery. **Materials and Methods:** A prospective cohort study was conducted in the Department of Surgery at Father Muller Hospital, Mangaluru, Karnataka, India from November 2020 to May 2022. A total of 30 male patients underwent TAPP and 30 male patients underwent Lichtenstein repair. Polypropylene mesh (Trulene macropore, Healthium Medtech, India) was used in both groups. Postoperative pain, early ambulation, number of days stayed in the hospital postoperatively, time taken to return to work, cost-analysis, and operating time were assessed between the groups using mean, percentage, Student's t-test for continuous data, and Pearson Chi-square test for categorical variables. **Results:** The mean age of patients was 60.83 ± 13.84 years in the TAPP group and 56.67 ± 13.99 years in the Lichtenstein group, respectively. The Visual Analogue Scale (VAS) score at 24 hours was higher in the Lichtenstein group (p -value < 0.001). Ambulation occurred on Postoperative Day 1 (POD1) in the TAPP group whereas it was on POD2/3 in the Lichtenstein group (p -value < 0.001). The Length of Stay (LOS) in the hospital was higher in the Lichtenstein group (p -value 0.063). A total of 50% of the patients in the TAPP group returned to work by POD5, whereas 33.3% and 43.3% of patients in the Lichtenstein group returned to work by POD10 and POD11, respectively, with a p -value of 0.016. The cost was in the range of 30,000-45,000 rupees for the TAPP group (86.7% of patients) and 15,000-30,000 rupees for the Lichtenstein group (63.3% of patients) respectively, with a p -value < 0.001 . **Conclusion:** Laparoscopic surgery (TAPP) is superior to Lichtenstein repair despite higher fixation device costs because it is associated with shorter hospital stays, less pain, and earlier return to regular activities.



Dr. Kevin Alfred Samuel

Title: A Prospective, observational study to assess the effectiveness of enhanced recovery after surgery (ERAS) protocol in patients undergoing colorectal surgery.

Journal: Journal of Medical Sciences and Health

Published year: 2024

Abstract:

Objective: To assess the effectiveness of Enhanced Recovery After Surgery (ERAS) protocol in patients undergoing colorectal surgery in reducing the length of hospital stay by early initiation of oral feeds and early mobilization. **Methods:** A total of 100 patients undergoing colorectal surgeries above 18 years of age for a period of 2 years i.e. from 2018-2020 were included in the study after obtaining informed consent at a tertiary care medical college hospital. We compared the benefits of ERAS protocol in colorectal surgeries by dividing the study population as ERAS group and controlled group and were assessed using a structured proforma, parameters like type of surgery done, early initiation of mobilization, incentive spirometry and initiation of feeds were all assessed between the two groups. **Results:** the study population was divided into 2 group of 50 each, all the ERAS group of patients were mobilized on post operative day (POD) 1 or 2 irrespective of the surgery done and the mean duration was 1.2 days +/- 0.5 days and initiated with incentive spirometry from POD 1 with the mean duration being 1.02 +/- 0.1 and the patients with laparoscopic surgery had a reduced pain and early recovery time and thus reduced the length of hospital stay in the ERAS group 5-8 days when compared to the control group 10-11 days. **Conclusion:** ERAS is a well-designed protocol and had a positive impact on its application in patients undergoing laparoscopic colorectal surgery in terms of decreasing the length of Hospital stay.

Title: Clinical Profile and management of patients with superior mesenteric vein thrombosis- A descriptive study from Southern India.

Journal: International Journal of Anatomy, Radiology and Surgery

Published year: 2024

Abstract:

Introduction: Abdominal pain is the most common presenting complaint in any Emergency Department. Superior Mesenteric Vein Thrombosis (SMVT) is a very rare condition, a surgical emergency seen in the elderly population with a high mortality rate. **Aim:** To assess the clinical profile, risk factors, radiological findings, management and outcome of patients presenting with SMVT. **Materials and Methods:** A retrospective descriptive study was conducted in the Department of General Surgery, Father Muller Medical College, Mangaluru, Karnataka, India, from January 2018 to December 2022. Hospital data and case files were analysed and parameters such as age group, sex distribution, presenting features, management and outcomes were recorded. Statistical analysis of the data was done using Excel 2021 (Microsoft 365), and the data was described in numbers and percentages. **Results:** A total of 10 patients were included, with a predominance of male patients, of which 6 (60%) were males and 4 (40%) were females. Eight patients had associated co-morbidities. Among the 10 patients, 4 (40%) were diagnosed with malignancies (three pancreatic, one liver secondary), 2 (20%) patients were on oral contraceptive pills. Two (20%) patients developed SMVT after intra-abdominal surgery following trauma, two had a history of Distal Venous Thrombosis (DVT) and pre-existing portal hypertension were identified as causative factors. The majority 6 (60%) of the patients, presented within 48 hours of the onset of pain and vomiting. Computed Tomography (CT) angiography was the diagnostic test used in all patients (100%). Anticoagulation was initiated in all patients, and three patients underwent surgery for complications associated with the condition. Out of the 10 patients, 3 (30%) died during treatment, while 7 out of 10 (70%) had a good recovery. Within one year of follow-up, four patients out of the seven deceased. **Conclusion:** Acute mesenteric venous thrombosis is observed in the elderly population with multiple co-morbidities. Early presentation to the hospital with appropriate clinical and radiological investigations helps in reducing mortality.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide
1	Comparison of two preoperative scoring systems in predicting difficult laparoscopic cholecystectomy	Dr. Frana Dsouza	Dr. Shubha N Rao
2	Diagnostic value and efficacy of total leucocyte count (TLC), c-reactive protein (CRP) in diagnosis of acute appendicitis	Dr. Suraj Mackson Pinto	Dr. Leo Francis Tauro
3	Surgical site infection in thyroid surgeries without antibiotic prophylaxis in a tertiary care center	Dr. Rhea Fernandez	Dr. Prathvi Shetty
4	Correlation between international prostatesymptom score and post operative urinaryretention	Dr. Praveen Kumar B M	Dr. Reshmina C C Dsouza
5	Aclinical and demographic study of oral cavitycarcinoma	Dr. Priyanka Dutta	Dr. Vinoda Kumar B
6	Comparative study of the occurrence of portsite pain and infection in gallbladder extraction via umbilical vs epigastric port	Dr. N B Ankita	Dr. Rakesh Rai A

	inlaparoscopic cholecystectomy		
7	Importance of fecoliths in the etiology of acute appendicitis	Dr. Jeevan Kumar	Dr. Erel A I Diaz
8	Diagnostic modalities, management and outcome of blunt trauma abdomen at a tertiary care center	Dr. Kona Venkat Vihari	Dr. Sheldon George Mathias
9	To Find out the incidence of helicobacter pylori in patients with symptomatic gallstone disease undergoing cholecystectomy	Dr. Geetika	Dr. Vinoda Kumar B
10	A Comparathive study between laparoscopic and open ventral hernia repair	Dr. Joel Eric Kareem	Dr. Sheldon George Mathias
11	Diagnosis value of CA19-9 and total bilirubin ratio in obstructive jaundice	Dr. Sindhu M	Dr. Shubha N Rao
12	Total leocyte count neutrophil to lymphocyte ratio and C-Reactive protein levels in predicting severity of acute pancreatitis	Dr. Adithya Philip Paul	Dr. Leo Francis Tauro
13	Correlation of glycosylated hemoglobin with severity of vasculopathy in diabetic foot.	Dr. Aravind K	Dr. Erel A I Diaz
14	Evaluation of the utility of MPI in predicting the morbidity and mortality in patients who present with perforation peritonitis undergoing surgery at a tertiary care medical teaching hospital	Dr. Sahil Singh	Dr. Reshmina C C Dsouza
15	To assess the association of pulse pressure and diabetic foot ulcer	Dr. Yashna Gopinath Shetty	Dr. Prathvi Shetty
16	Comparison of port site infiltration with and without local anaesthetic for post operative pain relief in laparoscopic surgeries	Dr. Koneru Alekh	Dr. Rakesh Rai A
17	Association of BMI and age with symptomatic cholelithiasis	Dr. Janice Margaret Aman	Dr. Erel A I Diaz
18	To evaluate the incidence of anemia in diabetic foot ulcer and its role in predicting the outcome in diabetic foot ulcer	Dr. Jagath J	Dr. Shbha N. Rao
19	To assess the incidence of estrogen receptor positivity in premenopausal and postmenopausal women with breast cancer in a tertiary care hospital	Dr. Sonu Yeldose	Dr. Clement RS Dsouza
20	Assessment of Clinical and demographical profile of patients undergoing lower extremity amputation	Dr. Gishnu Gopal	Dr. Prathvi Shetty
21	To Assess the correlation of leukocytes CRP and fibrinogen in the diagnosis acute appendicitis in adults	Dr. Adithya Aravinda Akki	Dr. John Joseph S. Martis
22	A study to evaluate the role of neutrophil to lymphocyte ratio (NLR) in acute	Dr. S P Gifton Amos	Dr. Reshmina C C Dsouza

	pancreatitis as an early predictor of severity and outcome		
23	To assess the impact of low pressure versus standard pressure pneumoperitoneum on shoulder tip pain after laparoscopic cholecystectomy.	Dr. Saitej Thaniparthi	Dr. Rakesh Rai A
24	Comparing diathermy and scalpel incisions in inguinal hernioplasty	Dr. Binil Babichan	Dr. Vinoda Kumar B
25	A Comparison on open hemorrhoidectomy and laser hemorrhoidoplasty on post operative recovery and complication.	Dr. Joseph Jose Periapparam	Dr. Leo Francis Tauro
26	To compare the outcome between endovenous laser ablation and flush ligation and stripping for varicose veins of lower limbs	Dr. Dhanya D Shetty	Dr. Clement RS Dsouza
27	Laparoscopic versus open appendicetomy a comparative study of postoperative pain and time of recovery	Sr. Razila P	Dr. Sheldon George Mathias
28	Correlation of RIPASA scoring system and ultrasound in acute appendicitis	Dr. Surabhi Silipkumar Kadam	Dr. John Joseph S. Martis

Awards:



Dr. Frana Dsouza final year Post graduate Resident has won **First Place** for her Free Paper *“Beyond the incision: Unmasking oncological adequacy and surgical outcomes in laparoscopic and open gastrectomy with D2 lymphadenectomy”* during the 42nd Annual conference of Karnataka State Chapter of Association of Surgeons of India held on 9th to 11th February 2024 at Shri D. Veerendra Heggade Kalakshetra, SDM University Campus, Sattur, Dharwad.



Dr. Sindhu M second year Post graduate Resident has won **First Place** for her Free Paper *“Simple scoring system for malignant Cholestatic Jaundice”* during the 7th Mid-Year conference of Karnataka State Chapter of Association of Surgeons of India held on 9th to 11th August 2024 at Subbaiah Institute of Medical Sciences, Shivamogga. She has also won Second Prize for her Scientific E-Poster *“Stapler division and SCM flap: A safe and effective technique for benign acquired TEF”* during the 3rd Annual Conference of Karnataka Association of Surgical Gastroenterologists and GI Oncosurgeons (KASGOCON 2024) held on 31st August to 1st September 2024 at Father Muller Convention Centre, Mangalore.

Presentations:

Sl. No.	Name	Oral/Poster	Title
1	Dr. Prathvi Shetty	Poster	Activities of Matrix Metalloproteinase 9 in Diabetic foot ulcers.
2	Dr. Frana Dsouza	Free Paper	Beyond the incision: unmaking oncological adequacy and surgical outcomes in laparoscopic and open gastrectomy with D2 lymphadenectomy
3	Dr. Rhea Fernandez	Free Paper	Patient reported outcome measures following thyroid surgeries using-DSQ questionnaire
4	Dr. Priyanka Dutta	Free Paper	The bypass at the Junction (Case series on a study in carotid body tumor)
5	Dr. Joel Eric Kareem	E-Poster	Surgical Success: Rescuing a child from an abdominal bleeding cyst

Medical Surgical Nursing

Research Projects 2024:

Sl no	Title of the Project	Investigator	Funding Source	Grant
1	Physical Activity Related Injury among the Adolescents of Dakshina Kannada District - Pilot Study	Dr. Sasikumar S	ICMR (Extramural)	₹19 Lakhs

Publications:



Ms. Sonia Babitha Dsouza

Title: Binge-Watching Behavior and the Strategies Adopted to Overcome this among the Undergraduate students.

Journal: J Health Allied SciNU

Published Year: 2024

Abstract

Introduction: Binge-watching is a popular activity among people of all ages. It involves watching a television series or movies for a longer duration. The activity pleases the viewers as it stimulates the “reward center” or “pleasure pathway” of the brain, which releases certain chemicals. However, excessive binge-watching can lead to internet addiction disorders, which is a growing concern among young people. **Objectives:** To address this concern, a study was conducted to identify binge-watching behavior and ways to overcome it among undergraduates in professional colleges. **Methodology:** The study involved 227 participants who were selected through a proportionate stratified simple random sampling technique. A descriptive survey design was adopted to collect data, and the participants were assessed using the “assessing binge-watching behavior—Binge-Watching Engagement and Symptoms Questionnaire” and a self-structured rating scale. **Results:** The results indicated

that the majority of participants (78.9%) were engaged in binge-watching behavior. The highest percentage of binge-watching behavior was noted in the desire category (60.0%), and the lowest percentage was in positive emotions (44.0%). The mean percentages of dependency (57.7%) and loss of control (59%) were almost similar to the mean percentages of desire (60%) and engagement (59.2%). These results reflect the negative effects of binge-watching behavior. Moreover, the study revealed that 51.5% of binge-watchers were in the age group of 20 to 21 years, and 85% of them were female. This finding highlights the need to educate young people, particularly women, about the negative effects of binge-watching behavior. **Conclusion:** In conclusion, the study emphasizes the need to address the growing trend of binge-watching behavior among young people. The study recommends various strategies to overcome this behavior, such as limiting screen time, engaging in physical activities, and cultivating hobbies and interests.



Mr. Arun MB

Title: A Study to Compare the Effect of Acupressure and Helfer Skin Taps Technique on Level of Pain during Intramuscular Injection among Adult Patients

Journal: Journal of All Research Education and Scientific Methods

Published Year: 2024

Abstract

There are various techniques to keep the muscle relaxed during IM injection. The aim is to compare the effect of acupressure and Helfer skin tap technique on level of pain. Post-test only design with a typical experimental research approach was adopted. The study results shows that acupressure group had mean score of 3.9 and standard deviation 1.807 where as Helfer group has got mean score only 5.43, standard deviation 1.755 where the mean difference 1.533, and calculated t test 3.333 showing a significant difference in the effect of acupressure and Helferskin tap technique on level of pain during intramuscular injection.



MsSowmya Sebastien

Title: SIM on knowledge regarding effect of life style on cardiopulmonary system among adults working in selected institute, Mangalore

Journal: World Journal of Biology Pharmacy and Health Sciences

Published Year: 2024

Abstract

Background: Sedentary lifestyles, marked by prolonged sitting and low physical activity, are linked to various health issues such as coronary artery diseases, hypertension, obesity, and diabetes. This study aims to evaluate the effectiveness of a self-education module on the impact of lifestyle on the cardiopulmonary system among adults workers, highlighting the need for better health education and lifestyle changes. **Objectives of the study:** To determine the level of knowledge regarding effect of life style on cardio pulmonary system. To evaluate the effectiveness of self instructional module on level of knowledge regarding effect of life style on cardio pulmonary system. **Methodology:** The study aimed to assess the effectiveness of SIM in enhancing knowledge about lifestyle effects on cardiopulmonary system among adult workers. A one-group pre-test – post-test design was used, with 60 adults from a selected global institution in Mangalore selected. Data was collected using a structured knowledge questionnaire and analyzed using descriptive and inferential statistics. **Result:** The study found that 98.3% of adult workers had moderate knowledge about lifestyle's impact on the cardiopulmonary system, while 46.7% had adequate knowledge post-test. The self-instruction module significantly improved knowledge scores, and no association was found between pre-test knowledge scores and demographic variables. **Conclusion:** The study suggests that introducing lifestyle effects on cardiopulmonary system among adult workers can improve their knowledge and reduce occupational stress. The self-instructional module was found to be an effective strategy, providing information and enhancing knowledge about lifestyle modifications, without any association with pre-test knowledge scores or demographic variables.

Keywords:

Effectiveness; Lifestyle Modification; Self Instructional Module; Cardio Pulmonary System; Adult Workers.



MsAarthi

Title: Cardiovascular Endurance among College Students in Selected Institute

Journal: International Journal of Nursing Critical Care

Published Year: 2024

Abstract

Leading a sedentary lifestyle elevates the likelihood of encountering numerous cardiovascular conditions. Aim was to assess the level of cardiovascular endurance among college students. This study was executed on 184 students. The modified Harvard Step Test was used to find the level of cardiovascular endurance and scores compared with the physical fitness index chart to categorize the participants and determine their level of cardiovascular endurance. The cardiovascular endurance 51% had poor, 42% had low average, 4% had average, 1% had a good and only 1% had excellent cardiovascular endurance. The study's results revealed that inadequate cardiovascular fitness stems from insufficient physical activity.



Ms Devukrishna

Title: Effectiveness of Chin Tuck Against Resistance Exercise on Improving Swallowing Ability among Patients with Cerebrovascular Accident having Dysphagia at Selected Hospital in Mangalore

Journal: International Journal of Research and Analytical Reviews

Published Year: 2024

Abstract

The study aims to assess the effectiveness of Chin Tuck against Resistance Exercise on improving swallowing ability among patients with cerebrovascular accident having dysphagia. The result shows that there is a highly significant difference between mean pre-intervention and mean post-intervention level of swallowing ability at various time intervals ($F=55.201$, $p=0.001$). Further, Post Hoc Bonferroni correction test showed a high significant difference between pre- intervention and post intervention 1 (day 3), 2 (day 5), 3 (day 7), 4 (day 9) ($p=0.001^{**}$). The findings of the study showed that Chin Tuck against Resistance Exercise was effective in improving the level of swallowing ability among cerebrovascular accident patients having dysphagia.



Dr Sasikumar S

Title: Understanding the Dynamic Relationship of Diabetes Distress and Glycemic Indicators in Foot Ulcer Patients: A Correlative Study

Journal: Cureus

Published Year: 2024

Abstract

Diabetes-related distress and glycemic indicators are the most common concerns for patients with diabetes mellitus and have a major impact on diabetic patients' lifestyle, mental well-being, and healthcare access. The principal aim of research in this field is to ascertain the correlation between distress associated with diabetes and glycemic indicators. This helps in developing interventions that can enhance the overall physical and mental well-being of individuals with diabetes. Objective: The objective is to assess the diabetes distress and glycemic indicators among patients with foot ulcers and to find the correlation between diabetes distress and glycemic parameters. Materials and methods: A descriptive correlational study was conducted among 159 patients with foot ulcers who were admitted to the hospital by using a non-probability purposive sampling method. The severity of diabetes distress was evaluated utilizing the four-subscale Diabetes Distress Scale (DDS-17). Glycemic indicators are calculated through the assessment of random blood sugar, fasting blood sugar (FBS), and glycosylated hemoglobin (HbA1c). Result: The study revealed that most participants were above 60 years old and were male. Of the samples, 52% had moderate distress. All the subscales of diabetes distress are correlated to the overall DDS score. A negative correlation

($r = -0.162$, $p < 0.041$) was found between emotional burden and FBS which was statistically significant, whereas FBS is positively related to HbA1c ($r = 0.194$, $p = 0.015$). Conclusion: The significant correlation between DDS scores, the subscales of diabetes distress, and glycemic indicators highlights the criticality of incorporating diabetes distress management into comprehensive strategies for managing diabetes. Moreover, the research underscores the necessity of employing multidisciplinary strategies when attending to diabetic patients to prevent complications.

Microbiology

Research Projects 2024

SL No	Title of the Project	Investigator	Funding Source	Grant
1	In vitro antibacterial activity of essential oils of Nutmeg (<i>Myristica fragrans Houtt</i>) and Ginger (<i>Zingiber officinale Roscoe</i>) against aerobic enteropathogens and comparison with the routine antibiotic sensitivity pattern	Ms. Hooren Ein Barmawar (II BSC MLT), Dr. Sherin Justin	Extramural	RGUHS UG grant
2	Prevalence of <i>Clostridioides difficile</i> among patients attending a tertiary care hospital by using <i>Clostridium difficile</i> GDH+ Toxin A+B one-step combo test and analysis of their clinical spectrum	Angela Fernandes, Dr. Sherin Justin	Intramural	No Funding
3	Application of sequential serological testing strategy for detection of hepatitis B surface antigen (HBsAg) for diagnostic HBV infection	Ms. Rishma Joyce (BSC MLT Intern), Dr. Kavitha	Intramural	No Funding
4	Burden of <i>Enterococcus faecium</i> infections in a tertiary hospital, Mangalore	Mr. Pranav V Kolamkar (BSC MLT Intern), Dr. Prasanna N Bhat	Intramural	No Funding
5	Isolation and antibiogram of clinically relevant non-diphtheria corynebacterium (diphtheroids) from skin and soft tissue infection	Ms. Rifah Roshan (BSC MLT Intern), Dr. Rose Meroline Dsouza	Intramural	No Funding
6	Detection of the carbapenemase enzyme production in the clinical isolates of carbapenem-resistant Enterobacteriaceae using modified carbapenem inactivation method	Ms. Sharanya CH (MSC MLT), Dr. Prasanna N Bhat	Intramural	No Funding
7	Bacteriology of bronchoalveolar lavage (BAL) samples in lower respiratory tract infections	Ms. Prajna P Jain (MSC MLT), Dr. Thomas S Kuruvilla	Intramural	No Funding
8	Assessment of blood culture and antibiotic resistance pattern in pediatric septicemia	Ms. Andrea Dsouza (BSC MLT Intern), Ms. Sharonraju	Intramural	No Funding
9	Assessment of laboratory biosafety and good laboratory practices among staff and students of medical laboratory technology	Ms. Smitha TK (BSC MLT Intern), Dr. Santhosha	Intramural	No Funding

SL No	Title of the Project	Investigator	Funding Source	Grant
		Devadiga		
10	Sputum quality assessment as a useful tool for distinguishing true pathogens from colonizing flora	Ms. Feba Johny (MSC MLT), Dr. Thomas S Kuruvilla	Intramural	No Funding

Publications:



Dr. Meena Dias

Title: Molecular Basis of Biofilm production and Antibiotic Resistance in Klebsiella Species from Diabetic Ulcer

Journal: International Journal of Science and Research (IJSR)

Published year: 2024

Abstract:

Aim:The aim of this study is to investigate molecular basis of biofilm production and antibiotic resistance in Klebsiella species from diabetic ulcer. Diabetes mellitus is a chronic metabolic condition characterized by high blood glucose, often known as blood sugar. Infected wounds are a common complication among diabetics. **Design and Method:** A systematic literature review to identify peer-reviewed studies on molecular basis of biofilm formation and antibiotic resistance in Klebsiella species from diabetic ulcers. The inclusion criteria for the search included finding an English language article published in a peer reviewed journal that included our keywords and discussed the antibiotic resistance and molecular basis of biofilm formation of Klebsiella species from diabetic ulcer, including early works pertinent to current review. According to data published by the World Health Organization, the prevalence of diabetes mellitus has gradually increased over time. Diabetic foot ulcers are estimated to impact approximately 10%-15% of those with diabetes at some point. Bacterial strains obtained from the wounds of individuals with diabetes exhibit various types, encompassing gram-positive and gram-negative bacteria. Multidrug resistant organisms are frequent in diabetic foot ulcer patients. Biofilms may impair antibiotic penetration into the wound bed or render leukocytes ineffective by establishing

antiphagocytic characteristics inside the biofilm matrix. *Klebsiella* species has also been identified as a major isolate in diabetic ulcers in several investigations. The goal of this study is to look at molecular characteristics of biofilm development and antibiotic resistance of *Klebsiella* in diabetic ulcers.

Title: Beyond the Surface: Decoding Pityriasis Versicolor Through Clinical, Dermoscopic and Microbiological Exploration

Journal: Indian Journal of Dermatology

Published year: 2024

Abstract:

Introduction: Pityriasis versicolor (PV) is an asymptomatic, superficial fungal infection caused by the *Malassezia* species and causes discolouration of the skin leading to altered pigmentation. It is usually a clinical diagnosis, but in doubtful cases wherein potassium hydroxide (KOH) mount is unavailable, alternative modalities like dermoscopy aid in the management. **Aims and Objectives:** To evaluate the clinical and dermoscopic patterns in PV and correlate with the associated risk factors and study the fungal culture. **Materials and Methods:** A cross-sectional observational study was conducted for 12 months. A total of 115 patients clinically diagnosed with PV showing positivity on KOH mount were recruited. Dermoscopy was done, following which the scales were scraped and cultured in the laboratory on Sabourauds dextrose agar and modified Dixon media, and the results were analysed after 3 weeks. **Results:** Among the 115 participants, on clinical evaluation, 79 patients had achromic and 36 patients had chromic lesions. The dermoscopic features were categorized into domains such as scaling, pigmentation and other features. Fine scaling was the most common feature observed in 88.7% of the patients. Pigmentary changes were noted in all the patients with non-uniform pigmentation being the most common. We have also observed and described newer dermoscopic findings such as barbed wire fence appearance of ridges and furrows, fluffy cotton ball appearance of hypopigmented perifollicular lesions and sprinkled pepper appearance of pigmented dispersion. Out of the 115 KOH mount positive cases, 51 (44.3%) showed growth on fungal culture with *Malassezia furfur* being the most common species to be isolated in 18 patients. **Conclusions:** Dermoscopy is a new, popular non-invasive diagnostic modality, which shows specific features like fine scaling, pigment alteration, ridges and furrows with perifollicular involvement, and can be used to diagnose doubtful cases of PV as an adjunct or substitute to a KOH mount.

Title: Antifungal drug sensitivity testing in clinical specimens from dermatophyte infection using E-strip disk diffusion technique

Journal: Muller Journal of Medical Sciences and Research

Published year: 2024

Abstract:

Introduction: The wide range of antifungal agents available poses a difficulty in choosing an effective medication to avoid drug resistance. There is a need for a standard antifungal susceptibility testing method that would guide a practicing dermatologist to prescribe antifungal agents effectively. **Aims:** The aim of the study was to determine the prevalence of each species of dermatophytic infections and to determine the resistance pattern to common antifungal agents. **Settings and Design:** A cross-sectional interventional study was conducted at a tertiary health care center. **Subjects and Methods:** Two hundred consecutive patients diagnosed with dermatophytic infections were examined, and scrapings were sent for 10% potassium hydroxide (KOH) mount examination and culture. Further, antifungal drug susceptibility pattern was tested using the E-strip to determine the minimum inhibitory concentration (MIC) for fluconazole (FCZ), itraconazole (ITZ), clotrimazole, ketoconazole (KTZ), and voriconazole. **Statistical Analysis Used:** Collected data were analyzed by frequency, percentage, standard deviation, mean and Chi-square test, and Fisher's exact test. **Results:** One hundred and thirty-four samples were found to be KOH mount positive, and 81 samples yielded growth on culture. Trichophyton mentagrophytes was the most commonly isolated species in 32 (39.5%) specimens followed by Trichophyton rubrum in 29 (35.8%) samples. T. mentagrophytes showed the least MIC for KTZ, ITZ, and voriconazole (0.032–1.5 mg/L). T. rubrum was seen to have a MIC in the range of 0.04–2 for ITZ, 0.06–1.5 for voriconazole, and 0.13–0.75 for KTZ and highest for FCZ (0.5–32 mg/L), respectively. **Conclusions:** There is currently no reference method available to test drug sensitivity, and E-test is a simple technique which can be employed for antifungal drug sensitivity testing with less workforce, quick results, and easy interpretation aiding effective treatment of dermatophytic skin infections.



Dr. Beena Antony

Title: Phenotypic characterization of anaerobic microbial community isolated from human infections in the suburban population of coastal Karnataka – a three year study

Journal: International Journal of Scientific Research

Published year: 2024

Abstract:

Anaerobes exist as normal flora in various body sites and also cause a variety of invasive infections. Though the pathogenic potential of anaerobes is proved beyond doubt, they have not received much attention among the Microbiologists in India, as conventional anaerobic culture techniques are time consuming, relatively expensive and needs a lot of expertise. Of the 1334 specimen included in this study of 3 years duration, 1086 culture positive specimen were obtained which yielded 772 anaerobes, predominated by Bacteroides fragilis group. Maldi TOF, a rapid automated findings of this study and the similar onestechique is very helpful in speciating all bacteria including slow growing and unusual anaerobes. The India emphasizes the magnitude of the anaerobes and the necessity to include anaerobic culture techniques routinely to identify these potential pathogens.

Title: Antibacterial efficacy of Different Luting Cements on Streptococcus Mutans, Lactobacillus acidophilus and Porphyromonas gingivalis

Journal: Acta Scientific Dental Sciences

Published year: 2024

Abstract:

Aims and Background: Leading contributing factor to failure of crown is frequently due to dental caries and adhesion of microorganisms mainly by Streptococcus mutans (S.M.), Lactobacillus Acidophilus (L.A.) and Porphyromonas Gingivalis (P.G.) in over cavity (O.C.). Therefore the goal of our study was to evaluate and compare the effect of antibacterial property (ABP) of 5 different luting cements (i.e. ZOE, NON- Eugenol (N-E), Dual Cure (D.C.), Polycarboxylate (P.C.) and Self Adhesive Resin (SAR) Cement) on L.A., P.G. and S.M. with zone of inhibition (ZOI) method. **Materials and Methods:** A total of 100 patients were included. A saliva sample was collected from each patient, and three different oral bacterial species were extracted and analyzed using the MALDI-TOFMS method. Further 50 patients were treated with neem bark (N.B.) concentrations of 20mg, 40 mg, and 60 mg in 5 different dental luting cements (D.L.C.), and the remaining 50 were treated with 5 different D.L.C. only. **Result:** Group1, ZOE cement, N-E and SAR cement with N.B. for S.M., and P.G. showed concentration differences after anova testing. Whereas, D.C., P.C. cement for S.M. showed no difference. In Group 2, all three bacteria showed high differences in interaction with various D.L.C. **Conclusion:** We come to conclude that there was a significant increase in AB efficacy against 3 bacterias on addition of neem bark at different concentration to D.L.C. **Clinical significance:** In order to enhance the A.B. effectiveness against the three predominant intraoral bacteria, it is recommended to incorporate N.B. concentrations which could be 20mg to 60mg into our luting cements for good routine dental practice.

Keywords: Streptococcus mutans; Lactobacillus acidophilus and Porphyromonas gingivalis, Zone of Inhibition, Antibacterial Property

Title: Emergence and Distribution of Diverse Serovars of Non-Typhoidal Salmonellae in Mangalore, Coastal Karnataka: A 12- year Experience

Journal: Archives of Medicine and Health Sciences

Published year: 2024

Abstract:

Background and Aim: Non-Typhoidal Salmonellae (NTS) is emerging as a major health problem globally. They cause foodborne infections, especially gastroenteritis as well as extraintestinal manifestations. As this is a zoonotic disease, certain animal sources such as poultry, egg, meat and dairy products are implicated. Fruits and vegetables too contaminated by manure of infected animal excreta are possible vehicles of transmission of this disease. The present report analyzes the spectrum of NTS with seroprofiling, isolated in our institute for the last 12 years. **Materials and Methods:** Fresh fecal samples from patients with acute gastroenteritis and blood samples from cases of bacteremia were processed according to the standard protocol. Nonlactose fermenting colonies resembling Salmonella were subjected to biochemical characterization and antimicrobial susceptibility testing followed by serotyping. **Results:** One hundred fifty-two NTS strains were isolated from feces and 13 from blood. Serotyping of these strains revealed that the most common NTS species was *Salmonella typhimurium* (44.8%), followed by *Salmonella oslo* (15.2%) and *Salmonella weltevreden* (11.5%). Many rare strains were also encountered in our study. **Conclusion:** As many of the NTS species are biochemically similar, serotyping of NTS should be made mandatory to know the burden of the disease and to detect the emergence of new serovars. Emergence of multidrug resistance in NTS strains is a major concern nowadays. It is very essential to adopt strict quality measures in poultry, fish, dairy, and meat processing units as they are widely distributed in animals. In addition, strategies should be formulated by health education and public awareness programs to sensitize the population regarding this menace.

Title: Characterization of bifidobacterium species isolated from gut microbiota of various age groups

Journal: Global Journal for Research Analysis

Published year: 2024

Abstract:

Background: Bifidobacteria is a group of anaerobic non sporing gram positive bacilli with bifid appearance. They are present as normal flora in the intestinal tract, mouth and vagina and constitute the major component of normal human microbiota of the gut with probiotic potential. Despite the probiotic activity, sporadic cases of adverse events due to bifidobacteria were also reported. The composition of bifidobacteria species has been reported to differ

between stages of life. **Methods:** 233 faecal specimens were collected from students, staff and their family members of different age groups without any gastrointestinal symptoms, processed anaerobically for the isolation of Bifidobacteria and subjected to Biochemical characterization. The doubtful isolates were subjected to Maldi ToF Analysis. **Results:** Of the 233 faecal specimen screened for Bifidobacteria, 123 strains were obtained, predominated by *B.longum* from all age groups. *B.breve* and *B.adolescentis* were found only in the age group 0-10. *B.catenulatum* was also detected in the paediatric group, mostly from 6-10 years and also from a 13 year old child. 10 cases of *B.dentium* was isolated only from age group between 31- 50 and one from above 80 years. **Conclusion:** The present study investigates the gut makeup of Bifidobacterium species in different age groups by culture, biochemical characterization and Maldi ToF. Such reports are lacking from our country. The results of the study are comparable with the reported articles in the literature.

Title: Lactobacilli – Probiotic as well as an Uncommon Pathogen – Current Status regarding the “Two Sides of the Same Coin” An Overview

Journal: Journal of Basic, Clinical and Applied Health Science

Published year: 2024

Abstract:

Lactobacilli are nonsporing, lactic acid producing, anaerobic bacilli, classified under the phylum Firmicutes that form part of the normal flora in specific areas of the human body inclusive of the oral cavity, gastrointestinal tract, and the urogenital system. This genus, for instance contains *Lactobacillus acidophilus*, *Lactiplantibacillus plantarum*, *Lacticaseibacillus rhamnosus*, and others, when they are involved in the breakdown of glucose, they release lactic acid. It plays a major role in the production of fermented foods and in addition, it can serve as a probiotic which can be good to the host in that it can help in digestion, synthesis of vitamins, and can prevent colonization by pathogens. *Lactobacilli* are in association, although, in a commensal manner in large numbers during puberty and pregnancy and are also acidity maintainers, thereby preventing the pathogens to occupy the vaginal tract. They have also been declared to influence antiviral functions together with the suppression of virulence factors of pathogens based on recent studies. However, some categories of strains have been associated with life-threatening conditions such as endocarditis, meningitis, liver abscess, and bacteremia, particularly in immune-compromised clients. Regarding *Lactobacilli*, speciation has grown with methods such as MALDI-TOF, as it is faster and accurate than biochemical assays. Because their fermentative metabolism differs, they are grouped into the obligate homofermentative, facultative heterofermentative, and the obligate hetero-fermentative *Lactobacilli* that assist in their identification and functionality. *Lactobacilli* being the probiotics are known to be safe and effective as endorsed by such bodies as the US Food and Drug Administration and European Food Safety Authority. Prebiotics are most effective in preterm infants and neonates where they help in strengthening the Gut barrier and Immunity. Thus, two probiotic strains like *L. rhamnosus*, and *L. acidophilus* have shown some positive impacts against

different infections such as *Helicobacter pylori*, *Clostridium difficile*-associated diarrhea, and periodontitis. Nevertheless, one cannot disregard the possible pathogenicity of *Lactobacilli* as a number of strains are known to produce enzymes and organic acids which are hazardous to the human body. These examples of invasive infections stemming from strict regard for the use of probiotics only serve to enforce the prospect of heedful application of probiotics, especially to the vulnerable groups of people. Furthermore, diseases such as vaginal lactobacillosis are created to focus on the need for moderation in the consumption of probiotics. In summary, it can be seen that both, the roles and effects of *Lactobacilli* are twofold, as positive components with great potential for benefiting health as well as negative aspects that need further assessment.



Dr.Kavitha Prabhu

Title: MALDI-TOF MS Analysis to Detect the Prevalence of Non – albicans Candidemia with a Special Emphasis on Candida auris from a Tertiary care centre in Coastal Karnataka

Journal: Online Journal of Health and allied Sciences

Published year: 2024

Abstract:

Introduction: In hospitalized patients, candidemia accounts for considerable morbidity and mortality. Knowledge of local species epidemiology and antifungal susceptibility is important when considering therapy. This study was performed to speciate *Candida* isolates from inpatients admitted with blood stream infections in our hospital and to assess their risk factors. **Materials and Methods:** This present study of 2 years' duration was performed from April 2022 to March 2024. BacT/Alert aerobic culture bottle (bioMérieux, France) was used for all routine blood cultures and incubated for 5 days at 37°C. Any blood culture growing yeast was identified by Gram stain and MALDI-TOF MS (Bruker Daltonics). Disk diffusion method was used for antifungal susceptibility testing and test was performed according to clinical laboratory standard institute (CLSI) guidelines. **Results:** About 132 *Candida* isolates from blood were isolated in 2 years. Predominance of males (59%) was noted with the median age of 52 years. Majority were nonalbicans *Candida* (81.06 %) with *C. tropicalis*

(31.81%) and *C. auris* (13.63%). Susceptibility to fluconazole and voriconazole was 100% for both *C. albicans* and *C. tropicalis* isolates. Fluconazole resistance of 11.77% and 100% was observed in *C. parapsilosis* and *C. auris* isolates respectively. **Conclusion:** The predominance of non-albicans *Candida* with increasing fluconazole resistance and isolation of *C. auris* as the third most common non-albicans *Candida* species in this study is of concern. Accurate identification of non-albicans *Candida* specially *C. auris* and strict infection control policies should be in place to combat the spread of *C. auris* in the hospital

Title: Clinico-microbiological profile of urosepsis patients in a tertiary care hospital in India: A 1- year study

Journal: Journal of Laboratory Physicians

Published year: 2024

Abstract:

Objective: Urosepsis is a life-threatening bacterial infection resulting from a complicated urinary tract infection. Early diagnosis of urosepsis, its causative agent, and the susceptibility pattern are most important for accurate treatment to prevent mortality. Diagnosis includes recognition of the presence of sepsis and the investigations that help in the management of patients. The most common organism causing urosepsis is *Escherichia coli*, followed by other members of the *Enterobacteriaceae* family. With this background, this study was conducted to determine the clinical-microbiological profile of urosepsis patients in our tertiary care hospital. **Materials and Methods:** This was a prospective observational study; patients with clinical urosepsis and growing identical bacteria from both urine and blood cultures taken simultaneously are included in the study. The details of the clinical presentation and laboratory investigation results were recorded on an Excel sheet. **Statistical analysis:** Statistical analysis was done using IBM Statistical Package for the Social Sciences Statistics V.23. The categorical variables such as demographic, microbiological, and other laboratory characteristics and clinical outcomes were analyzed and expressed in terms of frequencies and percentages. Continuous variables were expressed in terms of median. Independent *t*-test, Mann–Whitney U-test, Chi-square test, or Fisher’s exact test were used wherever applicable. **Results:** We found 87 urosepsis patients in one year with a mortality rate of 22.98%. The mean age of the patients was 61.5 years, with majority (42.42%) above 65 years. Gram-negative bacilli were frequently isolated, with the highest number of *E. coli* (68.96%), followed by *Klebsiella pneumoniae* (20.68%). Sixteen (18.4%) of Gram-negative bacilli were Carbapenem-resistant *Enterobacteriaceae*. Multiple risk factors were seen in 58/87 (66.66%) patients, with diabetes mellitus as the most common risk factor. **Conclusions:** Urosepsis is a critical condition with a high mortality rate. Meropenem can be used as an empirical therapy with careful observation of patients in view of the occurrence of carbapenem resistance. A multidisciplinary team approach comprising intensive care specialists, urologists, radiologists, and microbiologists is very important for the effective and rapid management of urosepsis.



Gillaine Vail Pinto

Title: Identification of Dominant *Leptospira* Serogroups among Leptospirosis cases and their clinical outcomes: A Prospective Hospital – Based study in Mangaluru, India

Journal: American society of Tropical Medicine and Hygiene

Published year: 2024

Abstract:

Leptospirosis is a reemerging zoonotic disease of worldwide significance, endemic to the southern region of India, with clinical manifestations similar to other febrile illnesses; hence, it is often misdiagnosed and underreported. Inadequate information about the disease burden and the regional circulating serogroups contributes to its neglected disease status. This study aimed to identify the infecting *Leptospira* serogroup in the coastal region of Mangaluru and study the clinical symptoms and outcome among leptospirosis patients. Serum samples were collected from 30 patients with confirmed leptospirosis admitted to a tertiary care center in Mangaluru and screened by microscopic agglutination test (MAT) for the infecting serogroup. The clinical profile of these cases was reviewed, and data regarding epidemiological factors such as age, sex, complications, and mortality were recorded. The MAT identified a higher occurrence of serogroup Bataviae ($n = 7$, 43.75%) and serogroup Australis ($n = 5$, 31.25%) compared with other serogroups screened in this study population. Patients were aged 16 to 65 years, with a predominance of males. The clinical presentation of leptospirosis ranged from a mild febrile illness to multiorgan failure. Fever ($n = 29$, 96%) was the common clinical presentation, followed by myalgia, nausea, and abdominal pain. Acute kidney injury, acute respiratory distress syndrome, and multiple organ dysfunction syndrome were the common complications observed. Determining the circulating serogroup is necessary to understand the epidemiology and diversity of *Leptospira* serogroups among animals and humans to strategize appropriate preventive measures.

Title: Identification of circulating miRNA biomarkers in leptospirosis for early detection: a promising diagnostic approach

Name of the journal: Microbial Pathogenesis

Published year: 2024

Abstract:

Leptospirosis is a zoonotic disease of global significance, contributing to morbidity and mortality worldwide. It is endemic to tropical regions, with outbreaks during monsoons. The disease manifestations are similar to that of other febrile illness such as dengue, malaria hence often misdiagnosed and underreported. The zoonoses if undetected, progresses to cause severe life-threatening complications also known as Weil's disease. Routine diagnostic tests are based on the detection of antibodies in patient serum and are not accurate during the initial phase of the infection. Therefore, it is necessary to detect novel biomarkers that can be used in early detection of leptospirosis. Circulating miRNAs are known to be promising biomarkers for various diseases including cancer, tuberculosis, influenzae; hence in this study the potential of miRNAs as biomarkers for leptospirosis was evaluated. A total of 30 leptospirosis cases were screened for the differential expression of 10 miRNA by RT-qPCR assay. The differential expression was calculated by relative quantification using healthy individuals as controls. Among the 10 miRNA, 3 miRNA, miR-28-5p, miR-302c-3p and miR-302a-3p were reported to exhibit a significant trend of upregulation. Further their role in immune pathways and biological processes was investigated by KEGG analysis and Gene Ontology. The 3 miRNAs were observed to target various immune response pathways, thus confirming their role in host immune response. Based on the results obtained in this study, miR-28-5p, miR-302c-3p and miR-302a-3p can be considered as potential biomarkers for the detection of leptospirosis.



Dr. Prasanna N Bhat

Title: Gram Negative Bacterial Blood Stream Infections with Focus on Carbapenem Resistance: An Experience at a South Indian Tertiary Care Hospital

Journal: Online Journal of Health and Allied Sciences

Published year: 2024

Abstract

Aims and background: there is a lack of studies which determine the clinical outcomes and the characteristics of Gram-negative bacterial bloodstream infections (GNBSI) from India. In

this retrospective study we determine the risk factors for mortality in patients admitted at a tertiary care hospital with GNBSIs with focus on carbapenem resistant GNBSIs. **Materials and methods:** A total of 375 patients admitted to the hospital from August 2020 to May 2022, with monomicrobial GNBSI were included in the study. The baseline characteristics of the patients were compared based on the carbapenem susceptibility of the pathogens. The independent risk factors for mortality were assessed at 7 days and 30 days since the GNBSI episode by Cox proportional hazards model. A sub-analysis was also performed in the subset of patients with event of intensive care unit (ICU) admission during the hospital in the subset of patients with event of intensive care unit (ICU) admission during thwe hospital stay. **Results:** Carbapenem resistant GNBSIs were detected in 36.53% (137/375) patients. Overall crude in-hospital mortality rate was 40.8% (153/375) among patients. The most common pathogens isolated were Escheichia coli (28.0%, 105/375), Klebsiella pneumonia (26.7%, 100/375) and Acinetobacter species (17.3%, 65/375). **Conclusion:** Use of immunosuppressive drugs, ICU admission and need for vasopressors were independent risk factors for mortality. Among the 232 patients with ICU admission, carbapenem resistant Acinetobacter GNBSIs (CRA-GNBSIs) and Carbapenem resistant Klebsiella pneumoniae GNBSIs (CRKP-GNBSIs) were independent risk factors for mortality. There is a need for monitoring the carbapenem resistance and measures need to be taken to reduce it. Similarly, measures also need to be taken for early identifications and effective treatment of GNBSIs to facilitate better outcomes.



Dr. Sherin Justin

Title: Prevalence and Clinical Features of Clostridioides difficile Infections among Inpatients in a Tertiary Care Teaching Hospital: A Retrospective Cross-sectional Study from Southern India

Journal: National Journal of Laboratory Medicine

Published year: 2024

Abstract:

Introduction: Clostridioides difficile (C. difficile), once considered a nosocomial pathogen, is now increasingly being observed in the community. The organism is known to cause Antibiotic-associated Diarrhoea (AAD), Pseudomembranous Colitis (PMC), megacolon, and even death. **Aim:** To determine the prevalence of C. difficile in stool samples and to associate

the findings with the clinical presentation and risk factors of the patients. **Materials and Methods:** This retrospective cross-sectional study analysed 208 stool samples received for *C. difficile* detection at Father Muller Medical College Hospital, Mangaluru, Karnataka, India from January 2021 to January 2023 using the CerTest *C. difficile* Glutamate dehydrogenase (GDH)+ Toxin A+B onestep combo card test. The results were then associated with the clinical profiles of the patients retrieved from the hospital software, Backbone. Statistical analysis was performed using frequency, percentage, the Chi-square test, and the z-test. **Results:** Out of the 208 samples analysed from patients belonging to all ages, 20 samples (9.62%) harboured toxigenic *C. difficile*, while 22 samples (10.58%) contained non toxigenic *C. difficile*. Proton Pump Inhibitor (PPI) use and underlying diseases/conditions were identified as highly significant risk factors ($\chi^2 = 32.28$, $p\text{-value} < 0.001$, HS) among patients with toxigenic *C. difficile*, AAD was found to be statistically significant ($p\text{-value} = 0.030$, Sig) in toxigenic patients compared to those with non toxigenic *C. difficile*. **Conclusion:** The increasing presence of *C. difficile* in our community is a matter of concern. Continuous surveillance, vigilance, and appropriate preventive measures are crucial in mitigating the impact of *C. difficile* Infections (CDI) in hospitals and in the community.



Dr. Anup Shetty

Title: A Rare Case of Meningitis: can *Cellulosimicrobium cellulans* Cause Meningitis in a Non-immunocompromised Person?

Journal: Cureus

Published year: 2024

Abstract:

Infections with Gram-positive soil-dwelling *Cellulosimicrobium cellulans* bacterium are sporadic. Rarely, do patients with indwelling medical devices or those who suffer from immunosuppression get infected by this pathogen. However, based on routine clinical and laboratory procedures, it is hard to distinguish between the meningitis caused by *C. cellulans* and that from other bacteria. Here, we report a unique case of *C. cellulans* infection in a 37-year-old immunocompetent man presenting with meningitis associated with encephalopathy and headache. He presented with severe headaches, altered sensorium, reduced sleep, photophobia, and restlessness, with a feeling of impending doom, but with no neck rigidity and fever. Trans-axial T1 and T2/FLAIR head MRI showed diffused cerebral edema, with bilateral high frontoparietal sulcal enhancement, hyperintensity along the right

posterior insula-temporal region, and left parietal deep white matter. Lumbar puncture CSF examination indicated bacterial meningitis, and *C. cellulans* was identified on culture. The patient was administered intravenous ceftriaxone for seven days and dexamethasone for three days. A follow-up lumbar puncture CSF examination showed no signs of the pathogen, indicating its eradication. To our knowledge, this is the first case of *C. cellulans* causing meningitis in an otherwise healthy man with no history of indwelling medical devices or immunosuppression. This rare case of meningitis suggests that *C. cellulans* can infect healthy humans and cause meningitis.



**Dr. Thomas Sunder
Singh Kuruvilla**



Feba Johny

Title: Sputum Quality Assessment as a Useful Tool for distinguishing True pathogens from Colonizing Flora

Journal: RGUHS Journal of Allied Health Sciences

Published year: 2024

Abstract:

Background: Sputum quality assessment is an important tool that aids in distinguishing true pathogens responsible for respiratory tract infections. This study was done to assess the quality of sputum samples by Bartlett's grading system and use it as a tool to distinguish true pathogens from oropharyngeal colonizers. **Methods:** This was an observational prospective study in which a total of 92 sputum samples from the adult patients admitted in a tertiary care hospital suspected with lower respiratory tract infections (LRTIs) over a period of one year were analyzed. The quality of all samples was judged using the Bartlett's criteria. **Results:** Out of 92 samples 40 (43.4%) were found to contain potential pathogens 25 (62.5%) of these samples were deemed acceptable while the remaining 15 (37.5%) samples were considered unacceptable. The potential pathogens that were obtained from patients having LRTIs were *Pseudomonas aeruginosa* 14 (34.1%), *Klebsiella pneumoniae* 10 (25%), *Acinetobacter baumannii* 8 (19.5%), *Streptococcus pneumoniae* 5 (13%), *Escherichia coli* 2 (4.9%) and *Staphylococcus aureus* 1 (2.4%). **Conclusion:** The results of this study showed that sputum quality assessment by scoring system Gram stain and culture put together forms an integral

part of diagnosing patients with suspected clinically relevant LRTIs subsequently leading to better management of these cases.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant (extramural/intramural)
1	Prevalence of external spectrum betalctamase producing Klebsilla pneumonia isolates in a tertiary care hospital	Mr Vishnu Saseendran MSC MLT	Dr Meena Dias	No Grant
2	Role of serum procalcitonin in diagnostic of sepsis principle	Ms Marishka Fernandes MSC MLT	Dr Meena Dias, Dr Kavitha	No Grant
3	Evaluation of polymyxin B epsiolometer test susceptibility to multidrug resistant gram negative clinical isolates in a tertiary care centre	Ms Laveena Dsouza MSC MLT	Dr. Thomas S Kuruvilla	No Grant
4	Burden of aerobic vaginitis in the adult females presenting with vaginal discharge	Ms Adithya K S MSC MLT	Dr Prasanna N Bhat	No Grant
5	In –vitro evaluation of ceftazidime – avibactam and aztreonam synergy in carbapenem resistant enterobacteriales	Ms Priyanka S Purad MSC MLT	Dr Anup Kumar Shetty	No Grant
6	Bacterial pathogens from respiratory tract infections and determination of their antimicrobial susceptibility pattern	Ms Sowmya Pattanashetti MSC MLT	Dr. Sherin Justin	No Grant
7	Comparative study of microbiological analysis of water culture by multiple tube method and calorimetric method (HI MEDIA KIT)	Ms. Sowmya Jose BSC MLT intern	Dr. Rose Meroline Dsouza	No Grant
8	Clinico microbiological profile of secondary dengue infection	Ms. Teena Jasmine Dsouza Bsc MLT intern	Dr Kavitha	No Grant
9	Burden of cryptosporidium infection in patients with diarrhea	Ms. Vinet Jevisha Dsouza BSC MLT intern	Dr. Prasanna N Bhat	No Grant
10	Genomespecies characterization of Acinetobacter isolated from clinical specimen by maldi tof analysis - A retrospective study	Mr. Nazareth Melroy Francis BSC MLT Intern	Dr. Beena Antony	No Grant
11	Determination of prevalence and antimicrobial susceptibility pattern of methicillin resistant staphylococcus aureus isolated from clinical sample in a tertiary care teaching hospital, Karnataka	Ms Chaithanya Nayak BSC MLT Intern	Dr. Sherin Justin	No Grant
12	Detection of biofilm and antimicrobial resistance of clinical isolates of	Ms Renita Lasrado BSC	Ms Swathi Pangal	No Grant

	<i>Pseudomonas aeruginosa</i>	MLT Intern		
13	Occurrence of Bacterial Vaginosis among non pregnant out – patients with vaginal discharge attending a tertiary care hospital	Ms Aysha Mihaal II BSC MLT	Dr Anup , Dr Prasanna	No Grant
14	Development and clinical trail of machine learning and genome based rapid diagnostic tool for antimicrobial resistant tuberculosis and discovery of novel clinical biomarkers	Dr. Animikh Ray	Dr. Beena Antony, Dr Thomas S Kiruvilla, Dr Anwasha Chatterjee, Dr Shyam Lal, Dr Mohammad Rizwanur, Dr Rajas M Rao	No Grant
15	Development and standardization of external quality assurance (EQA), material for infectious diseases serological diagnosis	Dr Beena Antony	Dr Kavitha	Extramural
16	eroprevalence and demographic profile of Hepatitis A in Coastal Karnataka	Dr. Kavitha	-	Intramural
17	Evaluation of antibiogram, β -lactamase production and antimicrobial action of <i>accia milotica</i> against ESKAPE pathogens in a tertiary care hospital in Coastal Karnataka	Mr David Mathew II MBBS 2022 batch	Dr Beena Antony	RGUHS UG grant
18	Characterization of Bifidobacterium strains from human faeces and dairy products by MALDI TOF analysis & demonstration of Antagonistic activity against potential microbial pathogens	Mr R Vaibhav Shet II MBBS 2022 batch	Dr Beena Antony	ICMR UG grant
19	Antibacterial activity of cinnamon (<i>cinnamomum zeylanicum</i>) bark extract against ESKAPE pathogens from clinical samples	Ms Melaine Angelica Lewis II MBBS 2022 Batch	Dr Kavitha	ICMR UG grant

Awards:

- Dr. Beena Antony won the **Best Oral Paper (Free Oral Paper Category)** in the 47th Annual Congress of Indian Association of Medical Microbiologists organized by the Department of Microbiology, BJ Government Medical College, Pune held at TipTop International, Pune from 21st -24th November 2024.



Presentations:

- **Dr. Beena Antony** won the **Best Oral Paper (Free Oral Paper Category)** on the topic “**Analysis of ‘In-vitro’ probiotic potential of lactobacilli & Bifidobacteria against various gastro intestinal & vaginal anaerobic pathogens**” in the 47th Annual Congress of Indian Association of Medical Microbiologists organized by the Department of Microbiology, BJ Government Medical College, Pune held at TipTop International, Pune from 21st -24th November 2024.

Nephrology

Research Projects 2024

Sl no.	Title of the Project	Investigator	Funding Source	Grant
1	Drug induced acute kidney injury in patients with sepsis	Dr. Amith Vijay Leon Dsouza	Extramural	-

Clinical Trials ongoing:

Sl no	Title of the Project	Investigator	Co-investigator	Funding Source	Grant
1	Aldosterone bloCkade for Health Improvement Evaluation in End-stage renal disease (ACHIEVE)	Dr. Manjunath J	Dr. Chandralekha	Extramural	PHRI Canada
2	CAPIVATE: Multinational trial of finerenone on CKD patients	Dr. Manjunath J	Dr. Amith Vijay Lenon Dsouza, Dr. Sudeep K	Extramural	George Institute India

Case Reports:

Sl no	Title	Investigator(s)	Journal	Publication Date
1	Unusual presentation of Sjogren's syndrome during pregnancy: a case report	Vijay Sundarsingh, R. Manoj Kumar, Manjunath Kulkarni, Firas Rauf Mammoo, Pramela Renisha Rodrigues, Y. M. Prashanth	Journal of Medical Case Report	4 May 2024
2	Bronchiectatic Actinomyces with Osseous Metaplasia Masquerading as Lung Cancer	Archana Bhat, Manjunath J, Don Mascarenhas	Turkish Journal of Pathology	2 Sep 2024

Publications:



Dr. Manjunath Kulkarni

Title: Intervention Review- Interventions for preventing haemodialysis dysequilibrium syndrome

Journal: Cochrane Database of Systematic Reviews

Published Year: 2024

Abstract:

Background: Dialysis dysequilibrium syndrome (DDS) refers to neurological symptoms usually seen during or after new initiation or following reinitiation of haemodialysis (HD) after missing multiple sessions. DDS is associated with death and morbidity. We studied interventions aimed at preventing DDS. **Objectives:** To evaluate the benefits and harms of different types of interventions for preventing DDS. **Search methods:** We contacted the information specialist and searched the Cochrane Kidney and Transplant Register of Studies up to 8 May 2024 using search terms relevant to this review. Studies in the Register were identified through searches of CENTRAL, MEDLINE, and EMBASE, conference proceedings, the International Clinical Trials Registry Platform (ICTRP) Search Portal, and ClinicalTrials.gov. **Selection criteria:** We included randomised controlled trials (RCTs) that compared any intervention against standard care, including individuals initiated on HD, regardless of age. **Data collection and analysis:** Two authors independently determined study eligibility, assessed quality and extracted data. Data were collected on methods, interventions, participants, and outcomes (DDS incidence, severe DDS, death, adverse events). Risk ratios (RR) and confidence intervals (CI) were calculated. Study quality was assessed using the Cochrane Risk of Bias 2 (ROB2) tool. Confidence in the evidence was assessed using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach. **Main results:** We included two RCTs, enrolling 32 adult participants. Interventions included were slow dialysis, sodium modelling, standard sodium dialysate, and high sodium dialysate. The risk of bias was of some concern to high risk of bias in both studies. Slow dialysis compared to sodium modelling (1 study, 15 participants) may result in little to no difference in DDS, severe DDS, and death (low certainty evidence) and has uncertain effects on adverse events (RR 1.33, 95% CI 0.15 to 11.64; very low certainty evidence). Standard sodium dialysate compared to high sodium dialysate (1 study, 17 participants) has uncertain effects on the incidence of DDS (RR 0.07, 95% CI 0.00 to 1.12), severe DDS (RR 0.47, 95% CI 0.02 to 10.32), and adverse events (RR 0.29, 95% CI 0.08 to 1.02) (very low certainty evidence). **Authors' conclusions:** In HD patients, sodium modelling, compared to slow dialysis, may result in little to no difference in DDS and death

(low certainty evidence) and has uncertain effects on adverse events (very low certainty evidence). The evidence is very uncertain for the effect of high-sodium dialysate and standard sodium dialysate on DDS, death and adverse events (very low certainty evidence).



Dr. Amith Vijay Leon Dsouza

Title: The Renal Resistive Index as A Early Predictor of Renal Dysfunction in Patients With Type 2 Diabetes Mellitus

Journal: Clinical and Research Journal in Internal Medicine

Published Year: 2024

Abstract:

Background: Type 2 diabetes develops over a long period of time, represents 85–90 per cent of all cases of diabetes. Diabetic nephropathy is a relatively common form of chronic renal disease. It is the most constant microvascular complication in diabetic patients. Conventional ultrasound and colour Doppler provide easily available, affordable and non-invasive follow up method for evaluation of kidneys in diabetic nephropathy. **Aim:** The purpose of this study is to assess the intrarenal resistivity index by Doppler ultrasonography in a group of diabetics with normal renal function in comparison to non diabetic controls and correlating them with biochemical parameters. **Materials and Methods:** The study was done over a period of 2 years from October 2020 To October 2022. The study I a case control study we evaluated the intra-renal hemodynamic changes with Doppler sonography in diabetic patients in comparison to non-diabetic controls, All the data was expressed as mean + SD. Differences between the two groups was analysed by t test and chi-square test. Categorical data expressed as frequency and percentages. **Results and Observations:** The mean age in the diabetic group was 58.84 years SD + 15.61 years and age - non diabetic group was 56.66 years SD + 14.09 years. There was a negative correlation between age and diabetes mellitus with nephropathy, $p > 0.0784$ $r = -.026$. A significant the correlation of the Mean resistivity index RI of the right kidney at the hilum was 0.63 the correlation was positive that is the resistance increased in diabetes mellitus as compared to non diabetic and this was significant with a p-value 0.049 significant. All the resistive indices were higher in the diabetic than the non diabetic individuals, the highest being in the midpole and it was statistically significant at all places in both kidneys with a p value < 0.05 . **Conclusion:** The renal Doppler indices are good indices to evaluate the renal dysfunction in the early stages. In this study, the blood sugar levels of all cases were at least moderately controlled, yet the renal indices showed gross anomaly even though the creatinine clearance was well above normal limits.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide
1	Frequency and clinical profile of patients with intradialytic hypertension on maintenance hemodialysis in a tertiary care center	Dr. Uday kiran raju kallepalli	Dr. Manjunath j
2	To study clinical and microbiological profile of type-2 diabetes mellitus patients with urinary tract infections	Dr. Mashud mohd essar husnain khan	Dr. Amith vijay leon d`souza
3	Clinical profile and outcomes of patients with cardiorenal syndrome admitted to a tertiary care center	Dr. Bhargavi rama bhojaraju	Dr Manjunath J
4	A study of quality of life in a patient on hemodialysis therapy at fmmch mangalore	Dr. Diljeet bodra	Dr Amith Leon Vijay D`Souza
5	Clinical presentation and histopathological diagnosis of patients undergoing renal biopsy in a tertiary care centre	Dr. Anantha Padmanabhan	Dr. Manjunath j

Obstetrics & Gynaecology

Research Projects 2024

S. No	Title of the Project	Investigator	Funding Source	Grant Amount (Rs.)
1	To evaluate the potential role of Vitronectin and Glycosylated fibronectin as novel biomarkers of Gestational Diabetes mellitus	Dr. Deepa Kanagal	RGUHS /Self	3,50,000/-

Publications:



Dr. Jyotsna Mirabel Coelho

Title: Serum Co-peptide biomarker of polycystic ovarian syndrome and its co-relation with metabolic syndrome components: A cross-sectional analytical study

Name of the journal: Journal of Clinical diagnostic research

Published year: 2024 July

Abstract:

Introduction: Approximately 5 to 10% of women of reproductive age suffer from the prevalent endocrine illness known as Polycystic Ovarian Syndrome (PCOS). Co-peptin, irrespective of age and weight, has been found to have significant associations with cardiometabolic parameters. Studies on the diagnostic and prognostic significance of co-peptin and its correlation with components of metabolic syndrome in PCOS are scarce, particularly in the Indian context. **Aim:** To assess the utility of co-peptin as a diagnostic marker of PCOS and to evaluate the correlation of serum co-peptin levels with metabolic syndrome components in women with PCOS. **Materials and Methods:** This cross-sectional analytical study was conducted at Father Muller Medical College Hospital, Mangalore,

Karnataka, India, from June 2022 to September 2023. A total of 60 subjects with PCOS were selected through convenient sampling and divided into two groups: Group: 1. subjects with PCOS having metabolic syndrome, and Group: 2 subjects with PCOS but not having metabolic syndrome. Blood samples for serum copeptin were taken under aseptic precautions, and levels were analysed using a commercially available Enzyme-Linked Immunosorbent Assay (ELISA) kit (Biovendor, USA) following the manufacturers' instructions. The copeptin ELISA kit had an assay range of 0-100 pmol/L and results were expressed in ng/mL. Serum insulin levels were measured using specific Electrochemiluminescence immunoassays. Levels of total cholesterol, High-Density Lipoprotein Cholesterol (HDL-C), and Triglycerides (TG) were determined with enzymatic colorimetric assays by spectrophotometry. Low-Density Lipoprotein Cholesterol (LDL-C) was calculated using the Friedewald formula. Insulin resistance was calculated using the Homeostasis Model Assessment Insulin Resistance Index (HOMA-IR). Statistical analysis was done by using descriptive statistics. A comparison was done by student's unpaired t-test. The chi-square test and Pearson correlation test were used for categorical data. The Statistical Package for Social Sciences (SPSS) version 24.0 was used for analysis. **Results:** The mean age of the study participants was 24.24 ± 4.721 years, ranging from 15 to 43 years. The mean age of patients with metabolic syndrome was 23.96 ± 6.3 years, while those without metabolic syndrome was 24.40 ± 3.52 years. The mean Body Mass Index (BMI) was 31.17 ± 5.38 in those with metabolic syndrome and 23.2 ± 4.7 in those without ($p=0.0001$). The Waist- to-Hip Ratio (WHR) of Group 1 was significantly higher than Group 2 ($p=0.001$). The two groups did not differ significantly with regard to serum copeptin level, i.e., 7.386 ± 4.58 in Group 1 and 8.66 ± 6.03 in Group 2 ($p=0.736$). Serum copeptin levels showed a significant correlation with fasting serum insulin (0.006) and Homeostatic Model Assessment - Insulin Resistance (HOMA-IR) (0.012). **Conclusion:** Serum copeptin cannot be used as an independent marker for the diagnosis of metabolic syndrome in PCOS patients but may indicate other prognostic factors.



Dr. Prathima Prabhu

Title: Awareness of periconceptional use of folic acid to prevent neural tube defects in young females in Dakshina Kannada region, India: A Cross sectional study

Journal: Journal of Clinical and Diagnostic research

Published year: 2024 July

Abstract:

Introduction: Neural Tube Defects (NTDs) are one of the common congenital anomalies leading to miscarriages and serious disabilities in newborns. NTDs are the second most common type of birth defects. Even though the aetiology of NTDs is multifactorial, Folic Acid (FA) deficiency is the most common cause. There are limited Indian studies on awareness of FA usage in the general public. **Aim:** To assess the awareness and usage of FA to prevent NTDs in young ladies of Mangaluru, Dakshina Kannada (DK) district, Karnataka, India. **Materials and Methods:** It was a community-based cross-sectional study conducted at Father Muller Medical College in Dakshina Kannada district, Mangaluru, Dakshina Kannada (DK) district, Karnataka, India from August 2023 to October 2023. A total of 300 young Indian females aged 18-35 years, residing in the study district, were randomly chosen as participants. Data were collected by an interviewer using a semistructured questionnaire with two components. Part 1 focused on socio-demographic details, while Part 2 gathered information on the awareness of FA supplements, dietary sources of FA, the best time, and dosage of FA supplements to prevent NTDs. Descriptive analysis of the data was done. **Results:** The study included 90 married and 210 unmarried females. The average age of the participants was 23.7 ± 5.7 years. The study results observed that only 103 (34%) of the participants had heard about FA supplements. A total of 240 (80%) of them said they were not aware of the preferred time for FA. Only 9 (3%) females could mention the correct dose of FA. **Conclusion:** The study results indicate a gross lack of awareness about FA supplements to prevent NTDs in the general population of the region.



Dr. Chethana B

Title: Evaluation of the effect of cold normal saline as a carrier fluid in reducing

Name of the Journal: Indian Journal of Clinical Anesthesia

Published year: 2024

Abstract:

Background: Pain or discomfort during intravenous injection is a common unwanted result of Propofol, and can lead to dissatisfaction. Various methods are used to reduce 'pain on propofol injection' (POPI), among which mixing lignocaine with propofol is commonly used. However mixing lignocaine destabilises propofol, leading to reduced anaesthetic properties

of propofol, warranting the use of other methods. Cold temperatures reduce nerve conduction velocity resulting in decreased pain signal transmission and have vasoconstrictive properties which reduce local tissue irritation, potentially minimizing pain. **Aim and Objective:** To evaluate cold normal saline (at 4° C) as carrier fluid in reducing POPI compared to normal saline at room temperature, with a primary objective of assessing the incidence and severity of pain using a pain score and a secondary objective of assessing postoperative recall in both the groups. **Materials and Methods:** A single-blinded prospective randomized controlled trial was conducted involving 76 patients undergoing general anaesthesia for elective surgeries. The patients were randomly assigned to two groups: Group C received cold saline (at 4°C) and Group R received room temperature saline as carrier fluids during propofol administration. Pain during injection was recorded using pain score, Heart rate changes before and after propofol administration, and Postoperative recall of injection pain was assessed. **Result:** The incidence of pain was significantly lower in Group C (52.6%) compared to Group R (81.57%) (p=0.007). Group R had a higher severity of pain, with more patients experiencing moderate to severe pain. Group R also showed an increase in heart rate (3.46%) compared to Group C (0.27%) (p=0.027). Postoperative recall of injection pain was more frequent in Group R than in Group C. **Conclusion:** Cold normal saline as a carrier fluid (at 4°C) effectively reduces pain associated with propofol injection. This technique helps to enhance patient comfort and satisfaction, making it a valuable addition to clinical practice.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Cerebroplacental ratio as predictor of neonatal hypoxemia in pregnant women with reduced fetal movements at term.	Dr. Rishika Billava	Dr. Sujaya V. Rao	Self funded
2	Assessment of anal sphincter measurements inpre and postnatal vaginal delivery	Dr. Athira Raj	Dr. Shannon Fernandes	Intramural
3	serum c-peptide as a predictor of pregnancy Outcomes in euglycemic and diabetic pregnancies	Dr. Kezia Pauline	Dr. Joylene Fernandes	Self funded
4	“role of third trimester fetal echocardiography in Predicting neonatal outcome in high-risk pregnancy”	Dr. Teresa Benny	Dr. Sujaya V. Rao	Self funded
5	Comparison of insulin resistance in lean vs obese polycystic ovarian syndrome (PCOS)	Dr. Sukrutha	Dr. Deepa Kanagal	Intramural
6	Role of S100 SB molecule in central nervous system manifestations in pre eclamptic antenatal mothers compared to normal healthy mothers	Dr. Shilpa	Dr. Mahesha Navada/Dr.Shiv ashankara	Self funded
7	Evaluation of ultrasonographic fetal adrenal gland dimensions for the prediction of mode of delivery after labour induction among term pregnancy	Dr. Catherine preethi	Dr Joylene Diana Fernandes	Self funded

8	To study the composition of gut microbiota in women with PCOS- a semiquantitative study	Dr. Monika Y	Dr. Deepa Kanagal	Self funded
9	Assessment of NESTROFT and Complete Blood Count as screening methods for hemoglobinopathies during pregnancy	Dr. Divyashree	Dr. Sujaya V. Rao	Intramural
10	Evaluation of Hypophosphaemia after parenteral iron in postpartum anaemic mothers	Dr. Sinchana H.U.	Dr. Shannon Fernandes	Self funded
11	Comparative study of anaemia and coagulation parameters during pregnancy and its relationship to postpartum haemorrhage	Dr. Roshni Ravi	Dr. Ambika Hegde	Self funded
12	Fibrosis index based on four factors as a prognostic indicator of Non alcoholic fatty liver among women with PCOS	Ms. Rhea Raj,	Dr. Joylene D'Almeida	ICMR
13	The Role of Urogenital infections in the etiology of preterm Labor and premature rupture of membranes	Mr. Deepesh Choudhary	Dr. Vismaya Kaveri	ICMR

Awards:

Dr. Rakshitha Naryan, a final-year P.G., under the guidance of **Dr. Prathima Prabhu**, Associate Professor, won **1st prize** for her paper presentation titled "*Comparison of Cord Blood Ischemia Modified Albumin Levels in FGR Foetuses with AGA Fetuses: A Case-Control Study*" at the 4th YUVA KSOGA State Conference 2024, held at KMC, Manipal, from 13th to 14th April 2024.



Dr. Deepa Kanagal won **2nd prize** for her poster presentation titled "*Shadow to Sunshine: Mystery Resolved*" at the *Eve of Endoscopy* conference held at ITC Gardenia, Bengaluru.

Ms. Anitta Thomas (MBBS 2021 batch) was awarded **Best Case** for her case presentation titled "*Tumors Triad: A Surgical and Diagnostic Challenge of Giant Ovarian Tumor and Solid Invasive Papillary Carcinoma Breast*," guided by **Dr. Sujaya V. Rao**, at *JIBICON 2024 – National Medical Conference* held at Jubilee Mission Medical College, Thrissur, on 20th–21st October 2024.

Ms. Caroline Castelino (2021 batch) won **1st Prize** for her case presentation titled "*Heterotopic Pregnancy: Intrauterine Gestation with Ruptured Tubal Ectopic*," guided by **Dr. Prathima Prabhu**, at '*STKIATUM 2.0*' - *International Undergraduate Medical Conference* hosted by Indira Gandhi Medical College, Puducherry, from 20th–24th July 2024.

Ms. Prithika K.B. (MBBS 2020 batch) secured **2nd place** in Clinical Case Presentation at '*EMPOWER 24*' - *International Conference* hosted by Govt. Stanley Medical College, Chennai, on 20th June 2024, under the guidance of Dr. Prathima Prabhu.

Presentations:

Dr. Venita Roshal Fernandes presented her paper titled "*Pancreatitis in Pregnancy – A 5-Year Journey Through Challenges and Triumphs*" at the *4th YUVA KSOGA Conference 2024*, held at K.M.C., Manipal, from 13th–14th April 2024.

Dr. Deepa Kanagal presented her paper titled "*A Young Nulliparous Woman Presented with Secondary Amenorrhea, Infertility, and Gross Hirsutism Unresponsive to Therapy*" at the *Eve Endoscopy Conference* at ITC Gardenia, Bangalore, from 4th–6th October 2024.

Medical Oncology

Research Projects:

S. No	Title of the Project	Investigator
1	Cutaneous Histiocytic Sarcoma In A Patient With B Cell- All: A New Unknown Enemy After Initial Victory	Dr. Namratha N, Dr. Kunal Sharma, Dr. Nishitha Shetty , Dr. Dinesh Shet
2	Clinical Profile Of Pancreatic Adenocarcinoma At A Tertiary Care Hospital In South India	Dr.Bharat, Dr. Nishitha Shetty
3	Effect of single dose of intramuscular vitamin D in patients receiving chemotherapy and its role in reducing chemotherapy toxicities-A prospective Study	Dr.Namratha, Dr.Nishitha Shetty
4	Fecal Culture Differences in Indian Cancer Patients Undergoing Chemotherapy and Immunotherapy	Dr. Jason F Joekim, Dr. Nishitha Shetty
5	Randomized Controlled Prospective study on the Effect of Metformin in Reducing Tamoxifen- Induced Fatty Liver in Premenopausal Breast Cancer Patients	Dr. Jason F Joekim, Dr. Nishitha Shetty
6	Comparison of geriatric assessment scales in oncology clinic –A single institute Study	Dr.Namratha, Dr.Nishitha Shetty, Dr.Anit Jacob
7	Melanoma survival rates at a tertiary care hospital in south India	Dr.Cheryl D Mello, Dr.Nishitha Shetty
8	Role of oral metronomic Chemotherapy in triple negative breast Cancer in Indian Population	Dr.Bhagyashree, Dr.Nishitha Shetty

Clinical Trials:

S.No	Title of the Project	Investigators	Funding Source	Grant Amount
1	A Prospective, Multicenter, Open-label, Phase IV, Interventional Study to Assess the Safety and Efficacy of Capmatinib in Indian Patients with Mesenchymal-Epithelial Transition (MET) exon 14 Skipping Mutation Positive Metastatic Non-Small Cell Lung Cancer (NSCLC)	Dr. Dinesh Shet, Dr. Nishitha Shetty	Novartis	173000

Case Report:

S.No	Title	Investigator	Journal	Issue
1	Comprehensive Management Of Acute Promyelocytic Leukemia (Apml) Complicated With Intracranial Haemorrhage And Differentiation Syndrome: A Multidisciplinary Case Report	Dr. Nishitha Shetty, Dr. Subhoth. R. C, Dr. Dinesh Shet	International Journal Of Scientific Research	2024

Publications:



Dr. Dinesh Shet



Dr. Nishitha Shetty

Title: Insights Into Duodenal Adenocarcinoma: Clinical Presentation, Survival Outcomes, And Treatment Trends - A Long-Term Follow-Up Study

Journal: Indian Journal of Medical and Paediatric Oncology

Published year: 2024

Introduction: Duodenal adenocarcinoma (DA) is a rare and aggressive malignancy, representing less than 0.5% of all gastrointestinal cancers. It constitutes a significant portion (55.7%) of small bowel adenocarcinomas, most of which arise in the second part of the duodenum, followed by the third and fourth parts. Despite its rarity, DA presents substantial challenges in diagnosis and treatment due to its aggressive nature and often insidious onset.

Objectives: The aim of the study is to investigate the clinical presentation, prognostic factors, survival outcomes, and treatment strategies in DA, with a focus on surgical and adjuvant therapeutic interventions. Additionally, the study aims to elucidate patterns of recurrence and identify areas for future research to optimize therapeutic approaches and enhance patient care.

Materials and Methods: This retrospective observational study (2015–2023) analyzed patients aged 18 to 90 years with DA. Data from case sheets, laboratory investigations, and medication charts were reviewed. This study aims to explain demographic characteristics, clinical presentations, treatment trends, and survival outcomes to improve therapeutic strategies and patient care in DA patients, excluding other gastrointestinal cancers.

Results: The study examined 10 cases of DA diagnosed between 2015 and 2023. The patient cohort had an equal gender distribution, with ages ranging from 53 to 83 years. Chief presenting symptoms included abdominal pain (90%) and vomiting (50%). Tumor markers were elevated in 40% of patients. Tumor locations predominantly included the D2 region. Three patients underwent Whipple's surgery and three received chemotherapy with curative intent.

Conclusion: The study highlights the challenges associated with DA, including its rare incidence, clinical presentations, and variable treatment outcomes. Surgical interventions such as the Whipple procedure and adjuvant chemotherapy show promise in improving survival rates. Further studies with larger cohorts are essential to better understand the disease, refine therapeutic strategies formulate separate guidelines for DA, and enhance patient outcomes.

Ophthalmology

Research Projects 2024:

Sl.No	Title of the Project	Investigator(s)	Funding Source	Grant
1	Validation of Kestenbaum number in various types of optic atrophy	Dr. Madhurima, Dr. Akshata	Nil	Nil
2	Assessment of ocular manifestations in metabolic syndrome	Dr. Madhurima, Ms. Anushka, Dr. Shruti Pai	Nil	Nil
3	Pattern of acceptance of progressive spectacles among presbyopes and its relation to refractive status	Dr. Sunayana, Dr. Madhurima, Dr. Akshata	Nil	Nil
4	Comparison of pain perception during intravitreal anti-VEGF injection by topical versus modified topical anesthesia	Dr. Sripathi, Dr. Akshata Charlotte	Nil	Nil
5	Effect of preoperative pupillary dilatation on pupil size on the day of cataract surgery	Dr. Sripathi, Dr. Madhurima	Nil	Nil
6	Clinico-Radiological correlation in Traumatic Optic Neuropathy	Dr. Sripathi, Dr. Madhurima, Dr. Jessel	Nil	Nil

Case Reports:

Sl. No	Title	Investigator(s)	Journal	Volume	Issue
1	Bilateral optic disc pit coexistent with coloboma and maculopathy	Dr. Madhurima A Nayak, Sagar Agarwal	BMJ	17	8
2	Acute macular neuro retinopathy following Valsalva manoeuvre: an insight into the pathophysiology	Sagar Agarwal, Dr. Madhurima A Nayak, Saurabh Luthra, Shweta Parakh	BMJ	17	5
3	Idiopathic orbital inflammatory disease - a diagnostic dilemma	Sarita Lobo, Geover Joslen Lobo	BMJ	17	8
4	Routine fundoscopy: Unravelling undiagnosed significant coarctation of the aorta	Sripathi Kamath, Akshata Charlotte, Pooja Peethambaran, Madhurima Nayak, Sunayana Bhat	BMJ	17	8

Sl. No	Title	Investigator(s)	Journal	Volume	Issue
5	Topiramate-induced ocular complications: case series	Sarita Lobo, Geover Joslen Lobo	Romanian Journal of Ophthalmology	-	-
6	Congenital retinal eye disorders with poor visual outcome from a developing country: A case series	Sarita Lobo, Geover Joslen Lobo	Journal of Clinical Ophthalmology and Research		

Publications:



Dr. Sarita Lobo

Title: How severe are ocular surface abnormalities 3 months following cataract surgery? An observational study

Journal: Journal of clinical Ophthalmology & Research

Published year: 2024

Abstract:

The aim of this study was to detect the pattern of ocular surface changes seen 3 months after undergoing phacoemulsification or manual small-incision cataract surgery (SICS) and match them with age-matched normal individuals. **Materials and Methods:** A prospective observational study was conducted in the ophthalmology outpatient department (OPD) in a tertiary care center. Consecutive patients coming to OPD were grouped into three study groups – Group 1 included 25 patients who had undergone manual SICS, Group 2 included patients who had undergone clear corneal phacoemulsification surgery, and Group 3 included age-matched controls. Patients with ocular and systemic diseases were excluded. All the patients underwent Schirmer’s test, tear film breakup time, ocular surface staining, and ocular surface disease index score. One-way analysis of variance test was used for the comparison of data, and $P = 0.05$ or less was considered to indicate a significant difference. **Results:** Significant dry eye changes after 3 months of cataract surgery were present in SICS and Phacoemulsification groups as compared to age-matched normals (p -value < 0.05), but there was no significant difference between SICS and Phacoemulsification surgery groups in the

incidence of dry eye incidence. **Conclusion:** Dry eye symptoms are significant following cataract surgery irrespective of the type of surgery either SICS or phacoemulsification.

Key words: Cataract surgery, dry eye, ocular surface abnormalities

Title: Comparative analysis of Dry Eye Questionnaire 5 and Ocular Surface Disease Index in assessing dry eye symptoms.

Name of the journal: Journal of clinical Ophthalmology & Research

Published year: May-Aug 2024

Abstract:

Aim: To compare the performance of the Dry Eye Questionnaire (DEQ-5) questionnaire with the Ocular Surface Disease Index (OSDI) questionnaire and check its application in large screening camps or nonclinic-based settings. **Study Designs:** Cross-sectional observation study. **Purpose:** To evaluate the DEQ 5 questionnaire by comparing its performance to that of OSDI in assessing dry eye. **Materials and Methods:** A cross-sectional study comparing the performance of two questionnaires was conducted. Demographic information was collected. The Cronbach's alpha reliability and correlation were determined using the Pearson correlation coefficient. **Results:** The reliability of both the DEQ 5 and OSDI was 0.52 and 0.78, respectively. There was a statistically significant correlation between both questionnaires. ($r = 0.6$, $P < 0.050$). **Conclusion:** DEQ-5 questionnaire can serve as a useful tool for evaluating and monitoring in various dry eye settings in comparison to OSDI. **Key words:** Dry eye disease, Dry Eye Questionnaire 5, Ocular Surface Disease Index

Title: Effects of intravitreal bevacizumab (Avastin) monotherapy in central retinal vein occlusion in young subjects

Journal: Romanian Journal of Ophthalmology

Published year: July-Sep2024

Abstract:

Aim: To evaluate the efficacy of anti-angiogenic agent Bevacizumab in central retinal venous occlusion treatment. **Objectives:** To determine the efficacy of Bevacizumab and ophthalmological parameters such as best corrected visual acuity (BCVA) and central macular thickness (CMT) using optical coherence tomography (OCT) in central retinal venous occlusion in patients aged less than 30. **Methods:** This is a prospective, interventional study, done on 25 eyes of 25 patients aged 30 years and below with central retinal venous occlusion, who received intravitreal Bevacizumab injections for three consecutive months. The mean change in best corrected visual acuity (BCVA), and central macular thickness (CMT) measured by optical coherence tomography were compared and correlated at baseline after 3 months and 6 months follow-up. **Results:** The mean best corrected visual acuity and

the central macular thickness on OCT improved significantly from 1.08 ± 0.29 and $454.80\pm 114.5\mu\text{m}$ at baseline to 0.77 ± 0.32 logMAR units and $339.7\pm 82.5\mu\text{m}$ after 6 months follow up. **Conclusion:** The current study showed that intravitreal Bevacizumab at a dose of 1.25 mg and with strict control of systemic contributory parameters seemed to improve BCVA and CMT and macular edema measured at baseline to 3 months and 6 months follow-up after three consecutive monthly injections. **Keywords:** central retinal venous occlusion, central macular edema, central macular thickness (CMT), best corrected visual acuity (BCVA)

Title: Idiopathic orbital inflammatory disease - a diagnostic dilemma

Journal: Romanian Journal of Ophthalmology

Published year: Oct- Dec 2024

Abstract:

Orbital pseudotumor is nonspecific orbital inflammation (NSOI). It is a benign, non-infectious, space-occupying inflammatory lesion of the orbit. NSOI can affect various tissues in the orbit, such as the lacrimal gland and extraocular muscles. The most common classification is based on clinical presentation. Bacteria, viruses, fungi, or parasites can cause infectious orbital inflammation. It is a diagnosis of exclusion after ruling out inflammatory, infectious, and neoplastic causes. We present a case of a male in his sixties who presented with progressive pain, swelling, blurry vision, and forward protrusion of his right eye. He had no history of trauma or recent illness. His general physical and systemic examination was within normal limits. His ocular examination showed eyelid edema, erythema, eccentric proptosis, and a mature cataract in his right eye. His left eye showed a lenticular opacity. CT orbit revealed a homogenous isodense lesion observed without any globe distortion. A diagnosis of orbital pseudotumor was made. The patient was treated with oral corticosteroids, and an excision biopsy was done, resulting in symptomatic improvement and regression of inflammation at follow-up. In complex cases of inflammatory orbital pseudotumor, particularly those with granulomatous inflammation, some initial success has occurred with monoclonal antibodies against tumor necrosis factor (TNF)-alpha or with lymphocyte depletion using rituximab. Our patient, however, responded well to an excision biopsy and a course of oral steroids.

Keywords: idiopathic orbital inflammation, proptosis, pseudotumor Abbreviations: OID = Orbital Inflammatory Disease, h/o = history of, PL = perception of light, NRTL = normally reactive to light, NSOI = nonspecific orbital inflammation, IOI = idiopathic orbital inflammation



Dr. Sunayana Bhat

Title: Comparing the prevalence of lattice degeneration and requirement of barrage laser in different grades of myopia

Journal: Kerala Journal of Ophthalmology

Published year: Jan- April 2024

Abstract:

Purpose: One of the common forms of retinal degeneration noted in myopic individuals is the lattice degeneration, which may progress to rhegmatogenous retinal detachment. In clinical practice, patients with moderate and high myopia undergo frequent evaluation of peripheral retinal degeneration and prophylactic barrage laser treatment is performed when indicated. However, patients with mild myopia are not routinely screened for degeneration.

Aims: To compare the prevalence of peripheral retinal degeneration and to also compare the presence of sight-threatening degeneration requiring barrage laser treatment in patients with different degrees of myopia. **Materials and Methods:** In this study, we enrolled a total of 3,101 eyes of patients aged >5 years with myopia who visited the ophthalmic outpatient department at Father Muller Medical College. Detailed ophthalmic examination was performed to identify lattice degeneration and evaluate the requirement of barrage laser in all myopic eyes and data was recorded. **Statistical Analysis Used:** Statistical analysis was done using Chi-square test to estimate statistical significance. **Results:** A total of 1600 people were examined and the male: female ratio was 0.76:1. The proportion of mild, moderate, severe, and pathological myopia was 37.74%, 57.75%, 1.12%, and 0.68%, respectively. Mild myopia had a statistically similar requirement for barrage laser as compared with that of moderate, high, or pathological myopia. **Conclusions:** The results indicated that mild and moderate myopia cases should also be examined for lattice degeneration features as these cases sometimes might require barrage treatment.

Keywords: Barrage laser, lattice degeneration, myopia



Dr. Pooja Peethambaran

Title: Comparison of astigmatism profile in patients undergoing phacoemulsification by 2.8MM versus 5.2MM temporal incision.

Journal: International journal of Scientific Research

Published year: May - 2024

Abstract:

Purpose: Purpose of study is to see astigmatism from large incision at appropriate location is comparable to small incision. **Methods:** A total of 150 patients were grouped into two groups, 75 in each group. Group A used foldable IOL 6mm optics and 2.8mm temporal clear corneal incision. Group B used rigid auro-lab 5mm optics and 5.2 mm temporal limbal incision. Comparison of mean BCVA at 4 week follow up. **Results:** Clinical outcomes of both surgeries were similar, as there was no significant statistical difference in astigmatism at one month of follow up. **Conclusion:** 5.2 mm temporal incision with Rigid PMMA in patients showed comparable result with 2.8mm temporal incision with foldable IOL. Therefore 5.2mm temporal incision with rigid IOL can be considered for patients undergoing cataract surgery in economically weaker sections and camp sections.



Dr. May Dsouza

Title: Effect of increased digital screen time (dst) on ocular health in undergraduate medical students

Journal: International journal of Scientific Research

Published year: 2024

Abstract:

Digital media offer both benefits and significant risks to the health of individuals. Increased digital screen time (DST) has impacted physical, mental and behavioral pattern of individuals. Present study was undertaken to assess the effect of increased screen time and other associated factors on ocular health in under-graduate medical students. A self-reported, close-ended questionnaire was sent through Google forms to all the undergraduate medical students. The questionnaire assessed participants' screen exposure time, intermittent break frequency, myopia progression, symptoms and measures to overcome the symptoms. A total of 386 students completed the survey; 279 were females and 107 males. Overall, 49% in the study group had vision related problems; 164 had spectacles, 21 had contact lenses and 4 had undergone LASIK surgery. In significant number of students (n=131,80%) myopic progression was noted during the course; 69 were mild, 37 moderate and 25 were of severe category. Smartphone was the commonest device used (n=306, 79.3%) followed by Tablet/iPad (n=31, 8%) and laptop (n=3, 0.8%); 46 students (12%) use multiple gadgets on a routine basis. 202 students (52.3%) spend >6 hrs/Day with the devices. Majority (n=311,80.6%) take a break between every 30 minutes-1 hour. The most common symptom was dryness of eyes (n=137,35%), followed by head ache (n=127,33%). While the symptoms were reported to be occasional in majority of the subjects, in 20 subjects these symptoms were reported to be persistent. With more than 90% of the participants reporting any of the symptoms related to extended screen time exposure, it is an issue of serious concern and should be considered as an emerging health problem.



Dr. Dilon Denis Noronha

Title: Don't miss the globe – Study of diagnostic accuracy of computed tomography in detecting open globe injury

Journal: Saudi Journal of Ophthalmology

Published year: 2024

Abstract:

Purpose: The purpose is to determine the computed tomography (CT) characteristics of open globe injury and establish the relative accuracy and reliability of various features on CT. Second, to assess the significance of a difference in the anterior chamber depths (ACDs) on CT in cases of open globe injury. **Methods:** The diagnostic database of our radiology department was retrospectively reviewed to obtain details of patients with a history of blunt or penetrating injury to the orbit between September 2018 and March 2021. A total of 190 patients (144 males and 46 females) were included. A radiologist analyzed the CT scans without prior knowledge of ophthalmologic findings or surgical outcomes. Operative and ophthalmic examination findings were considered the gold standard for comparison. **Results:** Out of 190 injured globes, the final clinical diagnosis confirmed 54 (28.4%) open globe injuries and 136 (71.5%) closed globe injuries. Between the two groups, intraocular hemorrhage, lens dislocation, lens injury or absence, intraocular foreign body, intraocular air, wall/contour defect, and ACD change were considered statistically significant ($P < 0.05$). The average sensitivity, specificity, positive predictive value, negative predictive value, and accuracy of CT in diagnosing open globe injury were 71.3%, 98.5%, 83.6%, 95.75%, and 94.9%, respectively. **Conclusion:** Globe contour deformity or defect, intraocular hemorrhage, and a change in ACD were the three most predictive signs of open globe injury. CT is of valuable help in a multi-trauma setting and in an uncooperative patient for ophthalmological examination to draw attention to globe injury. However, CT examination alone is insufficient in detecting all cases of open globe injury. There is a need for a more collaborative approach among emergency physicians, ophthalmologists, and radiologists.

Keywords: Computed tomography, emergency medical services, penetrating eye injury.



Dr. Sripathi Kamath Dr. Akshata Charlotte

Title: Routine funduscopy: Unravelling undiagnosed significant coarctation of the aorta

Journal: Cureus

Published year: December 2024

Abstract:

A 10-year-old boy was brought to the outpatient department with complaints of diminished vision for two years. On examination, the best-corrected visual acuity (BCVA) in oculus dexter (OD) was 20/40 and in oculus sinister (OS) was 20/80. The patient was dilated for

routine fundoscopy, which revealed grade IV hypertensive retinopathy changes in both eyes, with a macular fan in the left eye. The patient's blood pressure was promptly checked and, as suspected, was high. An emergency pediatric medicine consultation was done where it was noted that the patient's peripheral pulses were feeble, and he had cold extremities. The blood pressure was 200/140 mmHg in the upper limb and 90/60 mmHg in the lower limb. An echocardiogram revealed significant coarctation of the aorta (CoA), further confirmed by a CT angiogram. This case report highlights the importance of comprehensive fundoscopic examination for detecting potentially fatal cardiac conditions



Dr. Madhurima A Nayak

Title: Bilateral optic disc pit coexistent with coloboma and maculopathy

Journal: BMJ Case Reports

Published year: 2024

Abstract:

A woman in her 20s presented to us with a 3-week history of painless diminution of vision in her right eye. There was no history of trauma or any antecedent systemic illness. On examination, her visual acuity was 20/80, N18 in the right eye, and 20/20, N6 in the left eye. An anterior segment examination revealed a typical inferonasal iris coloboma in the right eye with a normal horizontal corneal diameter. The anterior segment of the left eye was normal (figure 1). The intraocular pressures were in the normal range in both eyes. The fundus examination in the right eye showed an inferior optic disc coloboma (ODC) and an optic disc pit (ODP) in the temporal aspect of the optic disc.

Title: Acute macular neuroretinopathy following Valsalva manoeuvre: an insight into the pathophysiology

Name of the journal: BMJ Case Reports

Published year: 2024

Abstract:

Acute macular neuroretinopathy (AMN) affects the outer retina and is most likely induced by non-inflammatory ischaemia of the retinal deep capillary plexus and choriocapillaris. A man in his early 20s developed Valsalva retinopathy following weightlifting at the gym and presented with blurring of vision in the left eye 1month after the initial retinal haemorrhages had resolved. A diffuse, purplish, donut-shaped, perifoveal lesion was seen on funduscopy and was well defined by an optical coherence tomography angiography (OCTA) en face image in the left eye. Outer retinal changes on optical coherence tomography (OCT) and a dense co-localised scotoma on a visual field (VF) examination confirmed the diagnosis of AMN, and the patient was started on a tapering dose of oral steroids. Improvement was seen in OCT, OCTA and VF during the 6-month follow-up visit. The use of OCTA en face imaging enabled the accurate identification of the lesion in the affected layers of the retina

Presentations:

Presenter(s)	Title	Conference/Event	Location
Dr. Sunayana Bhat, Dr. Madhurima Nayak	Surgical Outcome of Open Globe Injury in a Tertiary Health Care Center in South India [FP137]	Competitive Free Paper (TRAUMA), KOSCON	Udupi
Dr. Sunayana Bhat, Dr. Akshata Charlotte	Orbital Floor Fracture Repair Following Trivial Trauma	KOSCON	Udupi
Dr. Priyadarshini, Dr. Sunayana Bhat	New Fear Unlocked at Sea: A Blind Brush Experience While Fishing	Karnataka State Ophthalmic Conference	Udupi
Dr. May Dsouza	Perception of Undergraduate Medical Students Regarding “Reel-Making” as an Innovative Learning Method in Ophthalmology	Skill EduCon	Mangalore
Dr. Madhurima A Nayak	Validation of Kestenbaum Number in Various Types of Optic Atrophy	Indian Neuro-Ophthalmology Society Conference	Chennai
Dr. Jessel Dsouza, Dr. May Dsouza	A Mosquito Bite Can Threaten Our Sight	KOSCON	Udupi

Orthopaedics

Research Projects 2024

S.No	Title of the Project	Investigator	Co-Investigator	Guide / Co-Guide	Funding Source	Grant
1	A large group study on use of epidural steroid Infiltration in Disc Prolapse and Annular Tear patients - multiparametric study	Dr. Anjali Nivedita	Dr. Daivik T. Shetty	Dr. Mrinal B. Shetty	Nil	Nil
2	Preoperative and postoperative status of recurrent laryngeal nerve in anterior cervical surgeries with the help of laryngoscopy	Dr. Bipinchandra J. K	Dr. Daivik T. Shetty	Dr. Mrinal B. Shetty, Dr. Dheekshith	Nil	Nil

Case Reports:

S.No	Title of the Project	Investigator	Journal	Issue date
1	Expansile Lytic Lesion of the Proximal Phalanx of the Hand: A Diagnostic Enigma – A Case Report on Management with a Novel Technique	Dr. N. Manjunath	Journal of Orthopaedic Trauma and Reconstruction	2024

Publications:



Dr. Ronald Joseph Menezes

Title: Donor-site morbidity following arthroscopic anterior cruciate ligament reconstruction using peroneus longus tendon autograft

Journal: European Journal of Orthopaedic Surgery & Traumatology

Published year: 2024

Abstract

Introduction: Peroneus longus has proved to be a promising graft for ACL reconstruction due to its high tensile strength, and ease of harvesting. While multiple studies have assessed the functional outcomes of the knee after ACL reconstruction using peroneus longus autograft, we aimed to evaluate donor site morbidity among the Indian population. **Materials and methods:** This was a prospective, longitudinal, descriptive study conducted at a tertiary care hospital. Preoperative AOFAS and Karlsson-Peterson scores were obtained, and patients were followed up after surgery for a period of 6-months using the same scoring systems and strength testing with a hand-held Chatillon MSE-100-M dynamometer. Pedobarographs were done using DiersPedoscan Plantar Pressure Measurement System on a subset of seven patients. **Results:** 20 patients participated in the study. Mean AOFAS and Karlsson-Peterson scores pre-operatively were 99.7 ± 1.34 and 98.5 ± 4.62 respectively. On completing 6-months of follow-up these scores were found to be 95.6 ± 9.43 and 88.75 ± 18.42 respectively. Deterioration of mean evetor strength was noted at all follow-ups compared to the opposite side. Static pedobarographs showed significant decreased in total surface area of contact and pressure over the posterior aspect of the operated side by 3-months which improved later at 6-months. Dynamic pedobarographs showed decreased mean average plantar pressure while walking on the operated side and significant increase in mean surface area of contact of the operated side (191.886 ± 22.678 cm²) at 6-months of follow-up compared to the opposite side (184.471 ± 22.218 cm²). Five patients showed deviation of the point of maximum pressure while walking on the operated foot making it lateral to the COP with increased lateral plantar/ medial plantar pressure ratio. **Conclusion:** While the use of peroneus longus tendon autografts in arthroscopic ACL reconstruction does not seem problematic on short-term subjective assessment, there is objective evidence in keeping with evetor weakness, weakness of first ray plantar flexion and possible ankle instability.



Dr. George Joseph

Title: Comparative study of effects of zoledronic acid on the radiological and clinical outcomes of distal radius fractures in elderly women

Abstract:

Introduction:The most frequent upper extremity fractures among women over 50 are distal radius fractures. Compared to males, women are more vulnerable to these kinds of fractures. Osteoporosis in older women is a contributing factor to the increasing fragility of the bone. It has been demonstrated that pharmaceutical therapy for osteoporosis increases bone mineral density and may reduce the risk of fractures by 50% in the future. The most often given antiresorptive drugs for osteoporosis are bisphosphonates. Therefore, the purpose of this study is to determine the clinical and radiological result of older women who have distal radius fractures and are given Zoledronic acid injection post-injury before surgery. **Materials and Methods:** Women treated for distal radius fractures who were 50 years of age or older were included in the prospective comparative research that is being planned. A single dosage of zoledronic acid will be administered to one group of patients, while the other group will get no injections following damage and will undergo surgery. At six, nine, and twelve weeks from the date of injury, patients will be evaluated for radiological and functional outcome. The Patient Related Wrist Evaluation score will be used for clinical result and the RUSS grading system for radiological outcome on each appointment. Over a 12-week period, the patient will be monitored. **Results:** A total of 40 patients with distal radius fractures treated surgically supplemented with zoledronic acid was studied. We found similar RUSS scores at 6, 9 and 12 weeks after injury irrespective of zoledronic acid therapy. Functional outcomes including Patient Related Wrist Evaluation score wrist ROM, grip and pinch strength were similar at each point of time. The result suggests that zoledronic acid can be safely given at time injury without detrimental effects on healing or function. There was no complication associated with wound healing or refracture. Further studies are needed to determine the effects of zoledronic acid therapy on fracture healing. **Conclusion:** The present study was undertaken to assess the effect of zoledronic acid on distal radius fracture in elderly women and the following conclusions were drawn. Most of the fractures in the older individuals with mean age group of 59.8 years. Mode of injury in most of the patients were due to fall on outstretched hand and few of them where due to RTA. Zoledronic acid injection can be safely given in patient with acute distal radius fracture. No significant benefit observed in group which received zoledronic acid. Radiological and clinical outcome was similar in both groups.

Other projects:

Post-Graduate

Sl no	Title	Name of the student	Name of PI/guide
1	Comparative Study of Intramedullary Nailing and Plating of extra articular proximal tibia fractures	Dr. Teesta Rajesh Shetty	Dr. Ronald Joseph Menezes
2	Functional outcomes of intertrochanteric fractures treated with proximal femoral nail	Dr. DarshanUdyavar	Dr. Prashant Upendra Acharya
3	Functional outcome of various surgical procedures in adult brachial plexus injury	Dr. Sourabh N Chiplunkar	Dr. Latheesh Leo

4	Comparative study of functional outcome of Anterior cruciate ligament reconstruction and anterior cruciate ligament reconstruction with extra-articular tenodesis	Dr. Akhil Sharma	Dr. Vivian Roshan D'Almeida
5	Efficacy of pericapsular infiltration with adductor canal block for post operative pain management and post operative recovery in total knee Arthroplasty	Dr. Anna Sabeena M Jonhy	Dr. Ashwin Kamath
6	Comparative study of clinical and functional outcome of intra-articular fractures of distal end of radius with conservative versus surgical management	Dr. Rishel Romman Rebello	Dr. Rajesh S
7	To assess the functional outcome of management of proximal interphalangeal joint injuries of hand	Dr. Dheekshith MR	Dr. Latheesh Leo
8	Functional outcome of peritrochanteric fractures in chronic kidney disease	Dr. Mukesh	Dr. Harsharaj. K
9	Clinical and radiological outcome of conservatively managed lumbar disc herniation with radiculopathy	Dr. Melbin Kurian John	Dr. Mrinal B Shetty
10	Assessment of functional outcome of both bone fractures of the forearm, treated by plate fixation	Dr. Kochiyil Raoul Joseph	Dr. Ronald Joseph Menezes
11	Functional and radiological outcome in Patients undergoing K wiring for Metacarpal shaft fractures	Dr. Anto Maria Meshach M	Rajesh S
12	Assessment of functional outcome of fixation of posterior wall acetabular fractures	Dr. Sanjana Ananda Murthy	Dr. Harsharaj. K
13	Functional outcome of anterior cruciate ligament reconstruction augmented with fiber tape	Dr. Donald Xavier Sequeira	Dr. Vivian Roshan D'Almeida
14	Assessment of functional outcome following surgical management of fingertip injuries	Dr. Siddharth Siddappa Jugyagol	Dr. Latheesh Leo
15	Effectiveness of kinesiо-taping in post anterior cruciate ligament reconstruction rehabilitation	Dr. Varsha Ashok Shetty	Dr. Prashant Upendra Acharya
16	Comparison of Efficacy of Subacromial Ketorolac injection versus corticosteroid injection in the treatment of shoulder impingement	Dr. Kishan Mahabaleshwar	Dr. Ashwin Kamath
17	Comparison of clinical and radiological outcomes of open vs minimally invasive surgery for single level Lumbar spondylolisthesis	Dr. Sayan Kumar Mandal	Dr. Mrinal B Shetty
18	To evaluate the factors affecting outcome of conservative treatment of cervical disc prolapse	Dr. Yallanki Rajat	Dr. Mrinal B Shetty
19	Correlation of preoperative MRI cross	Dr. Tanya	Dr. Ronald Joseph

	sectional area and anthropometry with intraoperative hamstring graft diameter in ACL reconstruction	LashkaraMohanraj	Menezes
20	Assessment of pathobiomechanics and functional outcome of diabetic foot ulcer of forefoot through surgical offloading	Dr. Shaan Kurian Jacob	Dr. Latheesh Leo
21	Evaluation of the functional outcome of total knee replacement surgery using patient reported outcome measures	Dr. Akhil Dev Devadas	Dr. Vivian Roshan D'Almeida
22	Evaluation of functional and radiological outcome following the internal fixation of complex proximal humerus fracture	Dr. PrakharKatayayan	Dr. Harsharaj K
23	Efficacy of pre emptive analgesia in anterior cruciate ligament reconstructive arthroscopic surgery	Dr. Tunga Ashish	Dr. Prashant Upendra Acharya
24	Evaluation of accuracy of clinical examination and MRI on diagnosing meniscal tears in comparison to diagnostic arthroscopy	Dr. GourishankarKural ageri	Dr. Rajesh S
25	Comparison of outcome of transpedicular and anterolateral debridement and decompression in dorsolumbarspondylodiscitis	Dr. Bipinchandra J K	Dr. Mrinal B Shetty
26	Correlation of median nerve characteristics in carpal tunnel syndrome – pre operative and intra operatively	Dr. Tanisha Leone Charles	Dr. Latheesh Leo
27	Functional outcome of total hip replacement in fracture neck of femur in the elderly	Dr. Anjali Nivedita	Dr. Ashwin Kamath

Awards:

Post Graduate

1. **Dr. Anto Maria Meshcach M**, Second Year PG Resident of our department has been awarded the **third prize** in the Best Paper category for the presentation titled “**Staged tendon balancing treatment for chronic diabetic ulcers beneath the first metatarsal head**” during 21ST DFSI 10th IADFS and 2nd D –Foot International Conference 2024, held from 27th to 29th September 2024 at Mumbai.
2. **Dr. Dheekshith M R and Dr. Sourabh N Chiplunkar** won the **second Prize** in Quiz Competition conducted at A J Institute of Medical Science and Research Centre 1st September 2024.

Under Graduate

1. **Ms. Prithika K B**, MBBS 2020 Batch Student has secured **1st place** in Case Presentation at the MEDMEET 3.0- The National UG Medical Canclave Organised by

Calicut Medical College, Kozhikode, Kerala on 27.10.2024 under the Guidance of Dr. Latheesh Leo and Dr. ShruthiKanth S from Dept of Orthopaedics.

2. **Ms sandriya Jayanth** and **Mr Harshal shailen Mehta** of MBBS 2021 Batch students won **1st prize** in the Surgery Case presentation at the 'Connaissance 2024' - 6th International Undergraduate Medical Conference hosted JIPMER, Puducherry from 28.06.2024 to 30.06.2024 under the guidance of Dr Latheesh Leo, Professor of Orthopaedics

Presentations:

1. **Dr. Mrinal B Shetty** was a Guest Speaker at Monthly Orthopaedic Meet at Goldfinch Hotel, Mangalore on 30th January 2024.
2. **Dr. Latheesh Leo** delivered a talk in the CME on “**Advancement in Orthopaedics Surgery**” at Al Khuwair Muscat, Oman on 04.02.2024.
3. **Dr. George Josphe** delivered a talk on topic: Meniscal Transplant at The Mangalore Orthopaedic Course at K S Hegde Medical College, Deralakatte on on 16th to 18th February 2024
4. **Dr. Calvin Fernandes** delivered a talk on topic: “**Recent advances in phantom limb pain**” at The Mangalore Orthopaedic Course at K S Hegde Medical College, Deralakatte on on 16th to 18th February 2024.
5. **Dr. Latheesh Leo** delivered a talk on Topic: "**Experience of Paediatric Mandible Reconstruction with long term follow up**" at the 6th Congress of Asian Pacific Federation of Societies for Reconstructive Microsurgery (6th APFSRM) held at The Leela Ambience Hotel, Gurugram, Delhi on 7th to 10th March 2024



6. **Dr. Mrinal B Shetty** was faculty for CME and delivered a talk on "**Atlantic axial instability**" at the CME on "Cervical Spine Masterclass" organised by A J Institute of Medical Science and Research Centre on 1st September 2024.

Post Graduates

S. No.	Name	Title of Presentation	Type	Event/Details
1	Dr. Rishel Roman Rebello	<i>Microvascular Free Flap Reconstruction for Lower Limb Soft</i>	Paper	22 nd Annual Conference of

S. No.	Name	Title of Presentation	Type	Event/Details
		<i>Tissue Defects in Paediatric Patients</i>		Orthopedic Association of South Indian States (OASISCON 2023), Sep 1 st –3 rd , Indiana Convention Center, Mangalore
2	Dr. Sourabh N Chiplunkar	<i>Tenofovir Induced Bilateral Neck of Femur Stress Fracture – A Case Report</i>	Poster	
3	Dr. Sourabh N Chiplunkar	<i>Functional Outcome of Management of Proximal Interphalangeal Joint Injuries with Hemi-Hamate Arthroplasty</i>	Paper	
4	Dr. Dheekshith MR	<i>Hirayama Osteotomy, Open Reduction of Radial Head and Annular Ligament Reconstruction for Neglected Monteggia Fracture Dislocation – A Case Report</i>	Poster	
5	Dr. Dheekshith MR	<i>Functional Outcome of PIP Joint Injuries with Suzuki Frame Dynamic Traction</i>	Paper	
6	Dr. Teesta Rajesh Shetty	<i>Surgical Outcomes of Early Radical Debridement and Groin Flap Cover for Necrotizing Fasciitis of Upper Limb</i>	Poster	

Paediatrics

Research Projects 2024

S.No	Title of the Project	Investigator	Funding Source	Grant	Total Budget
1	Development of Adrenaline Auto Injector for patients with serious allergic reactions	Dr. Jaidev M.D.	Medical Instruments Devices and Allied Services (MIDAS), DST-MAHE	₹14,55,668	₹75,48,000
2	Smartphone device for bilirubin estimate in Neonates (mBilimeter)	Dr. Saritha Paul	Medical Instruments Devices and Allied Services (MIDAS), DST-MAHE	₹21.11 Lakhs	₹32.52 Lakhs
3	Design and Development of a Miniature Cost-Effective Infusion Pump for Medical Use	Dr. Anil Shetty	Indian Institute of Sciences, Bangalore	₹18,25,692	₹48,00,000

Clinical Trials:

Sl.No	Title of the Project	Principal Investigator	Funding agency	budget
1	A multicenter, randomized, double-blind, placebo-controlled, phase II trial to assess safety and efficacy of sovateltide in the treatment of hypoxic-ischemic encephalopathy in neonates	Dr. PavanHegde, Dr. Pooja Wali, Dr. Praveen B.K	Pharmazz India Pvt. Ltd.	978,080

Case Reports:

S. No.	Authors	Title	Journal	Year
1	Niharika Shetty, Nireeksha Shetty, Praveen Nayak K.	Nasal foreign body presenting as pansinusitis with superior orbital fissure syndrome	Sri Lanka Journal of Child Health	2024

Publications:



Dr. Sowmya SG

Title: Parents' willingness to vaccinate their child against COVID 19: A cross sectional study.

Journal: Al Ameen J Med Sci

Published year: 2024

Abstract:

Background: An effective COVID vaccine in children will decrease the severity of illness in children as well as transmission rates of the virus, thereby providing direct and indirect benefits. The Government of India has decided to extend the COVID-19 vaccination program to children between 2-18 years of age. In such a situation, parents have the right to decide whether or not to vaccinate their child. **Methods:** This was cross sectional questionnaire based study conducted on parents of children under 18 years attending outpatient department in tertiary hospital, Mangalore. Data was collected using pretested semi structured questionnaires which included sociodemographic factors and reasons for willingness or unwillingness. Data was analysed using descriptive statistics, chi square test and outcomes expressed as frequency, proportions and percentages. **Results:** In our study, it was found that a majority of parents (84.5%) were willing to vaccinate their child against COVID 19. The reason for willingness was that they felt vaccination is necessary to control the pandemic (70.7%). 15.5 % of the parents were not willing to vaccinate their child. Majority of the parents (70.5%) had concerns regarding the safety profile of the vaccine. The study did not find any significant relationship between the age, gender, socioeconomic status or education of the parents with their willingness to vaccinate their child. **Conclusion:** Majority of the parents in our study were willing to vaccinate their children against COVID 19 and appropriate strategies need to be initiated to increase the vaccination rates among children.



Dr. Praveen B.K.

Title: Genetic and phenotypic landscape of pediatric-onset epilepsy in 142 Indian families. Counseling and therapeutic implications

Journal: Clinical Genetics

Published year: 2024

Abstract

The application of genomic technologies has led to unraveling of the complex genetic landscape of disorders of epilepsy, gaining insights into their underlying disease mechanisms, aiding precision medicine, and providing informed genetic counseling. We herein present the phenotypic and genotypic insights from 142 Indian families with epilepsy with or without comorbidities. Based on the electroclinical findings, epilepsy syndrome diagnosis could be made in 44% (63/142) of the families adopting the latest proposal for the classification by the ILAE task force (2022). Of these, 95% (60/63) of the families exhibited syndromes with developmental epileptic encephalopathy or progressive neurological deterioration. A definitive molecular diagnosis was achieved in 74 of 142 (52%) families. Infantile-onset epilepsy was noted in 81% of these families (61/74). Fifty-five monogenic, four chromosomal, and one imprinting disorder were identified in 74 families. The genetic variants included 65 (96%) single-nucleotide variants/small insertion-deletions, 1 (2%) copy-number variant, and 1 (2%) triplet-repeat expansion in 53 epilepsy-associated genes causing monogenic disorders. Of these, 35 (52%) variants were novel. Therapeutic implications were noted in 51% of families (38/74) with definitive diagnosis. Forty-one out of 66 families with monogenic disorders exhibited autosomal recessive and inherited autosomal dominant disorders with high risk of recurrence.



Dr. Deepthi Joella Fernandes

Title: Intelligence quotient in children with congenital hypothyroidism on treatment: A cross-sectional study

Journal: Sri Lanka Journal of Child Health

Published year: 2024

Abstract:

Introduction: Congenital hypothyroidism (CH) is the most commonly identified endocrine disorder. Early intervention can prevent intellectual deficits. **Objective:** To determine the intelligence quotient (IQ) and aetiology in children diagnosed with CH undergoing treatment and the associations between the IQ and the age of diagnosis. **Method:** A cross-sectional study was conducted in a tertiary care hospital in Bangalore, which enrolled 52 children aged 6 months to 15 years diagnosed with CH. Using a pre-designed proforma, we collected demographic data and confirmed CH aetiology. For IQ assessment, children under 3 years underwent the Vineland Social Maturity Scale (VSMS) and developmental screening test (DST), while those over 3 years were evaluated with the VSMS and BinetKamat test of intelligence (BKT). **Results:** Among the 52 children with CH, dysmorphogenesis was the predominant aetiology. In the under-3-year age group (n=17), all demonstrated average to above-average intelligence. Among those over 3 years (n=35), 10.9% (95% CI: 6.5% to 17.2%) exhibited low average and borderline intelligence with the VSMS, and 5.7% (95% CI: 2.3% to 12.5%) had extremely low IQ (IQ <70). The BKT scale showed 20% (95% CI: 12.8% to 29.7%) with low average and borderline intelligence, and 2.9% (95% CI: 0.7% to 8.3%) with extremely low IQ (IQ <70). Children diagnosed at a mean age of 4.2 and 4.4 years exhibited intellectual disability on the VSMS and BKT scales, respectively. Conversely, those diagnosed at a mean age of 1.2 and 1.8 years showed average and above-average intelligence on the VSMS (p-value 0.02) and BKT scale (p-value 0.001), respectively. **Conclusions:** Children diagnosed with CH at mean ages of 4.2 and 4.4 years exhibited intellectual disability on the VSMS and BKT scales, respectively. Conversely, those diagnosed with CH at mean ages of 1.2 and 1.8 years showed average and above-average intelligence on the VSMS (p = 0.02) and BKT scale (p = 0.001), respectively.



Dr. Preetham Philip Tauro

Title: Multisystem inflammatory syndrome in children – A serious emerging syndrome.

Journal: Muller J Med Sci Res

Published year: 2024

Abstract

Objective: The objective of the study was to determine the clinical features, treatment received, and outcomes of severely ill children with multisystem inflammatory syndrome in children (MIS-C). **Methods:** The study was a retrospective observation carried out at a pediatric intensive care unit in a tertiary care hospital. The baseline history, investigations, treatment received, and outcomes of the disease in 14 critically ill children, who were diagnosed with MIS-C, were surveyed from October 2020 to January 2022. **Results:** There were 14 children who were diagnosed with MIS-C. All children received intensive care treatment and 7 children received a combination of steroid therapy and intravenous immunoglobulin. Out of 14 children, 12 of them survived and 2 expired. **Conclusion:** For children who are diagnosed with MIS-C, the outcome was good if detected early and treated on time.



Dr. Sweta Shanbhag

Title: Medication Adherence and Practices in Pediatric Patients

Journal: J. Pharm Care

Published year: 2024

Abstract

Background: Improper medication practices and non-adherence are the biggest challenges faced by pediatricians in outpatient practice. Hence this study was aimed at determining the medication practices and factors affecting adherence. **Methods:** A cross sectional descriptive study was conducted at a tertiary care hospital in Southern India over a period of 3 months (January to March 2023), to study medication adherence and parental medication practices in pediatric patients. A pre structured questionnaire was administered to parents of 320 children. **Results:** Majority of the parents (55%) had children aged 1-5 years of age. It was noted that most of the families (89%) were above poverty line (APL). About 34% parents were educated till graduate level and 17% were educated beyond post graduate level. Frequency of medication adherence in our study was found to be 78%. It was noted that parents with education of graduate level and above, those belonging to APL families and the ones with no fear of adverse drug reactions showed higher medication adherence as compared to other parents and this association was found to be statistically significant ($p < 0.001$). Majority of the parents (80%) reported that their children preferred liquid formulations, of which 57% preferred fruit flavoured ones. Around 51% parents preferred twice daily dosing of medications. While 47% parents used previous prescriptions, 39% bought over the counter medicines, especially paracetamol. **Conclusion:** Knowledge about medication practices and factors affecting adherence is important in order to provide quality health care. Actively involving children and parents while prescribing medications with health education goes a long way in improving adherence.

Title: Assessment of school bag weight and musculoskeletal pain in school children of Mangalore city in Southern India

Journal: Sri Lanka Journal of Child Health

Published year: 2024

Abstract

Introduction: With reforms in school education being introduced, positive changes in the system will hopefully enable children to face future challenges. It is recommended that the ideal school bag weight should be less than 10% of the child's body weight. It is possible that due to changes in syllabi and overloaded curriculum, children now carry heavy school bags. This could potentially increase the risk of developing musculoskeletal discomfort. **Objectives:** To determine the number of children with overloaded bags (>10% of body weight) and their effect in terms of pain and to determine the association of the effect of school bag weight with body weight, body mass index (BMI) and gender of the children. **Method:** Children in classes 1-10 from schools of Mangalore city in Southern India were included. Individual school bags were weighed and duration of carrying the bag noted. Weight and height of the children were measured and BMI calculated. Presence or absence of musculoskeletal pain as perceived by the child was noted and data were analysed using SPSS

21 software. **Results:** Out of the 1152 children included in our study, 952 (82.6%) carried overloaded school bags. It was observed that primary classes (1st to 5th standard) and upper primary (6th to 8th standard) students carried more overloaded school bags as compared to secondary classes (9th and 10th standard), which was statistically significant ($p < 0.001$). Among those with BMI $< 18 \text{ kg/m}^2$, 96.2% carried overloaded bags. Of all study participants, 219 (19%) carried them for more than 10 minutes and among these, 187 (85.4%) had overloaded school bags and this was statistically significant ($p = 0.006$). Overloaded school bags carried by females was higher when compared to males and this was statistically significant ($p = 0.04$). Pain was perceived by 206 (17.9%) students and shoulder was the most common site of pain (51%), which was not statistically significant ($p = 0.142$). **Conclusions:** Most students (82.6%) carried overloaded school bags across classes 1-10, more so children belonging to primary classes.



Dr. Habeeb Ullah Khan

Title: Knowledge, Attitude, and Practice toward Early Childhood Caries among Pediatricians and Pediatric Residents in Karnataka.

Journal: Dent Med Res

Published year: 2024

Abstract

Introduction: Early childhood caries (ECC) is a significant worldwide oral health problem. Pediatricians can be a perfect source for children's oral health promotion and disease prevention. Hence, the study was conducted to determine knowledge, attitude, and practice about early dental caries among pediatricians and pediatric residents. **Materials and Methods:** A questionnaire survey was conducted among 350 pediatricians and pediatric residents which covered aspects of knowledge, attitude, and practices regarding dental caries. The questionnaire consisted of 22 close-ended questionnaires. Data were tabulated and analyzed using SPSS software. **Results:** Most pediatricians had adequate knowledge regarding the appropriate age to start oral hygiene as well as performed visual oral examination but very few had instruments to diagnose dental caries. Only 37% of pediatricians advised dental visits below 1 year and only 27% advised the use of fluoridated toothpaste below 1 year. **Conclusion:** Most of the pediatricians had adequate knowledge and

awareness of dental care and hygiene. The lack of dental knowledge and training during postgraduation limits the pediatricians' role in promoting children's oral health.



Dr. Shreedhara Avabratha K

Title: Effect of COVID 19 Pandemic on Routine Immunization at a Tertiary Care Centre

Journal: RJMS

Published year: 2024

Abstract:

Background: The Coronavirus disease 2019 (COVID-19) pandemic disrupted healthcare services worldwide, impacting routine childhood vaccinations, thereby posing the danger of vaccine preventable infections in the near future. **Aim:** This study aimed to assess the occurrence and frequency of delayed vaccinations during the pandemic at a tertiary care center in India. **Methods:** This descriptive record-based study analyzed immunization records of children aged 0-15 years attending the out-patient clinic from March 2019 to August 2021. The study period was divided into pre-COVID, lockdown 1 & 2, and unlock 1 & 2 phases. Data were analyzed using descriptive statistics and Chi-square tests. **Results:** Vaccination rates significantly decreased during the pandemic compared to the pre-COVID phase, particularly during the lockdowns. Maximum reduction was observed with optional vaccines. Unlock phases also showed decreased vaccinations, suggesting continued impact of fear and limited accessibility even with easing of restrictions. **Conclusion:** The COVID-19 pandemic significantly disrupted childhood immunizations. Aggressive catch-up vaccination campaigns with effective communication, safety precautions and outreach campaigns to the missed communities are necessary to prevent outbreaks of vaccine-preventable diseases

Title: SF Ratio as an Alternative Marker for PF Ratio in Paediatric Index of Mortality 3 score at a Tertiary Care Centre

Journal: J Nepal PaediatrSoc

Published year: 2024

Abstract

Introduction: Pediatric Index of Mortality 3 (PIM 3) score is a mortality prediction score used in paediatric intensive care units. The PF (PaO₂ / FiO₂) ratio is a component of the PIM 3 score. To obtain the ratio an arterial blood gas would be required. The SF (SpO₂ / FiO₂) ratio provides a less invasive method of monitoring. With this study, we aimed to see if SF ratio can replace the PF ratio component of the PIM 3 score. **Methods:** It was a prospective study, where 101 critically ill children were included over a period of 18 months. Data was analyzed by mean, standard deviation (SD), frequency and percentages. Intra class comparison as well as ROC curve analysis was used to test the reliability of SF ratio. PIM 3 scores were obtained using PIM 3 calculators available on standard reference websites. Derived PIM 3 scores were obtained using SF ratio instead of the PF ratio. The two scores were compared. **Results:** The mean age in the study was 4.5 years. The mean PF ratio was 281.7 ± 216.7 and mean SF ratio was 297.7 ± 115.8 . Maximum mortality was seen in children with PIM 3 score between 10 and 30. The intraclass correlation coefficient was 0.997, interpreted as excellent agreement. The area under the ROC curve for mortality prediction using PIM 3 score was 0.814 and using PIM 3 with SF ratio was 0.819. **Conclusions:** SF ratio can be used as a reliable, non-invasive, alternative marker for PF ratio in the paediatric index of mortality score.

Title: Significance of Cardiac Murmurs in Symptomatic and Asymptomatic Neonates by Correlation with Echocardiogram

Journal: J Nepal PaediatrSoc

Published year: 2024

Abstract

Introduction: Congenital heart disease (CHD), one of the commonest congenital anomaly in neonates, might result in adverse neonatal outcome if not detected and treated on time. Clinically, these neonates may present with murmurs. Neonatal physical examination aided by echocardiography has improved diagnostic yield. **Methods:** A descriptive observational study was conducted over 18 months in a medical college hospital in Mangalore, India. Neonates with murmurs during their routine clinical examination or on follow up visits within the first 28 days of life were enrolled. Subsequently, they were categorized based on whether the symptoms were present or absent. Echocardiograms were performed by a paediatric cardiologist within 24 hours of the detection of murmurs and were correlated with the murmur and clinical features. **Results:** The study identified cardiac murmurs in 70 (3.7%) out of 1880 neonates examined. Ejection systolic murmurs were predominant (71.4%) and commonly detected within the first two days (67.1%). Sixty percent of the neonates were symptomatic. Echocardiography revealed significant CHD in 30% of symptomatic and 5.7% of asymptomatic neonates. Symptomatic neonates at presentation were twice as likely to

exhibit abnormal echocardiograms (Odds ratio: 2.071, with 95% confidence interval: 0.36-4.79), and additional physical examination features tripled the likelihood of abnormal echocardiograms (Odds ratio: 3.187, with 95% confidence interval: 1.542–6.612).

Conclusions: Cardiac murmurs were observed in 3.7% of neonates. In addition to murmurs, those who were symptomatic increased the likelihood of having CHD. Therefore, symptomatic neonates need cardiac evaluation before discharge.

Title: Respiratory morbidity and short-term outcome in moderate preterm, late preterm and early-term infants at a tertiary care hospital in southern India.

Journal: Muller J Med Sci Res

Published year: 2024

Abstract:

Introduction: Moderate and late preterm and early-term infants constitute a significant proportion of hospitalizations in neonatal intensive care units (NICU), yet have been perceived as low-risk groups. Their gestational age-specific data have been poorly studied, including respiratory morbidity and outcome. **Objectives:** The objectives of this study were to determine the respiratory morbidity among moderate and late preterm and early-term infants and to study their short-term outcomes. **Materials and Methods:** A longitudinal descriptive hospital-based study was conducted at a tertiary care hospital in Southern India, from January 2018 to June 2019. Newborns between 32 and <39 completed weeks, after gestational age assessment, were observed until discharge and later followed up to 40 weeks of gestation. The outcome was recorded in terms of respiratory issues, length of hospital stay, and readmissions within a month. **Results:** Two hundred and fifty babies were included in the study. NICU care was required in 78%, 72%, and 9.2% of moderate preterm, late preterm, and early-term infants, respectively. Respiratory distress was noted in 78%, 66%, and 6% of moderate preterm, late preterm, and early-term infants, respectively. The association of respiratory distress with gestational age was highly significant ($P < 0.0001$). Surfactant requirement was 12%, 6%, and 1.7% among the three groups. The average length of NICU stay was 7.8 days, 6.5 days, and 0.3 days among moderate and late preterms and early-term infants, respectively. **Conclusion:** Moderate and late preterms and early-term infants have significant morbidities. Gestational age has a substantial correlation with respiratory distress and neonatal outcomes. Knowledge about these issues can ensure improved outcome in these infants.

Title: A Study on Knowledge, Attitude and Practices Regarding Dengue Fever among parents from a Tertiary care center in Mangalore, India

Journal: J Nepal Paediatric Soc

Published year: 2024

Abstract:

Introduction: Dengue fever has emerged as an endemic threat in many parts of South India. Therefore, awareness among parents regarding the preventive measures and early identification of symptoms of the disease in children is of prime importance. The present study was conducted to assess the level of awareness among parents regarding various aspects of dengue. **Methods:** Questionnaire based descriptive study was conducted in both out-patient and in-patient basis in a Medical College Hospital in Mangalore, Karnataka. Data analysis was done by calculation of the percentage of correct responses and p value to determine the correlation between knowledge, attitude and practice score. **Results:** Total of 94 parents were interviewed. Majority were below 30 years of age (45.7%) and had a family income of 10,000 to 50,000 per month (62.8%). Majority of parents (89.4%) had good knowledge about dengue fever. 90.4% of parents had a positive attitude and 89.4% received a good score in practice assessment. Statistically significant association was observed between knowledge and the attitude (p value = 0.005) and between the knowledge and dengue preventive practices (p value = 0.002). Demographic factors like age, sex, family income did not show any significant association with knowledge, attitude and practices while health education had. **Conclusion:** Significant association was noted between knowledge and dengue preventive practices. Education had significant association with dengue knowledge, attitude and practices.



Dr. Jason Glen I Dsouza,

Title: Study to Assess the Knowledge, Attitude and Practice on Dental Caries prevention among Mothers of under-five children.

Journal: African Journal of Biomedical Research

Published year: 2024

Abstract

Background: Early Childhood Caries (ECC) is a preventable, yet a major social health problem in a country like India. Poor knowledge and attitude among caregivers towards oral hygiene are the major reason for dental caries among children. This study aims to assess the knowledge, attitude and practices about their children's oral health among mothers of under-five children. **Methods:** This questionnaire based descriptive study was conducted among mothers of under five-year children. The questionnaire had 4 parts; Part A - Basic

demographic details, Part B - knowledge questions about oral health, Part C - questions on Attitude about oral health and Part D- consisting questions pertaining to the practice of oral hygiene measures. Data was analysed using SPSS 20.0 (SPSS Inc.) by Percentage, frequency and Chi square test. **Results:** Among 175 mothers, 52.9% had male child, and 47.1% had female child aged less than 5 years. In our study 87.9% of the mothers responded that they have adequate knowledge about oral health in children. 55.3% of mothers felt that use of toothbrush should start between 1 to 3 years of age. Total 69.5% did not agree that breastfeeding is a risk factor for caries; 44.3% mothers did not agree that bottle feeding causes dental caries and while 97.7%, felt sweet/fast foods, were risk factors for caries. 52.3% mothers assist their children till the age of 5 years. It was seen that 64.9% practiced twice daily brushing however, 68.4% mothers never massaged child's gums after brushing. **Conclusion:** Though the knowledge of mothers regarding the dental caries prevention is reasonably adequate, practice is still far from satisfactory. Educating the parents about oral health goes a long way in dental caries reduction in children.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Prevalence of overweight, obesity and their outcomes in school children of Mangalore	Dr. Allison Caroline Lobo	Dr. Jaidev M.D.	
2	A study of probable developmental coordination disorder and its association with anthropometric parameters in school going child in age group 6-16 years in Mangalore	Dr. Jennifer Vinitha Dalmeida	Dr. Pavan Hegde	
3	Hematological and metabolic profile of neonates born to gestational and pre gestational diabetic mothers	Dr. Manisha Sequeira	Dr. Anil Shetty K	18,500
4	Comparative study of cord blood lipid profile at birth in relation to birth weight and gestational maturity	Dr. Sathya Sai Sangeetha B.J.	Dr. Sowmya S.G.	26,000
5	Level of serum interleukin - 6 levels in neonatal sepsis	Dr. Hitha Rose Mathew	Dr. HabeebUllah Khan	
6	Prism III score as a predictor of mortality in paediatric ICU in a tertiary care centre	Dr. Kausthubha R.	Dr. HabeebUllah Khan	
7	Respiratory severity scores in evaluation of acute respiratory illness in paediatric age group, short term prognosis and discharge.	Dr. Melita Francina Lobo	Dr. Rashmi Alva	

8	CRIB II- Clinical Risk Index for Babies Scoring System to predict Mortality in Premature Neonates admitted in NICU	Dr. Dylan Dsouza	Dr. Praveen B.K.	
9	Comparitive study of post transport tops score with Snappe II score in predicting morbidity and mortality in Neonates	Dr. Bollineni Mahesh	Dr. Sowmya S.G.	
10	Correlation of umbilical arterial blood gas parameters with clinical course in neonates born through meconium stained amniotic fluid (MSAF)	Dr. Evangeline Sarah David	Dr. Rashmi Alva	
11	Neck circumference as a marker for detecting overweight and obesity among school children in Mangalore	Dr. Joyce Sharal Dsouza	Dr. Anil Shetty K	
12	Significance of interleukin-8 as an early marker of neonatal sepsis	Dr. Deepak Preetesh Dsouza	Dr. K. ShreedharaAvab ratha	10,763
13	Role of anthropometric indices and cord blood platelet profile in predicting the complications in infants of diabetic mothers	Dr. Himalini N.	Dr. HabeebUllah Khan	23,400
14	Efficacy of Dexamethasone versus prednisolone for acute exacerbations of Asthma in children between 2-16 years of age	Dr. Anukruthi G.	Dr. Jaidev M.D.	
15	Validity, reliabiliability and feasibility of tibial length to assess height in children with cerebral palsy and in normal population	Dr. Siddhartha K.	Dr. Praveen B.K.	
16	The composite index of anthropometric failure : An alternative indicator for malnutrition in children	Dr. M. Rupali	Dr. PavanHegde	
17	Prospective study of serum phosphorous levels in critically ill children admitted in a PICU in a tertiary care hospital	Dr. Khathija Sana	Dr. Anil Shetty K	
18	Study on association between waist circumference & blood pressure among school children in Mangalore	Dr. Melvin Joseph Manuel	Dr. Rashmi Alva	
19	Cord blood bilirubin and bilirubin albumin ratio in predicting significant hyperbilirubinemia in term neonates	Dr. AvinashSubhas Chandra Shetty	Dr. K. ShreedharaAvab ratha	
20	Spectrum of Neonatal and Paediatric Surgical Emergencies	Dr. Stephanie Anne Viegas	Dr. Praveen B.K.	

21	Comparative study between Clinical assessment of nutritional status (CAN) score with body mass index and ponderal index in the assessment of fetal malnutrition	Dr. Shwetha T.J.	Dr. Anil Shetty K.	
22	Acute illness observation scale (AIOS) to identify serious bacterial infection in children of 2 to 60 months with pneumonia	Dr. Iva Jibi	Dr. HabeebUllah Khan	
23	Clinical profile and outcome in pediatric cases of acute poisoning : A study at a tertiary care centre in Mangalore	Dr. Pooja Kiran	Dr. Sowmya S.G.	
24	Prospective study of two clinical scoring tools in accessing severity of bronchiolitis in infants and children upto 2 years of age admitted in Father Muller Medical College Hospital	Dr. Nagaraj Chagi	Dr. PavanHegde	
25	Correlation of Lung ultrasound score with modified bronchiolitis severity score in children with acute bronchiolitis	Dr. Akash Kumar Buyya	Dr. Jaidev M.D.	
26	Diagnostic accuracy of transcutaneous bilirubin value with total serum bilirubin in preterm low birth weight neonates	Dr. Deona Dsouza	Dr. K. ShreedharaAvab ratha	

Awards:

Dr. Sweta Shanbhag presented a paper titled ‘**Role of modified hematological sepsis score and red cell distribution width in early diagnosis of neonatal sepsis**’ in Mangalore Pedicon 2024 & National Neonatology CME held on 9th& 10th March 2024 – **won III prize**



Dr. Himalini N., Final year postgraduate presented a poster ‘**Familial Hypomagnesemia - A catastrophic presentation with no Collateral damage**’ in Mangalore Pedicon 2024 & National Neonatology CME held on 9th& 10th March 2024 -**won III Prize**



Poster Presentations:

1. **Dr. K. Shreedhara Avabratha** presented e-poster titled ‘**study to assess the knowledge, attitude and practice on Dental caries prevention among mothers of under five children**’ in the 61st National Conference of the Indian Academy of Pediatrics- ‘Pedicon 2024’ at Kochi, Kerala held from 24th to 28th January 2024.
2. **Dr. Deepthi Joella Fernandes** presented poster titled ‘**Correlation of Prism III Score with Outcome in Children on Ventilatory Support Admitted to a Pediatric Intensive Care Unit**’ - 2nd IAP – PEM Conference 15th National Assembly on Pediatric Emergency Medicine (NAPEM)-2024 held on 2nd & 3rd March 2024 at Bengaluru. She also presented poster titled ‘**Intelligence quotient in children with congenital hypothyroidism on treatment**’ in Mangalore Pedicon 2024 & National Neonatology CME held on 9th & 10th March 2024.
3. **Dr. Sweta Shanbhag** presented poster titled ‘**Availability and acceptance of menstrual cups by adolescent girls - A mixed methods study**’ in Mangalore Pedicon 2024 & National Neonatology CME held on 9th & 10th March 2024.
4. **Dr. Pooja Wali** presented poster titled ‘**An isle of blue sea - angio hemangioma bullosa**’ in Mangalore Pedicon 2024 & National Neonatology CME held on 9th & 10th March 2024.

Sl No	Poster title	Name of the PG student	Event
1	Familial Hypomagnesemia - A catastrophic presentation with no Collateral damage	Dr. Himalini N	Mangalore Pedicon 2024 & National Neonatology CME held on 9 th & 10 th March 2024
2	Atypical presentation of SMA in child with SMN 1 and SMN 2 gene mutation	Dr. Bollineni Mahesh	
3	Vitamin responsive epileptic encephalopathy: PLPBP gene mutation	Dr. Rupali M	
4	Persistent Hyperinsulinemic Hypoglycemia Of Infancy - A Rare Case Of Diffuse Nesidioblastosis	Dr. Siddharth K	
5	Post infectious bronchiolitis obliterans	Dr. Nagaraj C	

Paper Presentations:

1. **Dr. Sweta Shanbhag** presented a paper titled **‘Role of modified hematological sepsis score and red cell distribution width in early diagnosis of neonatal sepsis’** in Mangalore Pedicon 2024 & National Neonatology CME held on 9th& 10th March 2024. She also presented an oral paper titled **‘Tailoring Training – A personalized approach to train Paediatric Residents’** in the 3 day National Conference, Skill Educon 2.0 held from September 19th to 21st 2024 at Father Muller Medical College, Mangalore.

Sl No	Paper title	Name of the PG student	Event
1	Behavioural Patterns In Overweight And Obese Adolescent School Children Of Mangalore City In Southern India	Dr. Allison Caroline Lobo	Mangalore Pedicon 2024 & National Neonatology CME held on 9 th & 10 th March 2024
2	To compare the predictive accuracy of fenton 2013 vs Intergrowth- 21 chart in identifying NICU outcomes in both preterm and term neonates	Dr. Jennifer Vinitha Dalmeida	
3	Knowledge attitude and practices among parents of children with seizures	Dr. Chidambar R.	

Pathology

Research Projects:

Sl. No	Title	Investigator	Co-Investigator(s)
1	Clinical performance evaluation of AS76 with PBS versus light microscopy	Dr. Jayaprakash C S	Dr. Chandni Bhandary
2	Effectiveness of Simulation-based medical education in pathology for post-graduate medical students	Dr. Chandni Bhandary P	Dr. Crysle Saldanha, Dr. Lulu Sheriff

Editorial:

Sl. No	Title	Author	Volume	Issue
1	Self-Directed Learning for the Students of the Allied Health Sciences	Dr. Archana Bhat	4	3
2	Fostering Research Culture Among Allied Health Professionals	Dr. Archana Bhat	4	2
3	Effective Communication – A Crucial Skill for the Allied Health Science Students	Dr. Archana Bhat	4	1

Publications:



Dr Archana Bhat

Title: Bronchiectatic Actinomycosis with Osseous Metaplasia Masquerading as Lung Cancer

Journal: Turkish journal of Pathology

Published Year: 2024

Abstract:

Bronchial involvement in pulmonary actinomycosis is rare and has been reported in the literature rarely. However, these reports describe endobronchial actinomycosis secondary to foreign body aspiration (for example, a fish bone). Our case did not have any history or clinical evidence suggesting foreign body aspiration, which makes it even rarer. A 55-year-old woman presented with complaints of on and off haemoptysis and cough for three weeks. In view of the haemoptysis and consolidation seen on imaging, a bronchoalveolar lavage was done and sent for cytological assessment. Few atypical cells with nuclear hyperchromasia and prominent nucleoli were noted. In view of the persistent haemoptysis, worsening symptoms, and non-resolution of the consolidation despite antibiotics, and the finding of atypical cells, segmental resection was done. A final diagnosis of bronchiectatic actinomycosis with osseous metaplasia was given. The patient was started on prolonged antibiotics with good response and recovery. Other risk factors associated with pulmonary actinomycosis include alcoholism, diabetes, haematological diseases, human immunodeficiency viral infection, use of immunosuppressants, and rarely chronic lung diseases, such as bronchiectasis. Our case had this rare association of bronchiectasis with bronchial actinomycosis. Bronchiectatic actinomycosis is a rare infection and it can mimic several lung disorders like unresolving pneumonia, pulmonary tuberculosis, foreign body, and even lung tumours. The pathologists and clinicians should be aware of this entity and thus help in the early diagnosis and better management of patients with this disease.

Title: The Morphological Differences between Acute Tubular Necrosis and Autolysis: An Autopsy Study

Journal: Journal of Indian Academy of Forensic Medicine

Published Year: 2024

Abstract:

The post-mortem identification of acute tubular necrosis (ATN) and autolysis poses a considerable challenge due to overlapping pathological features. This study was therefore conducted with the objective of identifying morphological characteristics that will assist in differentiating between ATN and autolysis in post-mortem renal specimens. This analytical study included all samples received by the department of Pathology from individuals who were clinically diagnosed as ATN and satisfying defined biochemical parameters. Age and sex matched control specimens were chosen from healthy individuals who suffered an accidental or sudden death and who satisfied defined exclusion criteria. A total of 82 samples were included. There were samples from 25 males and 16 females in each group. The mean age of the cases was 42.12 ± 18.27 years while the mean age of the control group was 49.65 ± 16.64 years. The gross weight of the kidneys was not found to be significantly different between the two groups. Three morphological characteristics were found to significantly vary between the cases and controls: cell vacuolation ($P=0.029$), hematopoietic cells in the vasa recta ($P=0.003$) and tubular epithelial whorls ($P=0.0002$). Of these, tubular epithelial whorls were found to have the highest validity (sensitivity=0.88, specificity=0.92). Tubular epithelial whorls can be used independently or in conjunction with other morphological criteria in order to accurately identify ATN in postmortem renal tissue.



Dr Nisha J Marla

Title: Direct Immunofluorescence in Cutaneous Vesiculobullous Lesions: A Cross-sectional Study in a Tertiary Care Center

Name of the Journal: Journal of Clinical and Biomedical Sciences

Published Year: 2024

Abstract

Introduction: Cutaneous noninfectious autoimmune vesiculobullous diseases are a wide variety of lesion. They can show clinical and histopathological overlap, posing diagnostic challenges. Clinically, vesiculobullous lesions might not present with typical morphology and distribution in all cases. The specific histomorphological changes are observed only in an early and intact bulla. Immunofluorescence (IF) is the histochemical staining technique, which detects antibodies in the tissues and body fluids. IF an adjuvant to histopathology is considered as gold standard in the diagnosis of vesiculobullous diseases. **Methodology:** A two-year retrospective cross-sectional descriptive study was conducted in the department of pathology, in a tertiary care center from January 2018 to December 2019. Paraffin embedded hematoxylin and eosin slides were retrieved from the archives and analyzed. Biopsies received in Michel's medium were utilized for immunofluorescence study. **Results:** A total of 67 cases with Vesiculobullous lesions were analysed. The most common lesion diagnosed was Bullous Pemphigoid (BP) (29 cases -46.7%), followed by Pemphigus Vulgaris (PV) (19 cases- 30.6%). The highest number of cases was noted in the 7th decade, with a slight female preponderance. Sixteen out of 19 cases of pemphigus vulgaris and 28 out of 29 cases of bullous pemphigoid showed positive histomorphological correlation with IF. The PPV for pemphigus vulgaris was 100% and sensitivity was 84.2%, and in bullous pemphigoid, both the PPV and sensitivity was 96.5%. Higher concordance was noted between Histopathology and IF diagnosis in cases of BP in comparison to PV. **Conclusion:** Vesiculobullous lesions are heterogeneous in nature and can have clinical and histopathological overlap, posing diagnostic challenges. IF is considered gold standard and is necessary for the diagnosis in every case. A combined clinical, histopathological and IF examination is the best approach to accurate diagnosis.

Keywords

Bullous, Pemphigus, Vesiculobullous, Direct Immunofluorescence



Dr Reshma G Kini

Title: Not Just for Mavericks’: Entrustable professional activities for traditionalists, trailblazers and everyone in between

Name of the Journal: Journal of Diagnostic and Academic Pathology

Published Year: 2024

Abstract:

Entrustable professional activities (EPAs) are advancing medical education across the globe, with growing interest in India. Hands-on training has always been the cornerstone for postgraduate (PG) training in India. While competency-based education practices are embedded in our system, the specific framework and its terminologies are less widely recognized. For those new to these concepts, competency-based medical education is an educational approach focussed on achieving competencies (abilities) during medical training. Entrustable Professional activities are structured tasks within this framework, representing units of professional work that learners are entrusted to perform once they have demonstrated sufficient competence. Introduction to EPAs can formalise the existing approach to post-graduate education, by defining clear expectations that focus on outcome-based progression that benefits all stakeholders. This article, titled ‘Not Just for Mavericks’, aims to introduce EPAs, to teachers within the pathology post-graduate programme in India, while offering international readers insight into India’s unique context and the transformative role EPAs could play in streamlining medical training. The article aims to answer the queries on EPAs from the perspectives of medical educators, teachers, the learners, administrators and the policymakers with intent to explore the application of this concept in their own contexts. Furthermore, it introduces the concept of EPAs as a practical tool for implementing the National Medical Commission’s guidelines on competency-based post-graduate education in pathology. Relevant studies were identified using PubMed, Google Scholar and cross-referencing, with selected data synthesised to support the review’s objectives.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Risk of malignancy in Bethesda category 3 and 4 thyroid lesions. A Histopathology Cytology correlation study in a tertiary care hospital.	Dr. Rohan Bhat	Dr Hilda Fernandes	
2	Assessment of tumor budding in	Dr.Pooja	Dr Crysle	

	colorectalcarcinomar and its correlation with histomorphologic prognostic indicators in a tertiary care center	Hegde	Saldanha	
3	Clinicopathological predictors of molecular subtypes of breast cancer	Dr Keerthana N	Dr Reshma Kini	
4	Autopsy based histomorphological study of coronary artery disease	Dr Rashmi P	Dr Nisha J Marla	
5	A study on inter observer variability in histopathological assessment of inflammatory bowel disease in intestinal mucosal biopsies using the british society of gastroenterology reporting guidelines	Dr Chaithanya B	Dr Umashankar T	
6	Clinicopathological spectrum of non – hodgkin’s Lymphoma	Dr. Sharon Elisa Babu	Dr Jayaprakash CS	
7	Cytomorphological spectrum of lymphnode swelling	Dr Shareen P	Dr Jayaprakash CS	
8	Histopathological features of hashimotos thyroiditis with respect to IgG4 thyroiditis	Dr Nilofer Johnson	Dr Hilda Fernandes	FMRC - 18,556
9	Interobserver variability in histopathological grading and grade grouping of adenocarcinoma prostate	Dr Akshaya Prabhu M	Dr Hilda Fernandes	
10	Histopathological study of urinary bladder lesions with special emphasis on muscle invasive urinary bladder carcinoma	Dr Ria Raj	Dr Nisha J Marla	
11	Platelet indices in diabetes mellitus indicators of diabetic complications in a tertiary care hospital	Dr Treesa Joy	Dr Jayaprakash CS	
12	Aaccuracy of bronchial cytological diagnosis in lung lesions in comparison with histopathology	Dr Theertha M J	Dr Archana Bhat	
13	A multivariant study on tumor buds and tumor stromol ratio and their relationship between prognostic indicators in oral squamous cell carcinoma patients.	Dr Anna Nikitha Babu	Dr Umashankar T	
14	Clinicopathological evaluation of Renal Biopsies	Dr Sekh Iqbal Hussain	Dr Archana Bhat	
15	Evaluation of Platelet indices in dengue fever	Dr Swathi Elizabeth Jose	Dr Jayaprakash CS	
16	Analysis of immuohistochemical expression of mismatch repair proteins in Endometrial Cancer	Dr Priyam Mundra	Dr Crysle Saldanha	
17	Study of interobserver variability in Gleason grading scoring and grade grouping in Prostatic Adenocarcinoma	Dr Elizabeth Shaji	Dr Reshma Kini	
18	To Assess the role of cell population data in the early diagnosis of sepsis in adults	Dr Ravindhran	Dr Jayaprakash CS	
19	Analysis of E –Cadherin Expression and its correlation with Histological prognostic indicators in oral carcinoma	Dr Vignesh Prabhu J	Dr Umashankar T	
20	Correlation of histopathology and	Dr Kritarthee	Dr Hilda	

	immunofluorescence in vesiculobullous disorders of the skin	Chowdhury	Fernandes	
21	Clinicopathological correlation of thrombocytopenia among elderly	Ms Ashwija B	Mr Omkareshwar Patil	
22	Spectrum of NESTROFT positive test cases in tertiary care center	Ms Anjana Janardhanan	Dr Christol Blanch Moras	

Awards:

1. **Dr Reshma G Kini** has won **III Prize** in Faculty Category for Oral paper titled **“Development and Validation of Entrustable Professional activities (EPAS): Navigating challenges by leveraging Faculty development Programs”** in the 50th Annual State conference of Karnataka chapter of Indian Association of Pathologists and Microbiologists (KCIAPM) on 19th& 20th October 2024.
2. **Dr Sueallen Lorna Dsouza** has been awarded **Best Paper** for the Oral Paper titled **“Conceptualizing the use of Google sites as an e-portfolio platform for EPA – based curriculum”** in the 3 day National conference, Skill Educon 2.0 held from September 19th to 21st 2024 at Father Muller Medical College, Mangalore.

Presentations:

Sl.No	Name	Title of Oral Paper	Event
1	Dr. Reshma G Kini	Development and Validation of Entrustable Professional Activities (EPAs): Navigating challenges by leveraging Faculty Development Programs	50th Annual State Conference of KCIAPM, October 19-20, 2024
2	Dr. Sueallen Lorna Dsouza	Conceptualizing the use of Google Sites as an e-portfolio platform for EPA-based curriculum	Skill Educon 2.0 (National Conference), September 19-21, 2024, Father Muller Medical College, Mangalore
3	Dr. Archana Bhat	Jigsaw method as an effective teaching-learning method for postgraduate students	
4	Dr. Prashanth R	Entrustable Professional Activity: Developing an assessment framework for its integration into existing postgraduate pathology curriculum	
5	Dr. Christina Avril Goveas	Entrustable Professional Activities (EPAs) in Focus: Development and validation in postgraduate pathology	

Pharmacology

Research Projects 2024

S.No	Title of the Project	Investigator(s)
1	CBME and SBME Quiz in the Skills and Medical Education National Conference: Perspective and Its Effectiveness on the Delegates and Quiz Participants	Dr. Chandralekha N
2	Perception of "Patient Rights, Patient Autonomy, and Shared Responsibility in Health Care" Among Medical Undergraduates and the Effectiveness of Pharmacology Teaching-Learning Sessions	Dr. Chandralekha N
3	An AI Model for Predicting and Managing Blood Glucose Levels for People Suffering from Type 1 Diabetes Mellitus (T1D)	Dr. Mangala S, Dr. S. Ruban, Dr. Sudeep K
4	A Comparative Study of Awareness of Antiseptics and Disinfectant Use Among Medical Students of a Tertiary Care Hospital	Dr. Pooja M, Dr. Puneeth A, Dr. Padmaja Udaykumar
5	A Study of Awareness of Antiseptics and Disinfectant Use Among Allied Health Sciences Students and Interns of a Tertiary Care Hospital	Dr. Pooja M, Dr. Puneeth A
6	Evaluation of the Mentor-Mentee Program Effectiveness Using a Mixed Methods Approach (FAIMER Project)	Dr. Mangala S, Dr. Nagesh K, Dr. Chandralekha N
7	A Short Intervention Followed by an Interactive E-Learning Module to Motivate FAIMER Fellows to Use Theatre for Sensitizing Students in Disability-Inclusive Compassion Care: A Prospective Implementation Study	Dr. Mangala S, Dr. Reshma Kini, Dr. Raakhi Tripathi, Dr. Santanu Bhattacharya
8	Teamwork Assessment Among Health Care Professionals in an Interprofessional Education Setting – Experiences of Mentor-Learner Web-Based Learning	Dr. Chandralekha N
9	Enhancing Medical Faculty Facilitation Skills in Small Group Discussions: A Targeted Faculty Development Program	Dr. Chandralekha N, Dr. Chandni (Associate Professor, Psychiatry)

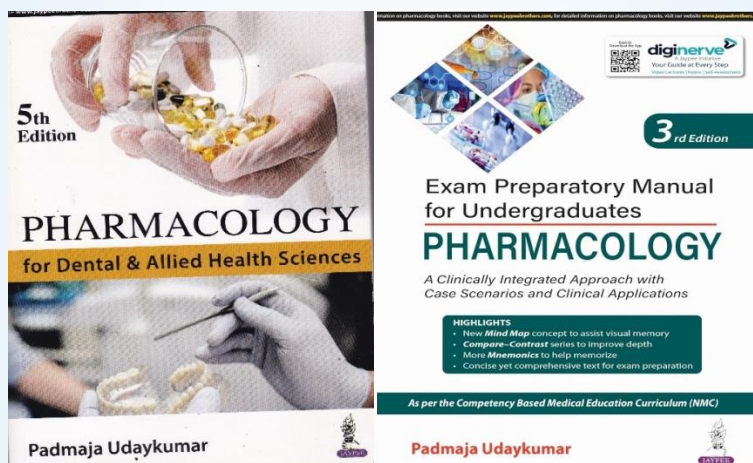
Clinical Trials ongoing:

S.No	Title of the Project	Investigator(s)	Funding Source	Grant
1	Aldosterone Blockade for Health Improvement Evaluation in End-Stage Renal Disease	Dr. Manjunath J, Dr. Chandralekha N	Population Health Research Institute, McMaster University Hamilton General Hospital 237	Rs. 72,000
2	COLchicine and Thiamine in Heart Failure Due to	Dr. Pradeep Pereira, Dr.	Hamilton Health Sciences, through the	Rs. 1,22,637.49

S.No	Title of the Project	Investigator(s)	Funding Source	Grant
	Ischemic Heart Disease – COLT-HF	Mangala S	Population Health Research Institute	
3	A Study of Abrelacimab in Patients with Atrial Fibrillation Deemed Unsuitable for Oral Anticoagulation	Dr. Pradeep Pereira, Dr. Mangala S	Anthos Therapeutics	Not Specified

Text books

The book “*Pharmacology for Dental and Allied Health Sciences, 5th Edition*” and “*Exam preparatory manual for undergraduates 3rd edition*” by **Dr. Padmaja Udaykumar** was published in 2024 by JAYPEE Brothers Medical Publishers, New Delhi.



Publications:



Dr Chandralekha N

Dr. Padmaja Udaykumar

Title: Comparative evaluation of the antianxiety effects of Vitamin C, buspirone, and diazepam in rats.

Abstract:

Background: Anxiety is one of the common mental disorders. Non-fatal health loss is one of the consequences of anxiety disorders. Oxidative stress may also play a role in anxiety disorders. As an antioxidant, Vitamin C can create stable ascorbate free radicals and lower reactive oxygen species. In addition, Vitamin C can prevent damage caused by free radicals. Oxidative stress can also lead to depression, schizophrenia, and bipolar disorder. **Aim and Objectives:** The aim and objectives of the study are to compare the antianxiety effects of Vitamin C, buspirone, and diazepam in albino rats using elevated plus maze and hole board apparatus. **Materials and Methods:** 36 albino rats of either sex were divided into 6 groups of 6 rats each and drugs were administered orally. Group 1 received distilled water 10 ml/kg, Group 2 received Vitamin C 200 mg/kg, Group 3 received buspirone 10 mg/kg, Group 4 received diazepam 1 mg/kg, Group 5 received buspirone 10 mg/kg + Vitamin C 200 mg/kg, and Group 6 received diazepam 1 mg/kg + Vitamin C 200 mg/kg. Antianxiety effects of these drugs were tested after 14 days of drug administration using hole board apparatus and elevated plus maze. The methods used for statistical analysis were mean, standard deviation, confidence interval, median, interquartile range (IQR), frequency and percentage, ANOVA, Kruskal–Wallis test, and Fisher’s exact test. **Results:** On average time spent in open arms by Group 5 was 98.00 sec (IQR: 19.75–138.00) which was higher than other groups, but it was not statistically significant ($P = 0.845$). The time spent in closed arms in seconds by Group 4 was 245 ± 28.863 , which was higher than other groups, but it was not statistically significant ($P = 0.805$). On average head dip by Group 5 was 9.83 ± 4.708 , which was higher than other groups, but it was not statistically significant ($P = 0.141$). **Conclusion:** Group 5 rats that received buspirone and Vitamin C, followed by Group 6 rats that received diazepam and Vitamin C had spent more time and had more entries into the open arms. Furthermore, Groups 5 and 6 animals had a greater number of head dips in the hole board apparatus compared to the behavior of all animals in other groups. Buspirone and diazepam are known anxiolytics. When these drugs were given in combination with Vitamin C, the antianxiety behaviors in rats were more compared to the drugs given alone in the present study but it was not statistically significant.



Dr Mangala S

Title: Item analysis of multiple-choice questions in pharmacology among medical undergraduates

Journal: National Journal of Physiology, Pharmacy and Pharmacology

Published year: 2024

Abstract:

Background: Assessment plays an essential role in the evaluation of learning, and multiple-choice questions (MCQs) are one of the components of examinations. Item analysis enables identifying good MCQs based on difficulty index (DIF I), discrimination index (DI), and distractor effectiveness (DE). The assessment of learning will be more meaningful with routine item analysis. **Aims and Objectives:** The item analysis helps us to assess the validity and reliability of MCQs and to generate a valid MCQ question bank for future use. **Materials and Methods:** A set of 30 single best response type MCQs or items was used for assessment in 155 phase II MBBS students at a medical college in Mangalore. Each item was pre-validated before and later analyzed for its DIF I, DI, and DE. **Results:** In the study, the means of DIF I were $55.91 \pm 18.48\%$, DI, was $0.35 \pm 0.16\%$, and distractor efficiency was $72.19 \pm 29.15\%$. Out of 30 items, 22 had a “good to acceptable” level of DIF I, and 18 items had “good to excellent” discrimination power. 81% were functional distractors among 120 distractors. A correlation $r = 0.1968$ indicates a positive correlation between DIF I and DI. **Conclusion:** The majority of the MCQs in this study fell within the acceptable range when measured against the three factors analyzed. This suggests that the key to developing valid and reliable MCQs is possible only when regular item analysis is done for all MCQ-based tests.



Dr Pooja M

Title: A comparative study of hypolipidemic effect of atorvastatin and *Coriandrum sativum* in triton induced hyperlipidemic albino rat model.

Journal: International Journal of Basic & Clinical Pharmacology Published year: 2024

Abstract:

Background: Hyperlipidemia is the main factor responsible for coronary artery disease. Atorvastatin commonly used, as a competitive inhibitor of HMG-Co-A reductase, is known to reduce LDL and triglyceride levels and increase HDL levels. *Coriandrum sativum*(Coriander) belongs to the Apiaceae family and has hypolipidemic, antidiabetic, and antioxidant properties. Triton WR1339 has been used by several studies to induce hypercholesterolemia in animals which act on both the synthesis and excretory phase. This study aimed to compare the hypolipidemic effect of *Coriandrum sativum* and atorvastatin in triton-induced hyperlipidemic rats. **Methods:** Following approval from the Institutional Animal Ethics committee, 36 Wistar albino rats were divided into 6 groups of 6 animals each. Triton 200mg IP was administered to all the groups except Group 1 (control). Groups 3 and 4 received Coriander extract 300mg/kg and Atorvastatin 80mg/kg orally with Triton. Groups 5 and 6 received Coriander extract and Atorvastatin respectively 22 hours later. Lipid profile was estimated 24 hours before, 24 and 48 hours after administering Triton. **Results:** In the synthesis phase, there is a statistically significant increase in the lipid levels in Groups 2, 5, and 6 compared to Groups 3 and 4 indicating hypolipidemic effects of both Coriander extract and Atorvastatin. In the excretory phase, all groups have shown a decrease in lipid levels but a decrease in total cholesterol level in Group 5 compared to Group 3 was significant. **Conclusions:** Atorvastatin and Coriander extract both affect the lipid levels in the synthesis and excretory phase. Even though coriander cannot replace atorvastatin in the management of hyperlipidemia, it can be used as an adjuvant to atorvastatin to reduce the cost effects and adverse reactions caused by allopathic medicines.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide
1	Prospective study on comparison between atorvastatin 20 mg and 40 mg and	Ms Niya Mahale	Dr Mangala S

	rosuvastatin on CRP levels after 6 weeks follow up of patients with ACS.		
2	Evaluating the perceptions and rationale of Intradermal Testing of Antibiotics (IDTA) among Tertiary Healthcare Professionals: A Mixed Methods Study	Ms Hannah Johnson	Dr Chandralekha N

External student projects from Karavali college of Pharmacy

Sl no	Title	Name of the student	Name of Guide/Co-guide
1	Retrospective study on ectopic pregnancy	Deeksha M	Guide – Dr Mangala S
2	Comparative analysis of outcomes in acute organophosphate poisoning with and without N-acetyl cysteine intervention	Srujana M	Guide – Dr Mangala S
3	Beyond stroke: A comprehensive assessment of apathy and depression in stroke patients	Ms Ayisha Afeefah A, Mr Hifzul Hussain, Ms Chandini V	Co-guide – Dr Mangala S
4	Assessment of bacterial infection in liver disease a prospective study in a tertiary care hospital	Ms Hasbiya	Co-guide – Dr Pooja M
5	Evaluating drug use challenges and quality of life among patients with diabetes associated cardiovascular disease in tertiary care hospital	Ms Chaithanya, Ms Lavanya H Amin, Ms Architha	Co-guide – Dr Vinitha K

Awards:

Dr Padmaja Udaykumar was felicitated by the Indian Medical Association, Mangalore on the Teachers Day held on 5th September 2024.



Presentations:

Dr Chandralekha N

- Presented oral paper titled **“CBME and SBME quiz in the skills and medical education national conference: perspective and its effectiveness on the delegates and quiz participants”** in the 3 day National Conference SKILL EDUCON 2.0 held from 19th to 21st September 2024 at FMCC
- Presented e-poster entitled **“Bridging disciplines: evaluating medical and nursing students readiness for IPE and prescription writing”** during NCHPE 2024 from 21st to 23rd November 2024 at Lucknow
- Presented a poster titled **“empowering future physicians: AETCOM in Medical education through the lens of patient rights, autonomy and shared responsibility in healthcare”** in the MAHE-FAIMER Decennial celebration and scientific fest at KMC Manipal on 23^d and 24th October 2024
- Presented poster titled **“Supplementary prescription writing for the nursing undergraduate students – simulation based interprofessional education”** on 22nd October 2024 M-FIILPE KMC Manipal

Dr Mangala S

- Presented oral paper titled **“Evaluation of the Mentor-Mentee Program Effectiveness Using a Mixed Methods Approach”** in the 3day National Conference SKILL EDUCON 2.0 held from 19th to 21st September 2024 at FMCC

Dr Pooja M

- Presented oral paper titled **“A comparative study of awareness of antiseptics and disinfectant use among medical students of a tertiary care hospital”** in the 3 day National Conference SKILL EDUCON 2.0 held from 19th to 21st September 2024 at FMCC

Physiology

Research Projects 2024

Sl. No	Title of the Project	Investigator	Funding Source	Grant
1	Effect of high-intensity interval training vs moderate-intensity continuous training on cardio-metabolic risk factors and heart rate variability in overweight and obese individuals	Dr. Anahita R Shenoy	Rajiv Gandhi University	Rs. 1,00,000/-
2	Effects of energy restriction regimens on metabolic and cognitive functions in menopausal rodent models – A comparative study	Dr. Neetha Shastry	Rajiv Gandhi University	Rs. 2,50,000/-
3	Relationship between Angiotensin-like protein 8 gene expression and glycemic regulators in gestational diabetes mellitus	Dr. Pauline Anand	Rajiv Gandhi University	Rs. 3,50,000/-

Publications:



Dr Neetha Shastry

Title: Faculty perceptions of the efficacy, benefits and challenges of simulation-based early clinical exposure for medical students in India: A qualitative study

Name of the journal: Indian J Physiol Pharmacol

Published year: 2024

Abstract:

Objective: Medical education in India has shifted to a learner-centric approach, with early clinical exposure (ECE) mandated for 1st-year medical students. Implementing ECE in a clinical setting is challenging, leading to the adoption of simulation-based ECE (SB-ECE).

However, faculty perceptions of integrating simulation with ECE, especially for 1st-year undergraduates, remain understudied. This study aimed to explore faculty perceptions of the feasibility, advantages and challenges of using simulations in ECE, providing valuable insights for future studies. **Materials and Methods:** We conducted a qualitative study with intentional sampling according to predefined criteria. We interviewed 12 faculty members at a medical teaching institution using a topic guide. Thematic analysis was then performed on the data collected from the 12 interviews to identify the key themes and patterns. **Results:** Most of the faculty interviewed considered the use of simulation in ECE as an excellent adjunct to teaching in a clinical setting. However, the faculty also noted a few challenges, such as fidelity, time constraints and the ratio of students to faculty members, in implementing SB-ECE. **Conclusion:** Faculty members recognised the integration of simulation into ECE as a highly effective tool for enhancing the learning of basic sciences and fostering attitudes, ethics and professionalism in medical education, with the main challenge being the logistical demand for implementing simulation-based sessions.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Correalation of dietary pattern with markers of body composition, oxidative stress and cardiac autonomic modulation in young adults	Ms. KhyathiChembeti	Dr. Neetha Shastry	Rs 15,000
2	Prevalence and patterns of headphone or earphone usage in young adults and its association with hearing loss	Ms. Nikki Aasary	Dr. Anahita R Shenoy	Rs 42,750

Presentations:

Dr. Jnaneshwara P Shenoy presented a poster titled "A study on the association between body fat distribution and cardiovascular reactivity to mental stress in young adults."



Psychiatry

Research Projects 2024

Sl.no	Title of the Project	Investigator	Funding Source	Grant
1	Interprofessional simulation-based education module on suicide risk assessment for health profession learners.	Dr. Chandini	Self	10,000
2	Disability certification-awareness, attitude and experience among persons with mental illness - a cross-sectional mixed methodology observational study	Dr. Rashmi Appaji	Self	200
3	Follow-Up Patterns, Relapse Rates, and Clinical Characteristics in Bipolar Disorder: A Comparative Retrospective Cohort Study Between a tertiary care center in South India and the UK	Dr. Aishwarya Rao	Self	1,500
4	Clinical and Psychosocial Characteristics of Patients with Sexual Health Concerns: A Retrospective Study	Dr. Aishwarya Rao	Self	3,000

Case Reports:

Sl. no	Title	Investigator	Journal
1	Propofol Induced Seizure Like Phenomenon During Modified Electroconvulsive Therapy	Divya R Nair	Kerala Journal of Psychiatry
2	Restarting Neuroleptics in Neuroleptic Malignant Syndrome – A Case Series	Dr. Aishwarya Rao	Annals of Indian Psychiatry

Publications:



Dr. Rashmi Appaji

Title: Exploring barriers to seek mental health services among patients with severe mental illness and their caregivers in a modified assertive community treatment program: A qualitative thematic analysis.

Journal: Indian Journal of Psychiatry

Published year: 2024

Abstract:

Background: Affordability, lack of public mental healthcare facilities, inadequate insurance coverage, and stigma and discrimination are barriers to mental healthcare utilization in India. There is limited research on these barriers and the factors influencing the use of mental health services. **Aim:** To explore the barriers to seeking mental healthcare for individuals with severe mental illness and their caregivers in a modified assertive community treatment program. **Methods:** In a qualitative study using a descriptive thematic analysis, we conducted in-depth interviews with 19 adults, including seven individuals with severe mental illness and twelve caregivers. All the participants had been in the modified assertive community treatment program for at least two years. Using thematic analysis, we identified and grouped codes into subthemes and then clustered into themes. **Results:** Three major themes on barriers to seeking mental health services emerged: service-related factors, societal-related factors, and illness-related factors. Service-related factors included affordability, accessibility and geographical disparity, and noncoverage under insurance schemes. Societal-related factors included social stigma and discrimination, lack of mental health service knowledge and seeking other forms of treatment, and poor social support. Illness-related factors included poor insight into the illness and no relief from the symptoms despite medication. **Conclusions:** Barriers to seeking mental healthcare can be categorized as service-related, societal-related, and illness-related. Identifying these factors will improve mental health service delivery.

Keywords: Barriers; mental healthcare; modified assertive community treatment; qualitative.

Title: Life Minus Illness = Recovery? A Phenomenological Study About Experiences and Meanings of Recovery Among Individuals with Serious Mental Illness from Southern India.

Journal: Community Ment Health J

Published year: 2024

Abstract:

Traditional medical models have given way to recovery-oriented approaches over the years in the management of individuals with serious mental illnesses. However, very little is known about such recovery-based models in the Indian context. This qualitative study used a phenomenological approach to explore the experiences and meanings of recovery among individuals with serious mental illness in southern India. Purposive sampling with maximum variation was used to recruit participants. In-depth interviews were conducted with ten participants, using a semi-structured interview guide. Thematic analysis resulted in three themes: "The illness journey," "Life minus illness = Recovery," and "It takes a village to recover". Illness and recovery seemed to be two sides of the same coin with the context playing an influential role in the perceptions of recovery. The term "recovery" seemed to be a misnomer giving the impression that one is expected to return to an illness free state.



Dr.Siddharth Shetty A

Title: Frequency of Social Anxiety Disorder among Medical Students in a Tertiary Care Hospital in The Post Pandemic Era: A Cross-Sectional Study in India.

Journal: International Journal of Medical Science and Advanced Clinical Research

Published year: 2024

Abstract:

Introduction: Social anxiety disorder is a common psychiatric illness characterized by fear of being observed and scrutinized by others. The COVID-19 pandemic has led to acute changes in daily routines and lifestyles. Hence, leading to an increase in the frequency of anxiety disorders worldwide. **Aim:** To explore the frequency of social anxiety disorder among medical students and its socio-demographic correlates in the post-pandemic era. **Methods:** This hospital-based, cross-sectional study was conducted among 140 medical students of a Tertiary care medical college and hospital in Mangalore, Karnataka from August to October 2023. The Social Phobia Inventory (SPIN) questionnaire was used to diagnose SAD among students and correlated with their socio demographic data. **Statistical Analysis:** Data entry

and analysis were done using SPSS version 20. **Results:** Social anxiety disorder (SAD) was present among 48.6 (n=68) of the medical students. The female students (55.1%, n=49) documented a higher proportion of SAD compared to male students (37.3 %, n=19). There was a higher incidence among students from authoritarian family environments. **Conclusions:** A higher proportion of medical students had social anxiety disorder which was influenced by gender and family environment. These results constitute a need for awareness amongst the medical fraternity as a whole regarding early detection and management of these cases.



Dr. Chandini

Title: Psychological Impact of Cyberbullying in Young Adults

Journal: International Journal of Medical Science and Advanced Clinical Research

Published year: 2024

Abstract:

Cyberbullying has emerged as a significant social concern in the age of digital technology, creating an environment prone to victimization experiences. Cyberbullying can lead to severe psychological issues for victims, including anxiety, depression, and poor coping skills.



Dr. Supriya Hegde Aroor

Title: Assessment of Personality Disorder In Inpatients Admitted With Alcohol Dependence Syndrome - A Cross Sectional, Observational Study

Journal: International Journal of Medical Science and Advanced Clinical Research

Published year: 2024

Abstract:

Numerous studies have shown that the prevalence of personality disorder (PD) in alcohol dependence syndrome (ADS) varies from 22 to 78%. The pathophysiology, course, and prognosis of ADS can all be influenced by co-occurring PD. Studies conducted in India have not sufficiently examined this correlation.

Other projects:

Post-Graduate

Sl No	Title	Name of the Student	Name of PI/Guide	Grant
1	Prevalence of Internet Gaming Disorder and Its Correlation with Smoking in College Students of Mangaluru	Dr. Shrinjay Pedakala	Dr. Aruna G	Self
2	Retrospective case profiling of psychiatric in-patients in the peripartum period: a decade long study	Dr. Vaishnavi Ballal	Dr. Aruna G	Funded
3	Psychiatric morbidity, quality of life and stigma associated in individuals with chronic hepatitis B infection: a cross-sectional case control study	Dr. Santra Elizabeth Eldo	Dr. Chandini	Self
4	Assessing The Effect Of Stigma And Religious Misconceptions On Treatment Seeking Behavior In Caregivers Of Patients In A Manic Episode	Dr. Amal Priya Chako	Dr. Supriya Hegde Aroor	Self
5	Frequency of medically unexplained physical	Dr. Parul Singh	Dr.	Self

SI No	Title	Name of the Student	Name of PI/Guide	Grant
	symptoms among females, its psychiatric comorbidity and quality of life		Siddharth Shetty A	
6	The Prevalence of self-stigma among Psychiatric patients: a cross sectional study	Dr. Jennifer Jacob	Dr. Aruna G	Self
7	Clinical empathy among medical undergraduate and postgraduate: A comparative study	Dr. Shalini Mishra	Dr. Aruna G	Self
8	Testosterone level and sexual dysfunction in men with alcohol dependence syndrome	Dr. Jenny Ann Maria R	Dr. Aruna G	Self
9	Psychiatric morbidity, quality of life, self-esteem and social support before and after hysterectomy	Dr. Sheen Thomas	Dr. Supriya Hegde Aroor	Self
10	Psychiatric morbidity and its effects on drug adherence and quality of life in patients with Rheumatoid arthritis	Dr. Cyrus K Bijoy	Dr. Supriya Hegde Aroor	Self
11	Frequency of aggression, self-harm and suicidal tendency in relation to insight in Schizophrenia	Dr. Teerthika Chowdary	Dr. Siddharth Shetty A	Self
12	Common mental disorders in undergraduate college students and its psychological correlates	Dr. Mohammed Wajid M	Dr. Supriya Hegde Aroor	Self
13	Assessment of anxiety and depression in migraine patients - a cross sectional study	Dr. Vinita Precilla Dsouza	Dr. Aruna G	Self
14	Epileptic psychosis versus depression in a 15-year-old boy	Dr. Rakshita Satish	Dr. Supriya Hegde Aroor	Self
15	Psychiatric Comorbidity in Atopic Dermatitis	Dr. Alana Davis	Dr. Siddharth Shetty	Self
16	Insight And Medication Noncompliance In Euthymic Bipolar Patients	Dr. Jisha Thekkemuriyil Jose	Dr. Aruna G	Self
17	Mediating Effects of Stressful Life Events On Anxiety and Sleep In Patients Undergoing Hemodialysis	Dr. Neola Frana Pinto	Dr. Supriya Hegde Aroor	Self
18	Exploring Eating Disorder And Body Dissatisfaction Among Young Adults: A Cross-Sectional Observational Study	Dr. Santra Elizabeth Eldo	Dr. Chandini	Self

Radiation Oncology

Research Projects 2024

Manuscript submitted to journal

S. No.	Title	Authors	Journal	Submission Date	Status
1	Retrospective study on dose to thyroid gland and mean thyroid gland volume in breast cancer patients receiving adjuvant radiotherapy to chest wall and supraclavicular area with 3D-conformal radiation therapy.	Dr. Zaiba, Dr. Sandesh Rao, Dr. Tony, Dr. Krishnaraj H K, Dr. Lanisha	Indian Journal of Cancer	23/10/2024	Submitted
2	Measuring Radiotherapy setup error in IMRT and VMAT treated head and neck cancer patients on a ring based LINAC.	Mr. Sridher, Dr. Sandesh, Dr. Donald, Dr. Krishnaraj, Dr. Tony, Dr. Lanisha	Asian Journal of Oncology	14/06/2024	Under Review

Clinical Trials

S. No.	Title	Investigators	Funding agency
1	Safety and efficacy of Lipiodol Ultra Fluid during conventional transarterial chemoembolization in treatment of inoperable HCC in Indian patients – Phase IV trial.	Dr. Sandesh Rao B, Dr. Lenon Jason Dsouza, Dr Nishitha shetty	SIRO Clintech Pvt Ltd

Other Projects:

S. No.	Title	Authors	Status
1	Dosimetric factors related to dysphagia in patients receiving chemoradiotherapy for head and neck cancer (at statistical analysis).	Dr. Tony, Dr. Lanisha	At statistical analysis
2	Delineate and estimate the actual delivered dose to the cervical spinal cord during head and neck cancer treatment.	Mr. Sridhar, Dr. Sandesh, Dr. Donald, Dr.	Not specified

S. No.	Title	Authors	Status
		Krishnaraj, Dr. Tony, Dr. Lanisha	
3	Cervical esophageal dose comparison between VMAT and IMRT technique in head and neck malignancy.	Dr. Krishnaraj H K, Dr. Sandesh, Dr. Tony, Dr. Lanisha	Not specified
4	Assessment of acute toxicities, response and dosimetry with image-guided volumetric modulated arc therapy in locally advanced cervical cancer.	Dr. Zaiba	Not specified
5	Assessment of acute toxicities and dosimetry with volumetric arc therapy in locally advanced breast cancer.	Dr. Ema	Not specified
6	Assessment of acute toxicities, response and dosimetry in esophageal cancer treated with image-guided volumetric modulated arc therapy (IG-VMAT).	Dr. Vimal	Not specified
7	Assessment of acute toxicities, response and quality of life with volumetric modulated arc therapy in locally advanced laryngeal and hypopharyngeal cancer.	Dr. Roshni RR	Not specified
8	Assessment of dysphagia in head and neck cancer patients undergoing radiotherapy.	Dr. Sattvik	Not specified
9	Assessment of efficacy, toxicity & quality of life with split course RT in advanced head and neck cancer.	Dr. Shilpa	Not specified
10	Correlation of xerostomia and salivary gland volume changes during definitive radiation therapy to head and neck cancers.	Dr. Lia Ann	Not specified

Awards:

- **Dr. Ema Chacko** was awarded **Gold medal** for the best poster presentation titled “**A comparative study of response and acute toxicities of HDR Intraluminal Brachytherapy with chemoradiation**” at international conference on Multidisciplinary Management of Common Cancers on 08/03/2024.

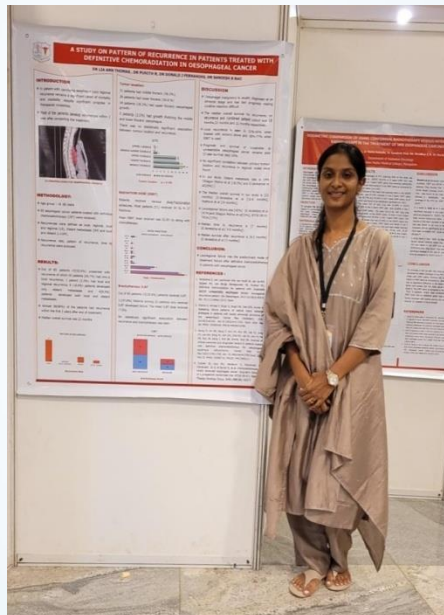
Presentations:

ORAL /POSTER PRESENTATION

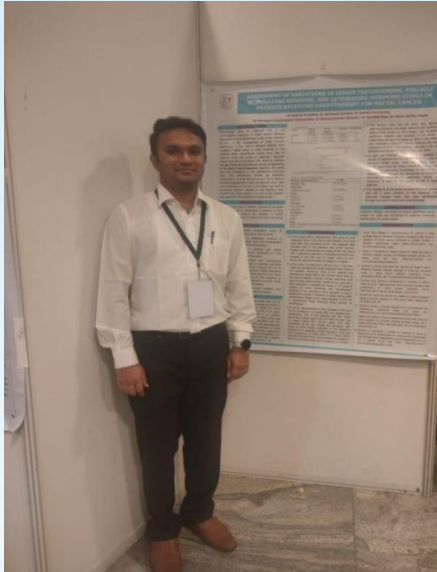
- **Dr. Shilpa Kankatte** presented a Poster presentation titled “**A Comparative study of treatment response and toxicities in concurrent chemoradiation with cisplatin alone verses cisplatin and paclitaxel in locally advanced Esophageal carcinoma**” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



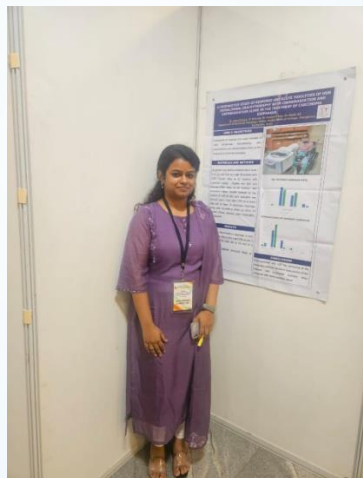
- **Dr. Lia Ann Thomas** presented a Poster presentation titled “**A study on pattern of recurrence in patients treated with definitive chemoradiation in oesophageal cancer**” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



- **Dr. Sattvik** presented a Poster presentation titled “**Assessment of variations in serum testosterone follicle stimulating hormone and luteinizing hormone levels in patients receiving radiotherapy for rectal cancer**” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



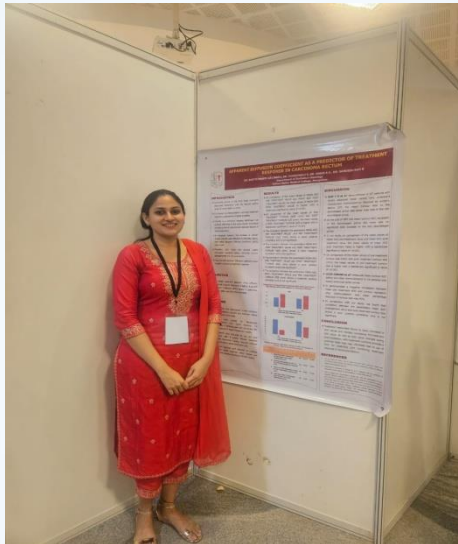
- **Dr. Ema Chacko** presented a Poster presentation titled “**A comparative study of response and acute toxicities of HDR Intraluminal Brachytherapy with chemoradiation and chemoradiation alone in the treatment of carcinoma Esophagus**” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



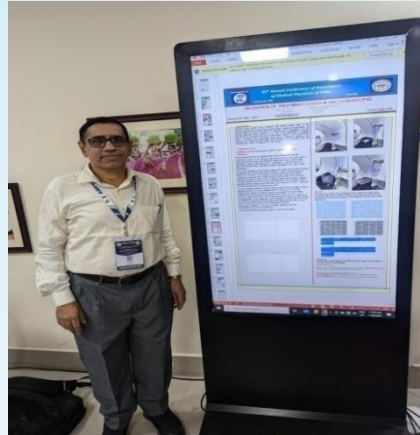
- **Dr. Roshni** presented a Poster presentation titled “**The impact of splenic Irradiation During chemoradiation for gastric and gastroesophageal junctional cancers in the development of acute haematological toxicity**” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



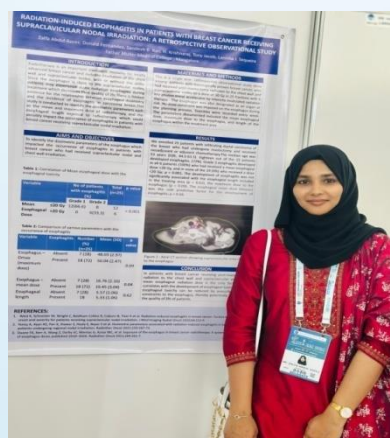
- **Dr. Prapti** presented a Poster presentation titled “Apparent diffusion coefficient as a predictor of treatment response in carcinoma Rectum” at Advancemnet Rectal Cancer Mangalore on 27/04/2024.



- **Dr. Andrea Remy Salin** presented a Poster presentation titled “A comparative study of response and acute toxicities of HDR Intraluminal Brachytherapy with chemoradiation and chemoradiation alone in the treatment of carcinoma Esophagus” at Oncology Conundrums 2024 Delhi on 18/05/2024.
- **Dr. Prapti R Shetty** presented a Poster presentation titled “The impact of splenic Irradiation During chemoradiation for gastric and gastroesophageal junctional cancers in the development of acute haematological toxicity” at Oncology Conundrums 2024 Delhi on 18/05/2024.
- **Mr .Sridhar** presented a oral presentation titled “Validation of treatment couch model included in Eclipse planning” at National conference AMPICON 2024 Hyderabad on 11/08/2024.



- **Dr. Zaiba Irum** presented a oral presentation titled“ **Simultaneous application of Esophageal and Endobronchial Brachytherapy for locally advanced Esophageal Cancer : A Case Report**”
- **Dr. Zaiba Irum**presented a Poster presentation titled “**Clinico- Pathological outcome of NACTRT in Carcinoma Rectum- A Retrospective Study**”
- **Dr. Ema Chacko**presented a Poster presentation titled “**Assessment of cochlear dose and Radiation induced hearing loss in head and neck cancer patients treated with radiotherapy**” at national conference AROICON 2024 Mangalore on 29/11/2024.
- **Dr. Tony** presented a Poster presentation titled“**Estimation of pelvic lymph node dose contribution from HDR ICBT in cervical cancer**” at national conference AROICON 2024 Mangalore on 29/11/2024.
- **Dr.Lanisha**presented a Poster presentation titled“**Dosemetric comparison of IMRT VERSUS 3DCRT in post mastectomy chest wall radiotherapy in breast cancer**” at national conference AROICON 2024 Mangalore on 29/11/2024.
- **Dr. Zalfa** presented a Poster presentation titled “**Radiation-Induced esophagitis in patients with breast cancer receiving supraclavicular nodal irradiation: A retrospective Observational Study**” at national conference AROICON 2024 at Mangalore on 29/11/2024.



Respiratory Medicine

Research Projects 2024

SL No	Title of the Project	Investigator	Funding Source	Grant
1	Cross sectional study on evaluation of Diaphragmatic functions in obstructive sleep aDnea Patients	Dr. Carishma	Internal	-

Presentations:

Dr. Srishankar Bairy presented a paper titled “Holistic clinical, biochemical and polysomnographic evaluation of obstructive sleep apnea patients at a tertiary care hospital in Karnataka”.



Surgical Oncology

Research Projects 2024

S.No	Title of the Project	Investigator	Funding Source
1	Use of Indocyanine green (ICG) dye for sentinel lymph node biopsy in breast cancer patients	Dr.Jnaneshwari Jayaram, Dr. Rohan Chandra Gatty, Dr.Alphonsa, Dr.Umashankar, Dr. Kumar S Vashist	Father Muller Medical College

Case Report:

S.No	Title of the Project	Investigator	Journal	Issue
1	A Case Study and Review of an Uncommon Association with AV Malformations	Alphonsa M Job, Rohan C Gatty, Christina A Goveas, Anand KT, MM Chetana Anand, Jnaneshwari Jayaram	Journal of Endocrine Surgery and Research	2024

Publications:



Dr. Elroy Saldanha

Title: A comparative study of indocyanine green instillation in inguinal node versus foot web space using da Vinci indocyanine green FireFly™ technology in identifying thoracic duct during robotic-assisted transthoracic oesophagectomy

Journal: Journal of Minimal Access Surgery

Published year: 2024

Abstract:

Introduction: Chyle leak is a serious complication following oesophagectomy with incidence varies from 1% to 9%. Near infra-red fluorescence imaging of thoracic duct (TD) can provide real-time dynamic imaging during the surgery. In this study, we intend to compare indocyanine green (ICG) dye instillation through inguinal node with subcutaneous first web space instillation for visualisation of TD during robotic-assisted minimally invasive oesophagectomy (RAMIE) procedure. **Patients and methods:** A prospective study of 50 patients underwent RAMIE with da Vinci X System. After general anaesthesia, patients were divided into inguinal node and foot first web space ICG instillation group. The former group had 1 ml of ICG dye instilled on bilateral inguinal nodes under ultrasound guidance and while the other group received 1 mL of ICG dye injected at bilateral foot first web space and then underwent surgery. TD was visualised using ICG FireFly™ fluorescence technology, first at the time of docking and subsequently for every 5 min until 60 min of instillation time and analysed. **Results:** Twenty-five patients were enrolled in each group. The mean docking time for thoracic phase was 13.76 ± 3.43 min. TD was visualised in 72% (18/25) of cases of first web space instillation group, whereas 100% in ultrasound guidance inguinal node instillation group. None of the patients had a chyle leak. **Conclusion:** ICG FireFly™ fluorescence technology for the identification of TD during oesophageal mobilisation is safe and effective and provides real-time dynamic visualisation with high accuracy in ultrasound-guided bilateral inguinal node instillation group. It is an effective method for the surgeons planning to negotiate their initial learning curve in RAMIE procedures.

Textbook Chapters:

- Somashekhar SP, Elroy Saldanha, Kush Shah. Robotic Surgery for Extrahepatic Biliary Duct. Garg, H.P. Agarwalla, R. Ramesh, M.Kumar, A.Lakshmi,K. **Textbook of Laparoscopic, Endoscopic and Robotic Surgery: Two Volume Set.**<https://books.google.co.in/books?id=uOqW0AEACAAJ.2024>.Jaypee Brothers Medical Publishers PvtLimited 2024, 898-918.
- Krishna, A., Saldanha E, Marakala V, Simon P, George T, Anthony R, Prabhakar P, Palatty PL, Baliga MS (2024). **Current and Future Perspectives of Combining Chemotherapy and Stereotactic Body Radiation Therapy with Immunotherapy in the Treatment of Lung Cancer.** In: Bhatt, S., Eri, R.E., Goh, BH.,Paudel, K.R., Andreoli Pinto, T.d.J., Dua, K. (eds) Immunotherapy Against Lung Cancer. Springer, Singapore. https://doi.org/10.1007/978-981-99-7141-1_14

Awards:

1. **Best Oral Paper** on “**Comparative Study of ICG instillation in inguinal node versus foot web space using Da Vinci ICG FireFly™ Technology in Identifying Thoracic Duct During Robotic Assisted Trans- thoracic Oesophagectomy**”in MidCon Indian Association Of Surgical Oncology at Hubli from 1-3rd March 2024.



2. **Awarded Best JMAS Research Paper Award** By Indian Association of Gastrointestinal Endo-Surgeons on **“Prospective analysis of impact of learning curve in robotic-assisted rectal surgery in the high-volume Indian tertiary care centre”** held from Feb 2-4, 2024 at Chennai.



Presentations:

1. **Dr. Elroy Saldanha** as a Faculty presentation on **Surgical Management of Ovarian Malignancy – More is Less!** And **Fluorescence in Rectal Cancer** in MidCon Indian Association Of Surgical Oncology at Hubli from 1-3rd March 2024.



2. **Dr. Elroy Saldanha** as a Faculty presentation on **Sentinel lymph node biopsy in Early Breast Cancer** in KSC-ASICON 2024 organized by Association Surgeons of India Karnataka Chapter at Dharwad Feb 2024.



3. **Dr. Elroy Saldanha** as a Faculty presentation on **ICG in Colorectal Cancer Surgeries** and panelist in **Future of Robotic Surgery** in NATCON 2024 Annual National Conference of Indian Association Of Surgical Oncology at Bangalore from 26th-29th October 2024

Urology

Case report:

S. No.	Authors	Title	Journal
1	Sajal Gupta, Abheesh Varma Hegde, Naresh Kumar Kaul, Sandesh Parab, Tarunkumar Prakash Jain, Mukund Andankar, Hemant Ranganath Pathak	A case series of emphysematous pyelonephritis in COVID-positive patients	American Journal of Clinical and Experimental Urology

Publications:



Dr. BM Zeeshan Hameed

Title: Uteroscopy for de-novo Urolithiasis after kidney transplantation: A systematic review of the literature.

Journal: European Urology Open Science 59:S26

Published year: 2024

Abstract:

Introduction: There is a gap in the available literature and guidelines concerning the optimal approach for treating allograft stones, which currently include external shockwave lithotripsy, Uteroscopy and laser lithotripsy, or percutaneous Nephrolithotomy. The objective of this systematic review was to evaluate the safety and effectiveness of URS as a treatment option for patients in this scenario. **Evidence acquisition:** A comprehensive search of the literature was conducted until August 2023. Only original articles written in English were considered for inclusion. This review has been registered in PROSPERO (registration number CRD42023451154). **Evidence synthesis:** Eleven articles were included (122 patients). The mean age was 46.9 ± 9.5 years, with a male-to-female ratio of 62:49. The preferred ureteral

reimplantation technique was the Lich-Gregoire. The mean onset time was 48.24 months. Acute kidney injury, urinary tract infections and fever were the most frequent clinical presentations (18.3% each), followed by Hematuria (10%). The mean stone size measured 9.84 mm (± 2.42 mm). Flexible URS was preferred over semi rigid URS. The stone-free rate stood at 83.35%, while the overall complication rate was 13.93%, with six (4.9%) major complications reported. Stones were mainly composed of calcium oxalate (42.6%) or uric acid (14.8%). Over an average follow-up period of 30.2 months, the recurrence rate was 2.46%. No significant changes in renal function or allograft loss were reported. **Conclusions:** URS remains an efficient choice for addressing de-novo allograft Urolithiasis, offering the advantage of treating urinary stones with a good SFR and a low incidence of complications. Procedures should be performed in an Endourology referral centre.

Title: PCNL for de-novo Urolithiasis after kidney transplantation: A systematic review of the literature.

Journal: European Urology Open Science 59:S25

Published year: 2024

Abstract:

Introduction and Objective: Renal transplantation is the treatment for end-stage renal disease that offers better quality of life and survival. Among the possible complications that might affect allografts, Urolithiasis might have severe consequences, causing acute kidney injury (AKI) or septic events in immunocompromised patients. Allograft stones might be treated with percutaneous Nephrolithotomy (PCNL). The aim of this Cochrane style review was to assess the safety and efficacy of PCNL in patients with renal transplant. **Methods:** A comprehensive search in the literature was performed including articles between July 1982 and June 2023, with only English original articles selected for this review. **Results:** The final review encompassed nine articles (108 patients). The mean age was 46.4 ± 8.7 years, with a male: female ratio of 54:44. The average time from transplantation to Urolithiasis onset was 47.54 ± 23.9 months. Predominant symptoms upon presentation were AKI (32.3%), followed by urinary tract infection and fever (24.2%), and oliguria (12.9%). The mean stone size was 20.1 ± 7.3 mm, with stones located in the calices or pelvis (41%), ureter pelvic junction (23.1%), or proximal ureter (28.2%). PCNL (22F-30F) was more frequently performed than mini-PCNLs (16F-20F) (52.4% vs 47.6%). Puncture was guided by ultrasound (42.9%), fluoroscopy (14.3%), or both (42.9%). The stone-free rate (SFR) and complication rates were 92.95% (range: 77%-100%) and 5.5%, respectively, with only one major complication reported. Postoperatively, a ureteral stent and nephrostomy were commonly placed in 47%, with four patients needing a second look PCNL. During an average follow-up of 32.5 months, the recurrence rate was 3.7% (4/108), and the mean creatinine level was 1.37 ± 0.28 mg/dL. **Conclusions:** PCNL remains a safe and effective option in *de novo* allograft Urolithiasis, allowing to treat large stones in one-step surgery. A good SFR is achieved with a low risk of minor complications. These patients should be treated in an Endourology centre in conjunction with the renal or transplant team.

Keywords: PCNL; allograft; de novo Urolithiasis; kidney calculi; renal transplant.

Title: Endoscopic Combined Intrarenal Surgery (ECIRS) in the management of complex renal stones.

Journal: European Urology Open Science 59: S27

Published year: 2024

Abstract:

Introduction: This study aims to review the current role of endoscopic combined Intrarenal surgery (ECIRS) in the management of renal stones, with a focus on its efficacy and safety. The secondary outcome was to highlight the tips and tricks to improve the urologist's experience with ECIRS. **Methods:** A scoping review of the literature, in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analysis guidelines, was performed, using ECIRS and flexible Ureteroscopy and percutaneous Nephrolithotomy as the search terms. All original articles were screened and included. **Results:** Thirty-three studies were included in the analysis. ECIRS showed a good efficacy and safety profile, with an excellent stone-free rate and a low rate of complications, mostly Clavien–Dindo I/II. With ECIRS, a reduction in the need for multiple access tracts was noted and direct visualization of the targeted calyx during the puncture increased the ability to attain trans-papillary punctures, thereby reducing the amount of bleeding. **Conclusion:** ECIRS, as the first-line minimal access intervention, is safe and efficacious, particularly for achieving a stone-free status in patients with large complex stones in a single stage. The ability to gain access under direct vision and the reduction in the number of tracts, in both the supine and the prone positions makes this procedure an attractive surgical choice.

Title: Urologists' opinion on treating asymptomatic stones: Would we treat ourselves as we treat our patients? A Survey from European Association of Urology, Young Academic Urologists, Endourology and Urolithiasis working party

Journal: Turkish Journal of Medical Sciences 54(1):185-193

Published year: 2024

Abstract:

Background/ Aim: Management of asymptomatic kidney stones is an ongoing debate with follow-up and treatment guidelines based on low-level evidence. Our aim was to evaluate current management of asymptomatic urinary stones. **Materials and Methods:** A 70-question survey was designed in collaboration with European Association of Urology, Young Academic Urologists, section of Uro-Technology and Section of Urolithiasis groups and distributed. Responders filled out hypothetical scenarios from 2 perspectives, either as treating physicians, or as patients themselves. **Results:** A total of 212 (40.01%) responses were obtained. Median responder age was 39 years. 75% of responders were interested in "Urolithiasis". 82.5% had never experienced a renal colic, 89.6% had never undergone Urolithiasis treatment. Overall, as the kidney stone scenarios got more complicated, the invasiveness of the treatment preference increased. As "the physician", responders preferred

the conservative option in all situations more than they would choose as “the patient”. For ureteral stones, conservative approach was most preferred for small stones and Ureteroscopy became more preferred as the stone size increased. For smaller kidney stones, the most preferred follow-up schedule was 4–6 monthly, whereas for larger and complicated stones it was 0–3 monthly from both perspectives respectively. For all ureteral stone scenarios, 0–4 weekly follow-up was mostly preferred. Interestingly, having had a renal colic was an independent predictor of an interventional approach, whereas having had an intervention was an independent predictor of a conservative approach. **Conclusion:** Current treatment and follow-up patterns of asymptomatic urinary stones are in agreement with international guidelines on symptomatic stones. In most of the Urolithiasis situations urologists chose a conservative approach for their patients compared to what they would prefer for themselves. Conversely, urologists, in the scenarios as “the patient”, would like to have a more frequent follow-up schedule for their stones compared to how they would follow-up their patients.

Keywords: Urolithiasis, survey, decision making, kidney, ureter

Title: Trends in the use of radiation protection and radiation exposure of European Endourologists: a prospective trial from the EULIS-YAU Endourology Group.

Journal: World Journal of Urology 42

Published year: 2024

Abstract:

Introduction: Due to the radiation exposure for the urology staff during Endourology, our aim was to evaluate the trends of radiation protection in the operation room by end urologists from European centres and to estimate their annual radiation. **Methods:** We conducted a multicentre study involving experienced end urologists from different European centres to evaluate whether the protection and threshold doses recommended by the International Commission on Radiation Protection (ICRP) were being followed. A 36-question survey was completed on the use of fluoroscopy and radiation protection. Annual prospective data from chest, extremities, and eye dosimeters were collected during a 4-year period (2017-2020). **Results:** Ten Endourologists participated. Most surgeons use lead aprons and thyroid shield (9/10 and 10/10), while leaded gloves and caps are rarely used (2/10 both). Six out of ten surgeons wear leaded glasses. There is widespread use of personal chest dosimeters under the apron (9/10), and only 5/10 use a wrist or ring dosimeter and 4 use an eye dosimeter. Two Endourologists use the ALARA protocol. The use of ultrasound and fluoroscopy during PCNL puncture was reported by 8 surgeons. The mean number of PCNL and URS per year was 30.9 (SD 19.9) and 147 (SD 151.9). The mean chest radiation was 1.35 mSv per year and 0.007 mSv per procedure. Mean radiation exposure per year in the eyes and extremities was 1.63 and 11.5 mSv. **Conclusions:** Endourologists did not exceed the threshold doses for radiation exposure to the chest, extremities and lens. Furthermore, the ALARA protocol manages to reduce radiation exposure.

Keywords: Endourology; Fluoroscopy; Lead apron; Leaded glasses; Leaded gloves; Radioprotection.

Title: Percutaneous Nephrolithotomy(PCNL) for de-novo Urolithiasis after kidney transplantation: A systematic review of the literature.

Journal: Journal of Endourology/Endourological Society 38(6)

Published year: 2024

Abstract:

Introduction and Objective: Renal transplantation is the treatment for end-stage renal disease that offers better quality of life and survival. Among the possible complications that might affect allografts, Urolithiasis might have severe consequences, causing acute kidney injury (AKI) or septic events in immunocompromised patients. Allograft stones might be treated with percutaneous Nephrolithotomy (PCNL). The aim of this Cochrane style review was to assess the safety and efficacy of PCNL in patients with renal transplant. **Methods:** A comprehensive search in the literature was performed including articles between July 1982 and June 2023, with only English original articles selected for this review. **Results:** The final review encompassed nine articles (108 patients). The mean age was 46.4 ± 8.7 years, with a male:female ratio of 54:44. The average time from transplantation to Urolithiasis onset was 47.54 ± 23.9 months. Predominant symptoms upon presentation were AKI (32.3%), followed by urinary tract infection and fever (24.2%), and oliguria (12.9%). The mean stone size was 20.1 ± 7.3 mm, with stones located in the calices or pelvis (41%), ureter pelvic junction (23.1%), or proximal ureter (28.2%). PCNL (22F-30F) was more frequently performed than mini-PCNLs (16F-20F) (52.4% vs 47.6%). Puncture was guided by ultrasound (42.9%), fluoroscopy (14.3%), or both (42.9%). The stone-free rate (SFR) and complication rates were 92.95% (range: 77%-100%) and 5.5%, respectively, with only one major complication reported. Postoperatively, a ureteral stent and nephrostomy were commonly placed in 47%, with four patients needing a second look PCNL. During an average follow-up of 32.5 months, the recurrence rate was 3.7% (4/108), and the mean creatinine level was 1.37 ± 0.28 mg/dL. **Conclusions:** PCNL remains a safe and effective option in *de novo* allograft Urolithiasis, allowing to treat large stones in one-step surgery. A good SFR is achieved with a low risk of minor complications. These patients should be treated in an Endourology centre in conjunction with the renal or transplant team.

Keywords: PCNL; allograft; de novo Urolithiasis; kidney calculi; renal transplant.

Title: The Role of Different Modalities of Regenerative Therapies in the Treatment of Erectile Dysfunction: A Global Survey and Global Andrology Forum Expert Recommendations.

Journal: World Journal of Men's Health.

Published year: 2024

Abstract:

Purpose: There is increased interest in regenerative therapies (RTs) to treat erectile dysfunction (ED). However, the need for society's guidelines has led to varied practices. This study aims to investigate current global practices, address the heterogeneity in treatment protocols and evaluations, and establish expert recommendations in clinical practice.

Materials and methods: Senior experts from the Global Andrology Forum (GAF) created a 32-question survey to evaluate the clinical aspects of various RT modalities and compare them with each other and with phosphodiesterase type 5 inhibitors (PDE5is). The survey was distributed worldwide to ED specialists through online Google Forms, the GAF website, international professional societies, and direct emails. The responses were analyzed and are presented as percentage frequencies. Additionally, an expert consensus on recommendations for RT use was reached at via a modified Delphi method. **Results:** Out of 163 respondents from 39 countries, the majority (80.1%) were using low-intensity shockwave therapy (LISWT), followed by platelet-rich plasma (PRP) 61.3% and stem cell therapy (SCT) 17.8%. Efficacy comparisons revealed no perceived significant differences among RT modalities ($p=0.124$). Compared to PDE5is, the efficacy of LISWT and PRP was considered lower by the respondents, while SCT was rated better by almost half of those who used SCT. The duration of improvement varied ($p=0.279$), with most improvements lasting 1 to 6 months. The treatment protocols used for LISWT were mainly consistent but varied widely for PRP and SCT. Adverse effects were minimal, particularly for LISWT ($p<0.001$). The costs varied significantly ($p<0.001$), with SCT being the most expensive. The evidence for efficacy was rated as primarily moderate to strong for LISWT but poor for PRP and SCT ($p=0.027$). **Conclusions:** Most respondents utilized LISWT, followed by PRP, with SCT being the least commonly utilized. The high break heterogeneity in treatment protocols and evaluation of RT underscores the need for further studies and guidelines to establish best practices.

Keywords: Erectile dysfunction; Extracorporeal shockwave therapy; Platelet-rich plasma; Regenerative medicine; Stem cells; Surveys and questionnaires.



Dr. Kishan Raj K

Dr. Prashanth Adiga

Dr. Nandakishore B

Title: Prospective Evaluation of risk Factors responsible for Infection following Retrograde Intrarenal Surgery

Journal: Cureus

Published year: 2024

Abstract:

Objective: The study aimed to identify the various risk factors for infective complications following retrograde Intrarenal surgery (RIRS). **Materials and methods:** The study was

conducted over one year, and the incidence of infectious complications after RIRS was calculated. Patients were divided into two groups based on the presence and absence of infective complications and were compared in terms of preoperative and operative characteristics. The complications were assessed and graded according to the Modified Clavien classification system (MCCS). The Fisher's exact test, Student's t-test, and Mann-Whitney U test were used for univariate analysis. Multivariate logistic regression analysis was used to identify independent risk factors for postoperative urinary tract infection (UTI). **Results:** Out of 165 patients in the study, 27 (16.7%) patients developed UTI within one month of undergoing RIRS. The most frequent complication was fever, which occurred in 13 (7.8%) patients. When stratified by MCCS, 13 were grade I, nine were grade II, four were grade III, and one was a grade IV complication. High stone burden, concomitant diabetes mellitus, and multiple renal stones were identified as substantial risk factors for postoperative UTI in univariate analysis. On multivariate analysis, preoperative UTI and prolonged operative time were found to have a significant association with postoperative UTI. **Conclusion:** The present study demonstrated that preoperative UTI and prolonged operative time are independent factors responsible for postoperative UTI. Large stone burden, stone multiplicity, and diabetes mellitus contribute to a higher risk for UTI following RIRS.

Keywords: diabetes mellitus; fever; modified clavien classification system; retrograde Intrarenal surgery; urinary tract infection.

Title: Assessment of factors responsible for Stone-free status after Retrograde Intrarenal Surgery.

Journal: Cureus.

Published year: 2024

Abstract:

Aim: The study aimed to evaluate the predictive factors that determined stone-free rate (SFR) after retrograde Intrarenal surgery (RIRS). **Materials and methods:** This prospective study was conducted on 183 patients undergoing RIRS for renal stones. Patients were categorized into two groups, depending on stone-free status one month following the procedure. SFR was defined as the complete absence of stones or stones <4 mm. The parameters studied included patient demographics, presence of Hydronephrosis, presence of preoperative double J-stent, abnormal renal anatomy, and stone characteristics (stone burden, stone number, stone density, stone location, lower pole infundibulopelvic angle, and lower pole renal infundibular length (RIL)). Univariate and multivariate analyses were performed to identify risk factors for residual stones. We assessed the predictive ability of the RIRS score and Resorlu-Unsal stone score (RUSS) for evaluating SFR utilizing receiver operating characteristic (ROC) analysis. **Results:** 183 patients were included in the study with a median age of 51 years. 131 (71.6%) patients were declared stone-free after the procedure. The mean stone size and density were 16.9 SD±7.5 mm and 1038 SD±342 Hounsfield units (HU) respectively. Stone-free patients had lower stone size (14.3 mm vs. 23.6 mm, p<0.01) and stone density (970 HU vs. 1211 HU, p<0.01) compared to non-stone-free patients. Patients with residual stones had steeper lower pole renal infundibulopelvic angle (RIPA) (31.3° vs. 40.7°, p<0.01) and longer RIL (26.6 mm vs. 21.1 mm, p<0.01). Stone multiplicity (p<0.01), lower pole stone location (p<0.01), and renal malformations (p<0.01) were significant influencing factors for residual renal stones after RIRS. Multivariate analysis revealed stone size, stone density (HU), and

stone location as independent predictors for SFR after RIRS. Among the scoring systems, the RIRS score had the highest diagnostic accuracy for SFR (area under the curve (AUC): -0.882, 95% CI-0.828-0.936). **Conclusion:** Stone size, stone density (HU), and stone number are important predictors of SFR after RIRS. Lower pole stone location and abnormal renal anatomy play a substantial role in determining SFR after RIRS. In lower pole stones, a long RIL and acute RIPA negatively influence SFR. Additionally, the RIRS score was found to be a better predictor for SFR than the RUSS score.

Keywords: renal infundibular length; renal infundibulopelvic angle; resorlu-unsal stone score; RIRS score; stone-free rate.

Title: Role of Intraurethral Triamcinolone Injection in Direct Visual Internal Urethrotomy in the Management of Anterior Urethral Stricture and Its Effect on Recurrence

Journal: Journal of Population Therapeutics & Clinical Pharmacology

Published year: 2024

Abstract:

Introduction: Urethral stricture is known for a disease of recurrence since ancient Egyptian times and common after internal Urethrotomy. In modern endourological era endoscopic management takes upperhand than more invasive procedure like urethroplasty. Anterior urethra is the most common location for stricture urethra and bulbar urethra the major site of stricture accounts for 45-50%. Urethral stricture can have variety of Etiology like trauma or iatrogenic, infection, inflammation, ischemia or unknown Etiology. The pathophysiology behind anterior urethral stricture manifested by a process of fibrosis which lead to a different proportions of peri-urethral corpus spongiosum tissue fibrosis known as spongiofibrosis and is associated with narrowing in urethral caliber and ultimately reduce in the urine flow. Treatment is based on the deep incision of the fibrotic area and subsequently local re-epithelialization process to the maintenance of the urethral patency. Scar forms in the epithelial lining of urethra which result in decrease in diameter of the urethral lumen. Iatrogenic etiology (30-80%) or trauma is the commonest cause than infection. Different techniques have been described for stricture urethra but direct visual internal Urethrotomy (DVIU) and instillation of triamcinolone most important additive adjuvant drug and is best suited and remains a common procedure due to its easy accessible, safety, simplicity, better learning curve and short recovery. **Materials and methods:** Its a retrospective observational study on total of 50 patients with anterior urethral stricture who underwent DVIU (Group A; n=25) and DVIU with triamcinolone injection (Group B; n=25) in the management of anterior urethral stricture disease in males. The study done during the period of march 2022 to march 2023 at Father Muller Medical College & Hospital, Mangalore. Results were compared between the two groups. The P-value < 0.05 considered statistically significant difference. **Results:** From the study we observe that there were not of any significant difference between age and co-morbidities in both the groups. In both the group A and B the most common age was 46-60 years. In Group A and Group B it was 48% and 56% respectively (p=0.0986). Co-morbidities (Diabetes, Hypertension, smoking) were almost similar in both the groups. There were no significant difference in stricture location, length and causes among the two groups (p=0.627, p=0.377, p=1.000 respectively). In DVIU group alone (group A) patients came with recurrence are 2(8%) in 6 month, 4(16%) in 9th month, 3(12%) in 12th month and

totally 9 patients (36%). In DVIU + triamcinolone (group B) patient came with recurrence 2 in 12th month, totally 2 patient(8%).No major complication found in both the group($p=0.837$). In our study the result found to delay the recurrence but not statistically significant ($p=0.231$) and recurrence rate significantly less in DVIU +triamcinolone group (8%vs 36%; $p =0.041,<0.05$). **Conclusion:** Intra-urethral triamcinolone injection into the urethral stricture site to avoid fibrosis and collagen growth is a safe and effective additive therapy after direct visual internal Urethrotomy. No major complications were noted due to the triamcinolone injection. Triamcinolone injection to the stricturous site seems to be cost effective, produce lower side effects and play a vital role to delay the time of recurrence and recurrence rate.



Dr. Abheesh Varma Hegde



Dr. Sajal Gupta

Title: Social Media: A game changer or illusion in Urology

Journal: Fortune Journals

Published year: 2024

Abstract:

Social media seems to have been a major disruptive technological by product that has definitely changed our lives over the past few years. Today it has established itself as one of the top sources of information about surgical procedures for residents and urologists across the world. Invariably, patients are also consumers of such digital content. Sometimes this might help the clinician since lacunae in communication might be bridged but unrealistic expectations might be an unwanted byproduct of this process. Hence, a lot would depend on the content that would be accessible to consumers of the service: both medical and non-medical. It is in our hands to make its use as a game changer in our urological career or live in bubble of illuded knowledge.

Title: Being environmentally conscious in Urology, The Way forward

Journal: International Journal of Scientific Research

Published year: 2024

Abstract:

The healthcare industry accounts for 4.4% of global emissions. GHG emissions are a major threat to the environment. India is the third-largest emitter of GHGs worldwide. The energy sector contributes 70-90% due to burning coal for electricity. Urologists have a high carbon footprint, and hospitals generate tremendous amounts of waste. To reduce emissions, we can switch to a central/digital platform for patient records, use telemedicine, motivate industry partners to utilize less plastic, use biodegradable/recycled packaging materials, and reuse materials. In addition, it encourages hospitals to use solar energy, reusable drapes, use safe reuse of guide wires and puncture needles, foot-operated/automatic spray water faucets, and avoid opening windows in the OTs during winter. The goal is to decrease the carbon footprint and waste generation while delivering quality healthcare. Sensitization about climate issues should begin early so that the next generation is aware of the enormous challenge that climate change poses to our planet. If we start acting today, we can change the course of our future.

Title: Changing Urology practice in an Indian Tertiary care centre amid a pandemic and its aftermath

Journal: International Journal of Scientific Research

Published year: 2024

Abstract:

Little is known about COVID-19 dangers and its tremendous impact on healthcare systems worldwide. India witnessed two complete lockdowns, which forced our hospital to be converted into a dedicated COVID Care Centre. Surgical intervention should not be neglected during urological emergencies. Adaptation to available resources, implementing small changes to the existing setup, adequate protection measures, and efficient decision-making in terms of surgical intervention help reduce the transmission of the virus as well as the morbidity and mortality of the patients. Therefore, if managed with precautions, urological emergencies can function uninterruptedly without compromising patient care. A pandemic like COVID forced us to change our approach to patients, which improved our level and horizon of education/learning and changed the system of OPD, OTs, and emergencies. If we learn a better way of managing and organizing patients and their procedures we will be able to and an improved system of learning, patient care and clinical practices. And in preparation for future pandemics we will be able to manage things and the health system especially in urology in a more efficient manner.

Title: Prosthesis in Urology, Future needs?

Journal: Global Journal for Research Analysis

Published year: 2024

Abstract:

In Urology, the male external genitalia are symbols of masculinity and loss of such organs can cause significant mental stress and disruption in the quality of life of the patient as well as his partner. Hence, the need to replace these organs with functional prostheses has been a work in progress since many centuries. Only in the last few decades has seen some real progress. This was largely due to advancements in material science. But sustenance of function and resistance to infection are still formidable challenges. Characteristics of an ideal prosthesis are: It should be durable, inert, stable, low infectivity, resilient, easy to handle, cost effective. The most common and dreaded dangers of such material use are infections, on which research has thrown more light with the discovery of biofilms. As in any other surgical procedure, proper patient and prosthesis selection is important. Though not in the strict sense of the word, stoma bags, stents, catheters, nephrostomies and neuromodulation are also included in the prosthetics. We already know about the stents, catheter, drains, testicular prosthesis, penile implants, artificial sphincters, slings, meshes and neuromodulation devices. We have read or used them in our day to day urological practices. These mentioned urological prostheses are well into our present life and knowledge.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide
1	The Incidence and Risk Factors of Chronic Kidney Disease After Radical or Partial Nephrectomy in Patients with Renal Cell Carcinoma	Dr. Shilpee Ahrawal	Dr. Prashanth Adiga
2	Prospective observational study to evaluate preoperative parameters and histopathology of the vessels as the predictors of upper limb arterio-venous fistula outcomes.	Dr. Sajal Gupta	Dr. Prashanth Adiga
3	Does Tract Dilatation Affect Outcomes in PCNL Comparison between Single and Multi step Renal Dilatation in PCNL : Prospective Observational Study	Dr. Shilpee Agrawal	Dr. Suyog Shetty
4	Effect of Puncture Technique (Monoplanar Vs Biplanar) on Surgical Outcomes in Patients Undergoing Tubeless and Totally Tubeless PCNL For Renal Stones- an Observational Study	Dr. Sajal Gupta	Dr. Suyog Shetty
5	Does Preoperative Parameter Predict The Failure of Ureteral Access Sheath Placement in RIRS: An Ambispective Observational Study	Dr. Sajal Gupta	Dr. Prashanth Adiga
6	A case report of usual presentation of unusual Bladder Mass- Polypoid cystitis in a young female.	Dr. Sajal Gupta	Dr. Prashanth Adiga
7	A Comparative Observational Study on Outcomes of Retrograde Intrarenal Surgery (RIRS) Using Traditional Ureteral Access Sheath (UAS) and Flexible and Navigable Suction (FANS) UAS	Dr. Aswin P John	Dr. Nandakishore B
8	Immediate, single Intravesical instillation of	Dr. Bharat V	Dr. Prashanth

chemotherapeutic agents post transurethral resection of bladder tumor(TURBT) in Bladder Carcinoma Patients- A Comparative Observational Study between Gemcitabine and Mitomycin C	Shejawadkar	Adiga
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Awards:

Dr. Abheesh Hegde – Associate Professor

1. Long term complications after nephrectomy for living donor transplant in USI transplant section newsletter, February 2024
2. Commentary on Sperm Vitality and Necrozoospermia: Diagnosis, Management, and Results of a Global Survey of Clinical Practice in Management special, Global Andrology Forum, 29th May 2024
3. Title – “Does the brain weep? Post hysterectomy leak PV may not always be urine!” Best Poster award at KUACON 2024 for poster presentation
4. Scholarship to attend the WMSM 2024 at Rio, Brazil, September 2024
5. Winner of the ASU Consultant Travelling Fellowship 2024-25
6. Selected for the EAU STEPS meet the expert program at UroONCO24 at Budapest, Hungary, June 2024, presented data on Ca Penis
7. Reviewer:
AUA 2025 abstracts for conference
Journal of Urology & Renal Diseases (Editorial Board member)
Cureus Journal of Health Sciences

Presentations:

Faculty:

Dr Abheesh Hegde

1. A Multi-Institutional Prospective Study on the Success of Ureteral Access Sheath Placement during Primary Retrograde Intrarenal Surgery for Renal Stones in the Indian population- A USI collaborative study
2. Title - “**Percutaneous drainage of peri graft lymphocele**” at USICON, Patna, February 2024
3. Title – “**Does the brain weep? Post hysterectomy leak PV may not always be urine!**” Best Poster presentation at KUACON 2024, 29th Annual Conference of Karnataka Urology Association held from 8th November 2024 to 10th November 2024 at Wayanad, Kerala.
4. Title - “**Slaying the vegabond: case of cross fused renal ectopia with calculi; managed laparoscopically**” Paper presentation at KUACON 2024, 29th Annual Conference of Karnataka Urology Association held from 8th November 2024 to 10th November 2024 at Wayanad, Kerala.

Post Graduates:

Sl no	Name	Podium Presentation	Event
1	Dr. Utpal Barman	A Clinical study to Evaluate the Stone Free rate and efficiency of using 2 different sizes of flexible and navigable suction ureteral access sheath (FANS) in Retrograde Intrarenal Surgery for Renal stones	SZUSICON 2024, 35th Annual Conference of ASU, July 25-27, 2024, Dwarka Palace Convention Centre, Madurai
2	Dr. Beni Sader	Comparing IIEF score and MSHQ-EJD score with IPSS score to evaluate the association of Sexual Dysfunction with BPE and its effect on QOL	
3	Dr. Sajal Gupta	Prospective Observational Study to Evaluate Pre-Operative parameters & HPE of the vessel as the predictor of upper limb AV Fistula” and “A Rare case report on Meningitis Retention Syndrome – An obscured Clinical Condition	
4	Dr. Shilpee Agrawal	The Incidence and risk factors of Chronic Kidney Disease after Radical or Partial Nephrectomy in patients with Renal Cell carcinoma	

Name	Title of Presentation	Event
Dr. Sajal Gupta	Effect of preoperative parameters (like serum calcium and lipid profile) and histopathology of artery & vein on upper limb arteriovenous fistula outcomes. An observational study	Urological Association of Asia (UAA) Congress 2024, September 5-6, 2024, Bali, Indonesia
	A Rare Case Report from India on Meningitis Retention Syndrome – An obscured Clinical Condition	
	Vessel wall histopathology and preoperative lipid profile – can it predict the upper limb A V Fistula outcome (Best Paper Presentation)	KUACON 2024, 29th Annual Conference of Karnataka Urology Association, November 8-10, 2024, Wayanad, Kerala
	A case report of usual presentation of unusual Bladder Mass – Polypoid cystitis in a young female (Poster Presentation)	
Dr. Shilpee Agrawal	“Does methods of tract dilatation affect the outcome in tubeless PCNL a comparative study between single step and conventional sequential renal tract dilatation?”	

**FATHER MULLER
HOMOEOPATHIC MEDICAL
COLLEGE & HOSPITAL**

Research Projects 2024

SL No	Title of the Project	Investigator	Funding Source	Grant
1	An Experimental Study to Assess the Effectiveness of Homoeopathy Mother Tinctures in Controlling Blood Glucose Level: Drosophila Melanogaster Diabetes Model Study.	Dr V R Krishna Kiran Bhatt, Dr Mini I V	Intramural – Dr M L Dhawale Memorial Student Research Project , FMHMC	15000/-

Case Reports:

S. No.	Authors	Title	Journal	Year
1	Dr. Pooja P Mudhol, Dr. Girish Navada UK and Dr. Justina M Steefan	A case report on paediatric verruca vulgaris: A homoeopathic journey to remarkable recovery	International Journal Of Homoeopathic Sciences	2024
2	Dr. Keerthana KJ and Dr. Girish Navada UK	A case study of bipolar affective disorder treated with homoeopathy	International Journal Of Homoeopathic Sciences	2024

Publications:



Dr S Nandha Gopal Dr Amitha P Baliga

Title: Evaluation of Anti-Cancer Potential of Homeopathic Medicines by In-Vitro Study on Human Breast, Lung and Colorectal Cancer Cells

Journal: International Journal of Science and Healthcare Research

Published year: 2024

Abstract:

The purpose of this study is to assess the cytotoxic effects of homeopathic drugs on cancer cell lines by In-vitro experiment. **Background:** Homeopathy is a renowned therapeutic approach in many nations across the world. However, the approach has sparked much scientific discussion concerning its efficacy and methods of action. This is particularly true when it comes to the application of homeopathy in cancer treatment. **Objective:** The purpose of this study was to evaluate the cytotoxic effect of homeopathic remedies on cancer cells and to emphasise the therapeutic effects of 50 Millesimal potencies. **Materials & Methods:** Carcinosinum, Conium maculatum, and Asterias rubens were the drugs used in 0/1 potency against the MCF 7 breast cancer cell line. Carcinosinum, Nitric acid, and Ruta were the drugs in 0/1 potency used against the HCT 116 colorectal cancer cell line and the NCIH460 lung cancer cell line. 90% alcohol medicated on poppy-sized globules, dried fully and used as a control for all cell lines. The cytotoxicity has been assessed using the standard MTT test. **Results:** The LC50 values of the medicines tested on breast and lung cancer cells were not obtained up to 40000 ppm concentrations, as a result, cytotoxicity evaluation was not possible. The LC50 values of the medicines tested on Colo-rectal cancer cells were obtained around 20,000 ppm concentration and showed a gradual increase in Cell Death with increasing Concentration of exposure of the drugs. As a result, these drugs revealed cytotoxic qualities as well as anti-cancer actions. **Conclusion:** Despite the objective facts, we cannot reach a definite conclusion about the anti-cancer effectiveness of these drugs in vitro because several aspects of homeopathy's action are unlikely to be replicated in In-vitro study. Determination of reasons for the same or understanding the molecular mechanism of resistance of the cell lines to the cytotoxic effects of the drugs were not within the purview of the study and these can be addressed in future studies.



Dr Shreyank Kotian Dr Reshel Noronha

Title: Insights on childhood insomnia and its Homoeopathic treatment approaches – A narrative review

Journal: Journal of Integrated Standardized Homoeopathy

Published year: 2024

Abstract:

Insomnia is a sleep disorder that affects not only adults but also children. It can have a significant impact on a child's well-being and development, leading to various issues such as

daytime sleepiness, irritability and impaired academic performance. While the management of childhood insomnia typically involves behavioral interventions and, in some cases, medication, this article explores the scope of homoeopathic treatment approaches. This review article explores different therapeutic approaches for managing sleep disorders in children, such as behavioral therapies, cognitive-behavioral therapy for insomnia, light therapy and medication management. The insights provided in this review aim to offer an understanding of the scope and effectiveness of homoeopathy in treating childhood insomnia by understanding both the philosophical and therapeutic aspects of treatment, providing a holistic approach to address the underlying causes and improve sleep quality in children.



Dr Akshay J Nair Dr Anita Lobo

Title: Unlocking hypothyroidism with cross repertorization: understanding, treatment and clinical rubrics

Journal: International Journal for fundamental and interdisciplinary research in Homoeopathy

Published year: 2024

Abstract:

Hypothyroidism is a prevalent endocrine disorder characterized by inadequate production of thyroid hormones, primarily affecting women. This review examines the epidemiology, causes, symptoms, diagnosis, treatment, complications, and management of hypothyroidism, with emphasis on recent research findings. Currently, diabetes mellitus and thyroid illness are India's two most prevalent endocrine disorders, respectively. It more frequently affects women, and the risk rises with age and for people who have a family history of thyroid issues. In India, 11% of people have hypothyroidism, compared to 2% in the UK and 4.6% in the USA. Homoeopathic medication is essential in the treatment of thyroid disorders. In the case of hypothyroidism, the medications have a strong effect on the hypothalamic-pituitary axis. Medicine is used on sick people to modulate their immune responses to a desirable degree. This is known as immunological modulation. Homoeopathic medication can thereby normalize T3, T4, and TSH results and keep the thyroid gland functioning normally.



Dr Anita Lobo

Dr Jolly D'Mello

Title: A comparative study of homoeopathic treatment versus integrated approach of homoeopathy and yoga in the treatment of menstrual disorders related to PCOS in young females

Journal: International Journal of Homoeopathic Sciences

Published year: 2024

Abstract:

Background: PCOS is a common clinical entity encountered in females of reproductive age group attributed to elevated androgen levels leading to ovarian cysts, irregular menstrual cycles and hirsutism. **Aim & Objective:** To assess if the interventions can facilitate regular menstrual cycle and reduce hyperandrogenism associated with PCOS. **Materials and Methods:** Randomized, non-controlled, clinical trial was conducted at Father Muller Homoeopathic OBG, OPD, Mangaluru in 62 females aged between 18-36 years diagnosed with PCOS according to Rotterdam criteria. 31 subjects were treated with homoeopathy and compared with 31 subjects treated with homoeopathy and yoga therapy. Hyperandrogenism was assessed by serum testosterone level and signs of Hirsutism were evaluated according to Ferriman-Gallwey scale for Hirsutism before and after treatment. **Results:** According to the statistical analysis there was a significant reduction in Ferriman galley scores in both the intervention groups ($p < 0.001$). It was also observed that both interventional groups are equally effective in regularising menstrual cycle, Chi square test $P = 0.739$, NS and also proved to be equally efficient in attaining fertility among infertile females with PCOS Chi square test $P = 0.855$, NS. **Discussion:** In this study Phosphorous 200 C proved to be effective constitutional remedy in treatment of PCOS with homoeopathy. Natrum Muriaticum 200 C is the most effectual constitutional remedy in the treatment of PCOS along with yoga therapy. It was observed that treatment with constitutional remedy and integrated approach of yoga with constitutional remedy are beneficial in facilitating regular menstrual cycle and reduction in hyperandrogenism associated with PCOS and enhancing fertility rate.

Other projects:

S. No.	Title of the Project	Name of the student	Name of Guide	Grant
1	An Invitro Study to compare the	Chethana P L	Dr Jenita R	STSH 2024

S. No.	Title of the Project	Name of the student	Name of Guide	Grant
	antifungal activity of Kreosotum 3C, 6C and 30C against Phytophthora Capsici.		Fernandes	FMHMC Rs. 25000
2	A Prospective observational study to determine the efficacy of PilocarpusMicrophyllus as an external application in treatment of Premature greying of hair using grey/white hair scale	Sneha V Babu	Dr Sebastian P.A	STSH 2024 FMHMC Rs. 5000
3	A study to assess the effectiveness of AcidumUricum 3x in the treatment of Subcutaneous Lipoma in adults – an observational study.	Pranava M S	Dr Manish Kumar Tiwari	STSH 2024 FMHMC Rs. 10500
4	An observational study to evaluate the effectiveness of Veratrum Viride 30C in varying heart rate variability in hypertensive patients	Mark Willson Nongsiej	Dr Manish Kumar Tiwari	STSH 2024 FMHMC Rs, 15000
5	An in vitro study to evaluate the anti-bacterial effect Allium Sativum on E. Coli insights	Pooja P	Dr Anusha G Sanil	STSH 2024 FMHMC Rs. 21500
6	Homoeopathic approach to enhance protein yield in green gram (vigna radiata) by Calcareaphosphoricum: a randomized controlled trial.	Afitha K J	Dr S.Sujatha	STSH 2024 FMHMC Rs. 15000/-
7	An Observational study on the effectiveness of Tinospora Cordifolia 3X in reducing the pus cells in case of UTI among the women of the reproductive age group	Ms Srikanya K H	Dr Anita Lobo	RGUHS - 2024
8	Comparing the efficacy of oral calcareafluorica 30c versus oral calcareafluorica 30c combined with topical ruta graveolens for alleviating knee osteoarthritis symptoms	Ms Padma Priya S	Dr K John Paul	RGUHS - 2024
9	A study to compare the effect of Homoeopathically potentized and non potentized forms of Kalium Sulphuricum on the growth of Vigna radiata	Ms K Kadambari	Dr Jeeno Jose	RGUHS - 2024
10	To assess the efficacy of different Homoeopathic potencies of calcareaphosphoricum on the growth and	Ms Chethana P L	Dr Sherlyn E Paul	RGUHS - 2024

S. No.	Title of the Project	Name of the student	Name of Guide	Grant
	yield of Spinacia oleracea L			
11	An Experimental Study On Efficacy Of Silicea 6X, 30C And 1M Potencies On Germination And Growth Of Arachis Hypogaea Using Quantitative And Qualitative Parameters Along With Refractive Index	Dr Keerti	Dr Mini I V	Dr M D Dhawale memorial research project 2024 FMHMC - 9500
12	An In-Vitro Study On Thrombolytic Action Of Bothrops Lanceolatus In 6c And 30c Potencies	Dr Akshay J Nair	Dr Anita Lobo	Dr M D Dhawale memorial research project 2024 FMHMC - 6000
13	An Observational Study To Find The Effectiveness Of Homeopathic Individualised Remedy & Pancreatinum In Diabetes Mellitus Patients	Dr Nandhagopal S	Dr Amitha P Baliga	Dr M D Dhawale memorial research project 2024 FMHMC - 5000
14	Detection Of Antifungal Activity Of Homoeopathic Medicines (Sepia Officinalis, Tellurium Metallicum) Against Candid Species	Dr Mehar Varghese	Dr Reshel Noronha	Dr M D Dhawale memorial research project 2024 FMHMC - 18665
15	An Invitro Study To Assess The Anticancer Properties Of Cadmium Sulphuricum 30C In Colorectal Cancer	Nandini Govindu	Dr Reshel Noronha	Dr M D Dhawale memorial research project 2024 FMHMC - 13100
16	Pre-Clinical Research To Analyze The Therapeutic Effect Of Homoeopathic Medicines On Γ -Irradiated Okra Seed-Germination	Sandra Shruthi S	Dr K John Paul	Dr M D Dhawale memorial research project 2024 FMHMC - 15640
17	Evaluating The Effectiveness Of Individualized Homoeopathic Medicine And Rescue Remedy For Generalized	Muthu Valliammai Nachiappan	Dr Sherlyn Elizabeth Paul	Dr M D Dhawale memorial



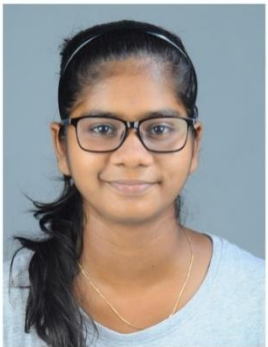

S. No.	Title of the Project	Name of the student	Name of Guide	Grant
	Anxiety Disorder: A Comparative Analysis Using The Hamilton Anxiety Rating Scale (Ham-A)			research project 2024, FMHMC - 5000
18	Ultra-Performance Liquid Chromatography Coupled with Tandem Mass Spectrometric Metabolic Profiling of Four Cardiac Tinctures: Digitalis purpurea, Strophanthus hispidus, Convallaria majalis, and Adonis vernalis	Dr K John Paul	Dr Sherlyn Elizabeth Paul, Dr Satish S	FMRC Rs.29,324/-
19	Comparative study to assess the efficacy of different potencies of Abroma Augusta in reducing blood glucose level: Drosophila melanogaster diabetes model study	Dr Mini I V	Dr Jeeno Jose	RGUHS – 2024

Awards:

Ms. A K Devika, Final year student of Father Muller Homeopathic Medical College was awarded as the winner for Muller's Young Researcher Award 2024 for the presentation on the topic “An Observational Study to Determine The Efficacy Of Anacardium Orientale 200 In Reducing Dyspepsia in adults by using Gastrointestinal Symptoms Score (GIS Score)”



Central Council for Research in Homeopathy (CCRH) has selected the following students to receive the award in World Homoeopathy Day 2024 for Short Term Studentship - STSH 2022

Name of the student	Title	Guide
 <p data-bbox="236 739 539 773">Ms Deeksha Parvathi</p>	<p data-bbox="614 390 1093 569">To Compare the Effectiveness Of 6C, 12C, 30C, 200C and 1M Potency Of Borax On improving the Growth And Yield Of Lycopersicum Esculentum Mill.</p>	<p data-bbox="1173 390 1348 460">Dr Vivek Sakthidharan</p>
 <p data-bbox="199 1157 577 1192">Ms Sheley Maria Sebastian</p>	<p data-bbox="630 825 1077 971">Investigating Homeopathic Verum and Placebo Globules with Uv-Visible Spectroscopy Guide: Dr Vivek Sakthidharan</p>	<p data-bbox="1173 794 1348 864">Dr Vivek Sakthidharan</p>
 <p data-bbox="263 1598 513 1633">Ms K Kadambari</p>	<p data-bbox="619 1266 1088 1522">To assess the degree of variation in tablets prepared by different homoeopathic manufacturers by comparing the quality parameters of tablets and estimating the concentration of medicinal particles present in santonium 3x tablets</p>	<p data-bbox="1168 1231 1353 1266">Dr Jeeno Jose</p>
 <p data-bbox="215 1993 561 2028">Ms Naval Thahani Iqbal</p>	<p data-bbox="638 1701 1069 1882">Assessing Effectiveness of Individualised Homoeopathic Remedy In Reducing Severity of Menorrhagia: A Prospective Observational Study</p>	<p data-bbox="1141 1668 1385 1703">Dr Raisa Cheriyan</p>

Presentation:

Dr. Hanamanth, MD (Hom) in Practice of Medicine (2020 Batch), won the **1st Prize** for his **Scientific Paper Presentation** titled "**Fucus vesiculosus OX in Overweight Obese Individuals**" at the **HOMOEEO HEALING VOYAGE 2024**, the National Homoeopathic Conference organized by KLE Homeopathic Medical College & Hospital, Belagavi, on 10th and 11th February 2024.



Dr. Shilpa R, MD (Hom) in Materia Medica (2020 Batch), won the **1st Prize** for her **ScientificPoster Presentation** titled "**Role of Homoeopathic Treatment in the Management of Diabetic Foot Ulcer**" at the **HOMOEEO HEALING VOYAGE 2024**, the National Homoeopathic Conference organized by KLE Homeopathic Medical College & Hospital, Belagavi, on 10th and 11th February 2024.



Ms. Ankitha N Karnika, IV BHMS, secured the **2nd Prize** for her **Scientific Paper Presentation** titled "**To Determine the Effectiveness of Calcarea Phosphorica 200C in Improving the Germination Rate and Growth Rate of Vigna Unguiculata (Cowpea) Plant**" at the **HOMOEEO HEALING VOYAGE 2024**, the National Homoeopathic Conference organized by KLE Homeopathic Medical College & Hospital, Belagavi, on 10th and 11th February 2024.



Ms. K Kadamabri, IV BHMS, secured the **second rank** for her **paper presentation** titled "**Balancing Extremes: Homoeopathy Meets the Bipolar Spectrum**" at Ekalavya, a state-level conclave held on 24th October 2024 at Bharatesh Homoeopathic Medical College & Hospital, Belagavi.



Ms. Anna Johnson secured the **third rank** for her **paper presentation** titled "**Intersection of Psychiatry and Homoeopathy**" at Ekalavya, a state-level conclave held on 24th October 2024 at Bharatesh Homoeopathic Medical College & Hospital, Belagavi.



Dr. S. Sujatha, Assistant Professor in the Department of Anatomy, secured **First Place** in the **Poster Presentation** under the doctors' category at the National Convention and Scientific Seminar - Kudla Homoeo Con – 24, organized by Father Muller Homoeopathic Medical College in association with IHMA on 30th June 2024. Her presentation was titled "**Exploring New Dimensions of Materia Medica Through Repertory.**"



Ms. K Kadambari, IV BHMS, secured **First Place** in the **Paper Presentation** under the students' category at the National Convention and Scientific Seminar - Kudla Homoeo Con – 24, organized by Father Muller Homoeopathic Medical College in association with IHMA on 30th June 2024.



Dr. Maby James, M.D. (HOM) 2021-22 Batch, secured Third Place in the Paper Presentation under the students' category at the National Convention and Scientific Seminar - Kudla Homoeo Con – 24, organized by Father Muller Homoeopathic Medical College in association with IHMA on 30th June 2024, for her presentation titled "**An In-vitro Study to Assess and Compare the Antidiabetic Property of Homoeopathic Mother Tinctures Achyranthus Aspera, Cephalaria Indica, and Syzygium Jambolanum.**"



Dr. Akshara T, M.D. (HOM) 2022-23 Batch, secured First Place in the Poster Presentation under the students' category at the National Convention and Scientific Seminar - Kudla Homoeo Con – 24, organized by Father Muller Homoeopathic Medical College in association with IHMA on 30th June 2024.

Dr. Shreyank S Kotian, M.D. (HOM) 2021-22 Batch, secured Second Place in the Poster Presentation under the students' category at the same event. His presentation was titled "**A Prospective Study to Assess the Efficacy of Homoeopathic Preparation of Potassium Sulphate on Pityriasis Capitis Using Seborrhea Area and Severity Index.**"



Dr. Ashwin G Navada, M.D. (HOM) 2021-22 Batch, secured Third Place in the Poster Presentation under the Students' Category at the National Convention and Scientific Seminar - Kudla Homoeo Con – 24, organized by Father Muller Homoeopathic Medical College in association with IHMA on 30th June 2024, for his presentation titled "**A Retrospective Study to Assess the Utility of Constitutional Homoeopathic Medicine in the Treatment of Generalized Anxiety Disorders.**"



**FATHER MULLER COLLEGE
OF ALLIED HEALTH
SCIENCES**

Hospital Administration

Research Projects 2024

SL No	Title of the Project	Investigator	Funding Source	Grant
1	Effectiveness of Awareness Programme On Nabh Standards Among Undergraduate Students Of A Selected Allied Health Sciences College	Payal Lara Lobo, Dr Sonia Edaline D'Souza	Rajiv Gandhi University of Health Sciences (RGUHS) UG Research Grant	15000/-

Case Reports:

S. No.	Author	Title	Journal	Year
1	Seema Joslin D'souza, Dr. Sweta DCunha, Shwetha Pradeep	Lean Management in the Medical Records Department: A Case Study	Journals of Research in Business and Management	2024

Publications:



Dr Rashmi M

Fr. George Jeevan Sequeira

Title: Effect of the increased nursing attrition rate on nursing administration process during the covid-19 pandemic in a selected tertiary care hospital

Journal: Journal of Emerging Technologies and Innovative Research

Published year: 2024

Abstract:

During the COVID-19 outbreak, healthcare professionals, particularly nurses, were more prone to diseases. Globally attrition rate was high among nurses and during the pandemic, it increased because of various reasons such as the risk of infection, occupational and psychological stress, causing risk to their loved ones. This led to a chaotic situation where nurse managers were forced to implement specific strategic plans to deal with increased nurse attrition. This study aims to describe the impact of nurse attrition rate on nursing administration during COVID-19 at a selected tertiary care hospital. The research approach adopted in this study is descriptive cross-sectional. A total sample of 66 nurses involved in nursing administration. The data is collected through a structured questionnaire and the nurse attrition data during the COVID-19 pandemic period was collected from the interview method during the survey. Statistical tests used were frequency, percentage, mean, Standard Deviation (S.D). The study showed that there is a moderate impact of increased nurse attrition on nursing administration during the COVID-19 pandemic. The study led to the identification of gaps that need to be addressed in a similar crisis.

Title: Nurses' perception on their work performance using robotic assistance at a tertiary care hospital

Journal: International Journal of Research and Analytical Reviews (IJRAR)

Published year: 2024

Abstract:

Nurses are a significant group of healthcare professionals who spend extensive time with patients, providing both preventive and curative services. Over the past few decades, increased workloads and insufficient staffing have exposed nurses to more workplace hazards. To address this issue, many developed countries have adopted robots in nursing. Robotic assistance aids nurses by monitoring vitals, documenting, and shifting patients, primarily protecting them from burnout. Collaboration with care robots enables nurses to deliver more effective, patient-centered care. However, the acceptance of robotic assistance by healthcare members is a major concern. This study aims to assess nurses' perceptions of robotic assistance. The research approach is descriptive and cross-sectional, involving nurses as sample. Data was collected through a structured questionnaire and analyzed using mean, frequency, and percentage. Results revealed that nurses scored high on performance, moderate on ease of use and acceptance, and satisfaction with care robots. Overall, nurses' perception of robotic assistance in nursing was moderate. Despite the potential benefits, the acceptance of robotic technology by nurses remains a key concern.



Karan Kiran Giriyan

Fr. George Jeevan Sequeira

Title: Evaluation of processes, practices and maintenance of biomedical equipments in operation theatres

Journal: Journal of Emerging Technologies and Innovative Research (JETIR)

Published year: 2024

Abstract:

The study has been undertaken to discuss biomedical services and inventory management in healthcare, emphasizing the importance of maintaining medical equipment for effective patient care. It highlights aspects of biomedical inventory management, such as equipment tracking, vendor relationships, regulatory compliance, and budget allocation. The relevance of real-time equipment management is emphasized. The objective was to evaluate biomedical equipment maintenance in operation theatres, examining existing documentation and conducting an audit. The study finds that 97.58% of equipment is present, with reasons for utilization beyond preventive maintenance. The utilization reasons include equipment availability, low risk of failure, in-house expertise, service engineer availability, and planned phased-replacement.



Chitra Yathindra

Dr. Sonia E D'Souza

Title: Feasibility for Setting up Geriatric Care Services in a Tertiary Care Teaching Hospital

Journal: International Journal for Research Trends and Innovation

Published year: 2024

Abstract:

The growing elderly population has highlighted the need for specialized clinical care to reduce their dependency on families. Establishing uniform geriatric centers across healthcare institutions, however, poses feasibility challenges requiring detailed analysis. A questionnaire-based study gathered opinions from doctors and management representatives on setting up a Geriatric unit in a tertiary care teaching hospital. Most respondents supported the initiative, with 90.4% of doctors and 66.4% of management agreeing it would reduce functional decline and improve patient outcomes. A suitable location for the unit was also identified. The study indicated that a dedicated Geriatric Unit is both feasible and beneficial, enhancing quality-care, hospital-recognition.

Title: Need analysis for Geriatric care services in a tertiary care teaching hospital: A patient perspective analysis

Journal: International Journal of Community Medicine and Public Health

Published year: 2024

Abstract:

India's aging population is growing rapidly, necessitating specialized geriatric care to improve life quality, independence, and affordability. **Methods:** A questionnaire gathered responses from patients aged 60 or older about the necessity of a dedicated geriatric care service. **Results:** Over 96% of patients supported separate geriatric care, with 69.9% needing an attendant for hospital visits and 51.6% missing appointments due to lack of assistance.

Conclusions: A study shows that older people rely on family members to check out healthcare facilities. If a new geriatric unit has the latest facilities, 96.8% of the patients will take advantage of them. Hence, a well-established geriatric department in selected hospital is need-of-the-hour.



Chitra Yathindra Dr. Alvita Lurdin Saldanha

Title: Patient reported experience measures: An assessment of the in-patients in a tertiary care teaching hospital

Journal: International Journal of Community Medicine and Public Health

Published year: 2024

Abstract:

Understanding and addressing patient needs are essential for healthcare success. This study evaluates inpatient-reported experience measures in a tertiary care teaching hospital and identifies factors influencing patient experiences. **Methods:** A questionnaire was administered to 997 inpatients to assess their experiences in the chosen tertiary care teaching hospital. **Results:** Over 60% of respondents strongly agreed they had positive interactions with doctors and nurses. More than 50% reported good experiences with billing services. Key aspects influencing patient satisfaction were identified, with recommendations for improvement. **Conclusions:** The expectations that a patient has from the healthcare sector and the instances where the healthcare sector meets those expectations play a crucial role in determining the success of a healthcare institute. This study provides actionable insights to enhance patient experiences.

Title: Patient reported experience measures: An assessment of the out-patient pharmacy in a tertiary care teaching hospital

Journal: International Journal of Community Medicine and Public Health

Published year: 2024

Abstract:

Patient Reported Experience Measures (PREMs) provide critical insights into healthcare quality and satisfaction. This study evaluates patient experiences in the outpatient pharmacy of a tertiary care teaching hospital to identify factors influencing satisfaction. Methods: A cross-sectional study surveyed 49 patients, using a structured questionnaire with a 3-point Likert scale. Data were analyzed using descriptive statistics. Results: Medicine availability and staff assistance were highly rated, with 46% and 55% of patients rating them "excellent," respectively. However, 32% reported delays, 30% noted billing issues, and 22% highlighted poor crowd management. Overall, 40% were highly satisfied, while 18% expressed dissatisfaction. Conclusions: Strengths included medicine availability and staff knowledge, but service delays and billing inefficiencies require improvement. Regular feedback and targeted strategies can enhance pharmacy operations and patient satisfaction.



Shyni Cardoza

Jyothi Seema Moras

Title: Improving patient care in the emergency department in a selected hospital: A study on patient centered care.

Journal: International Journal of Community Medicine and Public Health

Published year: 2024

Abstract:

This study evaluates patient-centered care in the emergency department by assessing the experiences of 72 patients in a tertiary care hospital. Using a questionnaire, patients rated care quality across several dimensions, including "Patient preference," "Physical comforts," "Coordination of care," and "Communication," with mean scores ranging from 3.99 to 4.24. The results indicate high patient satisfaction and emphasize the importance of personalized, collaborative care in emergency settings. The findings suggest that healthcare providers in the emergency department effectively prioritize patient needs, improving overall care quality and supporting better healthcare outcomes.

Other projects:

Post graduate projects-2024

Sl. No.	Title of the Project	Name of Student	Guide	Status
1	Perceptions of doctors and nurses on patient aggression towards health care professionals in a selected tertiary care hospital	Alisha Lancy Rego	Mrs.Nirmala Kumari	Ongoing
2	Analysis of return of investment of mammography in a tertiary care hospital	Amal Shajan	Mrs.Nirmala Kumari	ongoing
3	Assessment of service quality and service gap in radiology department of a tertiary care hospital	Anupam	Mrs.Nirmala Kumari	completed
4	Assessment of patient waiting time in hospital emergency department of multispecialty hospital	Anusha	Mrs.Nirmala Kumari	completed
5	Inpatient perspective of patient friendly environment in the general ward in a selected hospital	Bindu P V	Dr. Sonia E Dsouza	completed
6	Oncology patients expectations during follow up care in a selected hospital	Evita Almeida	Dr. Sonia E Dsouza	completed
7	Challenges faced by nurses in managing trauma and critical patients in the emergency department and intensive care units (ICU) in a selected hospital	Gayathri J Nair	Dr. Sonia E Dsouza	completed
8	Issues faced by patients during admission, hospitalization and discharge in the general wards in a selected hospital	Jenita clara Crasta	Dr. Sonia E Dsouza	completed
9	Assessment of perception of surgeons on emerging trends of virtual reality in healthcare	K M Evelin	Dr. Sonia E Dsouza	completed
10	Perceptions of critical care nurses in a tertiary hospital on barriers to the implementation of new hospital information system	Mohammed Rabeeh	Dr. Rashmi M	completed
11	Assessment of anxiety among patient undergoing magnetic resonance imaging for the first time	Muhammed Aseel	Dr. Rashmi M	Ongoing
12	Knowledge, attitude and practice about radiation precautionary measures among operation theatre staff in a multispecialty teaching hospital	Nanditha E P	Dr. Rashmi M	completed
13	Assessment of the anaesthesia equipment maintenance management in operation theatre unity of a multispecialty teaching hospital	Nirmala P K	Dr. Rashmi M	completed
14	Assessment of work stress level among general ward nursing staff in a selected teaching hospital	Preethal Dsouza	Dr. Rashmi M	completed
15	Perception of healthcare professionals on safety and security in a hospital	Priyanka Pinto	Dr. Sweta DCunha	completed

16	A study on Perception of patients attenders regarding oncology support services in selected hospital	Reeshal Shalet Dsa	Dr. Sweta DCunha	completed
17	Assessment of bed utilization pattern and perception of patients on factors influencing utilization of services in a tertiary care hospital	Riona Pinto	Dr. Sweta DCunha	completed
18	Cost benefit analysis on disposable and reusable and items used in labour room	Riyana Anthea Pinto	Dr. Sweta DCunha	completed
19	Assessment of knowledge and perception of housekeeping staff of a tertiary care hospital on occupational hazards and safety measures	Rudolph Baptist	Dr. Sweta DCunha	completed
20	Failure mode effect analysis (FMEA) to improve medication, safety in pharmacy	Vinitha Reema Moras	Mrs Nirmala Kumari	Ongoing
21	Assessment of challenges in cashless hospitalization in a tertiary care hospital	Nafeesath Shifali B	Fr Rudolph Ravi Dsa	completed

Awards:

Dr Rashmi M, Associate professor received the Best Research Scholar Award from Srinivas University for her part-time PHD works during the Research Conclave on 22nd June 2024



Research Presentations:

Ms. Anusha, Final year Post Graduate student received **2nd prize for Oral paper presentation** at QuARTZ, A National level conference for Quality Implementers in Healthcare, for the topic of **“Implementing Lean Quality Initiatives to Optimize Front Office Service Efficiency in a Tertiary Care Environment”**.



Ms. Shefali and team, Final year Post Graduate student secured **1st prize for Debate competition** at QuARTZ, A National level conference for Quality Implementers in Healthcare



Ms. Shefali, Final year Post Graduate student received **3rd prize for Oral paper presentation** at QuARTZ, A National level conference for Quality Implementers in Healthcare, for the topic of **“Cashless Hospitalization Assessment of Challenges”**



Post graduate students from Department of Hospital Administration had actively participated in all categories of the competitions held by Karnataka Allied Healthcare Professionals

Association (KAHPA) hosted a series of competitions for post graduate students in Allied Health sciences and Physiotherapy on 3rd September 2024 in the Decennial Memorial Hall. The event was held under the theme “Innovative Ideas that can Revolutionize Healthcare.” and 4 post graduate students were selected for the final rounds of stage presentations for the categories: Research paper presentations and Case study presentations.



The following post graduate students from Department of Hospital Administration had actively participated in all categories of the competitions held by Karnataka Allied Healthcare Professionals Association (KAHPA) and 4 post graduate students (as highlighted) were selected for the final rounds of stage presentations for the categories: Research paper presentations and Case study presentations.

Competition details	Participation student details	Title of the competition
Research presentation competition	Joanita Riona Dcosta	Adherence to sustainable design initiatives in the general wards in a selected multispecialty hospital
	Jithu Shaji Varghese	
	Rohan Michael Dias	Optimizing Hospital Laboratory Processes: A Value Stream Mapping of Pneumatic Transport Systems
	Tobby Tom	A Comparative Study on the Service Quality of Central Sterile Supply Department
	Carol Rowena Dsilva	
	Glen Mounith	Nurses Awareness of Artificial Intelligence (AI) in Cancer Care-

		A Mixed Methods Research
	Anitha Dsouza (sr)	Root Cause Analysis of Pre-Analytical Errors in Laboratory of Tertiary Care Hospital
	Alvisha Dsouza	
	Rohan Thomas E J	A Study on Delays in Pre-Authorization of Government and Private Sector Insurance in a Selected Hospital
	Jenet Elias D mello	
Case study	Leanza Jaunita Pinto	Streamlining Emergency Response :A Study on Patient Waiting Times in a Multispecialty Hospital
	Rebecca Sanchia Lasrado	
	Meghashree	To Identify the Issues Faced by Patients During the Admission and Discharge Phases in a Tertiary Care Hospital
	PriyaSonia Rodrigues	
	Shaily J	Value Stream Mapping and Process Improvement of Discharge Delays of Insurance Patients at Private Wards of a Selected Hospital
Divya		

Medical Imaging Technology

Research Publications:



Mr Kevin Neil Aranha

Title: “Recent Advancement in Medical Imaging”

Publishers: spjinternational.co

Chapter: Research and Future Directions in Radiation Safety: Navigating the Evolving Landscape

Abstract:

This chapter explores the exciting field of ongoing research, emerging technologies, and directions of radiation safety in the future. By exploring current studies, technological advancements, and potential trajectories, the chapter aims to provide valuable insights into the evolving field of radiation safety which will shape the future of radiological practices. **Ongoing Research in Radiation Safety:** This section provides an overview of recent and ongoing research projects in radiation safety basically focused on understanding the long-term effects of ionizing radiation, exploring newer dose monitoring techniques, newer materials for dosimeters and their pitfalls, and investigating the impact of radiation exposure on specific patient populations. Special attention is given to collaborative international research and their implications for setting global standards. **Emerging Technologies and Innovations:** This section explores cutting-edge technologies and innovations that have the power to transform radiation safety. It discusses advancements in imaging modalities, such as dose-efficient CT scanners and advanced MRI techniques. It also looks at how artificial intelligence (AI) can be used in optimizing radiation doses, enhancing image quality, and streamlining radiological workflows. **Future Directions in Radiation Safety:** The chapter outlines future developments in the field of radiation safety. It considers the integration of wearable dosimetry devices for real-time exposure monitoring, the development of intelligent algorithms for personalized dose optimization, and the exploration

of non-ionizing imaging technologies. Discussions also involve the evolving regulatory landscape, potential modifications in dose limits, and the role of interdisciplinary collaboration in shaping the future of radiation safety. **Challenges and Opportunities:** This section addresses the challenges/difficulties faced in implementing new technologies and strategies in radiation safety. It explores issues such as standardization, data privacy concerns, and the need for ongoing education and training. At the same time, it highlights the opportunities presented by technological advancements, which emphasizes the potential to achieve a balance between diagnostic efficacy and minimized radiation exposure.

Other projects:

Post graduate projects-2024

Title	Name of student	Guide	Year of completion	Status
Evaluation of radiation dose reduction using low dose protocol in ct guided lung biopsy	Pavan Kumar M	Dr Anto Richi	2024	Completed

Post-graduate Ongoing Projects

Sl.no	Title of the Project	Name of Student	Guide
1	Evaluation of non-ionic iodinated contrast media induced variations on blood pressure before and after contrast enhanced CECT abdomen	Chaitali M	Dr Mahesh
2	Efficiency of pineapple juice or ferric ammonium citrate as contrast in MRCP	Ishu Praful Bharti	Dr Berton Monteiro
3	Evaluation of SNR & PNS levels in 1.5T & 3T MRI	Joseph Johnson Chinta	Kevin Neil Aranha
4	Evaluation of renal vasculature and its variations using 128 slice computed tomography	Shini.R	Dr Berton Monteiro
5	Comparative analysis of automatic and manual bolus tracking with trigger delay time and andhounsfeld unit in CECT abdomen and abdominal angiography	Sana Fathima	Dr Muralidhar
6	Analysis of cardiovascular risk in CT chest using visual coronary calcium score and extra coronary calcium	Sidharth G S	Kevin Neil Aranha

Undergraduate projects-2024

Title of the Project	Name of Student	Guide	Status
Assessing radiation dose in digital breast tomosynthesis: A patient dose evaluation	Devu Shyam	Kevin Aranha	Completed
Evaluation of effects of anxiety experienced by women prior to hysterosalpingography and comparing it with postprocedural pain.	Sr Geetha	Dr Ram	Ongoing
Analyzing the size and volume of maxillary sinus using 128 slice multidetector computed tomography (MDCT)	Thomas Sebastian	Dr Mahesh	Ongoing
Analysis of common urethral abnormalities in Retrograde Cysto urethrography (RGU)	Celia Lobo	Dr Krishnakiran	Ongoing
Assessing the effective dose in lower limb angiography using 128 slice multidetector computed tomography (MDCT)	James Thomas	Kevin Aranha	Ongoing
Evaluation of lumbar spine findings in young adults with low back ache using magnetic resonance imaging	Lijina Thankachan	Dr Ram	Ongoing
Correlation of radiological and clinical findings in oral cancers using 128 slice multidetector computed tomography (MDCT)	Sr Lilly Reshma	Dr Mahesh	Ongoing
Evaluating the rate of helium and comparing it with work load in a 3T MRI	Nicel Nison	Kevin Aranha	Ongoing
Sex determination from measurements of sternum using 128 slice multidetector computed tomography (MDCT)	Nikhil Babu	Dr Krishnakiran	Ongoing
Assessing the effective dose in high resolution computed tomography (HRCT) of the thorax using 128 slice multidetector computed tomography	Sr Nimmy Kurian	Dr Ram	Ongoing
Analysis of tubal abnormalities on hysterosalpingography (HSG)	Prishal Dsouza	Dr Mahesh	Ongoing
Analysis of Hounsfield Unit (HU) in Middle Cerebral Artery (MCA) stroke. A comparison between window and after window period stroke	Prithveesh G M	Dr Krishnakiran	Ongoing
Assessing the effective dose in upper limb angiography using 128 slice multidetector computed tomography (MDCT)	Rakshith	Kevin Aranha	Ongoing

Effective dose measurements for dose optimization in traumatic brain Computed Tomography (CT)	Sr Silu George	Dr Mahesh	Ongoing
Prevalence of incidental findings in chest x-ray in health checkup patients	Namitha Maria	Dr Krishnakiran	Ongoing
Prevalence of coronary artery calcium in routine Computed Tomography (CT)	Wilson Coelho	Kevin Aranha	Ongoing
Correlation between HU values and trigger time in 128 slice multidetector CT	Riya Rajesh	Kevin Aranha	Ongoing
An observational study to determine sex using lumbar canal diameter, vertebral body width and pedicle width and height measurement in plain Lumbar spine X-rays	Shaktiya	Dr Ram	Ongoing
Evaluation of chest pathologies in routine chest radiography	Fedora Santos	Dr Mahesh	Ongoing
Estimation of nasal bone length in males and females in computed tomography	Dilna Fathima	Dr Krishnakiran	Ongoing
Analysis of turn around time in CT brain	Godwin George	Kevin Aranha	Ongoing
Analysis of incidental findings in CT urography using 128 slice multidetector CT	Rashmi	Dr Mahesh	Ongoing
Comparison of types of pelvis on X-ray image	Rebin Reji	Kevin Aranha	Ongoing

Other Ongoing Project 2024

Sl.no	Internal research projects	Authors
1	Multi-detector computed tomography (128 slice) based analysis of agatston score. Correlating with coronary artery calcium data reporting system (cac-drs), body mass index (bmi) and body surface area (bsa) in asymptomatic patients.	Kevin Neil Aranha, Dr.Ram
2	Correlating ct coronary angiography radiation dose with body surface area: a comprehensive analysis	Shenoy Basthi

Clinical Psychology

Other projects:

Post graduate projects-2024

Sl no	Title	Name of the student	Name of PI/guide	Funded / self - funded
1	Assessment Of Emotional Intelligence, Resilience and Coping Strategies Among Medical Undergraduates	Ms. Manisha Ullal	Ms. S Malarmathi (Guide) Dr. Avinash Joe (Co.-Guide)	Self -funded
2	Anxiety, Depression Resilience And Quality Of Life In Patients With Breast Cancer	Ms. Valarie Ann Lobo	Ms. S Malarmathi (Guide) Dr. Avinash Joe (Co.-Guide)	Self -funded
3	Frequency and Severity of Internet Addiction Among Patients Diagnosed with Anxiety Disorder, Depressive Disorder and Obsessive Compulsive Disorder	Ms. Varsha Bhat	Ms. Deeksha Ekanand (Guide) Dr, Rahul Rao (Co-Guide)	Self -funded
4	The Influence Of Spiritual Intelligence And Coping Strategies On Burnout Outcomes In Medical Students	Ms. Miriam Martin	Ms. Deeksha Ekanand (Guide)	Self -funded
5	Psychological Distress material adjustment and attitude towards help seeking among first time mothers during antenatal period	Ms. Kavya	Ms. Deeksha Ekanand (Guide) Dr. Divya Nair (Co.- Guide)	Self -funded
6	Expectation Perceived social support and Parental self-efficacy among expectant mothers	Ms. Aysha Amreen	Ms. S Malarmathi (Guide) Dr. Rashmi Appaji (Co.- Guide)	Self -funded
7	Parenting Styles, attachment patterns and its impact on the self-esteem of college going students	Ms. Shetty Nidhi Gopal	Ms. S Malarmathi (Guide) Dr. Rashmi Appaji (Co-Guide)	Self -funded

Medical Laboratory Technology

Microbiology

Publications:



Pranav P Kolambkar

Title: Enterococcus faecium infections: An Emerging Threat

Name of the journal: Online Journal of Health and Allied Sciences

Published year: 2024

Abstract:

Introduction: Enterococci are a major cause of health care associated infections and are resistant to commonly used antibiotics like cephalosporins. The study aims to find the proportion and characteristics of Enterococcus faecium isolates among the enterococcal infections at a tertiary care hospital. **Methods and material:** A prospective cohort study was conducted in a tertiary care hospital in Mangalore, Karnataka for a period of 6 months from June to November 2023. The enterococci were isolated and identified and tested for antibiotic susceptibility by the standard methods. **Results:** Among the 132 enterococcal strains isolated from the clinical samples, 68 (51.51%) were E. faecalis and 61(46.21%) were E. faecium. E. faecium was significantly isolated more from the urine samples and from the inpatients. Also, the resistance to ampicillin (57.4% vs 14.7%), high level gentamicin (54.1% vs 36.8%), nitrofurantoin (37.7% vs 8.8%) and vancomycin (11.5% vs 1.5%) was significantly more among the E.faecium isolates, compared to the E.faecalis isolates. Resistance to linezolid was not found in the current study. **Conclusion:** In the present study, E. faecium strains were isolated in higher proportion compared to the other studies. Therefore, there is an emergent need to combat this increase and encouraging appropriate antibiotic use in the hospitals and community.



Pheba Sholy

Title: Clinical Outlook of Enterococcal Infections and their Antibiogram at a Tertiary Care Facility

Journal: RGUHS Journal of Allied Health Sciences

Published year: 2024

Abstract:

Background: Enterococci are facultative anaerobic gram-positive cocci occurring in pairs or short chains, belonging to the family Enterococcaceae. They are catalase negative and are distributed widely in nature. There are many species of Enterococci that have been identified. The purpose of this study was to determine the frequency of different species of Enterococci from clinical samples with positive culture using conventional methods and to analyze their antibiogram to initiate appropriate therapy. **Methods:** Out of a 1200 clinical samples processed, 59 Enterococcal isolates were obtained from urine, pus, blood and wound swabs over a period of one year from all the patients admitted to our tertiary care centre. These samples were subjected to culture and sensitivity tests. All the suspected Enterococcal culture isolates were identified by conventional methods and their antibiogram was analyzed. **Results:** The Enterococcal species commonly isolated in our study were *E. faecalis* and *E. faecium*. There was a predominance of *E. faecalis* 33(55.9%) over *E. faecium* 22(44.06) among the 59 Enterococcal infections. *E. faecium* was found to be multidrug resistant and sensitive only to vancomycin. **Conclusion:** There was a predominance of *E. faecium* over *E. faecium* among the Enterococcal isolates. The multidrug resistant pattern of *E. faecium* warrants prompt identification and long term strategies to address the increasing frequency of antibiotic resistance among Enterococcal infections, particularly with reference to *E. faecium*, especially when empirical therapy must be initiated.



Sharon Raju

Title: Effectiveness of structured training on knowledge and attitude toward research among medical laboratory technology interns

Journal: RGUHS journal of Allied Health Sciences

Published year: 2024

Abstract

Background: Involving health science students in research fosters critical thinking and enhances their understanding of common clinical challenges. Structured research training and active participation in projects significantly improves the quality of care they deliver as future health professionals. **Objectives:** The present study aimed to assess the knowledge and attitude of research among medical laboratory technology interns and to evaluate the effectiveness of a structured research training programme. **Methods:** Twenty-six BSc Medical Laboratory Technology (MLT) interns from a health sciences college were evaluated for research knowledge and attitudes using validated questionnaires. Over their one-year internship, they received 20 hours of research methodology training and conducted individual research projects. Pre- and post-internship assessments of knowledge and attitudes were conducted and compared to evaluate the impact of training. **Results:** The MLT interns demonstrated a significant improvement in knowledge, with post-training knowledge scores showing a marked improvement ($P < 0.001$). A higher number of interns achieved "very good" and "excellent" grades after the training compared to pre-training scores. While interns initially displayed a favourable attitude toward research, this attitude further improved following the program. Most interns disagreed that research was a waste of time or an added curricular burden. Participants recommended integrating research into the MLT curriculum. **Conclusion:** Structured research training with interactive sessions and hands-on projects effectively enhanced knowledge and fostered a positive attitude toward research among medical laboratory technology interns. Integrating research into Allied Health Sciences curricula is recommended, with a focus on innovative and interactive teaching methods to engage students in research.

Keywords: Allied Health Sciences, Medical laboratory technology, Teaching-Learning, Research project, Training

Other Projects

Sl no	Title	Name of the student/PI	Name of the guide
1	Prevalence of external spectrum betalctamase producing Klebsilla pneumonia isolates in a tertiary care hospital	Mr Vishnu Saseendran MSc MLT	Dr Meena Dias
2	Role of serum procalcitonin in diagnostic of sepsis principle	Ms Marishka Fernandes MSc MLT	Dr Meena Dias, Dr Kavitha
3	Evaluation of polymyxin B epsiolometer test susceptibility to multidrug resistant gram negative clinical isolates in a tertiary care centre	Ms Laveena Dsouza MSc MLT	Dr. Thomas S Kuruvilla
4	Burden of aerobic vaginitis in the adult females presenting with vaginal discharge	Ms Adithya K S MSc MLT	Dr Prasanna N Bhat
5	In –vitro evaluation of ceftazidime – avibactam and aztreonam synergy in carbapenem resistant enterobacteriales	Ms Priyanka S Purad MSc MLT	Dr Anup Kumar Shetty
6	Bacterial pathogens from respiratory tract infections and determination of their antimicrobial susceptibility pattern	Ms Sowmya Pattanashetti MSc MLT	Dr.Thomas S Kuruvilla Dr. Sherin Justin
7	Comparative study of microbiological analysis of water culture by multiple tube method and calorimetric method (HI MEDIA KIT)	Ms. Sowmya Jose BSc MLT intern	Dr. Rose Meroline Dsouza
8	Clinoco microbiological profile of secondary dengue infection	Ms. Teena Jasmine Dsouza BSc MLT intern	Dr Kavitha
9	Burden of cryptosporidium infection in patients with diarrhea	Ms. Vinet Jevisha Dsouza BSc MLT intern	Dr. Prasanna N Bhat
10	Genomospecies characterization of Acinetobacter isolated from clinical specimen by malditof analysis - A retrospective study	Mr. Nazareth Melroy Francis BSc MLT Intern	Dr. Beena Antony
11	Determination of prevalence and antimicrobial susceptibility pattern of methicillin resistant staphylococcus aureus isolated from clinical sample in a tertiary care teaching hospital, Karnataka	Ms Chaithanya Nayak BSc MLT Intern	Dr. Sherin Justin
12	Detection of biofilm and antimicrobial resistance of clinical isolates of Pseudomonas aeruginosa	Ms Renita Lasrado BSc MLT Intern	Ms Swathi Pangal

Biochemistry

Other Projects

Sl no	Title	Name of the student/PI	Name of the Guide
1.	Assessment of knowledge, attitude and perceived barriers for research among Allied health students- Effectiveness of research training.	Mr. Gowtham MSc MLT	Dr. Shivashankara AR
2.	Association of iron deficiency anemia and glycemic control in type 2 diabetes mellitus	Angel jeevitha Dsouza BSc MLT intern	Dr. Muruga
3.	Current knowledge attitude practice of medical laboratory technology undergraduate on occupational hazard and safety measures.	Delicia Lobo BSc MLT intern	Ms Claudia Johnny
4.	Pattern of paraprotein bands in serum protein electrophoresis and association with biochemical markers of renal function	Nithya Cyril Jagadish Fernandes BSc MLT intern	Mrs. Savitha P Kamath
5.	Estimation of measurement uncertainty in clinical chemistry laboratory	Nithish Kumar BSc MLT intern	Dr. Arun Kumar
6.	Association of serum creatinine and alkaline phosphatase with renal cancer	Priya S BSc MLT intern	Dr. Puneeth
7.	Critical values in biochemistry laboratory	Roja P J BSc MLT intern	Ms. Claudia Johnny

Pathology

Other Projects

Sl No.	Title	Name of the student/PI	Name of the Guide
1.	Clinicopathological correlation of thrombocytopenia among elderly.	Ms. Ashwija B MSc MLT	Mr. Omkareshwar Patil
2.	Spectrum of NESTROFT positive cases in tertiary health care center.	Ms. Anjana J MSc MLT	Dr. Christol Blanch Moras
3	Analysis of critical values in haematology laboratory in adult patients in a tertiary care hospital	Neaha Chinnu Kuriakose BSc MLT intern	Dr. Christina
4	Frequency of ABO and Rh blood group in acute leukemia	Priya S BSc MLT intern	Dr. Kirana Pailoor
5	Assessment of the prevalence of thrombocytopenia and associated etiologic factors in pregnancy	Sabahat Sheik BSc MLT intern	Mr. Omkareshwar Patil
6	Pattern of blood and blood components utilization and wastage in a tertiary care hospital	Thirsa Jincitta James BSc MLT intern	Dr. Charu Khosla
7	Enhancing diagnostic insights :A comprehensive analysis of platelet flagging reliability of the sysmex XN 1000 hematology analyser	Vinayak Bhajantri BSc MLT intern	Dr. Sueallen Lorna Dsouza
8	Is automated mixing of EDTA vacutainers enough to ensure sample homogeneity for complete blood counts?	Ayisha Amreen BSc MLT intern	Dr. Prashanth R
9	Coagulation abnormalities in dengue	Chaithra V Acharya BSc MLT intern	Mr. Omkareshwar Patil



FATHER MULLER COLLEGE OF NURSING

Research Projects

<i>Student funded projects</i>			
Title of the Project	Investigator	Funding Source	Grants
Effect of Trataka on the Well-being of Institutionalized Adolescents	Ms. Apporva S (PG Student - PI), Ms. Deepika NC (Guide), Dr. Devina E Rodrigues (Co-Guide)	Alumni Association, FMCON (Extramural)	Rs 20,000
Quality of Life (QOL) Among Cataract Patients in a Selected Hospital, Mangaluru	Ms. Ashritha Mendon (PI, UG Project), Annmariya Babu, Ashmitha Rodrigues, Anupama Johnson, AnsMariya Joy, Arya Raphael, Ms. Precilla Dsilva (Guide)	Father Muller Research Centre, Kankanady, Mangaluru (Intramural)	Rs 1,280
<i>Faculty funded projects</i>			
Title of the Project	Investigator	Funding Source	Grants
Physical Activity-Related Injury among the Adolescents of Dakshina Kannada District - Pilot study	Dr. Sasikumar S	ICMR - Extramural	Rs 19 Lakhs
Impact of COVID-19 on Neonatal Feeding Practices of Post-Natal Mothers	Ms. Sandra Saldanha (FMCON), Augustin B, Manoj PS, Washington M	TNAI (Extramural)	Rs 10,000

Publications:



Ms Shilpa

Title: Knowledge Gaps in PCOS Among Adolescent Girls: Effectiveness of a Structured Teaching Approach.

Journal: World Journal of Biology Pharmacy and Health Sciences

Published year: July 2024

Abstract

Polycystic ovarian syndrome is a common health problem affecting adolescent girls due to an imbalance in hormones. This study evaluates the effectiveness of a structured teaching program on Polycystic ovary syndrome (PCOS) among adolescent girls in selected colleges in Mangalore. The sample consisted of 60 adolescent girls from selected colleges. The data was collected using a baseline proforma and structured knowledge questionnaire on PCOD. The study found that adolescents had an average knowledge of 39.56%, significantly improving after administering STP, as evidenced by a post-test knowledge score of 81.61%.



Ms Sabeena MTP

Title: The relationship between Nomophobia and Quality of Sleep among nursing students in a selected Nursing Institution at Mangaluru

Journal: Journal of Health and Allied Sciences on 18-12-2024 (online)

Published Year: Dec 2024

Abstract:

A prolonged mobile phone use can lead to addiction, known as nomophobia, potentially affecting sleep patterns. This descriptive correlational study used purposive sampling to collect data from 163 nursing students in a selected institution. Data were gathered using a baseline proforma, Nomophobia Questionnaire (NMP-Q), and Pittsburgh Sleep Quality Index. Results showed a negligible correlation between nomophobia and sleep quality ($r=0.103$, $p=0.190$). Significant associations were found between nomophobia and factors like daily smartphone usage and purpose and between sleep quality and variables such as gender ($p=0.009$). The study highlights the need for awareness regarding balanced mobile phone usage.



Ms. Lavina Rodrigues

Title: Pre-operative anxiety and sleep quality among the patients admitted in a selected hospital.

Journal: International Journal of Advance Research in Nursing

Published year: 2024

Abstract:

Preoperative anxiety significantly impacts sleep quality, affecting recovery in surgical patients. This descriptive correlational study explored the relationship between preoperative anxiety and sleep quality among 120 purposively sampled patients. Data were collected using a demographic proforma, a preoperative anxiety scale, and a sleep quality scale. Results showed that 54.2% of patients experienced moderate anxiety (mean score 25.11 ± 6.32), while 66.7% had mild sleep disturbances (mean score 19.36 ± 6.41). A weak positive correlation ($r=0.244$, $p=0.007$) indicated that higher anxiety was associated with poorer sleep. These findings underscore the importance of interventions to reduce anxiety and enhance sleep for better surgical outcomes.



Ms. Sandra Jyothi Saldanha

Title: Effectiveness of Creating Opportunities for Parent Empowerment (COPE) on Stress, Anxiety, Coping and Competence among Mothers of Hospitalized Preterm Neonates in NICU: A Systematic Review Protocol

Journal: RGUHS Journal of Nursing Sciences

Published Year: 2024

Abstract:

This review aims to evaluate the effectiveness of Creating Opportunities for Parent Empowerment (COPE) on stress, anxiety, coping and competence among the mothers of preterm neonates admitted in Neonatal Intensive Care Unit (NICU). Over the last decade, premature birth rates have been steadily rising and owing to the technological advances, even survival of the extreme preterm babies is a possibility. As many preterm babies thrive and survive, focus must also be given to the parents, especially the mothers who deliver before their estimated time of delivery. It is believed that most of the mothers undergo emotional turmoil as they are mentally not prepared for it. At times, mothers feel helpless and reduced maternal confidence may lead to poor outcomes in the preterm baby care. Helping mothers to deal with this phase is essential. Coping strategies and support received from such mothers differ from place to place. Studies have been conducted for improving the coping of mothers with preterm babies and COPE has been highlighted as a useful strategy for better maternal adaptation. The findings of this review may help explore the outcomes of COPE program in alleviating the maternal emotional distress. This review will utilize studies that have used COPE program and its effect on mothers with preterm in the NICU on the stress, anxiety, coping and competence. The studies can be true/quasi-experimental in nature. Research papers that evaluate any of the components of stress, anxiety, coping, and competence will be considered. Both published and unpublished papers will be included in the review. MEDLINE, Embase, CINAHL, the Cochrane Library, Cochrane Central Register of Controlled Trials, Google Scholar, J-gate, Dissertation Abstracts International, ProQuest, Dissertations and Theses are the main databases to be searched. The methodological merit of each study will be evaluated critically by two independent reviewers. Where possible, studies will be combined in a statistical meta-analysis.

Title: Impact of Covid-19 on Neonatal Feeding Practices of Post-Natal Mothers

Journal: The Nursing Journal of India

Year of Publication: Sept 2024

Abstract:

This study aims to assess the impact of COVID-19 on the neonatal feeding practices of post-natal mothers. A survey-retrospective cross-sectional design was adopted, and data was collected using Google Forms. It was accessed for mothers nationwide through different social platforms and lactation groups. The study participants also included the mothers visiting a tertiary super speciality hospital in Southern India, as the responses obtained through Google Forms did not meet the estimated sample size. Post-natal mothers who delivered during the COVID-19 pandemic in India since March 2020 constituted the study population. A total of 382 samples were included in the study.



Sr Dhanya Devasia

Title: Effectiveness of lactation counselling on lactation outcome among primipara mothers: a pilot study.

Name of the Journal: J Allied Health Sci NU

Year Publication: July 2024

Abstract:

This study included a pilot study with 30 primiparous women between 37 and 40 weeks of gestation. Mothers of the intervention group were given lactation counselling using a module and a demo before delivery and face-to-face counselling for 3 days. In contrast, mothers of the control group received routine care. Immediate initiation of breastfeeding and lactation outcome were measured using structured validated tools. A significant difference was found at the initiation of breastfeeding between the groups ($t = 8.529$; $p < 0.001$) and in the lactation outcome, which was observed by the infant breastfeeding observation tool on the third day ($Z = -4.269$), fourth day ($Z = -4.681$), and fifth day ($Z = -4.667$) at $p < 0.001$ level. None of the

babies of mothers who received lactation counselling and immediate initiation of breastfeeding had exaggerated jaundice, whereas 53.33% of infants in the control group (group 1) developed exaggerated jaundice within the first 48 hours. The research supports the need for lactation counselling.



Ms Ramyashree

Title: The Influence of menopausal indicators and Family Support on the well-being of women with menopause

Name of the Journal: Annals ASH and KMDC Journals

Year Publication: November 2024

Abstract:

A cross-sectional design ascertains the relationship between menopausal women's physical and mental well-being, the intensity of their menopausal symptoms, and their family support. A significant portion of women reported challenges, with 51% experiencing sleep disturbances, including trouble sleeping and early waking. Additionally, 51.3% of participants reported inadequate familial support, while 32.6% indicated poor mental well-being. In contrast, 32.5% of women were moderately satisfied with family support. A strong association was found between women's well-being and certain demographic factors. The investigation has determined that a large number of women in rural areas struggle with menopausal symptoms that affect their physiologic and psychological processes as they age.



Sr. AnithaJoseph

Title: Postoperative pain reduction in cesarean mothers with hand and foot massage

Name of the Journal:Journal of Allied Health Sciences

Year Publication:May 2024

Abstract:

A quasi-experimental nonequivalent control group pretest and post-test design was adopted in this study. Using the purposive sampling method, 60 mothers who underwent cesarean sections were selected and randomly assigned to the intervention and control groups. Data were collected using the Numerical Pain Rating Scale. The intervention group received hand and foot massages for 20 minutes twice daily (morning and evening) for 3 days. After 5 minutes of intervention, both groups underwent a post-test. The mean preintervention pain score on day 1 was 8.10 ± 0.61 , and the mean percentage was 81, whereas the post-test mean score was 7.00 ± 0.64 , and the mean percentage was 70. The pain scores significantly differed in the intervention group (F-value (11&319) = 498.32, $p = 0.001$). Mothers who underwent cesarean section benefited from hand and foot massage.

Other Projects:

UG-Extramural:

Sl.No	Title	Name of the student	Name of the Guide	GrantAgency & Amount
1	Academic Resilience and Mindfulness Among Nursing Students in a College, Mangaluru	Deepa Robert	Prof.Santhipriya Monterio	RGUHS Bangalore. Rs 15,000
2	Emotional Intelligence among Millennial and Post Millennial Generations at Health Institution, Mangaluru	Chris Sherwin DSouza	Ms Priya S Pereria	RGUHS Bangalore. Rs 14,500
3	A study to assess the severity of Cyberchondria among students	Neha Mary Binu	Dr Josmitha Dsouza	RGUHS Bangalore. Rs 15,000

4	Impact of white noise and mother's Touch on pain among the new-born in a Hospital at Mangaluru	GlaneAzeta Dsouza	Dr.Pramila Dsouza	RGUHS Bangalore. Rs 15,000
5	Impact of recreational reading on social attitude among youths	Loy Antony Dsouza	Mrs. Ramyashree S	RGUHS, Rs. 8000

UG FUNDED PROJECTS- INTRAMURAL

Sl. No	Title	Name of the student	Name of the PI/Guide	Grants Agency & Amount
1	The relationship between academic procrastination and self-efficacy among students of nursing college atMangalore	Ms. Preemal J Saldanha	Dr.Shycil Mathew	FMRC-Rs 6500
2	Influence of working hours on mental health nurses of a selected hospital Mangaluru.	Mr. Joseph VellachalilShibu	Dr. Sonia Karen Liz Sequera	FMRC- Rs, 5000/-
3	Perception regarding clinical learning environment among undergraduate nursing students in selected colleges, Mangaluru.	Ms. MelishaCastelino	Mrs. Helen Claret D Souza	FMRC-Rs. 3500/-

PG -Funded Projects- Intramural

Sl. No.	Title	Name of the Student	Name of the Guide	Name of the Co-Guide	Grants Agency & Amount
1	Effectiveness of breastfeeding pillows on comfort, latch, and maternal satisfaction among post-cesarian mothers.	Ms. Clerita Joylene	Ms. Precilla D'Sliva	-	FMRC - Rs 5,000
2	Effects of Aromatherapy on pain and psychological parameters among orthopedic patients admitted in the hospital	Rosmy Jose	Mrs. Denitha T	Dr. Sasikumar	FMRC - Rs 16,664
3	Occurrence of iron deficiency anemia and comparison of anemia with BMI of youth in a nursing college at Mangaluru	Sr. Daisy	Dr. Shycil Mathew	Mrs. Priya Sweety Pereira	FMRC

PG Projects- Self Funded Adjunct projects: Completed in 2024 (2023 Batch)

Sl. No	Title	Name of the student	Name of the Guide	Grants Agency & Amount
1	Self-efficacy of caregivers of oncology patients in a hospital setting.	Ms Rosmy Jose & M Kaiziia	Ms. Sunitha Merlin F (Guide) MsPrecillaD'Silva (Co-Guide)	Self Funded
2	Knowledge and attitude on yoga among the general population visiting OPD in tertiary care hospital, Mangaluru	Ms Apoorva S &SrJinumol	Ms. Deepika N.C (Guide) SrAnjana (Co-Guide)	Self Funded
3	Screening for Osteoporosis among adults in a hospital	Ms. Meryln Priya Moras, Sr. Daisy	Ms. Sandra Saldanha (Guide) Prof. Helen C Dsouza (Co-Guide)	Self Funded
4	A study on burden and perceived social support among the caregivers of patients with alcohol dependence syndrome in a tertiary care hospital at Mangalore	Ms Preetha Sonia Dsouza Ms. Lucy P Solo Sr. Veronica	Ms. Laveena Rodrigues (Guide) Dr. Josmitha Dsouza (Co-Guide)	Self Funded

PG Projects- Self Funded Dissertation Studies: Completed (2022 Batch)submitted to RGUHS in 2024:

Sl. No.	Title	Name of the Student	Name of the Guide	Name of the Co-Guide	Grants Agency & Amount
1	Effectiveness of Laughter Yoga on Stress in Patients with Cancer in a Selected Hospital, Mangaluru	Sr. Athira Abraham (Medical Surgical Nursing)	Mrs. Jubee Joseph	Nil	Self Funded
2	Effectiveness of Hot Water Footbath Therapy on Level of Fatigue and Insomnia Among Patients Undergoing Hemodialysis	Sr. Jisa Jose (Medical Surgical Nursing)	Mr. Ashwin Bromeo J	Mrs. Denitha T	Self Funded
3	Effectiveness of Onco Health Programme on Management of Psychological Problems Among Cancer Patients	Sr. Soumya George (Medical Surgical Nursing)	Dr. Sasikumar S	Mr. Abin Kuriakose	Self Funded
4	Effectiveness of Interventional Package on	Sr. Brigit. R (Mental Health	Mrs. Lavina Rodrigues	Mrs. Sabeena MTP	Self Funded

Sl. No.	Title	Name of the Student	Name of the Guide	Name of the Co-Guide	Grants Agency & Amount
	Loneliness Among Elderly Living in Selected Old Age Homes	Nursing)			
5	Loneliness and Social Support of Caregivers of Patients with Psychiatric Disorders in a Selected Hospital	Sr. Litty Thomas (Mental Health Nursing)	Ms. Sonia Maria Lobo	Dr. Agnes EJ	Self Funded
6	Assessment of Self-Esteem Among Caregivers of Mentally Ill Patients in a Selected Tertiary Care Hospital	Sr. Roselin Zacharias (Mental Health Nursing)	Ms. Santhipriya Monterio	Ms. Pathima Violet Fernandes	Self Funded
7	Effect of Nurse-Led Physical Training on Pain and Shoulder Movement in Patients Who Have Undergone Surgery for Breast Cancer	Sr. Sumitha Fernandes (OBG Nursing)	Dr. Reena Wilma Frank	Ms. Thamizaharasi	Self Funded

PG Projects- Self Funded Adjunct Projects: Completed (2022 Batch):

Sl. No.	Title	Name of the Student	Name of the Guide	Name of the Co-Guide	Grants Agency & Amount
1	Perceived stress and coping strategies among adolescent girls on pubertal changes in a selected school, Mangaluru	Sr. Sumitha Fernandes (OBG) & Sr. Roselin Zacharias (MHN)	Mrs. Wilma Shalini Noronha, HOD/Professor, Department of Child Health Nursing	Ms. Deepthi Gladys D'souza	Self Funded
2	A study to assess the maternal perceived quality of life among postnatal mothers in a selected hospital, Mangaluru	Clerita Joyelin Lobo (OBG) & Sr. Soumya George (MSN)	Dr. Shiji P J, Professor & HOD, Community Health Nursing	Ms. Deepika N C, Assistant Professor, Community Health	Self Funded
3	Factors contributing to antihypertensive medication adherence among patients with chronic hypertension	Brigit. R (MHN) & Athira Abraham (MSN)	Dr. Devina E Rodrigues, Professor, Community Health Nursing	Ms. Priya Sweety Pereira, Assistant Professor, Community	Self Funded


Sl. No.	Title	Name of the Student	Name of the Guide	Name of the Co-Guide	Grants Agency & Amount
	visiting outpatient units of a hospital, Mangaluru			Health Nursing	
4	Correlation between self-esteem and academic achievement among students of a selected nursing college, Mangaluru	Sr. Litty Thomas (MHN) & Sr. Jisa Jose (MSN)	Dr. Sonia Karen Sequeira, Associate Professor, Community Health Nursing	Sr. Anjana Rose, Assistant Professor, Child Health Nursing	Self Funded




UG Projects- Self Funded(Ongoing)Basic BSc(N)


Sl. No.	Title	Name of the Student	Name of the Guide	Grants Agency & Amount
1	Effectiveness of Activity Therapy on Stress Reduction and Improving Sleep Pattern Among the Patients with Mental Illness in a Selected Hospital in Mangaluru	Aksa Maria Berchmans, Angel James K, Anila Thomas, Anitta P Biju, Anshi Varghese, Ashily Babu	Ms. Lavina Rodrigues	Self-Funded
2	Knowledge and Attitude of Healthcare Professionals Regarding Antimicrobial Stewardship in a Selected Hospital, Mangaluru	Blannan Dion Semento, Gail Barnes, Freeda Primal Dsouza, Helan Rose, Ashlin Nathasha Fernandes	Ms. Leena Castelino	Self Funded
3	Knowledge and Self-Reported Practices on Renal Diet Among Hemodialysis Patients	Chrishall J Gomes, Hencitta Pereira, Carol Monteiro, Jessica Mariah Sherry, Delora Dsouza	Sr. Nancy	Self Funded
4	Attitude of Public Towards Dispensing Medicines Through Electronic Health Record System	Glenys Josvita Veigas, Jeevan D Costa, Angel Francis, Manusha Kashinath Chavan, Joel Roy Mathew	Ms. Sharmila	Self Funded
5	Academic Achievement Differences Among Nursing Students in Annual and Semester-Based Examination Systems on Selected Subjects	Jessica Valerie Vaz, Jessica Shanria Menezes, Jisha James Mariamma, Marita Vipriya Rodrigues, Leoraj K R	Ms. Sandra Saldanha	Self Funded
6	Study on Relationship Between Co-Curricular Activities and Exam Performance Among Nursing Students	Mariya Varghese, Joshua Edwin Pereira, Liral Stephania Monteiro, Neha Regi, Melita Anola Pais	Mr. Manoj PS	Self Funded

Sl. No.	Title	Name of the Student	Name of the Guide	Grants Agency & Amount
7	Assess the Knowledge on Prevention of Urinary Tract Infection Among High School Students in Selected Institutions, Mangalore	Reshal Mascarenhas, Sr. Manjitha, Akshitha Joshy, Shwetha Parashurama Rathod, Prian D Souza	Ms. Pathima V Fernandes	Self Funded
8	Knowledge and Self-Reported Practices on Complementary Feeding Among Mothers of Infants	Snehal Crystal Lobo, Sharanappa Chitagi, Ashny Preeval Dsilva, Welron Monteiro, Riyan Divya Lewis, Rishal Dsouza	Ms. Wilma Noronha	Self Funded
9	Determinants of Early Initiation of Breastfeeding (EIBF) Among Postnatal Mothers	Sona Ann Mary K, Simona Flora Lobo, Ashton Glen Mascarenhas, Viola Correa, Sakshi	Sr. Dhanya	Self Funded
10	A Study to Compare the Personality Trait and Quality of Friendship Among Young Adults in a Selected College, Mangaluru	Vaishnavi C, Sowmya A, Dilsha Biju, Swizel Mascarenhas, Sania Joseph	Ms. Sunitha Menezes	Self Funded
11	A Study to Assess Nurses' Perception on Professional Shared Governance Among Nurses in a Selected Multi-Speciality Hospital	Vijayashree, Venissha Samantha Dsouza, Fanisha Ancy Dsouza, Sweedel Venisha Dsouza, Sejal Ana D Souza	Ms. Deepthi Dsouza	Self Funded


Awards:

Name of the person	The event award was granted.	Conference Name	Date
 Dr Sonia Liz K Sequeira	III Place oral presentation Title: Impact of online Nursing Education on perceived stress and Satisfaction among nursing students	Integrating technology in public health: The way forward Organisers: Yenepoya Nursing College, Deralakatte.	9-2-2024
	II Place paper presentation	National Conference on Integrating Technology in public health: The Way	29-02-2024

<p>Dr Shycil Mathew</p> 	<p>Title: Dietary and sleep pattern among overweight and obese adolescents: A descriptive study at Mangalore.</p>	<p>Forward</p> <p>Organisers: Yenepoya Nursing College, Deralakatte</p>	
<p>Mrs Lavina Rodrigues</p> 	<p>Best Poster Presentation (Thematic)</p> <p>Title:Competency compass: Navigating skill assessment with precision</p>	<p>Title: State-level Conference on Precision in Practice: Advancing Skill Assessment</p> <p>Organisers: Yenepoya Nursing College, Deralakatte</p>	<p>4-5-2024</p>
<p>Sr.AthiraAbraham,PG nursing Student (Medical Surgical Nursing)</p> 	<p>Best scientific poster</p> <p>Title: Effectiveness of Laughter Yoga on Stress in Patients with Cancer in a Selected Hospital, Mangaluru</p>	<p>Conference title: International Conference on Exploring the Boundless Horizons of Mixed Method Research.</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p> <p>Organisers: Yenepoya Nursing College, Deralakatte</p>	<p>2-8-2024</p>
<p>Sr. SumithaFernandes (OBG) & Sr. Roselin Zacharias (MHN)</p>  	<p>Best Scientific Paper Presentation</p> <p>Title:Perceived stress and coping strategies among adolescent girls on pubertal changes in a selected school,Mangaluru</p>	<p>Conference title: International Conference on Exploring the Boundless Horizons of Mixed Method Research.</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p> <p>Organisers: Yenepoya Nursing College, Deralakatte</p>	<p>2-8-2024</p>
<p>CleritaJoyelin Lobo (OBG) & Sr. Soumya</p>	<p>Best Poster</p>	<p>Conference title: International Conference</p>	<p>2-8-2024</p>



<p>George (MSN)</p> 	<p>Title: A study to assess the maternal perceived quality of life among postnatal mothers in a selected hospital, Mangaluru</p>	<p>on Exploring the Boundless Horizons of Mixed Method Research.</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI Organisers: Yenepoya Nursing College, Deralakatte</p>	
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Paper/poster presentations (Teachers)

Name	Paper presentation Title	Poster presentation Title
<p>Dr. Shycil Mathew, Dept Community Health Nursing</p> 	<p>Title: Dietary and sleep pattern among overweight and obese adolescents: A descriptive study at Mangalore.</p> <p>Presented on: 29-2-24 Conference title: National conference on Integrating Technology in Public Health: The way forward. Organisers: Yenepoya Nursing College</p> <hr/> <p>Title: Enhancing Lifestyle Practices in Overweight and Obese Adolescents through a Parent-Involved Multi-Component Intervention Programme.</p> <p>Presented on: 29-6-2024 Conference title: 7th International Conference on food and Nutrition Organisers: Universal Society for Food and Nutrition in association with the Faculty of Applied Science</p> <hr/> <p>Title: Effectiveness of Parent Involved Multi-Component Intervention program on Body Mass Index of overweight and obese adolescents of selected urban schools at Mangaluru Taluk, Karnataka, India</p> <p>Presented on: 2-8-2024 Conference title: International Conference on Exploring the Boundless Horizons of Mixed Method Research.</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>Educational Environment: Students' Perceptions using the DREEM Inventory a study at Mangalore, Karnataka</p> <p>Presented on: 4-5-24 Conference title: State-level Workshop on Precision in Practice Advancing Skill Assessment. Organisers: Yenepoya Nursing College</p>


<p>PriyaSweety Pereira</p> 	<p>Title:Self-esteem and perceived stress on work-life among non-teaching staff in a selected institution at Mangaluru Presented on:01.08.2024</p> <hr/> <p>1.Title:Factors contributing to antihypertensive medication adherence among patients with chronic hypertension in selected hospital, Mangaluru Presented on: 02.08.2024</p> <p>Conference title:International Conference on Exploring the Boundless Horizons of Mixed Method Research. Organisers:Yenepoya Nursing College</p>	<p>Precision in Practice: Advancing skill assessment (Concept presentation on conference theme- non-scientific)</p> <p>Date: 04.05.2024</p> <p>Conference title: State-level Workshop on Precision in Practice Advancing Skill Assessment. Organisers:Yenepoya Nursing College</p>
<p>Ms Depika NC</p> 		<p>Title:Management of febrile convulsions among students</p> <p>Presented on:02.08.2024</p> <p>Conference Title:International Conference on Exploring the boundless horizons of Mixed Method Research Organisers:Yenepoya Nursing College, Mangalore,& TNAI</p>
<p>SanthipriyaMonterio</p> 	<p>Title:Social intelligence and psychological well-being among nursing undergraduate students.</p> <p>Presented on: 02.08.2024 Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organisers: Yenepoya Nursing College, Mangalore,& TNAI</p>	<p>Title:Assessment of Stress among caregivers of mentally ill patients.</p> <p>Presented on: 02.08.2024 Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research. Organisers: Yenepoya Nursing College, Mangalore,& TNAI</p>
<p>MsSabeena M T P</p>	<p>1. Title:Nomophobia and Quality of Sleep among nursing students in a selected Nursing Institution at Mangaluru</p> <p>Presented on: 02.08.2024</p>	<p>1. Title:A Study to assess the Quality of Life in females with pregnancy induced diabetes in selected hospital at Mangaluru)</p>




	<p>Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>Presented on: 02.08.2024</p> <p>Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p>
<p>Ms Lavina Rodrigues,</p> 	<p>Title: Assessment of Salivary Alpha Amylase (SAA) on Mental Wellbeing among adolescents- A pilot study</p> <p>Presented on: 02.08.2024</p> <p>Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>1. Title: Competency compass; Navigating skill assessment with precision at state level workshop- Precision in Practice: Advancing Skill Assessment”</p> <p>Date: 04.05.2024</p> <p>Conference title: State-level Workshop on Precision in Practice Advancing Skill Assessment.</p> <p>Organisers: Yenepoya Nursing College</p> <p>2. Title: Medication adherence and Quality of life among patients with psychiatric disorders in a selected hospital”</p> <p>Date: 02.08.2024</p> <p>Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research.</p> <p>Organisers: Yenepoya Nursing College, Mangalore, & TNAI</p>
<p>Ms Sandra Saldanha</p> 	<p>1. Title: Experiences of preterm mothers in Neonatal Intensive Care Unit: A qualitative study-</p> <p>Presented on: 02.08.2024</p> <p>Conference title: International Conference on Exploring the boundless horizons of Mixed Method Research</p>	<p>Title: Cost-Effective Auscultation device for simulation Training in birthing room scenarios</p> <p>Date: 01/09/2024.</p> <p>Conference title:</p>

	<p>Organisers: Yenepoya Nursing College, Mangalore,& TNAI</p> <p>2.Title: Competency-based performance of mothers on preterm neonatal care through Neonatal Integrative Developmental Care (NIDC) interventions: An interventional pilot project-</p> <p>Presented on:Nov 2024</p> <p>Conference title:International webinar on Nursing and Women’s Healthcare, Bangkok, Thailand, Nov 2024.</p>	<p>Simulus-9 Annual Conference of Pedistars on Healthcare Simulation, Pune</p> <p>Organisers: Bharati Vidyapeeth Medical college and hospital, Pune</p>
<p>Dr Pramila Dsouza</p> 	<p>Title:Effectiveness of Multimodular interventions of lifestyle modification on Symptoms of PCOS and QOL</p> <p>Date: 5th November 2024</p> <p>Conference title: Presented at an International conference in Bangkok</p>	
<p>Dr Sonia Karen Liz Sequera</p> 	<p>Title:Lived Experience of women with Urinary Tract Infection (UTI) on Quality of Life (QOL) and Development of SCAPS (Structured Counselling and Preventive Strategies) Towards UTI Prevention.</p> <p>Date:2-8-24</p> <p>Conference title: International conference on Exploring Boundless Horizons in Mixed Method Research, organized by Yenepoya Nursing College in Mangaluru, August 2024</p> <p>Organisers: Yenepoya Nursing College, Mangalore,& TNAI</p>	
	<p>2. Title: Impact of online nursing education on perceived stress and satisfaction among nursing students</p>	


	Date: 9-2-2024 Conference title: Integrating technology in public health: The way forward" Organised By: Yenepoya Nursing College	
Dr. Reena Wilma Frank 	Title: Effectiveness of resistance and aerobic exercisers on Glycemic control and Maternal outcome among women with GDM Date:2-8-24 Conference title: International conference on Exploring Boundless Horizons in Mixed Method Research, organized by Yenepoya Nursing College in Mangaluru, August 2024 Organisers: Yenepoya Nursing College, Mangalore,& TNAI	

Paper/poster presentations (PG Students)

Name	Paper presentation Title	Poster presentation Title
Sr.Athira Abraham.PG Student 	---	Title: Effectiveness of Laughter Yoga on Stress in Patients with Cancer in a Selected Hospital, Mangaluru Date:02.08.2024 Conference: International Conference on Exploring the boundless horizons of Mixed Method Research Organiser: Yenepoya Nursing College, Mangalore,& TNAI
Sr.JisaJose,PG Student,	Title: Effectiveness of Hot water footbath therapy on the level of fatigue and insomnia among patients undergoing hemodialysis at a selected hospital, Mangaluru. Date:02.08.2024	

	<p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	
<p>Sr.Soumya George, PG Student</p> 	<p>Title: Effectiveness of onco health programme on management of psychological problems among cancer patients at a selected hospital, Mangaluru</p> <p>Date: 02.08.2024</p> <p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	--
<p>Sr. Brigit. R (Mental Health Nursing)</p> 	<p>Title: Effectiveness of interventional package on loneliness among elderly living in selected old age homes at Mangaluru</p> <p>Date: 02.08.2024</p> <p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	-

<p>Sr.Litty Thomas (Mental Health Nursing)</p> 	<p>Title: Loneliness and social support of caregivers of patients with psychiatric disorders in a selected hospital, Mangaluru.</p> <p>Date:02.08.2024</p> <p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore,& TNAI</p>	
<p>Sr.Roselin Zacharias (Mental Health Nursing)</p> 	<p>--</p>	<p>Title: Assessment of self-esteem among caregivers of mentally ill patients in a selected tertiary care hospital at Mangaluru.</p> <p>Date:02.08.2024</p> <p>Conference:: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore,& TNAI</p>
<p>Ms.CleritaJoylen Lobo (Obstetrics and Gynecology Nursing)</p> 	<p>Title: Effectiveness of Breastfeeding C-Pillow on comfort, LATCH ON and maternal satisfaction among postcesarean mothers in selected hospitals,</p> <p>Date:02.08.2024</p> <p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore,& TNAI</p>	<p>---</p>

<p>Sr. Sumitha Fernandes (OBG) & Sr. Roselin Zacharias (MHN)</p>  	<p>Title: Perceived stress and coping strategies among adolescent girls on pubertal changes in a selected school, Mangaluru</p> <p>Date: 02.08.2024 Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>--</p>
<p>Clerita Joyelin Lobo (OBG) & Sr. Soumya George (MSN)</p>  	<p>Title: A study to assess the maternal perceived quality of life among postnatal mothers in a selected hospital, Mangaluru</p> <p>Date: 02.08.2024</p> <p>Conference: International Conference on Exploring the boundless horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>--</p>
<p>Brigit. R (MHN) & Athira Abraham (MSN)</p>  	<p>Title: Factors contributing to antihypertensive medication adherence among patients with chronic hypertension visiting out-patient units of a Hospital</p> <p>Date: 02.08.2024</p> <p>Conference: International Conference on Exploring the Boundless Horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>--</p>

<p>Sr. Litty Thomas (MHN) & Sr. JisaJose (MSN)</p> 	<p>Title: Correlation between self esteem and academic achievement among students of a selected nursing college, Mangaluru</p> <p>Date: 02.08.2024</p> <p>Conference-: International Conference on Exploring the Boundless Horizons of Mixed Method Research</p> <p>Organiser: Yenepoya Nursing College, Mangalore, & TNAI</p>	<p>---</p>
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FATHER MULLER COLLEGE OF PHYSIOTHERAPY

Research Projects 2024

Sl.No	Title of the Project	Investigators	Funding Source	Grant
1	Efficacy of Tissue flossing in improving pain strength of quadriceps on Patellofemoral syndrome: A Randomized Clinical trial	Mr. Jaya P, Ms. Leah Mohandas, Ms. Sheetal Vivek Pai	Intramural	FMRC
2	Development and establishment of psychometric properties of head and neck control assessment for infants	Mrs. Anupama K, Dr. Manjeshwar Sahana Kamath, Dr. Sucharitha Suresh, Dr. K. Shreedhara Avabratha	Intramural	FMRC
3	Geriatric Fall Risk and Cognitive Health – A cross-sectional study among older adults	Dr. Manjeshwar Sahana Kamath, Ms. Cyanna Dsouza	Intramural	FMRC

Case Reports:

S. No.	Authors	Title	Journal	Year
1	Ms.Rinku Roshan	Multi-Centric Gliomas: Exploring the Feasibility of Multi-Modal Sensory Stimulation in Rehabilitation - A Case Study	Journal of Cancer Science and Therapy	2024

Publications:



Ms.Cyanna Joseph Dsouza

Title: Comparing the immediate effects of different neural mobilisation exercises on hamstring flexibility in recreational soccer players.

Journal: Hong Kong Physiotherapy Journal

Published year: Feb 2024

Abstract:

Hamstring strain injuries are common, with neural tension contributing to hamstring tightness. This study compared the short-term effects of neural sliding and tensioning on hamstring length in 62 male recreational soccer players (aged 18–30 years). Participants performed three sets of stretching, with outcomes measured via Active Knee Extension Test (AKET) and Sit and Reach Test (SRT) pre-intervention, post-intervention, and at 60 minutes. Both techniques significantly improved AKET and SRT scores post-intervention ($p < 0.05$), with neural tensioning showing slightly greater but negligible effects. Scores declined after 60 minutes regardless of the stretching type ($p < 0.05$).



Ms.Chaitra Bhat P.

Title: Effect of screentime in college students during the COVID-19 online classes on their neck posture and postural control: an observational study

Journal: International Journal of Research in Medical Sciences

Published year: Feb 2024

Abstract:

Background: Corona virus which is the source of severe acute pulmonary syndrome causes an airway tract contamination (COVID 19). Prolonged static contraction of skeletal muscles of the cervical region, lower back leads to impaired flow of blood to the muscle groups together with edema and accumulation of waste metabolites will trigger the muscle spasm.

Methods: Total 30 college students aged between 18-25 years who attended the online classes during COVID-19 were included in this study by using a questionnaire. The outcome measures used were the measurement of CV angle, SEBT and BBS. The postural control was estimated by using star excursion balance test and Berg balance scale. **Results:** Using Karl Pearson's correlation coefficient, a positive correlation was observed between CV angle and BBS ($r = 0.82$). Between BMI and CV angle there exists a statistically significant negative correlation ($r = -0.564$). **Conclusions:** This study proved that there exists a forward neck

posture in the students who attended the online classes during the COVID-19 pandemic and that also affected their postural control.



Prof. Cherishma Dsilva

Title: Comparing effects of inspiratory muscle trainer and lung flute on sputum clearance in chronic obstructive Pulmonary Disease: A randomized controlled trial

Journal: Physiotherapy Practice and Research

Published year: April 2024

Abstract:

Background: Mucus accumulation, a common impairment in COPD affects lung function, exacerbations and quality of life. Physiotherapy devices like lung flute (LF) form the non-pharmacologic treatment options. Although not a primary airway clearance device, inspiratory muscle trainer (IMT) plays a role in it. The aim of this study was to compare the effectiveness of lung flute and IMT as methods for sputum clearance in COPD. **Method:** Participants were randomized into three groups: IMT, LF, and routine physiotherapy (RP). Supervised 30 minutes of intervention was delivered to all the groups for 6 days, once a day. Total sputum volume analysis (TSV) was conducted before and after 6 days of intervention. **Results:** 60 participants were included in the study. Pair-wised comparisons for TSV revealed significant differences for the means of the rank scores between RP and LF (LF dominant) ($p < 0.001$), RP and IMT (IMT dominant) ($p < 0.001$) and LF and IMT (IMT dominant) ($p = 0.002$). **CONCLUSION:** IMT performed superiorly in terms of sputum clearance in patients with COPD.

Title: Effect of Structured Exercise Based Rehabilitation on Sarcopenia, Sleep and Quality of Life in Head And Neck Cancer Undergoing Chemoradiotherapy-RCT

Journal: Supportive Care in Cancer

Published year: July 2024

Abstract:

Introduction: Increased fatigue and inflammation are the side effects of head and neck (HNC) and its treatment. To advance patient's care, it is necessary to know the role of non pharmacological intervention such as exercise in mitigating these side effects. The present pilot RCT aims to determine the feasibility, acceptability, and effect of supervised exercise program on fatigue and inflammation in patients with HNC undergoing active chemoradiotherapy (CRT). **Methods:** Forty-one HNC patients aged 58 ± 3.75 years, TNM stage (III-IV b) receiving CRT, ECOG score < 2 were randomized into two groups. Participants in Group A (n=20) were advised to walk 10-mins thrice a day for five days/week and Group B (n=21) received combined aerobic and resistance training for seven weeks. C-reactive protein (CRP), Brief fatigue inventory scale (BFI) and Six minute walk distance (6MWD) were assessed on Pre CRT (Day 1) and at the end of 7 weeks. **Results:** No adverse effects of given exercises were observed, and exercises were practical to deliver. All variables were comparable at baseline. Statistical analysis using Wilcoxon signed rank test showed significant improvement on CRP (effect size = 0.87, $p < .001$ for A & effect size = 0.90 $p < .001$ for B) and BFI (effect size = 0.83, $p < .001$ for A & effect size = 0.87, $p < .001$ for B). Using Mann Whitney U test, post CRT presented significantly higher in group A (effect size = 0.505, $p = 0.005$), and POST BFI lower in group A (effect size = 0.626, $p < .001$). There was no statistical difference between group A and group B on post 6MWD ($p = 0.151$). **Conclusions:** The study results suggest that combined aerobic and strength training is feasible and there is a lesser increase in inflammatory marker values and improvement in the fatigue levels as compared to walking alone as an intervention.



Ms. Rinku Roshan

Title: Factors Influencing Adherence to Home-Based Rehabilitation In Individuals with Spinal Cord Injury: A Cross-Sectional Study

Journal: Journal of Physical Medicine & Rehabilitation

Published year: Nov 2024

Abstract:

Spinal cord injury (SCI) is a debilitating condition requiring comprehensive rehabilitation to enhance functionality and quality of life. This cross-sectional study explored factors

influencing adherence to home-based rehabilitation among 19 SCI patients in India. Patients adhering to therapy (≥ 30 minutes/session, ≥ 3 days/week) accounted for 68%. Key facilitators included ease of understanding home programmes and awareness of complications, while barriers were low mood, stress, and inadequate family support. Adherence positively correlated with spinal cord independence measure scores, with spasticity reducing adherence. Tailored home programmes addressing these factors can improve outcomes, especially in resource-limited settings with low rehabilitation awareness.



Ms. Leah Mohandas

Title: Occurrence of Work- Related Musculoskeletal Disorders In Operation Theatre Staff

Journal: African Journal of Biological Sciences

Published year: August 2024

Abstract:

Background: Work-related Musculoskeletal Disorders (WMSDs) are injuries to the musculoskeletal system occurring in the workplace, due to the environment, by repetitive motions like twisting, bending, lifting, crawling, pushing and pulling. It is caused due to the various risk factors, which result in conditions that vary across different occupations. The health-care profession is also one which has a high risk of developing WMSDs. Most of the previous studies focused on WMSDs among selected populations such as nurses, dentists, physical therapists and others. Operation theatre staffs are the group of people who work in operation theatre during surgical procedure and face physical challenges and demands during the surgery. Hence this study aimed to evaluate the common work- related musculoskeletal symptoms among them. **Aim:** This study aimed to find out the occurrence of work-related musculoskeletal disorders among the operation theatre staff in selected hospitals in Mangaluru. **Method:** It was a cross-sectional study conducted among operation theatre staff from selected hospitals, Mangaluru. An extended version of the Nordic musculoskeletal questionnaire was obtained from the participants and evaluated for the statistical analysis. **Results:** A high proportion of OT staff reported WMSDs at one or the other body region, lower back (53.8%) being the most commonly affected area, followed by the neck (52.7%) and the knee (50%). Fisher's exact test also showed that the staff from different departments,

age, working experience, working hours a day were found to be at a significant risk factor for developing the WMSD's. **Conclusion:** This study indicated that there was a high occurrence of WMSDs among OT staff. More than half of the study participants were affected with WMSDs on lower back, neck and knee. It is recommended to enhance the work environment, ergonomic awareness, and proper postures in their daily routine work.



Ms. Aishwarya Gatty

Title: Post ICU Clinic effectiveness: Addressing conclusion overreach and essential role of physiotherapists

Journal: Intensive Care Medicine

Published year: June 2024

Abstract:

Intensive care unit (ICU) survivors often face long term physical, cognitive, and mental health issues after discharge. In 2010, Society of Critical Care Medicine (SCCM) introduced the term “Post-Intensive Care Syndrome” (PICS) to describe these problems. Post-ICU clinics are follow-up outpatient clinics for ICU survivors to assess and manage the impairments acquired due to the stay in intensive care. Sharshar et al. have made a remarkable attempt to explore the effects of long-term outcomes associated with this clinic. Nevertheless, some concerns need to be addressed. First, the authors used the European Quality of Life 5Dimensions 5 Level Version (EQ5L-5D) questionnaire which involves three (mobility, self-care, usual activities) out of five components assessing physical aspects of quality of life. However, the assessment of mobility and physical function was not given due importance during the multidisciplinary consultations including physiotherapists. Second, the study primarily included elderly patients, for whom frailty is a significant concern. Third, the study lacks clarity regarding the interventions provided following multidisciplinary assessments at the various centers involved. It is also unclear whether these interventions were standardized across all centers. This variability could significantly influence the interpretation of the results. Future studies should include physiotherapists in the care team, standardize rehabilitation protocols, and clearly report specific interventions to provide a comprehensive evaluation of patient recovery.

Other projects:

Sl no	Title	Name of the student	Name of PI/guide	Grant
1	Evaluation of Range of Motion of the First Metatarsophalangeal Joint in patients with Plantar Fasciitis: A Cross Sectional Study	Mr. Franston Melrick DSouza	Ms. Leah Mohandas	RGUHS students grant 2024
2	Correlation Between Acromio-Humeral Distance and Shoulder Capsular tightness in Overhead athletes.	Ms. Christy jolly	Prof. Cherishma D'silva	RGUHS students grant 2024
3	Intoeing gait analysis in adults using goniometer and smartphone gait analysis app.	Ms. Seina Dcosta (3rd year)	Ms. P Chaitra Bhat	RGUHS students grant 2024

Awards:

- **Prof Cherishma Dsilva** was awarded with Young Scientist Travel grant in July 2024
- **Dr. Garima Gupta and Ms Aishwarya Gatty** obtained the copyright of their work titled “**Early Movements, Early Recovery**” in January 2024.
- **Ms. Vidisha** secured the 6th rank in the MPT RGUHS examination
- **Ms Gouri** secured the 10th rank in the MPT RGUHS examination

Presentations:

Faculty Presentation:

Event name: Confluence 2024



Ms. Cyanna Joseph Dsouza, Assistant Professor, Father Muller College of Physiotherapy, for securing **1st place in the Oral Presentation – Staff Category** for her Paper titled **“Influence of Anthropometric Variables, Lower Limb Explosive Strength and Dynamic Balance on Single-leg Hop Test Performance in Professional Soccer Players”** at **Confluence 2024**, a National Conference organized by Laxmi Memorial College of Physiotherapy, Mangalore on 27th and 28th September 2024.



Prof Cherishma Dsilva, Principal FMCOP presented her research work titled **“Effect of structured exercise-based rehabilitation on sarcopenia, sleep and quality of life in head and neck cancer undergoing chemoradiation therapy -RCT”** as a poster at MASCC/AFSOS/ISOO 2024 Annual Meeting in Lille, France in June 2024.



Ms. Anupama K, Associate Professor, and **Ms P Chaitra Bhat**, Asst. Professor FMCOP presented their research work titled **“Association of Calf Circumference and Cardiovascular Fitness with Inflammatory Markers and Platelet Count in Young Females with PCOS – A cross-sectional Study”** at the International Conference "SPORTICON 24" at the MAHE Manipal in

August 2024. **Ms. Anupama K**, has also presented her research work titled **“A Case Report on Overcoming Academic Procrastination and Facilitating Self-Regulated Learning Using POMODORO Technique in UG students”** at Skilleducon 2.0 National Healthcare Conference Father Muller Medical College Mangalore in September 2024.



Dr Manjeshwar Sahana Kamath, Asso. Prof FMCOP presented her research work titled **“Comparison of HYBRID vs. CIMT on Post-Stroke Upper Extremity Task Performance”** at Confluence 2024, National Conference organized by Laxmi Memorial College of Physiotherapy in September 2024.

Student Presentations:

Event Name: Confluence

Poster Presentation: First place in UG Category



Ms. Rhea Rajesh Kunder, 2nd year BPT, Father Muller College of Physiotherapy, presented the Poster titled “**Efficacy of Kinesiotape Application in Improving Upper Extremity Function in Children with Cerebral Palsy- A Review of Literature**” on 27th and 28th September 2024.

Oral Presentation: Second place in PG Category



Ms. Ninoshka Salvita Mascarenhas, Postgraduate student, Father Muller College of Physiotherapy, presented her Paper titled “**Mapping the power link between thigh and toe: the effect of hamstring strength on the performance of flexor hallucis longus in adults**” on 27th and 28th September 2024.

Event name: Voice of Research 2024

Poster Presentation: Winner of UG category



Ms. Anjelina Thaju Thomas (4th-year BPT student) along with **Ms. Shancy Mendonca** (3rd-year BPT student) secured 1st place in the E-Poster presentation for her poster titled “**Efficacy of Integrated Neuromuscular Inhibition Technique for Non-Specific Neck Pain with Upper Trapezius Trigger Points: A Review of Literature**” at the scientific presentation contest on 15th October 2024.



Ms. Ankitha K (4th year BPT student) along with **Ms. Mariyambi Budansab Shaikh** (3rd year BPT student) secured 2nd place in the E-Poster presentation for her poster titled “**Efficacy of Plyometric Exercise Training on Balance, Gait and Lower Extremity Muscle Strength in Children with Unilateral Cerebral Palsy: A Literature**”

Review” at the scientific presentation contest on 15 th October 2024



Ms. Bhoomika M U, a 4th-year BPT student, secured **3rd** place in the E-Poster presentation (UG category) for her poster titled **“Effect of smartphone usage on hand strength in young adults: A literature review”** at the scientific presentation contest on 15 th October 2024.

Oral Presentation: Winner of the PG category



Ms. K Jonica Johny, a Postgraduate student, secured 1st place in the Oral Presentation - PG category for her Paper titled **“Impact of Functional Lower Limb Strength on Risk of Fall in Parkinson’s Disease”** at a Scientific Presentation Contest on 15th October 2024



Mr. Dalton Dolphy Menezes, Postgraduate student, secured **2nd** place in Oral Presentation - PG category for his Paper titled **“Barriers to physical activity among stroke survivors in coastal Karnataka, India- A qualitative study”** at a Scientific Presentation Contest on 15th October 2024



Ms. Lidwin Dcunha, a Postgraduate student, secured **3rd** place in the Oral Presentation - PG category for her Paper titled **“Field Tests for Assessment of Functional Capacity in Coronary Artery Bypass Graft Patients: A Literature Review”** at a Scientific Presentation Contest on 15th October 2024.

Event name: ICHTR, MAHE, Manipal 2024



Mr. Dalton Dolphy Menezes, a Postgraduate student at Father Muller College of Physiotherapy, secured **1st** place in the Oral Presentation category (UG/PG) for his Paper titled **“Barriers to physical activity among stroke survivors in coastal Karnataka, India—a qualitative study”** at ICHTR-2024, a scientific presentation conference organized by MAHE, Mangalore, on 19 December 2024.

List of Presentations at Conferences

S.No	Faculty (Guide)	Student (Presenter)	Presentation Platform	Type of Presentation	Title	Date
1	Prof. Sydney Roshan Rebello, Ms. Dsouza Cyanna Joseph	Mr. Miqdad Ashraf	1st Karnataka Physiocon 2024, State Physiotherapy Conference	Poster	Correlation of toe grip strength with dynamic balance and mobility in patients with knee osteoarthritis - A Pilot Study	16-02-2024
2	Ms. Anupama K	Ms. Siyona Silimkan	Physiodrome - National Physiotherapy Conference, Dr. D.Y Patil College of Physiotherapy, Pune	Poster	Does Fitness Have an Influence on Inflammatory Biomarkers in Young Ladies with PCOD: A Pilot Study	23-02-2024
3	Dr. Manjeshwar Sahana Kamath	Ms. Gwen Dsouza	Physiodrome - National Physiotherapy Conference, Dr. D.Y Patil College of Physiotherapy, Pune	Paper	A Comparative Study to Assess the Quality of Life and Cognitive Health in Elderly Individuals Living in Assisted Living Homes Versus in Community	23-02-2024
4	Dr. Manjeshwar Sahana Kamath	Ms. Chrisel Monteiro	CONFLUENCE 2024, Laxmi Memorial College of Physiotherapy, Mangalore	Poster	Physical Performance Variables in Indian Pre-Adolescent Children – Exploring Trends and Correlations to Obesity	27-09-2024
5	Dr. Manjeshwar Sahana Kamath	Jonica Johny	CONFLUENCE 2024, Laxmi Memorial College of Physiotherapy, Mangalore	Paper	Impact of Lower Limb Function on Risk of Fall in Parkinson's Disease	27-09-2024
6	Ms. Dsouza Cyanna	Ms. Pearl Fernandes	Confluence 2024, Laxmi Memorial	Paper	Relationship of Dynamic Balance and Agility with Hamstring Muscle Length in Recreational	27-09-2024

S.No	Faculty (Guide)	Student (Presenter)	Presentation Platform	Type of Presentation	Title	Date
	Joseph		College of Physiotherapy		Soccer Players - A Pilot Study	
7	Ms. Dsouza Cyanna Joseph	Ms. Glevisha Ann Mendonca	Confluence 2024, Laxmi Memorial College of Physiotherapy	Paper	Correlation between Toe Grip Strength and Knee Function in Patients with Knee Osteoarthritis - A Cross-sectional Study	27-09-2024
8	Ms. Dsouza Cyanna Joseph	Ms. Rhea Rajesh Kunder	Confluence 2024, Laxmi Memorial College of Physiotherapy	Poster	Efficacy of Kinesiotape Application in Improving Upper Extremity Function in Children with Cerebral Palsy - A Review of Literature	27-09-2024
9	Ms. Dsouza Cyanna Joseph	Mr. Franston Dsouza	Confluence 2024, Laxmi Memorial College of Physiotherapy	Poster	Efficacy of Scapular Muscle Strengthening in the Management of Lateral Elbow Tendinopathy - A Review of Literature	27-09-2024
10	Ms. Anupama K	Ms. Kiran Roy	CONFLUENCE 2024, Laxmi Memorial College of Physiotherapy, Mangalore	Paper	Association of Gross Motor Function Skill Level of Children with Cerebral Palsy to their Community Participation: Pilot Study	28-09-2024
11	Ms. Anupama K	Ms. Divya Jyothi	CONFLUENCE 2024, Laxmi Memorial College of Physiotherapy, Mangalore	Paper	Reference Values for Motor Imitation Scale in Preschool-Going Children - Pilot Study	28-09-2024
12	Ms. Leah Mohandas	Mr. Anrick	Confluence 2024, Laxmi Memorial College of Physiotherapy	Paper	Influence of Thoracic Kyphosis on Quadriceps and Hamstring Muscle Strength in Desktop Workers - A Cross Sectional Study	27-09-2024
13	Ms. Leah Mohandas	Ms. Ninoshka	Confluence 2024, Laxmi Memorial College of Physiotherapy	Paper	Mapping the Power Link Between Thigh and Toe: The Effect of Hamstring Strength on the Performance of Flexor Hallucis Longus in Adults	28-09-2024
14	Ms. Leah Mohandas	Ms. Rekha	Confluence 2024, Laxmi Memorial College of Physiotherapy	Paper	Correlation Between Calf Muscle Strength and Flexibility in Subjects with Unilateral Knee Osteoarthritis	28-09-2024

S.No	Faculty (Guide)	Student (Presenter)	Presentation Platform	Type of Presentation	Title	Date
15	Ms. Leah Mohandas	Ms. Sreelakshmi	Confluence 2024, Laxmi Memorial College of Physiotherapy	Paper	Does Hand Grip Strength Relate to Trunk Rotation Ability in Recreational Badminton Players?	28-09-2024
16	Mr. Jaya P	Ms. Mariyambi Shiekh	Confluence 2024, Laxmi Memorial College of Physiotherapy	Poster	Is BFR (Blood Flow Restriction) Effective in Improving Biceps Strength in Healthy Individuals? A Literature Review	27-09-2024
17	Dr. Garima Gupta	Dalton Dolphy Menezes	Voice of Research, FMCOP	Paper	Barriers to Physical Activity Among Stroke Survivors in Coastal Karnataka, India: A Cross-Sectional Study	15-10-2024
18	Dr. Garima Gupta	Sheik Asifa Parveen	Voice of Research, FMCOP	Paper	Knowledge, Attitude, and Perception of Physical Activity Among Patients with Diabetes	15-10-2024
19	Dr. Manjeshwar Sahana Kamath	Jonica Johny	Voice of Research, FMCOP	Paper	Impact of Lower Limb Function on Risk of Fall in Parkinson's Disease	15-10-2024
20	Dr. Manjeshwar Sahana Kamath	Nischith L Shetty	Voice of Research, FMCOP	Paper	Cognitive, Motor, and Neural Assessment of Older Adults with Fall Risk - A Literature Review	15-10-2024
21	Ms. Pandavadr Roshani Ranmalbhai	Anjelina Thaju Thomas	Voice of Research, FMCOP	Poster	Efficacy of Integrated Neuromuscular Inhibition Technique for Non-Specific Neck Pain with Upper Trapezius Trigger Points - A Literature Review	15-10-2024
22	Mrs. Rinku Roshan	Rince Varghese	Voice of Research, FMCOP	Poster	Effect of Robotic Assisted Training to Improve Gait Pattern for Patients with Hemiplegic Stroke: A Literature Review	15-10-2024
23	Mrs. Rinku Roshan	Dona Mol Regi	Voice of Research, FMCOP	Poster	Effect of Pilates Training on Improving Balance and Fall Risk Reduction in Postmenopausal Women: A Literature Review	15-10-2024

S.No	Faculty (Guide)	Student (Presenter)	Presentation Platform	Type of Presentation	Title	Date
24	Mrs. Rinku Roshan	Krithika Shettigar	Voice of Research, FMCOP	Poster	Effect of Transcutaneous Auricular Vagus Nerve Stimulation on Stride Length and Gait Speed in Parkinson's Disease: A Literature Review	15-10-2024
25	Prof. Cherishma Dsilva	Vaishnavi Puranik	Voice of Research, FMCOP	Paper	Early Mobilization Practice and Barriers in Intensive Care Unit Post Head and Neck Cancer Surgeries	15-10-2024
26	Prof. Cherishma Dsilva	Saba Shaikh	Voice of Research, FMCOP	Paper	Exploring Pulmonary Function Alterations in Individuals with Type 2 Diabetes Mellitus	15-10-2024
27	Prof. Cherishma Dsilva	Sidra Sayeeda	Voice of Research, FMCOP	Paper	Cardiopulmonary Responses to Six-Minute Peg Board Ring Test in Bronchiectasis Patients	15-10-2024
28	Prof. Cherishma Dsilva	Lidwin Dcunha	Voice of Research, FMCOP	Paper	Field Tests for Assessment of Functional Capacity in Coronary Artery Bypass Graft Patients: A Literature Review	15-10-2024
29	Prof. Cherishma Dsilva	Sharal Dsouza	Voice of Research, FMCOP	Paper	Exploring Pulmonary Function Alterations in Individuals with Type 2 Diabetes Mellitus	15-10-2024
30	Prof. Cherishma Dsilva	Aishwarya	Voice of Research, FMCOP	Paper	Effectiveness of Physical Therapy Management in Obstructive Sleep Apnea: A Review of Literature	15-10-2024
31	Dr. Ashwini Kumar	Sneha R	Voice of Research, FMCOP	Paper	Impact of Respiratory Muscle Training on Exercise Capacity in Patients with Chronic Obstructive Pulmonary Disease - A Systematic Review	15-10-2024
32	Dr. Ashwini Kumar	Pranav Shenoy	Voice of Research, FMCOP	Paper	Role of Diaphragmatic Strength Training in Patients with Heart Failure - A Systematic Review	15-10-2024
33	Dr. Ashwini Kumar	Neha Verma	Voice of Research, FMCOP	Paper	Effects of Inspiratory Muscle Training on Functional Capacity and Quality of Life in Post-Stroke Patients	15-10-2024
34	Dr. Ashwini Kumar	Aditi Rao	Voice of Research, FMCOP	Poster	Influence of Postural Control on Dynamic Balance in Older Adults - A Literature Review	15-10-2024

S.No	Faculty (Guide)	Student (Presenter)	Presentation Platform	Type of Presentation	Title	Date
35	Dr. Rekha Nair	Meera Joseph	Voice of Research, FMCOP	Paper	The Effectiveness of Mirror Therapy in Post-Stroke Upper Limb Rehabilitation - A Meta-Analysis	15-10-2024
36	Dr. Rekha Nair	Aryan Khanna	Voice of Research, FMCOP	Paper	Role of Virtual Reality-Based Interventions in Post-Stroke Gait Rehabilitation	15-10-2024
37	Dr. Rekha Nair	Snehal Dsouza	Voice of Research, FMCOP	Paper	Effect of Task-Specific Training on Functional Recovery in Stroke Patients - A Systematic Review	15-10-2024
38	Dr. Rekha Nair	Ishita Sharma	Voice of Research, FMCOP	Poster	Comparative Study of Balance Training in Stroke Survivors: Conventional vs. Technology-Assisted Methods	15-10-2024
39	Dr. Rekha Nair	Tarun Menon	Voice of Research, FMCOP	Poster	Evaluating the Impact of Constraint-Induced Movement Therapy in Upper Limb Stroke Rehabilitation	15-10-2024
40	Dr. Rajesh Pillai	Rohan Shetty	Voice of Research, FMCOP	Paper	Effect of Ankle Foot Orthosis on Gait Parameters in Children with Spastic Diplegic Cerebral Palsy - A Systematic Review	15-10-2024
41	Dr. Rajesh Pillai	Sana Qureshi	Voice of Research, FMCOP	Paper	Comparing the Efficacy of Dynamic Ankle Foot Orthoses vs. Rigid Orthoses in Children with Cerebral Palsy	15-10-2024
42	Dr. Rajesh Pillai	Vishal Nair	Voice of Research, FMCOP	Paper	Role of Whole-Body Vibration Therapy in Improving Functional Mobility in Patients with Parkinson's Disease	15-10-2024
43	Dr. Rajesh Pillai	Kavya Menon	Voice of Research, FMCOP	Poster	Understanding the Role of Robotics in Rehabilitation: Current Trends and Future Directions	15-10-2024



FATHER MULLER COLLEGE OF SPEECH AND HEARING

Publications:



Dr. Deepak Puttanna

Title: Impact of Semantic Cueing of Verb and Its Thematic Role on Discourse Skills of Persons with Aphasia

Journal: Journal of Health and Allied sciences

Published year: 2024

Abstract:

Objective: This study examined the impact of word retrieval treatment on discourse skills in persons with aphasia (PWAs). **Method:** Eleven PWAs underwent Semantic Cueing of Verbs and Thematic Roles (SCVTr) treatment. Discourse skills were assessed at pre, mid, post-treatment, and follow-up (one-month post-therapy) using qualitative (discourse analysis scale) and quantitative (T-unit analysis) measures. **Results:** Significant improvements were observed between pre-, mid-, and post-treatment phases, but no differences between post-treatment and follow-up. **Conclusion:** Findings highlight the efficacy of word retrieval treatment in enhancing discourse skills and emphasize the value of discourse analysis in aphasia intervention.

Title: Understanding discourse genre and its effects in persons with fluent aphasia: A preliminary investigation

Journal: Communication sciences and Disorders

Published year: 2025

Abstract:

Purpose: This study explored the effectiveness of different discourse elicitation tasks in persons with fluent aphasia (PwFA). **Methods:** Six PwFA were assessed using picture description, conversation, and narration tasks. Discourse samples were analyzed for propositional and non-propositional aspects, and scores were used to compute a discourse quotient. **Results:** General conversation outperformed narration and picture description, with

similar trends in individual analyses. **Conclusion:** Findings highlight the importance of discourse task selection in clinical assessment. While promising, results should be interpreted cautiously due to the small sample size and limited ecological validity.



Ms. Akshaya Swamy

Title: Reading and Writing Impairment in Persons with Crossed Aphasia: A Comparative Study

Journal: Journal of Health and Allied Sciences

Published year: 2024

Abstract:

Background: Reading and writing impairments are debilitating in persons with aphasia (PWAs), yet their neural underpinnings remain unclear, especially in Indian languages. This study compared reading and writing abilities in PWAs with left cerebrovascular atrophy (CVA) and right CVA (crossed aphasia). **Methods:** Four Kannada-speaking PWAs (6 months poststroke) were assessed using the Western Aphasia Battery-Kannada. **Results:** Left CVA PWAs had better reading, while crossed PWAs excelled in writing. Correlation analysis suggested differential neural mechanisms underlying these deficits. **Conclusion:** Findings emphasize distinct reading-writing patterns in crossed aphasia, warranting further research with larger samples.



Prof. Cynthia Santhmayor

Title: Spectral Centroid for the Analysis of Pathological Voice in Vocal Fold Nodules

Journal: Journal of Int. J. of Intelligent Systems Technologies and Applications.

Published year: 2024

Abstract:

Objective: This study compares mel-frequency cepstral coefficients (MFCC) and linear predictive cepstral coefficients (LPCC) in detecting vocal fold pathology and assessing disease severity. **Methods:** Speech recordings from healthy and pathological subjects were analyzed using acoustic features. A speech processing algorithm extracted MFCC and LPCC features to develop a stochastic model. A linear discriminant analysis (LDA) classifier was employed for classification. **Results:** The study highlights the effectiveness of MFCC and LPCC in voice disorder detection, demonstrating their potential for clinical application. **Conclusion:** Acoustic analysis proves valuable in identifying voice disorders and quantifying severity.

Title: Hear Ally app for Enhancing Hearing Health through Mobile solutions for Meniere's disease

Journal: IEEE Xplore

Published year: 2025

Abstract:

Background: Hearing loss affects over 20% of the global population, with conditions like Meniere's disease exacerbating challenges. **Objective:** This study introduces *Hear Ally*, a mobile health app designed to assist individuals with Meniere's-related hearing issues through sound capture, classification, and personalized vibrations. **Methods:** A mixed-methods approach was used, employing sound databases and Mel Frequency Cepstral Coefficients, with SVM (radial basis function) achieving optimal accuracy. **Conclusion:** *Hear Ally* integrates technology and healthcare, enhancing support for Meniere's patients.

While promising, considerations include mobile dependence and disease variability. The study advances mobile health solutions for hearing-related conditions.



Mr. Asif Maitheen

Title: Assessment and management options for dysphagia in tracheostomized patients: practices of speech-language pathologists in India

Journal: World Journal Otorhinolaryngology head neck surgery

Published year: 2024

Abstract:

Objective: This study examines the lack of standardized guidelines for speech-language pathologists (SLPs) in managing tracheostomized patients in India. **Methods:** An online survey of 106 experienced SLPs assessed practices in evaluation and treatment. Responses were analysed for consensus levels. **Results:** Findings revealed moderate to low consensus across most domains, highlighting inconsistencies in clinical approaches. **Conclusion:** The study emphasizes the need for standardized guidelines and recommends collaboration among organizations to improve knowledge sharing and patient care for tracheostomized individuals in India.

Other Projects:

Sl. No	Principal Investigator	Title	Guide & Co-guide Name
1	Mr Najmal	“Voice Characteristics of Imams: An Acoustic, Perceptual and Questionnaire – Based Study”	Dr Ramandeep Kaur
2	Ms Diya Jayakar Shetty	“A Comparative study on linguistic homogeneity: influence of Dravidian v/s English bilingualism on syntac in school aged children”	Prof. Cynthia Santhmayor Mr Asif Maitheen
3	Ms Melicia	“Standardization of a narrative comprehension	Dr Ramandeep

	Shainy Dsouza	assessment tool on Indian children	Kaur
4	Mr Kevin John George	“Comparative analysis of auditory processing skills in normal hearing individuals with and without tinnitus”	Mrs Susmitha C G
5	Ms Hadline Rechael Noronha	Association between temporal processing abilities and listening effort among musicians and non-musicians”	Dr Prashasti P Poovaiah
6	Ms Anitta K Denny	Effect of contralateral suppression on acoustic reflex latency: a comparative study of musicians and non-musicians”	Mr Pancham Ponnana S A
7	Ms Shadaf Nisha	“Temporal processing and Speech Perception abilities in young adults using Personal Listening devices”	Dr Prashasti P Poovaiah Ms Pooja P S
8	Ms Anupa Mathew	“Comparison of Food preferences in children with Autism Spectrum Disorder and typically developing children in India”	Prof Cynthia Santhmayor
9	Mr Lallawmzuala	“Comparison of mVEMP threshold in individuals diagnosed with Parkinson’s disease and healthy controls”	Mrs Greeshma R Dr Prashasti P Poovaiah Dr Vimala Christina Colaco K
10	Ms Blessy Yohannan	“The impact of Parental Gadget use on Child Development: A Comparison of Neurotypical Children and those with Autism Spectrum Disorder”	Prof. Cynthia Santhmayor
11	Ms Bhoomika B	“Awareness and Knowledge of Speech and Language Disorders in children and the role of Speech Language Pathologist among Primary School Teachers”	Prof. Cynthia Santhmayor

Awards:



Ms. Susmitha C G was awarded for her poster presentation titled as **“Awareness and knowledge about speech and hearing disorders among ASHA workers of Primary Health centres at the ISHA BC”**

Presentations:

Name of the presenter	Title/Topic	Conference name	
Prof Cynthia Santhmayer	Building Integrity in Nursing:Fusion of Professional Ethics & human values.	Criteria I ,curricular aspects ,FMCON	
Prof Cynthia Santhmayer	“Assessment and Intervention for children with Autism Spectrum Disorder”	St Agnes Teacher Training Institute for the Special Education , Bendur	
Prof Cynthia Santhmayer	“Teaching in the Digital Era”	IOT Academy	
Dr. Prashasti Poovaiah	Rehabilitation in ANSD: Lessons from the past	Bharatiya Academy of Audiology, Season 4	



FATHER MULLER RESEARCH CENTRE

Publications:



Ms Vaishnavi Amrith

Title: Characterization and Semi-Quantitation of Microorganisms Present in the Partially Spoiled Tomatoes

Journal: International Journal For Multidisciplinary Research

Published Year: 2024

Abstract:

Introduction: Tomatoes are considered a nutrient-rich and versatile food that shields the cells against oxidative stress while reducing the likelihood of cancer and heart disease. Nevertheless, their high-water content renders them susceptible to spoilage. **Material and methods:** Thirty partially spoiled tomatoes underwent examination for bacterial and fungal proliferation. Each tomato was segmented into the spoiled section, the region beneath the spoiled portion, and the fresh lower segment. Samples from each segment were cultured to ascertain the types of microorganisms present. The microbial organisms were then identified using MALDI-TOF. **Results:** Twenty-seven microorganisms were detected, with one organism remaining unidentified. Out of these, ten were identified as pathogenic, six as opportunistic, and ten as non-pathogenic or beneficial organisms. The majority of pathogenic microbes were Klebsiella (39%), followed by Staphylococcus species (17.5%), Enterobacter (15%), and Candida (14%). The microbial composition remained consistent across all three regions of the decayed tomato. **Conclusion:** There is limited research available regarding the safety implications of consuming partially spoiled fruit and its impact on human health. Published studies on this topic are scarce. It is strongly advised to avoid consuming spoiled tomatoes, particularly in their raw form or as juice.



Ms Shivali U Shetty

Title: In-Vitro and In-Silico Analysis of Antimicrobial Efficacy in *Annona muricata* Leaf Extracts.

Journal: International Journal for Multidisciplinary Research

Published Year: 2024

Abstract:

Annona muricata and *Annona reticulata*, known for their traditional medicinal uses and antimicrobial properties, were investigated for their potential antibacterial effects. Extracts from fresh leaves were tested for antimicrobial activity, revealing that *Annona muricata* exhibited superior antibacterial properties compared to *Annona reticulata*, especially against *E. coli* strains. In silico analysis focused on 46 phytochemicals extracted from *Annona muricata*, which were docked with key bacterial proteins, including Gyrase, the 30S and 50S ribosomal subunits, Topoisomerase IV, and penicillin-binding protein. Notably, phytochemicals such as Quercetin 3-O-rutinoside (Rutin), Quercetin 3-O-neohesperidoside, Quercetin 3-O-glucoside (Isoquercetin), Luteolin 3',7-di-O-glucoside, and Homoorientin demonstrated strong docking scores and confidence score, indicating potential interactions that could lead to bacterial destruction. These findings suggest that certain phytochemicals of *Annona muricata* is a promising candidate for antibiotic development, opening avenues for further exploration in combating bacterial infections.



Ms Jane Grace Dsouza

Title: The role of MALDI-TOF-MS in the identification of non-fermenting gram-negative bacilli from clinical isolates in a tertiary care hospital

Journal: International Journal for Multidisciplinary Research

Published Year: 2024

Abstract:

Non-fermenting Gram-negative bacilli (NFGNB) are a heterogeneous group of aerobic non-spore forming bacilli. Matrix-Assisted Laser Desorption Ionization-Time of Flight- Mass Spectrometry (MALDI-TOF-MS) is a quick, precise diagnostic method that could identify the isolates at the species level. The aim of the study is to identify the non-fermenters isolated from various clinical infections by MALDI-TOF analysis and to detect the antibiogram of these isolates. The non-fermenters were isolated from various clinical specimens, plated on Blood agar and MacConkey agar and incubated at 37°C for 24 hours. Identification was done on the basis of colony morphology, Gram stain, and MALDI-TOF Analysis. Antimicrobial Susceptibility Testing was done by Kirby- Bauer Disc Diffusion Technique using commercially available antibiotics on Muller-Hinton Agar. A total of 360 samples were studied. The majority of the non-fermenters were from Blood/ Body fluids (39.72%). *Acinetobacter* spp (31.67%) was the most common isolate, followed by *Pseudomonas* spp (22.50%). Other non-fermenters like *Stenotrophomonas maltophilia*, *Burkholderia* spp, *Elizabethkingia* spp, *Achromobacter* spp, *Chryseobacterium* spp, *Ralstonia* spp, *Pandoraea* spp, *Rhizobium radiobacter*, *Sphingomonas* spp, *Ochrobactrum* spp, *Myroides odoratimimus* and *Brevundimonas* spp were rarely isolated non-fermenters. Most of the strains were multi drug resistant to commonly used antibiotics like Cephalosporins, Aminoglycosides and Carbapenems. Our results showed that identifying non-fermenters using MALDI-TOF MS is a reliable and rapid technique that shortens the time to initiate appropriate therapy and even the length of the hospital stay.



Ms Shruthi B

Title:Analysis of the gut microbiota using MALDI-TOF and cultural techniques in breastfed infants delivered vaginally and through caesarean section

Journal: Karnataka Paediatric Journal

Published Year: 2024

Abstract:

Objectives: The gastrointestinal tract of newborns is colonised immediately after birth with microbes from the environment, mainly from the mother. According to studies, the early neonatal microbiota is crucial for developing the postnatal immune system. The objective of this study was to investigate the relationship between neonatal gut flora and the mode of delivery during gut microbiota colonisation. **Material and Methods:** A total of 30 neonates – 16 born vaginally and 14 by caesarean section – participated in this study of the intestinal bacterial composition at 3 days of age. Stool cultures and matrix-assisted laser desorption ionisation time-of-flight analyses determine aerobic and anaerobic bacterial species. **Results:** Neonates delivered by caesarean section appeared to have a less diverse gut microbiota regarding bacterial species than vaginally delivered neonates. Bifidobacterium species are absent from the gut microbiota after caesarean delivery. Even though every newborn vaginally born had a unique microbial profile, the most prevalent bacterial species were Streptococcus spp., Veillonella atypica, Bacteroides vulgatus and Bifidobacterium spp. **Conclusion:** Our results suggest that the mode of birth significantly influences the gut microbiota composition in the 1st year of human life. This study opens the path to further investigations to confirm the link between microbiota composition and enterotypes of the gut microbiome of breastfed neonates. In addition, we underline the importance of MALDI-TOF for species-level identification of organisms within a fraction of a second.

Title:Antimicrobial resistance pattern of β -lactamase-producing bacteria isolated from childhood infections in a tertiary care hospital

Journal: Journal of the Academy of Clinical Microbiologists

Published Year: 2024

Abstract:

Introduction: Antibiotic resistance is a growing global health threat, especially when it comes to children. According to the WHO data, infections caused by multidrug-resistant bacteria produce 7,00,000 deaths across all ages, of which around 2,00,000 are newborns. This increasing trend in drug-resistant infections in the paediatric age group has gone unrecognised. It is essential to determine the trend of antibiotic resistance patterns of pathogenic bacteria isolated from the clinical samples for prompt and proper treatment of patients. The transmissible resistance spread through horizontal gene transfer and is associated with significant morbidity and mortality in the paediatric cases. Our aim of the study is antimicrobial resistance pattern of β -lactamase-producing bacteria isolated from children in a tertiary care hospital. **Objectives:** The objective of the study was to analyse the antimicrobial resistance pattern of the β -lactamase-producing organisms isolated from children. **Materials and Methods:** The present study was a retrospective, observational, record-based one conducted in a selected hospital in Mangalore and data were collected from January 2019 to December 2021. All the clinical parameters, laboratory information and treatment histories were obtained from the patients' case records and discharge summaries. Data were entered in MS Excel and analysed. **Results:** A total of 2965 samples were studied; 757 cases were positive for culture. Extended-spectrum β -lactamase (ESBL) producers numbered 87 (11%) and metallo- β -lactamases (MBL) producers were 37 (5%). In our study, ESBL and MBL production was relatively high in uropathogens. In our findings, we have evidence showing increasing rates of ESBL and MBL producers in Gram-negative organisms amongst paediatric patients. **Conclusion:** Most of the study isolates were non β -lactamase producers; however, few percentages of *Acinetobacter*, *Pseudomonas* and *Klebsiella spp.* show both ESBL and MBL. We did not find MBL in *E coli*, *Enterobacter*, *Proteus*, *Citrobacter* and *Stenotrophomonas* isolates. Beta-lactamase production should be looked at routinely in Gram-negative bacteria. We recommend phenotypic identification methods as routine practice in laboratories.



Mrs Praseena K

Title: Epidemiological study of COVID-19 in Mizoram, India: Meta-analysis of sociodemographic determinants, risk factors, and outcome

Journal: Asian Journal of Medical Sciences

Published Year: 2024

Abstract:

Background: The impact of COVID-19 pandemic has shifted the livelihood of the global community including Mizoram which is located in the north-east region of India. Universal preventive measures have been implemented to reduce the spread of the virus. **Aims and Objectives:** The aim of this study is the epidemiological and clinical characterization of patients infected with SARS-COV-2. The aim of the study was to examine the sociodemographic determinants and risk factors of the disease severity with COVID-19 patients. **Materials and Methods:** A multicenter and cross-sectional study on patients who have been diagnosed and confirmed of SARS CoV2 infection of the Mizo Community. The data were collected by professionals from April 2020 to May 2022. Sociodemographic determinants, clinical presentation, comorbidities, livelihood, alcohol, and tobacco consumptions were described. All data were analyze using SPSS 22 version. The association of the variables with ct value (≤ 25 and >25) of COVID-19 was examined using Chi-square and logistic regression model and $P < 0.05$ as statistically significant. **Results:** A total number of 19,25,885 samples were tested among which 2,27,849 cases were diagnosed with COVID-19 from March 24, 2020, to May 12, 2022, in Mizoram. The mean \pm SD age of the analytic population was 30.10 \pm 19.64 years. Female was more infected and patients between the age of 16–30 years represent the most frequent age group in the population study. About 55.2% were symptomatic patients with mortality rate at 0.30% as of May 12, 2022. **Conclusion:** In this cross-sectional study, a wide range of sociodemographic risk factors, including socioeconomic status, racial/ethnic minority status, household composition, and environmental factors, was significantly associated with COVID-19 incidence and mortality. To address inequities in the burden of the COVID-19 pandemic, these social vulnerabilities and their root causes must be addressed.

Title: Effectiveness of Structured Training on Knowledge and Attitude Toward Research Among Medical Laboratory Technology Interns

Journal: RGUHS Journal of Allied Health Sciences

Published Year: 2024

Abstract:

Background: Involving health science students in research fosters critical thinking and enhances their understanding of common clinical challenges. Structured research training and active participation in projects significantly improves the quality of care they deliver as future health professionals. **Objectives:** The present study aimed to assess the knowledge and attitude of research among medical laboratory technology interns and to evaluate the effectiveness of a structured research training programme. **Methods:** Twenty-six BSc Medical Laboratory Technology (MLT) interns from a health sciences college were evaluated for research knowledge and attitudes using validated questionnaires. Over their one-year internship, they received 20 hours of research methodology training and conducted individual research projects. Pre- and post-internship assessments of knowledge and attitudes were conducted and compared to evaluate the impact of training. **Results:** The MLT interns demonstrated a significant improvement in knowledge, with post-training knowledge scores showing a marked improvement ($P < 0.001$). A higher number of interns achieved "very good" and "excellent" grades after the training compared to pre-training scores. While interns initially displayed a favourable attitude toward research, this attitude further improved following the program. Most interns disagreed that research was a waste of time or an added

curricular burden. Participants recommended integrating research into the MLT curriculum. **Conclusion:** Structured research training with interactive sessions and hands-on projects effectively enhanced knowledge and fostered a positive attitude toward research among medical laboratory technology interns. Integrating research into Allied Health Sciences curricula is recommended, with a focus on innovative and interactive teaching methods to engage students in research.

Presentations:

- **Mrs Praseena K:** Presented two topics “**Sampling and sample size calculation**” and “**Basics of statistics**” during Medical PG Research Orientation on 28th October 2023 at FMMC.
- **Mrs Shruthi B:** Presented a Poster on CME on “**Anarobes - human microbiome in health and dysbiosis – debunking myths**” conducted by FMRC and FMMC held on 14th October 2023.
- **Ms Jane Grace D’Souza:** Presented a poster in CME on “**Anaerobes-Human Microbiome in Health and Dysbiosis - Debunking Myths**” conducted by FMRC and FMMC on 14th October 2023.
- **MsShivali Shetty**
 - Attended an online training program organized by Nextgen helper Bioinformatics. The program covered topics such as Bioinformatics, Genomics, Machine Learning, and NGS Data Analysis, spanning from June 19 to July 21, 2023.
 - Participated in the INFOCON conference held at Yenepoya Medical College on 2nd December 2023 focusing on Bioinformatics and In-Silico Research. During the event, presented a poster showcasing the current study.

Awards:

- **Ms Rhea Nicola Pinto** got a consolation prize for a poster presentation during the National CME on anaerobes on 14th October 2023.
- **Ms. Shivali** attended the Anaerobes Conference hosted by the Microbiology Department at Father Muller Medical College on Oct 14th, 2023, participated in a poster presentation competition, and received a consolation prize.



UG RESEARCH WORKS

2024-25

Sl no	Title	Name of the student	Name of PI/guide	Funding Agency	Grant
1	Effectiveness of awareness programme on NABH standards among undergraduate students of a selected Allied Health Sciences College	Payal Lara Lobo	Dr Sonia E DSouza	RGUHS	15000/-
2	Correlation of C-reactive protein and triglyceride with glycemic status and renal function markers in diabetic kidney disease patients	Taskeen Tarab	Dr Shivashankara AR	RGUHS	15000/-
3	Association between hypothyroidism and diabetes mellitus	Mehak	Dr Arun Kumar	RGUHS	15000/-
4	Prothrombin time (PT) and activated partial thromboplastin time (APTT) in type 2 diabetes mellitus and healthy individuals	Jessica Jerald Serrao	Mr Omkareshwar Patil	RGUHS	15000/-
5	Evaluation of antibiogram, β -lactamase production and antimicrobial action of <i>acacia nilotica</i> against ESKAPE pathogens in a tertiary care hospital in Coastal Karnataka	Mr David Mathew	Dr Beena Antony	RGUHS UG	15,000/-
6	Characterization of Bifidobacterium strains from human faeces and dairy products by MALDI TOF analysis & demonstration of Antagonistic activity against potential microbial pathogens	Mr R Vaibhav Shet	Dr Beena Antony	ICMR STS	50,000/-
6	Antibacterial activity of cinnamon (<i>Cinnamomum zeylanicum</i>) bark extract against ESKAPE pathogens from clinical samples	Ms Melaine Angelica Lewis	Dr Kavitha	ICMR STS 2024-25	50,000/-
7	Study of rural-urban disparity in referral and patient navigation for tertiary care: Perspectives of healthcare professionals and patients	Ms Meenakshi Veena Joji	Dr Sudhir Prabhu	Applied for ICMR STS	
8	Challenges faced by parents in controlling mobile phone usage among young children	Melanie Angelica Lewis	Dr. Sowmya Bhat	self	
9	Evaluating Consumers' Perception of Nutrition Labelling in India: Strategies for Improvement and Effectiveness	Melreeve Evelon Rodrigues	Dr Nishanth Krishna K	Applied for ICMR STS	
10	Artificial Intelligence In Screening For Refractive Errors Among School Students- Practicality of WHO eyes Application	Devina A	Dr Nishanth Krishna K	Applied for ICMR STS	
11	Assessing postpartum depression and its socioeconomic and cultural correlates	Ms Berlin Joy	Dr Agnes Moira Preethi Dsouza	Applied for ICMR	

	among mothers in a tertiary care hospital.			STS	
12	Pregnancy intention and pregnancy - related anxiety among antenatal women availing services at a tertiary care hospital in a coastal city in southern India.	Ms Meghana Bajpayee	Dr Anissa Thomas	Applied for ICMR STS	
13	Non- communicable disease co-morbidity and associated factors in tuberculosis patients: A cross sectional study	Bhavana Sukumaran	Dr Pragadeesh Raja. V	Applied for ICMR STS	
14	Study of Role of Ki-67 expression with habits tumor staging in oral cancers	Mr. Kevin Thevarmadam Raju	Dr. Savita Lasrado	FMRC	Rs.34,648/-
15	Beyond breathing easy: evaluating the comprehensive outcomes of septoplasty	Mr. Jonathan T.	Dr. Blessy	FMRC	Not received
16	Association of Ferritin levels with severity and outcome of community acquired pneumonia	Mr. Abhinav Damera	Dr. Veena Pinto	ICMR	50,000/-
17	Assessment of biomarkers for diagnostic utility in patients with asthma and chronic obstructive pulmonary disease	Mr. Arjun Pratap singh	Dr. Supriya P.S	ICMR	50,000/-
18	Stroke literacy among general population: a community-based study	Ms. Joslyn Jays	Dr. Archana Bhat	ICMR	50,000/-
19	Correlation of dietary pattern with markers of body composition, oxidative stress and cardiac autonomic modulation in young adults	Ms. KhyathiChembeti	Dr. Neetha Shastry	RGUHS	Rs 15,000
20	Prevalence and patterns of headphone or earphone usage in young adults and its association with hearing loss	Ms. Nikki Aasary	Dr. Anahita R Shenoy	FMRC	Rs 42,750



