INFECTIOUS DISEASES 2024

BOOK OF ABSTRACTS

International Conference on

INFECTIOUS DISEASES

MARCH 06, 2024

RADISSON HOTEL & CONFERENCE CENTRE
LONDON HEATHROW

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ABOUT SCITECHSERIES CONFERENCES

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Scope of the International Conference on Infectious Diseases:

Attending the International Conference on Infectious Diseases (Infectious Diseases 2024) presents a unique opportunity to gain valuable insights, exchange knowledge, and collaborate with experts in the field of infectious diseases. By participating in this conference, attendees can stay updated on the latest advancements in infectious disease research, including reakthroughs in medicine, vaccine development, and treatment strategies, particularly in the context of emerging infectious threats such as COVID-19. Moreover, the conference provides a platform for networking with peers, fostering interdisciplinary collaborations, and sharing best practices in infection prevention, control, and management. Through engaging discussions, presentations, and workshops, attendees can enhance their understanding of key issues in parasitology, vaccination, nosocomial infections, and other relevant topics, ultimately contributing to improved patient care, public health outcomes, and global efforts to combat infectious diseases.

ORGANIZING COMMITTEE MEMBERS

Reza Nassiri

Michigan State University, USA

Shaul Mordechai

Ben-Gurion University, Israel

KEYNOTE SPEAKERS

Domingos Vita

Vita International Health Agency, UK

Xinyu Zhou

Xuzhou Medical University, China

Ioannidis Orestis

Aristotle University of Thessaloniki, Greece

Keynote Speakers

Jason K. Kim

University of Massachusetts Medical School, USA

Title: Role of Inflammation in Type 2 Diabetes

Abstract:

Obesity is characterized by chronic inflammation with macrophages infiltrating metabolic organs and increased pro-inflammatory cytokines that are causally associated with insulin resistance and type 2 diabetes. This lecture will discuss the role of GRP78 and IL-10 in modulating macrophage function and insulin resistance and how maternal intake of a high-fat diet during pregnancy has lasting effects on the metabolic health of offspring, ending with some unpublished data on macrophage signaling in nonalcoholic fatty liver disease.

Biography

My research for 30 years focused on obesity and type 2 diabetes, and I have made a significant contribution to the field with 183 peer-reviewed publications, mostly in high-impact scientific journals. My past research has elucidated the mechanism of obesity-mediated insulin resistance and the molecular pathways by which fatty acids affect insulin signaling and glucose metabolism in skeletal muscle and liver. I have recently explored the molecular link between inflammation and insulin resistance, focusing on the macrophage and cytokine regulation of insulin action and energy metabolism using elegant metabolic procedures and molecular approaches. Our findings that macrophages and cytokines regulate insulin resistance have been cited by many important papers in the field, and my publications have received more than 34,000 citations. As a leading expert in metabolism and Director of Metabolic Disease Research Center, I have investigated more than 400 transgenic mouse models of human diseases, collaborating with academic and industry researchers worldwide to delineate the pathogenesis of type 2 diabetes and conduct industry- standard drug trial studies for new therapies. My scientific expertise is shared globally as an Adjunct Professor at Seoul National University, Adjunct Investigator at Harvard Medical School, Dean's Advisory Board at the University of Hong Kong, External Advisory Committee of Johns Hopkins University, Chair of NIH and American Heart Association Grant Review Committee, and scientific advisory boards of pharma. My research over the years has greatly advanced our understanding of important biological events surrounding metabolic diseases and continues to contribute toward finding new therapies to treat aging humans.

*Xinyu Zhou, [1]Yong Sun

Xuzhou Medical University, China

[1]Nanjing Medical University, China

Title: Purulent meningitis and secondary epilepsy caused by mycobacterium iranicum infection: A case report

Abstract:

A 60-year-old man was admitted to the hospital due to a seizure and unconsciousness, showing symptoms of fever and dizziness. Although there were no significant abnormalities in the cerebrospinal fluid except for an increase in neutrophils, metagenomic next-generation sequencing and DNA testing confirmed the infection of Mycobacterium iranicum. This bacterium, known for its rapid growth and orange pigment-producing colonies, rarely invades the central nervous system. The patient was treated with imipenem, minocycline, moxifloxacin, and linezolid, and gradually recovered during the follow-up period.

Biography

Zhou Xinyu, female, post-doctoral, Associate professor, deputy chief physician, master supervisor, Secretary of the Second Party Branch of the Brain Hospital of the First People's Hospital of Lianyungang, Director of the Department of Neurological Function.

Sun Yong, Doctor of medicine, chief physician, professor, master supervisor Deputy Secretary of the General Party Branch of Lianyungang Brain Hospital, Executive Deputy Director of Neurosurgery Department of the First People's Hospital of Lianyungang, Kangda College of Nanjing Medical University, teaching supervision expert, director of basic surgery teaching and research section.

Domingos Vita

Vita International Health Agency, UK

Title: Identification and analysis of risk factors associated with lost to follow up from tuberculosis treatment in Sanatorium Hospital in Luanda

Abstract:

Tuberculosis (TB) continues to be a serious problem for public health due to the high prevalence, incidence and mortality rates caused annually in the communities.The study aim is to identify and analyse the risk factors of LTFU TB treatment in patients treated for TB in Sanatorium Hospital in Luanda. Moreover, it is known that lack of treatment adherence increases the risk of drug resistance, relapse and mortality rate.

Methods: We carried out a prospective cohort study with 113 patients, who started TB treatment in Sanatorium Hospital in Luanda between August first, 2018 and September, 30th 2019. And also a qualitative approach was used to explore information about factors that influence patients to LTFU TB treatment with 69 participants.

Results: A total of 113 patients were included. Sixty-seven (59.3%) were males and 46 (40.7%) females.When we analysed the variables associated with LTFU in the univariate analysis, it was observed that men were more likely to be LTFU than women (74.1% vs 25.9%, p=0.03). Participants who were cured ate more often three meals per day (breakfast, lunch, AND dinner) than those who were LTFU (65.8% vs. 33.3%, p=0.002).In the multivariate analysis, we observed that a severe TB presentation at the moment of diagnosis and eating less than 3 times per day were significantly associated with LTFU TB treatment (OR 9.24, 95% CI 2.18-39.04, p=0.006) and (OR 5.96, 95% CI 1.66-21.41, p=0.006). When we performed a qualitative study with individual interviews and focus groups, we found five main causes that lead to LTFU TB treatment: healthcare barriers, drug related problems, religious beliefs and sociodemographic variables such as lack of family support, economic factors, relocation and distance.

Conclusion: In the cohort of patients diagnosed with tuberculosis and treated with anti-tuberculous drugs in the Sanatorium Hospital of Luanda we obtained cure rates of 67.3% and an abandonment rate of 24%.

Biography

Domingos Vita is Scientist and International Consultant in Public Health, graduated with a PhD in Medicine (Tuberculosis) at University of Autonomo de Barcelona in Spain, Master's degree in Health Sciences at University of Roehampton in London and participated in Masters course on control of Infectious diseases at London School of Hygiene and Tropical Medicine and also graduated with a BSc (Hons) Degree in Public Health at University of East London. Found of Vita International Health Agency, Professor at ISPTEC, ISTM-Faculty of Medicine in Angola and GEETA University in India. Scientist and International Consultant in Public Health, graduated with a PhD in Medicine (Tuberculosis) at University of Autonomo de Barcelona in Spain, Master's degree in Health Sciences at University of Roehampton in London and I participated in Masters course on control of Infectious diseases at London School of Hygiene and Tropical Medicine and also I graduated with a BSc (Hons) Degree in Public Health at University of East London.

Orestis Ioannidis

Aristotle University of Thessaloniki, Greece

Title: Open abdomen and negative pressure wound therapy for acute peritonitis especially in the presence of anastomoses and ostomies

Abstract:

Acute peritonitis is a relatively common intra-abdominal infection that a general surgeon will have to manage many times in his surgical carrier. Usually it is a secondary peritonitis caused either by direct peritoneal invasion from an inflamed infected viscera or by gastrointestinal tract integrity loss. The mainstay of treatment is source control of the infection which is in most cases surgical. In the physiologically deranged patient there is indication for source control surgery in order to restore the patient's physiology and not the patient anatomy utilizing a step approach and allowing the patient to resuscitate in the intensive care unit. In such cases there is a clear indication for relaparotomy and the most common strategy applied is open abdomen. In the open abdomen technique the fascial edges are not approximated and a temporarily closure technique is used. In such cases the negative pressure wound therapy seems to be the most favourable technique, as especially in combination with fascial traction either by sutures or by mesh gives the best results regarding delayed definite fascial closure, and morbidity and mortality. In our surgical practice we utilize in most cases the use of negative pressure wound therapy with a temporary mesh placement. In the initial laparotomy the mesh is placed to approximate the fascial edges as much as possible without whoever causing abdominal hypertension and in every relaparotomy the mesh is divided in the middle and, after the end of the relaparotomy and dressing change, is approximated as much as possible in order for the fascial edges to be further approximated. In every relaparotomy the mesh is further reduced to finally allow definite closure of the aponeurosis. In the presence of ostomies the negative pressure wound therapy can be applied as usual taking care just to place the dressing around the stoma and the negative pressure can be the standard of -125 mmHg. However, in the presence of anastomosis the available date are scarce and the possible strategies are to differ the anastomosis for the relaparotomy with definitive closure and no further need of negative pressure wound therapy, to low the pressure to -25 mmHg in order to protect the anastomosis and to place the anastomosis with omentum in order to avoid direct contact to the dressing. The objective should be early closure, within 7 days, of the open abdomen to reduce mortality and complications.

Biography

Dr. Ioannidis is currently an Assistant Professor of Surgery in the Medical School of Aristotle University of Thessaloniki. He studied medicine in the Aristotle University of Thessaloniki and graduated at 2005. He received his MSC in "Medical Research Methodology" in 2008 from Aristotle University of Thessaloniki and in "Surgery of Liver, Biliary Tree and Pancreas" from the Democritus University of Thrace in 2016. He received his PhD degree in 2014 from the Aristotle University of Thessaloniki as valedictorian for his thesis "The effect of combined administration of omega-3 and omega-6 fatty acids in ulcerative colitis. Experimental study in rats." He is a General Surgeon with special interest in laparoscopic surgery and surgical oncology and also in surgical infections, acute care surgery, nutrition and ERAS and vascular access. He has received fellowships for EAES, ESSO, EPC, ESCP and ACS and has published more than 180 articles with more than 3000 citations and an H-index of 28 . He is currently an Assistant Professor of Surgery at the Aristotle University of Thessaloniki.

Oral Presentations

Isra Mufadal Abdulkareem Bur

University of Gadarif, Sudan

Title: A female breast tuberculosis: Diagnostic challenge and treatment journey amidst war and displacement

Abstract:

Background: Tuberculosis of the breast (Mammary tuberculosis) is a rare condition that can mimic breast cancer or other benign breast diseases such as fibro adenomas. It is important to consider it in the differential diagnosis of a breast lump, especially in regions where tuberculosis is endemic such as Africa & India.

Case presentation: We report a case of a 41-year-old Sudanese female who presented with a painful lump in her right breast and enlarged lymph nodes in her armpit and cervical region. Additionally she also had fever with night sweating, fatigue coupled with an unintentional weight loss, her labs show three figured erythrocyte sedimentation rate. Ultrasound, mammogram and biopsies confirmed the diagnosis of tuberculosis of the breast and negative for other conditions such as breast adenomas & cancers. She was put on quadruple therapy for two months and dual therapy for 4 months of anti-tuberculosis drugs, but her treatment was interrupted for three months due to war and displacement in Khartoum. She resumed treatment and showed improvement in her all symptoms and signs.

Conclusion: This case highlights the challenges of diagnosing and treating tuberculosis of the breast in a resource-limited setting. It also underscores the importance of early diagnosis and treatment, as well as the effectiveness of the fixed-dose combination of anti-tuberculosis drugs.

Biography

Dr. Isra Mufadal Abdulkareem bur is Specialist of Respiratory Medicine, MD. SMSB – SMC MBBS, University of Gadarif – Faculty of Medicine & Health Sciences, Sudan.

Domingos Vita

Vita International Health Agency, UK

Title: Explaining the complex role of Inflammatory processes in the dynamics of romantic relationships

Abstract:

Background: There is evidence of an increase in the number of professionals regularly participating in academic and scientific activities at an international level over the last 9 years. But Angola is excluded from this increase through the challenges that we will demonstrate in this study. This study aims to identify the challenges that Angolan professionals face in participating in international academic and scientific activities. Participating in international activities is an opportunity to get to know new academic and scientific cultures, new people, technologies, and languages. Among the most requested countries we have: England, USA and Canada.

Methods: The author carried out a qualitative study using semi-structured interviews with 24 participants from different sectors in Luanda-Angola. Data were analysed thematically using codes. The investigator used the following data bases search as Science Direct, Science Online, and Sage Premier, Sage research Online, Social Theory, PubMed, Medline and Google School.

Results: 24 professionals participated in the study, men predominated with 13 (54.2%) and women with 11 (45.8%). Sixteen (66.7%) were health professionals, 3 (12.5%) police offices, 2 (8.3%) Forensic psychologist, 2 (8.3%) Pastors and 1 (4.2%) Mechanical Engineer. The challenges identified in the study are: Lack of command of international languages such as English and French, lack of financial conditions, lack of interest, and lack of knowledge of the importance of participating in academic and scientific activities.

Conclusion: Participating in international activities is an opportunity to get to know new academic and scientific cultures, new people, technologies, and languages that will influence your professional path.

Biography

Professor Domingos Vita is Scientist and International Consultant in Public Health, graduated with a PhD in Medicine (Tuberculosis) at University of Autonomo de Barcelona in Spain under supervision of professor Israel Molina and Maria Luisa Aznar, Master's degree in Health Sciences at University of Roehampton in London and participated in Masters course on control of Infectious diseases at London School of Hygiene and Tropical Medicine under supervision of Professor Michael Miles and also graduated with a BSc (Hons) Degree in Public Health at University of East London. Found of Vita International Health Agency, Associete Professor at ISPTEC, ISTM-Faculty of Medicine in Angola and GEETA University in India.

Kadir Uludag

Shanghai Jiao Tong University School of Medicine, China

Title: Explaining the complex role of Inflammatory processes in the dynamics of romantic relationships

Abstract:

Background: Sustainable romantic relationships require a healthy lifestyle for both partners. Inflammation is a critical health factor that can affect couples' well-being.

Objective: The objective of this study was to investigate the complex relationship between inflammation status and romantic relationships.

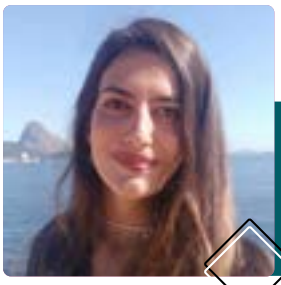
Methods: This study is a comprehensive review. We conducted a thorough search using keywords related to inflammation theory and romantic relationships.

Results: Our findings suggest that inflammation status may impact psychological processes and, in turn, is related to the quality of romantic relationships. Inflammation can affect emotional regulation, communication, and conflict resolution, which are essential components of a healthy relationship.

Conclusion: The inflammation theory can play a substantial role in understanding the dynamics of romantic relationships. The study highlights the importance of considering the impact of inflammation on both partners' psychological and physical well-being to improve the quality of their relationships.

Biography

Kadir Uludag holds Ph.D. in Applied psychology (Chinese Academy of Sciences). He is currently doing postdoc in Shanghai Jiaotong University Mental Health Center. His research interest includes schizophrenia research, drug addiction and educational psychology. In addition, he runs a website to share and comment on peer-reviewed articles (ifx0.com).



Yasmin Annunciato

UNIFESP, Brazil

Title: Evaluation of the activity of new 4-Quinolone compounds against hepatic and sexual forms of Plasmodium Spp

Abstract:

Malaria, a significant tropical disease, imposes a substantial global burden with high mortality and morbidity, adversely affecting socioeconomic development and the well-being of populations in endemic areas. The emergence of treatment resistance, particularly in Southeast Asia, poses a critical challenge. This study aimed to assess the potential of 4-quinolone compounds, recently evaluated for their activity against P. falciparum, as transmission blockers. Ex vivo assays involved collecting blood from P. vivax-infected patients, treating it with compounds (Lspn 182 and 685), and exposing it to female An. darlingi mosquitoes. In vivo assays involved infected female Balb/C mice with P. berghei GFP. Oral treatment was administered with the compound LSPN 182 [50mg/kg]. Mosquitos An. Stephensis made the blood gap for 30min. The exflagelation, and oocysts on day 10 were observed. Results revealed the efficacy of these compounds in inhibiting P. vivax transmission, with Lspn 182 exhibiting remarkable reductions of oocysts (~95%), sporozoites (~95%), and ookinetes (~97%) at 10 µM concentration. Notably, at lower concentrations (2 µM), Lspn 182 demonstrated 87.35% ookinete inhibition. Compound Lspn 685 also achieved 73% inhibition at 2 µM. The ookinete inhibition assay further illustrated the compounds' effectiveness, with rates exceeding 50% at 10 µM concentration. In conclusion, quinolone-derived compounds, notably Lspn 182 and 677, exhibit promising potential as transmission blockers, displaying significant activity against the ookinetes of P. vivax. In vivo assay, Lspn 182 showed ~85% exflagelation inhibition and 66% reduction transmission activity for oocysts. These findings highlight their candidacy for further exploration in combating malaria transmission.

Biography

Yasmin Annunciato, 23 years old, holds a bachelor's degree in Biology from the Universidade Paulista. She has undertaken two scientific research internships and completed a valuable stint at the Adolfo Lutz Institute, a renowned laboratory. Currently, she is pursuing a master's degree in Bioproducts and Bioprocesses at the Federal University of Sao Paulo, Brazil. Yasmin has established collaborations with prestigious institutions such as the Instituto de Higiene e Medicina Tropical in Lisbon, Portugal, and FIOCRUZ in Rondônia, Brazil. Her academic journey reflects a commitment to excellence and a passion for advancing knowledge in the field.

Riya Bhattacharya

Woxsen University, India

Title: Synergistic potential of aegle marmelos essential oil in combination with antifungal drugs against drug resistant fungal pathogens

Abstract:

Drug resistance among fungal infections has increased in recent years and the efficacy of antibiotics has declined. By combining antibiotics with the essential oil from the leaves of Aegle marmelos (L.) Correa this study provides a unique strategy against fungal infections. The GC-MS analysis identified nine phytochemicals, the most abundant of which were α-Phellandrene and D-Limonene. Further evaluation of A. marmelos essential oil's (AMEO) anti-candida activity revealed a zone of inhibition of 24 ±0.5 and 22 ±0.30 mm against the two Candida albicans strains (ATCC 90028 and MTCC277), respectively, when tested using the agar well diffusion assay. The MIC ranged from 0.312 to 0.156% (v/v), indicating a fungicidal activity against the C. albicans ATCC90028 and MTCC277 strains. It was determined to have strong and efficient antifungal action against C. albicans. Time kill assay and checkerboard method were used to determine synergistic potential, and the results showed that the antifungal efficacy of clinical medicines was boosted by 16 and 32 folds, respectively, resulting in total cell death after 16 hours. Field Emission Scanning Electron Microscopy (FESEM) observations were used to evaluate the mode of action of essential oil and antibiotics individually and in combination. Essential oil and antibiotics were able to completely break and damage the fungal membrane of C. albicans cells, also when utilized separately, they caused shrinkage and cell death. This serves as a refinement in drug design and a potential treatment for candidiasis.

Biography

Dr. Riya Bhattacharya has completed her PhD in Biotechnology from Shoolini University in Himachal Pradesh, India. She also holds a postdoctoral researcher position from the same University. From both her undergraduate and postgraduate degree in biotechnology she was a gold medalist of the respective batches. She is currently serving as Assistant Professor at the School of Technology in Woxsen University. She has published 21 academic articles with well reputed journals and has 13 patents to her name. She is also a part of various academic committees and has been active in outreach programs as well.

Chijioke Maxwell Ofomata

Nnamdi Azikiwe University, Nigeria

Title: Experiences of consumers on the health efects of fake and adulterated medicines in Nigeria

Abstract:

Medicines are used to cure and treat ailments, relieve or eliminate disease symptoms, and slow down the disease process. Any attempt to disrupt this natural medicines process, using falsified medications, spells doom to a consumer of such medication. The challenge of fake medicines is a global one and affects the developing and developed nations and currently assumes great significance as a result of globalization challenges, which has flattened the entire world, hence removing barriers to the movement of products and services. This cross-sectional survey was conducted, using six local government areas of Anambra State, South-East Nigeria. This research has shown that falsified medicine is an evil wind that blows nobody any good. It negatively affects every aspect of the citizen's livelihood, ranging from their health, which manifests as treatment failures, deformities, loss of life to death, to loss of confidence on the healthcare providers, revenue losses to individuals, healthcare providers, manufacturers, and finally corruption of the genuine medicines supply chain with fake and adulterated medicines. The study has clearly shown the experiences of residents of Anambra State, South-East Nigeria with fake and adulterated medicines and also serves as a wake-up call to medicines regulators like NAFDAC, PCN, the PSN, and Federal Ministry of Health, to declare a state of emergency on the fight against fake and adulterated medicines, and make enabling laws that are punitive enough towards the fight against this scourge, so that the healthcare and well-being of Nigerians would be assured at all times.

Biography

Dr Chijioke Maxwell Ofomata is a Public Health Pharmacist with expertise in Fake and Adulterated Medicines, New Psychoactive Substances (NPS), Vaccination in Community Pharmacy premises, Healthcare Management and Implementation Sciences Research in rural populations. He holds a PhD in International Business Management, Masters in Public Health (MPH), Masters in Business Administration, Advanced Management Program, and DNA Analysis (Forensic Science). Dr Chijioke Ofomata has decades of Pharmaceutical and Healthcare Industry experience in the Nigeria and West African markets and currently teaches Clinical Pharmacy, Forensic Pharmacy, Entrepreneurship and Pharmacy Management in the Faculty of Pharmaceutical Sciences of Nnamdi Azikiwe University, Awka.

Andres Felipe Gonzalez Zapata

Cooperative University of Colombia, Colombia

Title: Candida auris outbreak associated with patients with SARS-CoV-2 in the intensive care unit of a High-Complex hospital in Cucuta, Colombia

Abstract:

Introduction: During the COVID-19 pandemic, there was an increase in cases of pathogens of public health surveillance, such as Candida auris, associated with an increase in the need for patient management in intensive care units. The present study aimed to describe C.auris infections in patients with SARS-CoV-2 in a high complexity health center in the city of Cúcuta-Colombia during their hospital stay between November 2020 and April 2021, and to determine the antifungal susceptibility profile.

Materials and methods: A cross-sectional study was conducted in 14 patients with SARS-CoV-2 infections with co-infection by C. auris. The diagnosis of fungal infection by C. auris was performed following the guidelines of the Microbiology Laboratory of the National Institute of Health (INS) of Colombia.

Results: A total of 14 patients with SARS-CoV-2 were confirmed with C. auris by MALDI-TOF-MS. Comorbidities were present in 64.2/% with the most frequent being hypertension and type II diabetes mellitus occurring in 42.8% (6/14). 64.2% of the C auris were resistant to azole antifungal agents (Fluconazole). 50% of the patients died secondary to respiratory failure due to SARS-CoV-2 associated with candidemia.

Conclusion: the stay of patients in intensive care units has become a propitious scenario for the spread of nosocomial infections, especially in patients with comorbidities. On the other hand, antifungal resistance is of concern, worldwide resistance to azoles has been reported, which was also demonstrated in our report as well as some degree of multiazole resistance.

Biography

Andres Felipe Gonzalez Zapata is a physician who graduated from the Medical School of the Cooperative University of Colombia campus in Santa Marta, with a Master's degree in HIV from Universidad Rey de San Carlos. During my career, he has gained experience as a researcher in Tropical Medicine, especially in Tropical Neglected Diseases. Also, he developed a deep knowledge of Antimicrobial Resistance, which I have close to 2 years of experience. Currently, he belong to the Science and Pedagogy Research group with an emphasis on Antimicrobial Resistance at the Cooperative University of Colombia, and he was a resident of internal medicine at the University of Toronto.

Keynote Speaker

Orestis Ioannidis

Aristotle University of Thessaloniki, Greece

Title: Use of indocyanine green fluorescence imaging in the extrahepatic biliary tract surgery

Abstract:

Cholelithiasis presents in approximately 20 % of the total population, ranging between 10% and 30 %. It presents one of the most common causes for non malignant surgical treatment. The cornerstone therapy is laparoscopic cholecystectomy, urgent of elective. Laparoscopic cholecystectomy is nowadays the gold standard surgical treatment method, however bile duct injury occurred to as high as 0.4-3% of all laparoscopic cholecystectomies. The percentage has decreased significantly to 0.26-0.7% because of increased surgical experience and advances in laparoscopic imaging the past decade which have brought to light new achievements and new methods for better intraoperative visualization such as HD and 3D imaging system. However, bile duct injury remains a significant issue and indocyanine green fluorescence imaging, mainly cholangiography but also angiography, can further enhance the safety of laparoscopic cholecystectomy as it allows the earlier recognition of the cystic and common bile duct, even in several times before dissecting the Callot triangle. Fluorescence cholangiography could be an ideal method in order to improve bile tree anatomy identification and enhance prevention of iatrogenic injuries during laparoscopic cholecystectomies and also it could be helpful in young surgeons training because it provides enhanced intraoperative safety, but however this method does not replace CVS. Finally, our ongoing current study results comparing intravenous to direct administration of ICG in the gallbladder will be presented.

Biography

Dr. Ioannidis studied medicine in the Aristotle University of Thessaloniki and graduated at 2005. He received his MSC in “Medical Research Methodology” in 2008 from Aristotle University of Thessaloniki and in “Surgery of Liver, Biliary Tree and Pancreas” from the Democritus University of Thrace in 2016. He received his PhD degree in 2014 from the Aristotle University of Thessaloniki for his thesis “The effect of combined administration of omega-3 and omega-6 fatty acids in ulcerative colitis. Experimental study in rats.” He is a General Surgeon with special interest in laparoscopic surgery and surgical oncology and also in surgical infections, acute care surgery, nutrition and ERAS. He has received fellowships for EAES, ESSO, EPC, ESCP and ACS and has published more than 130 articles with more than 3000 citations and an H-index of 28. He is currently an Assistant Professor of Surgery at the Aristotle University of Thessaloniki.

Poster Presentations

Shirin Cantillon

Warwick Medical School, UK

Title: Early life exposure to antibiotics and the risk of juvenile idiopathic arthritis

Abstract:

Background: Juvenile idiopathic arthritis (JIA) is a common autoimmune disease (AD) of childhood. Although many factors can increase the risk of JIA, the underlying aetiology is largely unknown. Recently, ADs have been associated with disturbance of gut microbiome in early life and evidence links childhood antibiotic exposure to microbial dysbiosis. This has further been linked to JIA development through loss of intestinal barrier integrity, antigen leakage, and disruption of T cell differentiation. This paves the way for autoantibodies to form and inflammation of joint synovium to occur.

Aim: The aim of this study was to establish whether antibiotic use in early life is associated with an increased risk of developing JIA, and to discover the underlying aetiology driving it.

Method: A systematic search for peer-reviewed articles written from 2013 onwards was completed via Web of Science, MEDLINE and EMBASE (Ovid) following PRISMA guidelines. Specific search terms and synonyms were identified previously. All papers were exported to ONENOTE, duplicates were deleted and the papers were screened by title and abstract. Full text eligibility was then assessed. Articles were accessed via OpenAccess and the University of Warwick library catalogue to begin narrative synthesis.

Results: Antibiotic exposure was significantly associated with the development of JIA, in a dose- and time-dependent manner; this remained once confounders were adjusted for. It was most significant in children under 24 months, excluding 0-6 months old. The link was not significant for prenatal antibiotic exposure. The strongest association was with broad-spectrum antibiotics. JIA rates were higher in children born pre-term and/or by C-section also, most likely due to the use of more post-natal antibiotics in these cases.

Conclusion: This study suggests a role for antibiotics in the pathogenesis of JIA. Future practice may need to consider antibiotics as a modifiable risk factor in JIA and as over-prescription rates are high, restrictions may be necessary. Further work is needed to target the immune dysfunction associated with antibiotic induced-microbial dysbiosis.

Biography

Shirin is an Irish medical student studying at Warwick Medical Student with a previous first class degree in Biomedical Science. She has a keen interest in paediatrics and infectious disease, enjoying these specialties at medical school. She won several academic awards during her undergraduate degree including the best microbiology result award, the Chris Hunter memorial prize for best dissertation project and Norman Richards memorial prize for receiving first class marks in all second and final year modules. Shirin's named project which she will present as a poster takes an in depth look at the link between antibiotics used in this day and age and juvenile idiopathic arthritis. In her free time, Shirin enjoys gardening, swimming and loves dogs.

Mahmoud Eissa

Salisbury District Hospital, UK

Title: Covid-19-Induced acute exudative polymorphous vitelliform maculopathy

Abstract:

Covid-19 was initially detected in late 2019. Since then a growing body of evidence has raised concerns about the ocular complications caused by SARS-CoV-2. The reported ocular manifestations associated with COVID-19 infections vary significantly, including dry eye, conjunctivitis, keratitis, episcleritis, and optic neuropathy. In the following case report we establish the possibility of Covid-19 to cause Acute exudative polymorphous vitelliform maculopathy. A 32-year-old woman presented with a history of visual disturbance a few days after she tested positive for COVID-19. Her visual acuity was 6/6 in both eyes at the initial presentation, Slit-lamp examination was unremarkable in both eyes. : Fundus examination showed bilateral multiple variable-sized posterior pole creamy subretinal yellowish lesions. our case demonstrate the triggering of AEVPM with multifocal subretinal vitelliform deposits shortly after COVID-19 infection. We postulate that this may have resulted from an immunologic mechanism affecting RPE cells, leading to the development of the pockets of subretinal fluid and vitelliform deposits. In the era of a global pandemic, AEPVM may occur in patients with COVID-19 infection.

Biography

Mahmoud Eissa has completed his MBBS from Ain Shams university, Cairo, Egypt. He have always been euthanized about research and covid-19 emerged to the world at the beginning of my medical career which made it more interesting and challenging to understand. He have been working in the UK since 2022. He is currently working as clinical research fellow in ophthalmology. He have 3 publications all related to covid-19 and infectious disease with one presentation in Infectious disease conference.

Marithe Mukoka-Ntumba

National Institute of Biomedical Research, Congo

Title: Clinical and biological profile of HIV and malaria co-infection at Bandalungwa Central Military Hospital, Kinshasa, DRC

Abstract :

Context: Co-morbidity linked to dual HIV-malaria infection is a real public health problem because of the multiple implications for the health of populations living in countries with limited resources. However, data-t-on malaria-HIV co-infection are lacking in the DRC. We will contribute to knowledge on the epidemiology and management of HIV/malaria co-infection in Kinshasa.

Objective: This study aims to provide a clinical and biological profile of people living with HIV (PLHIV) followed up for malaria at the Bandalungwa Central Military Hospital (HMCB) in Kinshasa.

Methodology: We conducted a descriptive retrospective study from 1 January 2017 to 31 December 2018 among PLHIV hospitalised for malaria at the HMCB. We collected sociodemographic,clinical and biological data from medical records.The data were transcribed onto a pre-established collection form, entered into Microsoft Excel 2016® and analysed using SPSS 21.0 software.®

Results: We registered 187 PLHIV, 27.8% (40/187) of whom were co-infected with malaria. The mean age of subjects with HIV-malaria co-infection was 41.7±12 years, and 57.5% (23/40) of them were female. The majority of subjects with HIV malaria co-infection [80% (32/40)] had stage 3 HIV infection (WHO classification), and 85% (34/40) of the study population had uncomplicated malaria. Fever was the most common symptom [65% (26/40)] in co-infected patients, followed by headache in 37.5% (15/40), cough in 20% (8/40) and physical asthenia in 12.5% (5/40). Biologically, 62.5% (25/40) of subjects with HIV malaria co-infection had a viral load <1000 copies/ml, 37.5% (15/40) had a viral load >10,000 copies/ml and 2.5% (1/40)

Conclusion: HIV-malaria co-infection is present in Kinshasa and manifests itself through a range of symptoms in the majority of PLHIV. Systematic screening for malaria needs to be incorporated into the clinical and biological monitoring of PLHIV at various visits.

Biography

Marithe Mukoka Ntumba has been a doctor of medicine since 2019 at Bel Campus University of Technology. She is a medical doctor in the department of specimen collection and reporting of results and a member of the department of immune serology, She has been working at the Rodolphe Merieux INRB-Goma laboratory for 3 years and acted as the local supervisor for ALERRT CCP Covid study in two health facilities in Goma, collaborating with ITM-Antwerp (From 2021 to 2023). To date, She involved in several studies:1) a Serological survey of the contacts of Ebola outbreak survivors (US CDC, Vysnova), 2) Biobanking study and evaluation of the performance of rapid point-of-care diagnostics for Monkeypox virus (FIND), 3) Ebo-boost: Safety and immunogenicity of Ervebo® and Zabdeno® Ebola booster vaccines after previous vaccination with Zabdeno/Mvabea® or Ervebo® vaccine regimens in the DRC: phase II randomized controlled trial (mix-and-match) in collaboration with ITM-Antwerp.

Helmi Ernandes

Mohamed Kassab Institute of Orthopedics, Tunisia

Title: Spina ventosa: An unusual case of primary tuberculosis infection

Abstract:

Background: Spina Ventosa, also known as tuberculous dactylitis, is a rare condition that affects the metacarpals, metatarsals, and phalanges. It is characterized by a spindle-shaped expansion of the short tubular bones caused by tuberculous granuloma. It is relatively uncommon in individuals over the age of 5 years. We report an unusual case of isolated tuberculous dactylitis in an immunocompetent host.

Case description: A 34-year-old man presented with a one-year history of pain and swelling in his right index finger. Upon examination, it was discovered that he had suffered a minor injury a year ago. The patient did not exhibit any symptoms of fever, decreased appetite, or weight loss, and there was no indication of tuberculosis transmission in his medical history. The examination revealed swelling around the third phalanx of the finger, but there were no signs of skin inflammation. The finger's range of motion was limited and caused discomfort. A radiograph of the right hand revealed a bone abnormality with unclear boundaries in the second bone segment. Magnetic resonance imaging indicated an inflammatory condition in the second and third phalanx, with swelling in the bone marrow and signs of osteoarthritis. A bone sample was taken from the third phalanx, and Mycobacterium tuberculosis Polymerase chain reaction (PCR) was performed, which turned out to be positive. The histology examination indicated the presence of a centrally located epithelioid and giant cell granuloma surrounded by caseous necrosis Thoraco-abdominal computed tomography did not identify any other sites of tuberculosis infection. Chemotherapy regimen consisted of four antitubercular drugs (isoniazid, rifampicin, pyrazinamide, and ethambutol) for two months, followed by a two-drug regimen (isoniazid and rifampicin) for ten months. Immobilization of the index finger with a splint was also implemented for 21 days. The outcome was favorable, as radiographs taken after one year of treatment revealed bone consolidation.

Discussion: Tuberculous dactylitis without initial infection is rare, and delays in diagnosis and treatment. The key component of the diagnostic process is the bone biopsy, which includes histological and bacteriological examinations, as well as PCR testing for Mycobacterium tuberculosis.

Biography

Dr. Helmi Ernandes studied at the faculty of medicine of Tunis, Tunisia and graduated as MD in 2020. He obtained the position of assistant professor at the same institution He works int the infectious diseases department of The Mohamed Taieb Kassab Institute of Orthopedics and is specialized in the field of bone and joint infections. He is an ESCMID member, a member of ESCMID Study Group on implants associated infections, ESCMID Study Group on biofilms and ESCMID study group on clinical parasitology.

Mahmoud Abdo

USM University, Malaysia

Title: The role of oral ascorbic acid administration in combination with IV N-acetylcysteine in delaying inflammatory cascade in sepsis: A Case Report

Abstract:

Sepsis is a life-threatening emergency that arises owing to a dysregulated host response to infection, leading to existence organ dysfunction. Vitamin C administration has led to a lower mortality rate in sepsis. N-acetylcysteine (NAC) treatment during sepsis improves hepatic function and enhances tissue oxygenation. The objective of this case report is to investigate the synergistic effect of the combination of vitamin C, thiamine, and NAC in delaying sepsis cascade and prolongation of survival time. In this case report, an oral dose of vitamin C 500 mg three times daily in combination with IV thiamine 100 mg three times daily, IV NAC, and hydrocortisone stress dose resulted in 12 days of survival of an immunocompromised patient with ventilator-associated pneumonia on single anti-pseudomonas beta-lactam antibiotic. The patient was a 60-year-old Malay female with previous bone marrow transplantation surgery and a medical history of ischemic stroke on phenytoin and valproate therapy. The patient was transferred to a medical ward in Penang General Hospital, Malaysia, due to community-acquired pneumonia. She was on ceftriaxone for five days, then sedated and ventilated in the ICU, with a shift to cefepime for three days, which was then changed to meropenem for nine days until the last day of life. Total anti-pseudomonas coverage was 12 days. The patient had multiple comorbidities from phenytoin-induced hepatic encephalopathy, acute kidney injury, and three sessions of hemodialysis. IV vitamin C was not available, so an oral dose was administered with potential efficacy in delaying the sepsis inflammatory cascade, leading to the use of a single (not double) anti-pseudomonas antibiotic for 12 days. Prolonged survival duration may be expected in the case of normal bone marrow patients with ventilator-associated pneumonia sepsis. In conclusion, Vitamin C, thiamine, and NAC combination resulted in delayed sepsis progression for 12 days and the survival of the immunocompromised patient on a single anti-pseudomonas beta-lactam antibiotic.

Biography

Dr. Mahmoud Abdo is an Egyptian pharmacist graduated in 2006, then finished diploma of clinical pharmacy in 2009 (Ain shams university) & Pharm.D in 2013 (Cairo university). He is master holder of clinical pharmacy from USM University in Malaysia in 2018 with 2 international publications. Dr. Mahmoud has both experiences as lecturer & clinical pharmacy practice in disciplines of critical care, infectious diseases & internal medicine. Furthermore, he has experience in cost reduction of antibiotic use, pharmacometrics of Defined Daily Doses & Days of Therapy, empirical therapy for various infections & de-escalation according to clinical response and true cultures. Dr. Mahmoud can interpret local antibiograms, haematology & biochemistry lab results with doses adjustment individually, so he is hoping for Ph.D. position in infectious diseases specialty.

Ali Jawad

Damascus University, Lebanon

Title: Primary renal mucormycosis in a Type II diabetic patient: A case report from Syria

Abstract:

Mucormycosis is an opportunistic fungal infection that primarily affects immunocompromised individuals. Renal mucormycosis (RM) is uncommon manifestation of the disease. Diagnosis can be challenging to many physicians. We report a rare case of primary, unilateral RM which triggered diabetic ketoacidosis in a type II diabetic patient. The case was later complicated with a bronchopleural fistula and a meropenem-resistant klebsiella infection. The patient was ultimately treated with surgical intervention, amphotericin B liposomal, and polymyxine E. Early diagnosis and timely treatment of this life-threatening disease and its complications is significant in reducing mortality rate.

Abbreviations: RM = renal mucormycosis; WBC = white blood cells; DK = diabetic ketoacidosis; DM-II = Diabetes Mellitus Type II; MSCT = multi-slice computed tomography; HE = histopathological examination

Biography

Ali Jawad is a sixth-year medical student at Damascus University. Originally from Lebanon, I am known for my dedication and hard work in everything I do. He prides myself on being a team player with strong communication skills that allow me to connect with others effectively. He has a natural curiosity and love for learning, always eager to absorb new information and gain valuable experiences in the medical field. Beyond my studies, He is deeply passionate about scientific research, volunteering, and personal growth. I believe in making a difference in my community and constantly seek opportunities to expand my knowledge and skills. He driven by a desire to contribute positively to the world around me and am always looking for ways to grow and develop personally and professionally. In essence, he is a motivated and ambitious individual who is not only excelling in my medical studies but also actively seeking ways to make a meaningful impact on those around.

Sadia Amir

Shaheed Mohtarma Benazir Bhutto Institute of Trauma, Pakistan

Title: Need for proactive antimicrobial stewardship and effective infection control measures to address the escalating threat of antimicrobial resistance in Pakistan: A 5-year analysis of carbapenem-resistant gram-negative bacterial infections

Abstract:

Multidrug-resistant (MDR) gram-negative bacteria (GNB) infections pose a significant global health threat, challenging healthcare systems worldwide. Gram-negative bacteria, including Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, and Acinetobacter species have developed resistance to multiple antibiotics, limiting treatment options and increasing the risk of treatment failure and adverse outcomes. This study aimed to analyze the trends of micro-organisms isolated from blood culture and their carbapenem resistance in a one of the largest public sector trauma center in Pakistan from 2018 to 2022. We obtained data from the Microbiology department on the predominant micro-organisms and their carbapenem susceptibility. We also obtained data from the Pharmacy department on the consumption of meropenem and colistin and calculated the defined daily doses (DDD) according to the World Health Organization guidelines. The data showed a significant rise in positivity from 2% in 2018 to 37% in 2022. The carbapenem resistance increased dramatically in Klebsialla, pneumoniae from 20% in 2018 to 70% in 2022. The carbapenem resistance also increased in E.coli, Pseudomonas Aeruginosa and Acinetobacter species, reaching 46%, 56% and 90%, respectively. The antimicrobial consumption of both meropenem and colistin showed a gradual upward trend over the five-year period. There is a significant increase in positive cases caused by Gram-negative organisms, indicating a growing prevalence of infections with increasing rates of resistance observed in multiple Gram negative organisms. These findings highlight the need for proactive antimicrobial stewardship, effective infection control measures, and the exploration of alternative treatment approaches to address the escalating threat of antimicrobial resistance.

Biography

Dr. Sadia Amir is a renowned physician and Infectious Disease Consultant with an extensive career spanning over two decades. She is widely recognized for her expertise in treating and managing a wide range of infectious diseases, including but not limited to viral infections, bacterial infections, and fungal infections. Dr. Amir is a highly respected member of the medical community and is frequently invited to speak at conferences and seminars. She is also a regular contributor to medical journals and has published numerous articles on infectious diseases.

Accepted Abstracts

Donna Mendez

The University of Texas Medical Branch Galveston, USA

Title: Our objective was to evaluate the risk of UTI and bacteremia in with COVID-19 bronchiolitis

Abstract:

Objectives: Our objective was to evaluate the risk of UTI and bacteremia in with COVID-19 bronchiolitis.

Methods: This was a retrospective study from TriNetX database in the United States. This study was from January 2020 – January 2023 during the COVID-19 pandemic. Patients were included if they were less than or equal to 1 year of age, had a fever, bronchiolitis and a COVID-19 polymerase chain reaction (PCR) test one week before or after presentation to the Emergency Department (ED) or hospital. We compared outcomes of bacteremia, and UTI in those with bronchiolitis due COVID-19 and those without COVID-19. Propensity matching was done to account for the confounders of age, gender and race.

Results: There was a significant risk of having UTI if one did not have COVID bronchiolitis 2.2% versus those with COVID-19 bronchiolitis .0.8% (RR-0.37, 95% CI 0.30-.46, p<.001).

For bacteremia there was also an increased risk of UTI if the child did not have COVID-19 bronchiolitis 0.4% versus those with COVID-19 bronchiolitis 0.2% (RR=0.42 (0.26-.66).

Conclusions: There is a low risk of UTI and bacteremia in young children with concomitant COVID-19 bronchiolitis.

Biography

Dr. Donna Mendez is a board certified Pediatrician as well as Pediatric Emergency Medicine Physician. She completed her pediatric residency at the University of Texas Health Science Center (UTHSC) in San Antonio, and a fellowship in Pediatric Emergency Medicine at University of Texas Southwestern in Dallas. She is the Director of the Pediatric Emergency Medicine fellowship. Her research focus is on head injury and medical education. Dr. Mendez is currently investigating Fast MRI for ventriculoperitoneal shunt malfunction. She is a HRSA grant reviewer and reviewer for Journal of Trauma, Pediatrics, and Journal of Advances in Health Sciences Education Reviewer. She has received her certificate in Medical Education Research and is presently obtaining her Doctorate in Professional Leadership with an emphasis in Health Science Education from the University of Houston.

Shaul Mordechai

Ben-Gurion University, Israel

Title: Rapid diagnosis of the etiology of patients infections as bacterial or viral using infrared spectroscopy of leukocytes and machine learning algorithms

Abstract:

Human viral and bacterial infections are responsible for a variety of diseases that are still the main causes of death and economic burden for society across the globe. Despite the different responses of the immune system to these infections, some of them have similar symptoms, such as fever, sneezing, inflammation, vomiting, diarrhea, and fatigue. Thus, physicians usually encounter difficulties in distinguishing between viral and bacterial infections based on these symptoms. Rapid identification of the etiology of infection is highly important for effective treatment and can save lives in some cases. The current methods used for the identification of the nature of the infection are mainly based on growing the infective agent in culture, which is a time-consuming (over 24 h) and usually expensive process. The main objective of this study was to evaluate the potential of mid-infrared spectroscopic method for rapid and reliable identification of bacterial and viral infections based on simple peripheral blood samples. White blood cells (WBCs) and plasma were isolated from the peripheral blood samples of patients with confirmed viral or bacterial infections. The obtained spectra were analyzed using multivariate analysis: principle component analysis (PCA) followed by linear discriminant analysis (LDA), to identify the infectious agent type as bacterial or viral in a time span of about 1 h after the collection of the blood sample. Our preliminary results showed that it is possible to determine the infectious agent with high success rates of 82% sensitivity and 80% specificity based on the WBC data.

Biography

Dr. Shaul Mordechai (Ph.D.) is a Professor of Physics and Head of the Biomedical Spectroscopy Laboratory at the Department of Physics, Ben Gurion University, Israel. His research interests include Medical Physics, Cancer Diagnosis, Biomedical Optics, FTIR-Microscopy, FTIR-Imaging, dementia with Lewy bodies, Alzheimer's disease, and machine learning. He was a Visiting Scientist at the University of Texas at Austin, Los Alamos National Laboratory, and the University of Pennsylvania, Philadelphia, Pa. He has co-authored many papers in Biomedical Optics, Tissue Microscopy, Optical Diagnostics, and Applications of Monte Carlo Simulations in Biomedical Optics.

Kara Marshall

University of Texas Medical Branch Galveston, USA

Title: Public health and healthcare: A shared goal of HCID preparedness

Abstract:

Infectious disease preparedness relies on local public health entities and frontline healthcare facilities. Inconsistent communication and understanding of processes between the two results in delayed responses to new and emerging threats, putting frontline workers at risk. Recent events including mpox and COVID-19 showed that strong relationships are required between these groups regarding infectious disease threats. Through shared activities including tabletop and functional exercises, preparedness for future events is strengthened and response efforts accelerated. The University of Texas Medical Branch (UTMB) serves as the Regional Emerging Special Pathogens Treatment Center for Health and Human Services Region VI. UTMB's Special Pathogens Excellence in Clinical Treatment, Readiness, and Education Program (SPECTRE) is responsible for leading high-consequence infectious diseases (HCID) preparedness and response efforts across Texas and the region. To fulfill this, strong relationships with local and regional public health authorities have been created and maintained. Over the course of several months, discussions and joint exercises have been conducted with public health entities, emergency medical service agencies, and national partners to understand gaps in procedures and needed resources. The collaborative effort across the region allows for an opportunity to identify needs and share resources to support partnerships and bolster preparedness efforts.

Biography

Ms. Kara Marshall is the program manager for the University of Texas Medical Branch's (UTMB's) special pathogen program, Special Pathogens Excellence in Clinical Treatment, Readiness, & Education (SPECTRE). Ms. Marshall received her Master's in PH from Boise State University, and is currently in an emergency management in PH certificate program with the University of Nebraska Medical Center. She is highly involved in special pathogen preparedness efforts across USA HHS Region VI, and is focused on strengthening the partnership between public health and the healthcare system's preparedness and response efforts to high consequence infectious diseases.

Chantal Edwardes
University of Oxford, UK

Title: Neonatal patients with melioidosis: A systematic review

Abstract:

Melioidosis is a rare but neglected tropical disease with high mortality rates, particularly among neonates. Despite this, current approaches to melioidosis diagnosis and treatment are based on adult studies, with limited research into paediatric cases. Here, we conducted a systematic review exploring the clinical characteristics of culture-confirmed melioidosis in neonates. Web of Science, WHO Global Index, Scopus and Ovid databases were searched up to July 2023. Data extracted included age, sex, clinical presentation, treatment, mortality, and risk factors. Quality assessment was performed using the ROBIS risk of bias in systematic reviews tool. 50 cases were identified across 24 publications. Cases commonly occurred in the early neonatal period and had a high mortality (>75%), often despite early access to intensive care. Mortality was not linked to prematurity or birth weight. The only survivors were among those who received the recommended antibiotics for Melioidosis. The most common clinical presentations were sepsis, pneumonia and meningitis. There were no instances of parotitis, which can be prevalent amongst older children. Due to the rapid disease progression >65% of fatal cases received a positive culture diagnosis after death. The median time to death was 4 days. The small number of cases in this review demonstrates the need for further work to characterise the course and risk factors of melioidosis in neonates. Our findings suggest, however, that Melioidosis is under-reported in neonates. In endemic areas, greater awareness is needed amongst clinicians of neonatal melioidosis and of the high levels of antibiotic resistance associated with this pathogen.

Biography

Dr Edwardes completed a degree in Aeronautical & Astronautical Engineering with a Masters in Space Engineering in 2013. After serving as an Engineering Officer for 6 years in the Royal Air Force, she completed a Medical Degree at the University of Oxford in 2023. During the pandemic she worked as the project manager for OxVent, leading a multidisciplinary team of engineers and medics developing emergency use ventilators for the UK Government. She has published 4 papers in the fields of Medicine and Space Engineering.

Ahish Sinha

Pt JNM Medical College, India

Title: Operational challenges of nutrition among Pulmonary Tuberculosis patients of Raipur town in Chhattisgarh province, India

Abstract:

Background: Food insecurity and poor nutritional status in the population are important contributors to the global burden of Tuberculosis disease but usually neglected as a part of Tuberculosis management. The association between Tuberculosis and malnutrition is bi-directional. It predisposes the patient to malnutrition and malnutrition increases the risk of developing active Tuberculosis by 6 to 10 folds.

AIMS: To assess the nutritional status and document a dietary gap among pulmonary Tuberculosis patients in Raipur city.

Methods: A cross- sectional study was conducted among 120 Pulmonary TB patient recruited from designated microscopic Centre (DMC) attached to Pt J.N.M. Medical College, Raipur by consecutive sampling method. Relevant information was obtained in predesigned pretested proforma by interview after informed consent. Results:Overall 54.16% study subjects were under weight (BMI< 18.50); 93.3% had calorie deficit; 37.5% had a dietary gap which was varying over a wide range from 500 Kcal to 1000 Kcal (p-value < 0.005). Very few (5%) were consuming extra calories than standard RDA; 54.17% didn't receive dietary counseling. Of those who received dietary counseling, 40% didn't follow it.

Conclusion and Recommendation: High proportion of tuberculosis patients were undernourished. It needs a monitoring systems and feedback based initiatives to ensure compliance.

Biography

Dr. Ashish Sinha is an Associate Professor in Dept of Community Medicine at Pt JNM Medical College Raipur. He got Graduated and Post Graduated in Pt JNM Medical College Raipur. He is also Director Medical in Sickle Cell Institute in Chhattisgarh India. He got Fellowship in Canada. He published 25 research paper in National and International Journals. He also presented 3 research papers in International Conferences. Previously He worked for World Health Organization, National AIDS Control Organization and PGIMER Chandigarh in various positions.

Preeti C haudhary
Indian Council of Medical Research-NIMR, India

Title: Artemisinin resistance in P. falciparum: Probing the interacting partners of Kelch13 protein in parasite

Abstract:

Malaria remains a global health issue affecting half of the world's population. The current treatment regimen which includes artemisinin and other combination therapies is being threatened with the rapid emergence of resistance. P. falciparum under drug pressure has revealed insights into mechanisms of resistance most commonly used antimalarials, such as Chloroquine, Amodiaquine, Piperaquine, DHFR inhibitors etc. There are currently no alternative drugs available to replace Artemisinin. ART resistance has been shown to be mediated by the Plasmodium Kelch13 (PfK13) protein. Pf kelch 13 gene is situated in chromosome 13 and associated with ART resistance, owing to the association of majority of mutations at the kelch BTB/POZ & propeller domain. The present study recombinantly expr essed the PfK13-p (BTB/POZ & propeller domain) and generated anti-PfK13-p anti bodies for cellular localization and co-immunoprecipitation (co-IP) assays and mass spect roscopy was performed to identify the PfK13 interacting partners. Unique coimmunoprecipitated proteins were identified barring few proteins overlapping with previous studies- Protein disulfide isomerase, heat shock proteins, merozoite surface protei n 1 (MSP1), L-lactate dehydrogenase, elongation factor 1-alpha. The unique hits of the s tudy were- falcilysin, enolase, phosphoethanolamine N-methyltransferase, glideosome-asso ciated protein 50, fructose-bisphosphate aldolase, adenylate kinase, peptidyl-prolyl cis-trans isomerase, thioredoxin-related protein, putative, 20 kDa chaperonin, ornithine aminotra nsferase, rhoptry-associated protein 1. The identified proteins were categorized into protein folding, protein binding/invasion, cellular metabolism and mobility functions. Further, bioinformatics proteins identified by the STRING database represent the PfK13 protein and the respective potential interactors or performing shared functions are shown in network. The minimum interaction score was set to medium confidence level (0.400) and no more than 10 interactors were selected. PGK (Phosphoglycerate kinase) and Q7KQL9 (Fructose- biphosphate aldolase) are the two predicted proteins, which have been identified via co-IP assays. In other experiment, strong binding affinities of PfK13-p and two coimmunoprecipitated proteins- Heat Shock Protein 70 and PfFBAP (6.6 and 7.6 µM, respectively) were observed using surface plasmon resonance (SPR). Additionally, PfMSP1 formed a complex with PfK13-p, as evidenced by pull-down assays. Interestingly, PfKelch13 forms a stable hexamer in N-termini BTB-POZ domain. Further, Using anti-PfK13-p antibodies, the endogenous PfK13 protein was observed to colocalization with a cytosolic marker- PfAspRS (aspartyl transfer-RNA synthetase). Together, this work identified unique interacting partners of endogenous PfK13 protein, which might have crucial implications in the PfK13 protein network and its role in mediating ART resistance.

Biography

Preeti Chaudhary studied biotechnology at the Manav Rachna International University, India graduated in 2015 and then joined as lab assistant in clinical laboratory for 1 year at Asian Institute of Medical Sciences and joined lab as PhD scholar at the Host-Parasite Interaction Biology Group, ICMR-National Institute of Malaria Research, New Delhi, India under the supervision of Dr. Kailash C. Pandey (Scientist-F). I have published 2 research articles.

Robert Taylor
Warwick Medical School, UK

Title: Review of the epidemiology of drug- resistant shigella associated with men who have sex with men

Abstract:

Background: MSM-associated transmission of shigella has been established as an STI since the 1980s and is recognised as endemic in the UK. Multiple outbreaks and clusters of infection associated with MSM occur globally. The World Health Organisation has warned of increasingly extensively drug-resistant strains circulating amongst a global MSM population. Accumulating data on resistance and accompanying determinants of these MSM-associated outbreaks may provide insight for future public health approaches to this issue.

Methods: A systematic review was conducted which identified manuscripts that were subject to a screening process to retrieve sources of epidemiological data. A search across four databases found 74 sources which had a full-text review to identify manuscripts that included MSM-associated cases, their resistance rates and underpinning risk factors.

Results: Data was extracted from 13 studies and separated into country-wide and city-wide studies. Studies included demonstrate a higher rate of resistance in MSM cases when compared non-MSM groups. Studies from Australia demonstrate in increase in MDR from 35% to 78% in MSM. Four of the city-based studies demonstrate isolates which are MDR (>2), up to 27% of isolates found in Barcelona. The most recent UK study shows resistance to 5 antibiotics of 100% of isolates. Associations between resistant shigella and MSM infection were mainly attributed to by PLWH. Risk factors for increased transmission of shigella identified by this review include a previous STI, visiting sex venues and recreational drug use.

Conclusion: This review highlights significant differences in resistant rates of MSM-associated shigella. Concurring that MSM are disproportionately affected by highly-resistant strains of shigella. These finding dictate the need for further public health intervention globally. Recommendations made here could be used to minimise the health inequities for gay and bisexual men.

Biography

Rob Taylor is a final year Graduate-Entry MBBS Medical student at Warwick Medical School in the UK. Passionate about healthcare, he's dedicated to academic excellence and making a positive impact in his community.

Yusuf Abdu

Ethiopian Public Health Association, Ethiopia

Title: Prevention strategy of tuberculosis among HIV positive adolescents in Hawassa town, Southern Ethiopia

Abstract:

The study aimed at identifying the determinants of tuberculosis infection among human immunodeficiency virus (HIV) positive adolescents and subsequently develop a prevention strategy for tuberculosis (TB) among HIV positive adolescents in Hawassa town, Ethiopia. The study was conducted from 10 September 2021 to 28 February 2022 in Hawassa town, which is located in the southern part of Ethiopia. The study adopted a sequential exploratory mixed methods study design. A qualitative study was conducted in the first phase, followed by a quantitative study in the second phase. Data for the qualitative phase was collected through face-to-face interviews as well as focus group discussions using an interview guide. Data was collected from adolescents who were diagnosed with TB/HIV or only HIV and treated in chronic care centres, and their guardians. Qualitative data was further collected from key informants who were public officials and focal persons for the TB/HIV prevention/control programme in their institutions. The quantitative data was collected through a structured questionnaire from 321 TB/HIV patients of whom 107 were cases and 214 were controls from four conveniently selected health facilities in Hawassa. Qualitative data was analysed thematically and manually, while quantitative data was analysed using SPSS version 26 and Epi Info version 7.2.5. The study revealed a consistent increase of tuberculosis infection among the adolescents living with HIV owing to failure of good governance and leadership; deterioration of school health services; critical budget shortages; and poor motivation of health professionals. Factors that were found to be independently associated with tuberculosis infection were taking isoniazid preventive therapy (IPT) AOR=0.09, 95% CI (0.01, 0.69) which shows that IPT has a preventive effect against tuberculosis; WHO clinical stages III and IV AOR= 3.64, 95% CI (2.95, 4.49); previous history of tuberculosis AOR=222.18, 95% CI (127.06, 389.59) and history of smoking AOR=112.4, 95%CI (146.83, 940.15). The study concluded that all stakeholders must work together to improve the execution of services for TB/HIV prevention. The contribution of this study is the development of an alternative integrated TB/HIV preventive strategy, which would promote TB/HIV prevention for better health outcomes.

Biography

Yusuf Abdu Ahmed, a public health researcher, specializes in tuberculosis prevention among HIV-positive adolescents in Hawassa Town, Southern Ethiopia. Pursuing a Doctor of Philosophy degree at the University of South Africa, he's dedicated to enhancing healthcare in underserved communities.

Nathalie Yepes
Universidad Libre Sectional Cali, Colombia

Title: Left knee septic monoarthritis in a pediatric patient due to shewanella putrefaciens: Case report and literature review

Abstract:

Background: Shewanella putrefaciens is a gram-negative, nonfermenting, oxidase-positive, hydrogen sulfate-producing bacillus and a halophilic bacterium. Responsible for unusual infections in humans; considering itself an opportunistic germ in many patients. With varied symptoms in the literature, generating a significant impact on human health with a total of 260 disorders described in the literature in the last 40 years, which indicates the potential danger it represents.

Case presentation: We present the case of a previously healthy 15-year-old male patient with a self-inflicted sharp-object injury while doing fieldwork and a secondary septic monoarthritis due to Shewanella putrefaciens.

Conclusions: We describe the bacteriological and clinical characteristics and antibiogram of this bacteria spp. Since in recent years, there has been an increase in notifications of Shewanella infections, mainly by S. algae and S. putrefaciens, which leads us to keep it in mind in patients whose clinical history shows evidence of contact with bodies of water due to the special resistance patterns that must be taken into account when managing these patients to avoid inducing intrinsic antimicrobial resistance.

Biography

Nathalie Yepes belonged to the Department of Basic Health Sciences Bachelor of Medicine Pontifical from Javeriana University, Cali, Colombia

Melaku Tadesse Abebe

Gondar University Hospital, Ethiopia

Title: Reported high in hospital mortality among adult tuberculosis patients admitted to university of Gondar hospital, North-West Ethiopia

Abstract:

Background: Due to a single infectious pathogen, tuberculosis (TB) is the world's second-greatest cause of mortality.

The majority of TB deaths happen during the intensive phase of treatment. The purpose of this study is to determine the incidence and predictors of in-hospital mortality in adult TB patients.

Method: A 4 year retrospective follow-up study was conducted among 200 admitted adult TB patients at the university of Gondar hospital from September 1, 2017 to September 30, 202l. The Cox proportional hazards model was used to calculate the hazard ratios (HR). The Kaplan-Meier method was used to compute survival rates. Cox regression models were used to determine the predictors of mortality.

Results: This study enrolled 200 adult TB patients. Among these 60 (30%) died, 140 (70%) censored with overall incidence of death rate of 165 (95 percent CI: 128, 213)/10,000 days of observation. A multivariate Cox regression analysis revealed that patients with a low WBC count at baseline (AHR=3.16, 95% CI: 1.55, 6.41) and bedridden patients (AHR=3.49, 95% CI: 1.83, 6.66) independent predictors of in-hospital mortality among adult TB patients.

Conclusions: This retrospective study found that hospital mortality among adult TB patients is high in public hospitals in northwest Ethiopia. Patients with a low WBC count and who were bedridden at the time of presentation were independent predictors of in-hospital mortality.

Biography

Melaku Tadesse Abebe is a highly motivated, diligent, and competent Senior Expert public health professional specialist with intensive and programmatic knowledge and skills in HIV, TB-HIV, and MDR TB management. He has good leading and coordinate knowledge and skill of projects and handing emergency problems in programs. He can bring positivity, encouragement, and a creative mentality to any team, as seen by my track record of success. He pride on myself on taking part in coordinating projects, Monitoring and evaluation, giving consultancy service in the management of TB, TB/HIV and DR-TB training and research advisory. He have more than 6 publications.

Usman Sanusi

Department of Mathematics and Statistics, Nigeria

Title: Managing infectious diseases under quiescence

Abstract:

In this work, quiescence is added to the Susceptible-Infectious-Recovered (SIR) model with demography. In order to investigate consequences of quiescence in the infection process in more depth, we use stochastic simulations on the stochastic version of model that we built. This method provides a more accurate picture of the dynamics of infectious diseases by taking into consideration the inherent randomness in the disease processes. We examine the effects of quiescence on the number of infected people using simulations. The results, presented in histograms depicting the distribution of infected individuals, reveal a notable trend: the mean number of infected individuals is higher when quiescence is incorporated into the dynamics. These finding emphasizes the dynamic influence of quiescence on infectious disease spread. The higher mean number of infections during periods of quiescence highlights the need for public health strategies that are flexible enough to focused interventions during these times to reduce the possibility of an increase in infections.

Biography

Usman Sanusi is a Senior Lecturer in the Department of Mathematics and Statistics, Umaru Musa Yar'adua University Katsina, Nigeria. His solid background in Applied Mathematics has given him the mathematical and analytical tools he needs to build intricate models and conduct thorough data analysis to investigates how pathogen quiescence affects spread of infectious diseases.

Emmanuel Sampo

Joseph Ki-Zerbo Universite, Burkina Faso

Title: Antibiotic susceptibility study of carried and clinics Neisseria meningitidis at (Kaya and Boussouma) Health Regions of North Central Burkina Faso in 2016 and 2017

Abstract:

Antibiotic resistance is one of the most pressing public health issues facing the world today. Its prevalence is higher in developing than in developed countries. The aim of this study was to reduce the emergence of Neisseria meningitidis with decreased susceptibility to penicillin G and resistant to chloramphenicol. Isolation of clinical and carriage strains of N.meningitidis was performed on specific media (TMM, GSF) after incubation at 37°C for 18 to 24 hours. Gram, biochemical and antigenic identification of isolates was performed. Following this, an antibiogram and E-Tests were performed to study the susceptibility profile of the strains at CHR Kaya. Diagnosis of clinical strains by conventional bacteriological methods showed 22 (2.6%) by Gram, 22 (2.6%) by latex, 10 (1.2%) by culture. Bacteriological identification of carriage strains showed a predominance of non-groupable (NG) serogroups (86.85%), followed by NmW (12.54%) and NmC (0.61%). NmA, NmX and NmY serogroups were absent. Clinical strains showed a profile of 100% sensitivity to Chloramphenicol, Ampicillin, Ceftriaxone and Augmentin, and 90% susceptibility versus of 10% resistance to Penicillin G and Oxacillin. Antibiotic susceptibility testing of carriage strains showed that groupable N.meningitidis was 92.86% chloramphenicol-susceptible, 83.33% oxacillin-susceptible versus 7.14% chloramphenicol-resistant and 16.67% oxacillin-resistant. Non-clusterable N.meningitidis were 92.79% chloramphenicol-susceptible, 90.14% oxacillin-susceptible versus 7.21% chloramphenicol-resistant, 9.86% oxacillin-resistant. 8 out of 7 groupable N.meningitidis subjected to E-Tests, 4(54.14%) had an MIC ≤ 0.06 mg/L, 1(14.3%) with an MIC between (0.06-1 mg/L) and 2(28.57%) with an MIC>1mg/L. Similarly, of 41 non-groupable Nm subjected to E-Tests, 4(9.76%) had an MIC ≤ 0.06 mg/L , 8(19.51%) with an MIC between (0.06-1 mg/L) and 29(70.73%) with an MIC >1mg/L. NmA reference strain gave 100% MIC ≤ 0.06 mg/L. The susceptibility profile study showed the presence of Neisseria meningitidis with decreased susceptibility to penicillin G and high-level resistance to chloramphenicol among community and clinical strains. E-Tests confirmed this resistance by determining the MICs of groupable and non-groupable strains.

Biography

Emmanuel Sampo has completed his PhD at the age of 55 years from Joseph KI-ZERBO University I am a head of microbiology lab at Schiphra Hospital health center. I has published more than 25 papers in reputed journals and has been serving as an editorial board member of repute.

Haftay Abraha Tadesse
Mekelle University, Ethiopia

Title: Prevalence, antimicrobial susceptibility pattern and associated risk factors for salmonella species and escherichia coli from raw meat at butchery houses in Mekelle, Tigray, Ethiopia

Abstract:

Background: Salmonella species and Escherichia coli are important foodborne pathogens affecting humans and animals. They are among the most important causes of infection that are associated with the consumption of contaminated food. This study was aimed to determine the prevalence, antimicrobial susceptibility patterns and associated risk factors for Salmonella species and E. coli in raw meat from butchery houses of Mekelle, Northern Ethiopia.

Methodology: A cross-sectional study was conducted from January to September 2019. Socio- demographic data and risk factors were collected using a predesigned questionnaire. Meat samples were collected aseptically from the butchery houses and transported using icebox to Mekelle University, College of Veterinary Sciences for the isolation and identification of Salmonella species and E. coli, Antimicrobial susceptibility patterns were determined using Kirby disc diffusion method. Data obtained were cleaned and entered into Statistical Package for the Social Sciences version 22 and logistic regression models with odds ratio were calculated. P-value < 0.05 was considered as statistically significant.

Results: A total of 153 out of 384 (39.8%) of the meat specimens were found to be contaminated. The contamination of Salmonella species and E. coli were 15.6% (n=60) and 20.8%) (n=80), respectively. Mixed contamination (Salmonella species and E. coli) was observed in 13 (3.4 %) of the analyzed. Poor washing hands regularly (AOR = 8.37; 95% CI: 2.75-25.50) and not using gloves during meathandling (AOR=11. 28; 95% CI: (4.69-27.10) were associated with an overall bacterial contamination.Abou t 95.5% of the tested isolates were sensitive to chloramphenicol and norfloxacin while the resistance of amoxyclav_amoxicillin and erythromycin were both isolated bacteria species. The overall multidrug resistance pattern for Salmonella and E. coli were 51.4% (n=19) and 31.8% (14), respectively.

Biography

Haftay Abraha Tadesse, a researcher at Mekelle University, Ethiopia, specializes in Engineering & Technology and Food Science. His impactful work on antimicrobial resistance and infectious diseases has gained global recognition.

Ntwali Kabundula Herve

National Institute of Biomedical Research, Democratic Republic of Congo

Title: Molecular diagnosis of the epidemic of post-conflict eruptive fevers in the city of Goma, in the Democratic Republic of Congo

Abstract:

Context: The east of the Democratic Republic of Congo is ravaged by armed conflicts and repeated wars and this leads to the displacement of the population towards safer areas, as a result of which they find themselves homeless and confined in refugee camps. or they are exposed to several emerging and re-emerging diseases

Goals: Detect the viral pathogens involved in the occurrence of eruptive fevers in the post-conflict period in the city of Goma through molecular analyses.

Material and Methods: We conducted a prospective study from March to June 2023 of cases of eruptive fevers as part of the surveillance of epidemic and epidemic-potential diseases at the Kyeshero General Reference Hospital, in the city of Goma, North Kivu, Republic. Democratic Congo. We collected oropharyngeal and blood samples from all suspected cases of rash fever. These samples were analyzed at the Rodolphe Mérieux Laboratory of INRB-Goma by Reverse-Transcriptase Polymerase Chain Reaction on the Biorad® CFX96 C1000 Touch platform using the Measles and Rubella virus (MeV/RV) RNA Diagnostic Kit (PCR). -Fluorescence Probing) (Sansure Biotech®, Changsha Shi, China) in search of Measles and Rubella viruses. We considered Cycle Threshold (Ct values) below 40 to be positive.

Results: We analyzed 159 samples belonging to 79 children aged 2 months to 2 years. Our study population consisted of 37 (46.8%) boys and 40 (50.6%) girls. Among, the samples collected there were 79 (50%) oropharyngeal secretions and 79 (50%) blood specimens. Regarding the blood samples analyzed, we found 21 (26.5%) positive, including 14 (%) for Measles virus and 7 (%) for Rubella virus. The Ct values of the analyzed samples ranged from 21.1 to 40.1 with a mean at 0.005 standard deviation. In the oropharyngeal secretions analyzed, a total of 35 (%) were positive, including 32 (%) for Measles virus and 3 for Rubella virus. The average Ct value for the oropharyngeal secretion samples was 0.004 SD, with a range of 21.1 to 40.1. We noted co-infection of Measles and Rubella viruses in 5 (%) oropharyngeal samples and 1 (%) blood sample.

Conclusion: In this study, we detected a significant proportion of Measles and Rubella Viruses in cases of eruptive fever in a post-conflict situation in the city of Goma, following a massive displacement of refugees who fled the fighting. in the Health Zones surrounding the city of Goma. It is therefore important to ensure systematic and frequent screening of people in the various refugee camps surrounding the city of Goma, in order to prevent the introduction of different pathogens into the urban environment.

Biography

Dr Ntwali Kabundula Herve has completed his Bachelor at the age of 28 years from Official University of Bukavu and now is a master student from Kinshasa University School of Medicine. I'm à researcher, I'm in charge charge of taking samples and reporting results at the Rodolphe Merieux Laboratory National Biomedical Research Institute in Goma. I participated in the response against Ebola and Covid 19, I am project manager of the clinical research center and I participate in several study projects on plague, monkeypox, Anthrax and Human papilloma virus.

Efuet Simon Akem

University of Buea, Cameroon

Title: Indigenous cultural behaviour and contact with exotic animals within the context of zoonotic pathogens in Cameroon remote forest area

Abstract:

In Cameroon, wild animals such as monkeys, fruit bats, rodents and forest antelopes among others are still being eaten in remote villages and some major cities despite the risks and warnings from the government. Most part of the country is inaccessible, lack of health facilities, lack of electricity, portable water among other basic amenities. In contrast to a strictly biomedical framework, infectious diseases cannot be understood through biology alone but rather must be considered within the context of the cultural and social worlds they inhabit. Some indigenous cultural practices of hunting and trapping behaviours, handling, carrying/transportation, sales of bushmeat, butchering, smoking, slicing, preparation/ cooking, consumption can lead to an increase in zoonotic risk transmission. This study intends to prepare for the future by gaining a detailed ethnographic understanding of local cultural practices of -human-wildlife interactions among indigenous remote forest communities in Cameroon in order to anticipate and develop context specific culturally appropriate mitigating response to disease prevention or outbreak.

Biography

Efuet Simon Akem is a faculty member in the Department of Sociology and Anthropology at the University of Buea, Cameroon. His research delves into societal dynamics and cultural phenomena, contributing to academic discourse in sociology and anthropology.

Yabibal Berie Tadesse

University of Gondar, Ethiopia

Title: Pharmacists' medication counseling practices and knowledge and satisfaction of patients with an outpatient hospital pharmacy service

Abstract:

The purpose of this study was to evaluate pharmacists' practices of medication counseling and to assess patients' knowledge of medications and satisfaction with pharmacy services at Woldia Comprehensive Specialised Hospital. A cross-sectional study was carried out between February and May 2022 at WCSH. A self- administered structured questionnaire was used to assess the medication counseling activities of pharmacists, whereas interview-based questionnaires were used to evaluate patients' knowledge of the drugs prescribed to them and their level of satisfaction with outpatient hospital pharmacy services. The Statistical Package for Social Sciences Version 25.0 was used to analyze the data. Around two-thirds of pharmacy professionals (73.9%) agreed that they were satisfied with their counseling activities. But a very low number of them always provided counseling regarding the purpose of medications (13%), major drug-drug interactions (26.1%), possible side effects (30.4%), the importance of compliance (30.4%), storage conditions (34.8%), and drug-food interactions (39.1%). Among the 339 patients involved in the study, less than half (46.3%) of them had sufficient knowledge of their dispensed medication at the exit interview. Only nearly half of the patients (54.3%) agreed that they were satisfied with the pharmacy service. Despite the fact that a significant proportion of the pharmacy professionals agreed that they were satisfied with their counseling practices, their level of involvement in major counseling activities was limited, which impacted the knowledge of patients about their medication and patients' satisfaction with pharmacy services. The findings may indicate that pharmacy services need to improve through identifying potential gaps and tackling barriers.

Biography

Yabibal B. Tadesse received his Bachelor of Pharmacy at the University of Gondar in July, 2014 and Master degree in Medicinal Chemistry at Addis Ababa University in July 2023. Currently he is working as a lecturer and researcher of Medicinal Chemistry at the University of Gondar (UoG), Ethiopia. Yabibal B. Tadesse has a track record of research and have published original articles in reputable journals.

Muhammad Mazhar

Guizhou University, China

Title: The interplay of dietary fibers and intestinal microbiota affects Type 2 diabetes by generating short-Chain fatty acids

Abstract:

Foods contain dietary fibers which can be classified into soluble and insoluble forms. The nutritional composition of fast foods is considered unhealthy because it negatively affects the production of short-chain fatty acids (SCFAs). Dietary fiber is resistant to digestive enzymes in the gut, which modulates the anaerobic intestinal microbiota (AIM) and fabricates SCFAs. Acetate, butyrate, and propionate are dominant in the gut and are generated via Wood–Ljungdahl and acrylate pathways. In pancreatic dysfunction, the release of insulin/glucagon is impaired, leading to hyperglycemia. SCFAs enhance insulin sensitivity or secretion, beta-cell function, leptin release, mitochondrial function, and intestinal gluconeogenesis in human organs, which positively affects type 2 diabetes (T2D). Research models have shown that SCFAs either enhance the release of peptide YY (PYY) and glucagon-like peptide-1 (GLP-1) from L-cells (entero-endocrine), or promotes the release of leptin hormone in adipose tissues through G-protein receptors GPR-41 and GPR-43. Dietary fiber is a component that influences the production of SCFAs by AIM, which may have beneficial effects on T2D. This review focuses on the effectiveness of dietary fiber in producing SCFAs in the colon by the AIM as well as the health-promoting effects on T2D.

Biography

Muhammad Mazhar, a doctoral student at Guizhou University China, is leading this research project, which is expected to be completed by the next year. The present study focuses on the investigation of Adzuki beans and their endogenous components, including the determination of their glycemic index, phenolic profile, and fermentation by human gut microbiota. Additionally, this research aims to explore the genomics and metabolomics of fermented beans. The findings of this study are expected to provide valuable insights into the nutritional and health benefits of Adzuki beans and their potential as a functional food source. The combined effects of endogenous components of adzuki beans will be evaluated for type 2 diabetes patients.

Melkamu Siferih

Debremarkos University, Ethiopia

Title: Review of Asherman syndrome and its hysteroscopic treatment outcomes: experience in a low-resource setting

Abstract:

Background: Asherman syndrome is one of the endometrial factors that influence a woman's reproductive capacity. However, in our context, comprehensive documentation is paramount. This study aimed to evaluate the clinical characteristics and hysteroscopic treatment outcomes of Asherman syndrome.

Method: A retrospective follow-up study from January 1, 2019, to December 31, 2022, was conducted on cases of Asherman syndrome after hysteroscopic adhesiolysis at St.Paul's Hospital in Addis Ababa, Ethiopia. Clinical data were collected via telephone survey and checklist. Epidata-4.2 and SPSS-26 were employed for data entry and analysis, respectively.

Result: A total of 177 study participants were included in the final analysis. The mean patient age was 31 years (range: 21-39) at the initial presentation, and 32.3 years (range: 22-40) during the phone interview. The majority of the patients (97.7%) had infertility, followed by menstrual abnormalities (73.5%). Among them, nearly half (47.5%) had severe, 38.4% had moderate, and 14.1% had mild Asherman syndrome. The review identified no factor for 51.4% of the participants. Endometrial tuberculosis affected 42 patients (23.7%). It was also the most frequent factor in both moderate and severe cases of Asherman syndrome. Only 14.7% of patients reported menstrual correction. Overall, 11% of women conceived. Nine patients miscarried, three delivered viable babies, and six were still pregnant. The overall rate of adhesion reformation was 36.2%. Four individuals had complications (three uterine perforations and one fluid overload) making a complication rate of 2.3%.

Conclusion: Our study found that severe Asherman syndrome, common in our setting, led to lower conception rates, irregular menstruation, and frequent adhesion recurrences. A heightened suspicion for Asherman syndrome, swift and accurate diagnostic techniques, and the creation of a specific algorithm for detecting endometrial tuberculosis are vital. Future studies should prioritize adhesion prevention techniques.

Biography

Dr. Melkamu Siferih is a committed Obstetrician and Gynecologist who is deeply passionate about women's health, currently serving at Debremarkos University Hospital. Born and raised in Amhara region, East Gojjam, Bibugn district, Dr. Melkamu found his calling in medicine at a young age, driven by his commitment to empowering women through holistic healthcare practices. Following his successful completion of medicine at Adama University, School of Medicine, he took on the role of a lecturer at DebreMarkos University.

Supporting Journal

Journal of Pathology and Diagnostic Microbiology

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