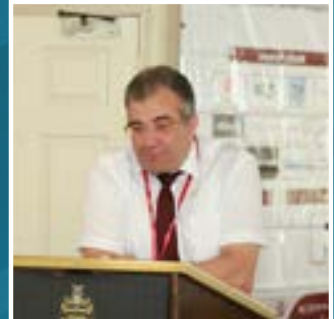


2nd Global Congress on
BACTERIOLOGY AND INFECTIOUS DISEASES
June 12-13, 2019 | Bangkok, Thailand

INFECTIOUS DISEASES CONGRESS 2019



SCIENTIFIC TRACKS & ABSTRACTS
DAY 1

DAY 1 SESSIONS

JUNE 12, 2019

Infectious Diseases | Treatment | Vaccination for Infectious Diseases |
Infection and Immune System | Complications in Infectious Disease Practice

SESSION CHAIR

Jose-Luis Diaz-Ortega
National Institute of Public Health, Mexico

SESSION INTRODUCTION

- Title:** Analysis of bacterial components to enhance leucocytes population for vaccine development
Muruganandam M, Einstein Bio-Engineering Research Foundation, India
- Title:** Computational identification of novel inhibitors against *Klebsiella Pneumoniae* DNA adenine methyltransferase
Umairah Natasya Mohd Omeershffudin, Management and Science University, Malaysia
- Title:** Vaccine shortages and missed opportunities for vaccination in children aged <5 years
Jose-Luis Diaz-Ortega, National Institute of Public Health, Mexico

BACTERIOLOGY AND INFECTIOUS DISEASES

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Muruganandam M, J Bacteriol Infec Dis 2019, Volume 3

ANALYSIS OF BACTERIAL COMPONENTS TO ENHANCE LEUCOCYTES POPULATION FOR VACCINE DEVELOPMENT

Muruganandam M

Einsteiin Bio-Engineering Research Foundation, India

Leucocytes protect us from various invading pathogens. In the leucocytes population, polymorphic neutrophils and lymphocytes have a major role in fighting against pathogens. In this study, the important bacterial components and their effects on leucocytes production was reviewed and also discussed. Many bacterial components increases leucocytes production which are inactivated cells, various peptides, nucleotides and their fragments etc. The normal and mutant inactivated cells are also induced to increase the production of leucocytes population. There are different types of proteins which are also inducing leucocytes production. These important proteins are inactivated toxin protein, Heat stress proteins etc. In the nucleotides, Genomic DNA, Plasmid DNA and their fragments are induced to produce more leucocytes. If researchers use all these bio molecules in appropriate level, it leads to act as good immunostimulants and also act as vaccine immunogens.

BIOGRAPHY

Muruganandam M has completed MSc, PhD in Zoology and specialization in Biotechnology. He has interested in bacterial vaccine development research. He has published more than hundred publication including ten books. His publications are cited in various databases of more than ten countries. He has an Editorship in twelve international journals.

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BACTERIOLOGY AND INFECTIOUS DISEASES

June 12-13, 2019 | Bangkok, Thailand

Umairah Natasya Mohd Omeershffudin et al., J Bacteriol Infec Dis 2019, Volume 3

COMPUTATIONAL IDENTIFICATION OF NOVEL INHIBITORS AGAINST *KLEBSIELLA PNEUMONIAE* DNA ADENINE METHYLTRANSFERASE

Umairah Natasya Mohd Omeershffudin, Nurul Azira Bt Ismail and Suresh Kumar

Management and Science University, Malaysia

Klebsiella pneumoniae a gram-negative bacteria causing pneumonia, urinary tract infection and liver abscess infections in the nosocomial settings. These bacterial pathogens are classified under the urgent hazard level leading towards a concern in public health. The epidemiology remains enigmatic and the current antibiotics failing to combat the emerging antimicrobial resistant bacteria. DNA methylation is seen to play a vital role in regulating the gene expression, directed mismatched repair and are seen to influence the bacterial pathogenicity. Current antibiotic-resistant studies have been progressively associated with DNA adenine methyltransferase (DAM) inhibitors, which play a crucial role in bacterial pathogenesis. Author's aim of the study is to screen novel natural inhibitor for *Klebsiella pneumoniae* DNA adenine methyltransferase. They had performed fingerprint similarity search based on Mahanine which resulted in 22 similar structures. Based on virtual screening using Autodock and ADMET test, they identified Koenimbine having a high affinity towards our previously identified protein target (A0A2U0NNR3) with -5.67kcal/mol and does not violates the Lipinski Rule of 5. This study will provide insight towards the identification of the new natural bioactive compound as a potential drug target to combat antimicrobial resistant pathogens.

BIOGRAPHY

Umairah Natasya Mohd Omeershffudin is an undergraduate student from Management and Science University, Malaysia. Currently she is doing her final year Bachelor in Bioinformatics (Hons). Her research focusing on finding novel drug target for antimicrobial resistant bacterial pathogens using computational aided drug design.

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Note:

BACTERIOLOGY AND INFECTIOUS DISEASES

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Jose-Luis Diaz-Ortega, J Bacteriol Infect Dis 2019, Volume 3

VACCINE SHORTAGES AND MISSED OPPORTUNITIES FOR VACCINATION IN CHILDREN AGED <5 YEARS

Jose-Luis Diaz-Ortega

National Institute of Public Health, Mexico

Introduction: Missed opportunities for vaccination (MOV) are defined as non-application of one or more vaccine doses to eligible population for vaccination during a contact with health facilities. Because immunization coverage in some districts of the state of Oaxaca, Mexico is not optimal, author investigated the factors associated with MOVs, in children aged <5 years.

Methods: They performed a cross-sectional study in health facilities of two sanitary districts and interviewed the caregivers of 837 children who few minutes ago, had visited health facilities. Vaccines not applied to eligible children during this visit were considered MOVs. They estimated frequency of MOVs, as well as crude and adjusted odds ratios (ORs) to analyze factors associated with MOVs.

Results: Shortage of some vaccines was the main factor associated to MOV. Risk of MOVs was higher in children aged 1-4 years, than in children aged <1 year (OR 10.0, p=0.001). Children visiting health facilities for reasons different to vaccination had higher risks of MOVs than those who went for vaccination (OR 2.4, p=0.0001).

Conclusions: Major causes of MOVs were vaccine shortages, false contraindications and failure of health personnel to review children's immunization cards.

BIOGRAPHY

Jose-Luis Diaz-Ortega is a Medical Doctor (Epidemiologist and Immunologist). He serves as a Medical Sciences Investigator and as a Professor at the National Institute of Public Health (INSP). He has published 50 scientific articles and 16 book chapters or manuals.

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SCIENTIFIC TRACKS & ABSTRACTS
DAY 2

DAY 2 SESSIONS

JUNE 13, 2019

Infectious Diseases | Treatment | Vaccination for Infectious Diseases
Infection and Immune System | Complications in Infectious Disease Practice

SESSION CHAIR

Cho Min Naing
International Medical University, Malaysia

SESSION INTRODUCTION

- Title:** Impact of health education intervention on HIV/AIDS high risk groups: A longitudinal study in Northern India
M Athar Ansari, Aligarh Muslim University, India
- Title:** Efficacy of anti-filarial drugs in reduction of MF prevalence in animal species: A systematic review
Cho Min Naing, International Medical University, Malaysia
- Title:** Risk factors associated with outbreak of methanol poisoning in southern districts of Ondo state Nigeria – May 2015
Adefisoye O Adewole, Nigeria Field Epidemiology and Laboratory Training Programme, Nigeria
- Title:** Human papillomavirus infection in genital women in four regions of Senegal
El Hadji Seydou Mbaye, International Agency for Research on Cancer, France
- Title:** The serum level pro-inflammatory (TNF- α) and anti-inflammatory (IL10) universal cytokines among patients with bacterial bloody diarrhea of different origin
Anna Mkhoyan, Yerevan State Medical University, Armenia

BACTERIOLOGY AND INFECTIOUS DISEASES

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M Athar Ansari, J Bacteriol Infec Dis 2019, Volume 3

IMPACT OF HEALTH EDUCATION INTERVENTION ON HIV/AIDS HIGH RISK GROUPS: A LONGITUDINAL STUDY IN NORTHERN INDIA

M Athar Ansari

Aligarh Muslim University, India

Background: The sexually transmitted infection (STI) prevalence is estimated to be 6% in India. The emergence of HIV and identification of STIs as a cofactor have further lent a sense of urgency for formulating a programmatic response to address this problem.

Aim of the Study: The present study was carried out to assess the impact of health education intervention on HIV/AIDS high risk groups.

Methods: Field visits were made in 2013 and 2014. Interactive health education sessions were held with the high risk groups (Female sex workers and intra venous drug users) to know their knowledge about HIV/AIDS and practice of using condoms during sex. Total of 100 high risk group persons (50 FSW and 50 IVDU) were included in the study.

Results: During visit undertaken in 2013, correct knowledge of HIV/AIDS transmission was found in 60.2% of FSW and 25.0% in IV drug users. 56.3% of FSW used condoms during sex with the partners. None of the subjects in both the category knew their HIV status as they did not undergo any test for HIV/AIDS. Correct health education was given to the high risk participants. In 2014, there was marked improvement in their knowledge regarding HIV/AIDS. Correct knowledge of HIV/AIDS transmission was found in 78.3% of FSW and 44.0% in IV drug users. 76.4% of FSW used condoms during sex with the partners.

Conclusions: HIV remains a social and life-threatening disease and needs socio-cultural, pragmatic and inclusive preventive services. Stigma against HIV/AIDS should be removed through counseling and Information, Education and Communication (IEC) activities.

BIOGRAPHY

M Athar Ansari after completing Doctor of Medicine course in Community Medicine in 1998, he joined the faculty in the Department of Community Medicine, JN Medical College in 1999. He has been awarded PhD in Community Medicine in 2016. He is teaching undergraduate and postgraduate medical students and also involved in the training of medical interns in rural health programmes. He is also involved in the research activities directed towards micronutrient deficiencies, HIV/AIDS, disaster management and environmental health issues. He has got 110 papers published. He has presented papers in eight international conferences at Singapore, Bangkok, Colombo, Dhaka, Madrid and Paris and 120 papers in national/state conferences. He is working with high-risk groups for HIV/AIDS. He is also helping children suffering from eye problems with support from Kids with Vision, USA. He is also working in the field of nuclear disarmament in the country under the banner of Indian Institute of Peace, Disarmament and Environmental Protection (IIPDEP), Nagpur, India and International Physicians for Prevention of Nuclear War (IPPNW), a Nobel Peace Prize Winner organization. He has been Coordinator/Principal Investigator/Co-investigator/Supervisor of various prestigious projects of different agencies like UNICEF, Bill & Melinda Gates Foundation, World Learning of USA, Nuclear Power Corporation of India Ltd. (NPCIL), Indian Council of Social Science Research (ICSSR), Indian Council of Medical Research (ICMR), New Delhi and Ministry of Health & Family Welfare, Govt. of India. He is a life member of various public health organizations. He has authored eight books on public health issues. He is a Co-patron of Medics, an umbrella organization of medical doctors and university students working for the poorest of the poor sections of the society in Aligarh and across India.

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Cho Min Naing et al., J Bacteriol Infec Dis 2019, Volume 3

EFFICACY OF ANTI-FILARIAL DRUGS IN REDUCTION OF MF PREVALENCE IN ANIMAL SPECIES: A SYSTEMATIC REVIEW

Cho Min Naing^{1,2}, Jonathan D King³ and Joon Wah Mak¹

¹International Medical University, Malaysia

²James Cook University, Australia

³World Health Organization, Geneva

Background: The Global Programme to Eliminate Lymphatic Filariasis (GPELF) was launched in 2000 with a goal of eliminating the disease by 2020. Albeit with concerted efforts, lymphatic filariasis remains a public health problem in some endemic countries. Besides, brugian infections in the human hosts, zoonotic filariae involving cats and dogs have been reported in endemic countries including Thailand and Malaysia.

Objective: To characterize the efficacy of anti-filarial drug interventions on animal population.

Methods: Researchers performed a systematic review following a PRISMA checklist.

Findings: Eight studies from India, Malaysia, Sri Lanka and Thailand reported Mf-positive rates on domestic cats and dogs. Of these, only three studies provided data on the efficacy of anti-filarial drugs in reducing Mf prevalence in animal species; these are from Malaysia (one study) and Thailand (two studies). There was no conclusive evidence on the reduction of prevalence when compared between pre and post treatments. For instance, a small study in Thailand showed a significant reduction in Mf prevalence, when compared between pre and post treatments. Whether this was a true effect is uncertain as there was a huge variation with very wide 95% CI (OR: 10.0, 95%; CI: 1.1-93.4). Another small study in Thailand showed no significant reduction in Mf prevalence after anti-filarial treatment (OR: 1.35, 95%; CI: 0.5-3.6). A study in Malaysia reported that cats were probably infected with subperiodic *B. malayi* from humans and their Mf positivity status was a reflection of the endemicity of the area.

Discussion & Conclusions: The findings could not provide conclusive evidence of mass drug administration (MDA) in reducing Mf prevalence in animal population. MDA is not yet practiced for all animal reservoirs, but may be a strategy for domestic reservoirs such as cats and dogs. The approach for MDA in domestic cats and dogs could be with various combinations of albendazole, ivermectin and doxycycline as cats react aggressively to diethylcarbamazine (thus triggering possible community resistance to programme). Barriers in implementation of drugs to the domestic animals (e.g. cats) may be an issue of community's acceptance/decline. For programme success, inter-sectoral collaboration and community mobilizations in control of animal (domestic) reservoir though MDA approach is crucially important.

BIOGRAPHY

Cho Min Naing obtained her MBBS and MMedSc in Preventive and Tropical Medicine from the University of Medicine, Myanmar. Then she continued her studies and obtained MSc in Health economics from Chulalongkorn University, Thailand and PhD from University of Queensland, Australia. She was awarded with Fellowship of Royal College of Physician in 2008. By training and by practice, she is a Medical Malariologist. Her main field of interest is in malaria case management.

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Adefisoye O Adewole et al., J Bacteriol Infec Dis 2019, Volume 3

RISK FACTORS ASSOCIATED WITH OUTBREAK OF METHANOL POISONING IN SOUTH-EASTERN DISTRICTS OF ONDO STATE NIGERIA– MAY 2015

Adefisoye O Adewole^{1,2}, E Adedire^{1,2}, O Fadahunsi^{1,2}, M Oguntayo¹, H Ojo¹, A Akinyode¹, M Anyanwu¹ and P Nguku¹

¹Nigeria Field Epidemiology and Laboratory Training Programme, Nigeria

²African Field Epidemiology Network, Abuja Nigeria

Introduction: On 13th of April three people from Irele LGA, Ondo State Nigeria were reported having symptoms of headache, blurred vision, respiratory difficulty and loss of consciousness. All died within 24-72 hours of onset of symptoms. The State Ministry of Health was alerted and researchers investigated the outbreak.

Methods: They conducted a community-based case control study. 19 cases and 57 controls were interviewed using a semi-structured interviewer administered questionnaire. Descriptive statistics and odds ratio were done. They also collected blood and urine samples from three cases as well as remnants of consumed gin for toxicology analysis.

Results: There were 39 suspected cases, 29 deaths and a case fatality rate of 74.4%. Mean age of cases and controls was 40.4±12.5 years and 31.9±11.3 years. Among risk factors studied, consumption of local gin [OR=17.2 (95% CI: 4.6-84.0)], other alcohol consumption [OR=24.2 (95% CI: 4.0-555.6)]. Levels of methanol toxicity in the three blood samples were 0.28g/L, 0.21g/L and 0.15g/L. Methanol was detected in the urine samples at a level of 0.018g/L. Methanol samples in the three samples of local gin were 125g/L, 65g/L and 9.6g/L.

Conclusion: Local gin contaminated with methanol was the major risk factor for the occurrence of the outbreak. It was recommended that enforcement of regulatory measures should be made to address the sale of illicitly produced alcoholic drinks to forestall future outbreaks. Sensitization of public report early to the facility if the signs and symptoms were noticed for prompt treatment to reduce the complications.

BIOGRAPHY

Adefisoye O. Adewole is a field coordinator at the African Field Epidemiology Network, Asokoro Abuja. He is a graduate of the Nigeria Field Epidemiology and Laboratory Training Programme and holds a Master's Degree in Public Health from the University of Ibadan. He coordinates the Malaria Frontline Project which is being implemented in two northwestern states (Kano and Zamfara). His interest is multidisciplinary in nature and this is due to his public health background. As an epidemiologist, he has supported research activities of under-graduate and post-graduates' students (Master's level) in the area of malaria, epidemiology and medical statistics, reproductive health, leadership and management.

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El Hadji Seydou Mbaye et al., J Bacteriol Infect Dis 2019, Volume 3

HUMAN PAPILLOMAVIRUS INFECTION IN GENITAL WOMEN IN FOUR REGIONS OF SENEGAL

El Hadji Seydou Mbaye^{1,2,3}, Tarik Gheit¹, Ahmadou Dem³, Sandrine McKay-Chopin¹, Ndeye Coumba Toure-Kane², Souleymane Mboup², Massimo Tommasino¹, Bakary S Sylla¹ and Cheikh Saad Bouh Boye²

¹International Agency for Research on Cancer, France

²Laboratory of Bacteriology and Virology of Aristide Le Dantec Hospital, Senegal

³Cancer Institute of Aristide Le Dantec Hospital, Senegal

Introduction: Cervical cancer is the most frequent cancer among women in Senegal. However, there are few data concerning the HPV types inducing neoplasia and cervical cancers and their prevalence, in the general population of Senegal

Aim: The aim of this study is to determine the prevalence of HPV infection in Senegalese women aged from 18 years and older.

Materials & Methods: A study was performed on 498 cervix samples collected from healthy women aged 18 and older in Dakar. 438 other samples were collected from three other regions, Thiès, Saint Louis and Louga. The samples were screened for 21 HPV genotypes using an HPV type-specific E7 PCR bead-based multiplex genotyping assay (TS-MPG) which is a laboratory-developed method for the detection of HPV.

Results: The prevalence for pHR/HR-HPV in the region of Dakar was 20.68%. HPV 52 (3.21%) was the most prevalent HPV type, followed by HPV 16 (3.01%) and HPV 31 (3.01%). In the regions of Thiès, Louga and Saint Louis, the prevalence for pHR/HR-HPV was 29.19%, 23.15% and 20%, respectively.

Conclusion: The study revealed the specificity of the HR-HPV prevalence in Dakar and other regions of Senegal. The patterns differs from the one observed in the other regions of the world and raise the issue of the development of vaccination program in the country. Such a program should take into account the real HPV prevalence for an effective protection of HPV-associated diseases.

BIOGRAPHY

El Hadji Seydou Mbaye, during 2008-2013 earned his PhD in Biology and Human Pathologies with the collaboration of the International Agency for Research on Cancer (IARC) /WHO, Lyon (France). He was certified by the Federation International of Gynecology Obstetrics (FIGO), the Accreditation Council of Oncology in Europe (ACOE, www.acoe.be), and the Institute Catalan of Oncology (ICO) for cervical cancer prevention (Grade 10/10) in support of Continuing Medical Education for physicians. These credits are also recognized as Physician's Recognition Award (AMA PRA Category 1 credits) by the American Medical Association. He was certified, by the United Nations for Basic Notion of Security on the Ground-Protection, Health and behavior, by the International Agency for Research on Cancer (IARC)/World Health Organization, Lyon (France) for Safety Certificate. He has published 1 Book with a style of philosophical story. Author of the world program against cancer in low and middle incomes countries, he is lead author (first listed) of more than 90 peer-reviewed research articles published in reputed journals. He has formed for free, more than 250 healthcare professionals for the techniques of cervical cancer screening in Senegal. He has appeared on local media, 25 TV, Mbour TV and Leeral.net.

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BACTERIOLOGY AND INFECTIOUS DISEASES

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Anna Mkhoyan, J Bacteriol Infec Dis 2019, Volume 3

THE SERUM LEVEL PRO-INFLAMMATORY (TNF-A) AND ANTI-INFLAMMATORY (IL10) UNIVERSAL CYTOKINES AMONG PATIENTS WITH BACTERIAL BLOODY DIARRHEA OF DIFFERENT ORIGIN

Anna Mkhoyan

Yerevan State Medical University, Armenia

Background: Acute infectious diarrhea is still leading cause of hospitalizations, outpatient visits and lost quality of life worldwide. Acute diarrheas are divided into two big groups: diarrhea with dehydration and bloody diarrheas. The possible causes of acute bloody diarrhea are broad, though infectious considerations are paramount and should be prioritized always in the evaluation of patients with blood in stool. Acute bacterial bloody diarrhea are also important for their future effects in the pathologies of different organ systems such as chronic renal failure, rheumatic syndrome, rheumatoid arthritis, hemolytic-uremic syndrome, chronic inflammatory bowel disease, Grave's and Grien-Barésyndrome disease etc.

Method: The prospective study investigated the pattern of pro-inflammatory and anti-inflammatory cytokine responses in patients with acute bacterial bloody diarrhea of different origin. The study population was 88 adult patients admitted to "Nork" infectious clinical hospital with acute bloody diarrhea from the period of October 2014 to July 2018. Exclusion criteria were under 18 age, cases of bloody diarrhea with unknown origin and cases with concomitant diseases. Serum levels of cytokines have been checked by Elisa method (Vector Best). The study was confirmed by Ethics committee of Yerevan State Medical University after Mkhitar Heratsi.

Results: Results showed a statistically significant increase of serum level IL-10 in the 3-4 days of the disease compared to the first day, which coincided with the decrease in the number of granulocytes at the same days. In the group of patients with campylobacteriosis the lowest level of TNF- α and IL-10 were observed and the difference with shigellosis was statistically significant ($p < 0,05$).

BIOGRAPHY

Anna Mkhoyan has completed her PhD at the age of 31 years from Yerevan State Medical University after Mkhitar Heratsi. She is Assistant Professor in the same university since 2013. She also graduated at American University of Armenia, Master of Public Health. She had 18 publications in Armenian and international journals.

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