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Joint Event on 2<sup>nd</sup> World Congress on  
**Infectious Diseases**

**&**

International Conference on

**Pediatric Care & Pediatric Infectious Diseases**

August 24-26, 2016 Philadelphia, USA

## Posters



*Infectious Diseases 2016*

**Recurrent cardiac tamponade secondary to coxsackie B type 4**Moamen AL Zoubi<sup>1</sup>, Sujata Situla<sup>2</sup> and Carmen Jan Liao<sup>3</sup><sup>1,2,3</sup>Advocate Illinois Masonic Medical Center, USA

Cardiac tamponade is a life threatening condition often requiring urgent or emergent pericardiocentesis and close monitoring in the ICU. We report a 51 year-old spanish speaking female with a history of hypothyroidism who presented with facial swelling, SOB and orthopnea for 3 weeks. She denies joint pain, rash, fever, chills, weight loss. She had travelled to Mexico 6 years ago but did not remember exposure to TB patients. She had not received BCG vaccine as a child. In the ER her vitals were stable. Labs were remarkable for Alk phos 230, AST 63 and ALT 102. Otherwise, unremarkable including normal thyroid function test. ANA comprehensive panel and HIV test were negative. The ECG showed sinus rhythm and low QRS amplitude. Chest X-ray demonstrated bilateral pleural effusion. Echocardiogram showed large pericardial effusion with features consistent with tamponade physiology. Urgent pericardiocentesis was done with 450 ml fluid withdrawn. Thoracentesis was done as well and samples were sent for analysis. The fluids was an exudate. AFB smears and fungal culture came back negative. Repeated Echo showed complete resolution of pericardial effusion. Patient was discharged on colchicine 0.6 mg by mouth twice a day x2 weeks. Two weeks later the patient presented again with dyspnea and found to have cardiac tamponade after performing Echocardiography. Patient was taken to the operating room and a pericardial window was performed. TB quantiferon test found to be positive from the previous admission and she was started empirically on anti-TB medication as recommended by infectious diseases service. The results of pericardial biopsy showed no evidence of TB or sarcoidosis. No granulomas or malignant cells were seen. AFB smear was negative in three consecutive samples and Anti-TB medication were discontinued. Viral serology sent and came back elevated as high as 320:1 for coxsackie B type 4. Repeated Echocardiogram showed no pericardial effusion and patient reported improvement of her symptoms. The patient was discharged on indomethacin 50 mg BID with a cardiology follow up in 2 weeks. To the best of our knowledge, this is the first reported case of cardiac tamponade secondary to group B coxsackieviruses. We encourage considering viral causes as a probable etiology for cardiac tamponade of unknown etiology.

**Biography**

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**Detection of Beijing genotype of MDR *M. tuberculosis* by targeting *Rv2820* gene and their association with drug resistance mutations in *katG*, *rpoB* and *embB*****Anamika Gupta**

Boston University School of Medicine, USA

Beijing genotype of *Mycobacterium tuberculosis* has attracted special attention due to its association with multi drug resistance and rapid transmission. The present study was undertaken to investigate the prevalence of Beijing genotype of *M. tuberculosis* and their association with drug resistance and clinical characteristics of TB patients. A total of 381 clinical isolates were cultured from more than 4000 TB patients' sputum samples from 2008 to 2014, of which the genetic profile was determined by using multiplex-PCR and Spoligotyping methods and the drug susceptibility testing to first-line anti-TB drugs was performed by using proportion method and MGIT960. Detection of mutations at *rpoB* codons (516, 526 and 531), *katG* codon 315 and *embB* codon 306 in Beijing and non-Beijing-strains were determined by MAS-PCR and DNA-sequencing. We also characterized a collection of *M. tuberculosis* isolates to see if Beijing strains had a higher rate of mutations in *katG*315, *rpoB*-RRDR region and *embB*306 gene. Multidrug-resistance was observed to be significantly associated with Beijing strains ( $p=0.03$ ) and a strong correlation between Beijing strains and specific resistance mutations in *katG*315, *rpoB*531 and *embB*306 gene segments was also found ( $p<0.0001$ ,  $<0.0001$  &  $0.0014$  respectively). These findings will help to understand the transmission and drug resistance related genetic characteristics of the Beijing/W genotype of *M. tuberculosis* and may provide a scientific basis for the development of new TB diagnostic tool for effective management and control of TB in countries with higher prevalence of Beijing strains.

**Biography**

Anamika Gupta has completed her PhD from Banaras Hindu University, India and Postdoctoral studies from National AIDS Research Institute, India. Currently, she is working with Boston University School of Medicine as a Visiting Researcher. She has published 13 papers in peer reviewed journals and 5 manuscripts are in process. She has also published 3 chapters in the books of international repute.

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### Pediatric gastrointestinal basidiobolomycosis

Mojdeh Habibi Zoham, A Eghbalkhah, M Lesanpezeski and Sh Shahinpour  
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Basidiobolomycosis is a rare fungal disease caused by *Basidiobolus ranarum* which is an environmental saprophyte. It is a chronic inflammatory disease that is generally restricted to the subcutaneous tissue and rarely involves gastrointestinal tract. With the intent to spread the awareness of this potentially life threatening and rare infection, we report a 4 years old boy presenting with abdominal pain and fever with eventual diagnosis of gastrointestinal basidiobolomycosis. We discuss the non-specific and confusing of symptoms of this rare infection and treatment options in detail.

#### Biography

Mojdeh Habibi Zoham has completed General Medicine from Tehran University of Medical Sciences in 2009. She continued her work with graduation in Pediatrics from Tehran University of Medical Sciences in 2012. After her graduation, she has started working as an Associate Professor of Tehran University of Medical Sciences. She has been working in Pediatric ICU ward of Bahrami Children Hospital for at least 3 years and has 6 published articles in reputed journals.

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#### Notes:



**Antibody response patterns against *Schistosoma haematobium* in some Sudanese individuals residents in an endemic area**

Hammad A, Musa H A, Elfadil A G, Osman M A, Bashir A, Fayed O M and Mustafa A

<sup>1</sup>National Ribat University, Sudan

<sup>2</sup>University of Becht Elruda, Sudan

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**Background:** Humans infected with schistosoma parasite demonstrate substantial immune responses against both adult worms and eggs. This response can be studied in different age group in both males and females in exposed and infected population. The study aimed to determine the humoral immune responses of Sudanese residents in an endemic area of *Schistosoma haematobium*.

**Methods:** Syringe filtration techniques were used to detect *Schistosoma haematobium* eggs. To rule out *Schistosoma mansoni* and other helminths infection, Kato Katz technique for the examination of stool was used. One hundred twenty eight individuals were included in the study. Twenty one subjects who were *Schistosoma haematobium* negative participated in the study as a control group. Different ELISA techniques were used to detect different anti-*Schistosoma haematobium* antibodies.

**Results:** The mean infection intensity was 61.92 eggs per 10 ml urine. Peak infections were found among the age group of 3-13 year. 53.1% had light infection and 46.9% had heavy infection. High levels of anti-soluble egg antigen (SEA) IgE was detected in infected individuals in the age group range (13-23 years) while low levels were observed in individual of >23 year of age. The highest anti- (SEA) IgA level was detected in old patients. The highest anti-SEA IgM levels were found in children aged 3-13 year. Females produced high levels of anti-SEA IgE, IgM and IgG, while males produced high levels of IgA.

**Conclusion:** These results showed high production of IgE which may protect the host until development of other immune responses and may also protect the host from re-infection.

**Biography**

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**Detection and quantification of pro-inflammatory cytokine in sera and urine of Sudanese patients infected with *Schistosoma haematobium***

Musa H A, Hammad A, Elfadil A G, Osman M A, El Safy H S, Fayed O M, Bashir A, Mustafa A and Alfarazdeg A

<sup>1</sup>National Ribat University, Sudan<sup>2</sup>University of Becht Elruda, Sudan<sup>3</sup>University of Khartoum, Sudan

**Background:** Schistosome-specific acquired immunity capable of reducing levels of infection or re-infection develops slowly. The nature of these protective immune responses suggesting that anti-helminths immune responses fall into a Th1 (pro-inflammatory) and Th2 (anti-inflammatory).

**Objective:** The aim of this study was the detection and quantification of pro-inflammatory cytokines in both sera and urine of patients with urinary schistosomiasis.

**Methodology:** One hundred and thirty sera and urine were collected from patients with urinary schistosomiasis in two villages south Elduiem (Sudan). The disease was confirmed by finding *Schistosoma haematobium* eggs in urine using syringe filtration techniques. To rule out *Schistosoma mansoni* and other helminths infection Kato Katz technique for stool examination was used. Sera and urine of seventy subjects who were *Schistosoma haematobium* negative included in the study as controls. Samples were examined for IFN $\gamma$  and IL-2, cytokines level using ELISA techniques.

**Results:** The prevalence of *Schistosoma haematobium* infection in the study population showed that the peak of infection was in childhood (3-13 years) followed by a sharp decline in infection intensity. Males infected more than females 62% and 38% respectively. Measurements of parasite specific cytokine responses showed high levels of both cytokine productions before treatment then after treatment. There are significant differences in cytokine production in infected groups and control one. Females produce high levels of IFN $\gamma$  and IL-2 than males. Aged people produce high levels of both cytokine than young people. There are a positive association between the production of cytokine and intensity of the infection.

**Conclusion:** The conclusion drawn from the study is that pro-inflammatory cytokines were produced in large amount before treatment with significant difference between males and females.

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**A systematic review of studies investigating the effect of honey and citrus on *Streptococcus pyogenes***

Nurul Azmawati Mohamed, Nur Syahirah Mohamad, Zarini Ismail and Siva Gowri Patmanathan  
Universiti Sains Islam Malaysia, Malaysia

**Background:** Taking honey with citrus juice (lemon/lime/calamansi) to soothe sore throat has been practiced in many parts of the world for decades. Various combinations of honey with different types of citrus juice (lime, lemon and calamansi to name a few) have been traditionally used by the Egyptians, Assyrians, Greeks, Romans, Chinese, Indians and Malays for the treatment of sore throat. The amount of honey and citrus juice used also varies from different cultures and places.

**Objective:** To systematically review the antibacterial effect of honey and citrus juice on *Streptococcus pyogenes*.

**Methodology:** Using the keywords honey, manuka, tualang, citrus, lime and *Streptococcus pyogenes*, we systematically searched EBSCOhost, Ovid, Scopus and WEB OF SCIENCE databases for reports of studies investigating the antibacterial effect of honey and citrus juice on *Streptococcus pyogenes*.

**Results:** A total of 415 abstracts were initially identified. 26 abstracts were finally chosen and reviewed by looking at the title, abstracts and full paper using pre-determined inclusion and exclusion criteria in relation to honey (n=22) and citrus (n=4). None of the articles studied the effect of both honey and citrus juice on the organism. Majority of the studies showed that both honey and citrus have significant antimicrobial effect on *Streptococcus pyogenes*.

**Conclusions:** There is no available data on the combined effect of honey and citrus on *Streptococcus pyogenes*. This knowledge gap offers an opportunity to investigate those effects with the purpose to support traditional practice with scientific evidences.

**Biography**

Nurul Azmawati Mohamed has completed her Bachelor of Medicine and Surgery in 2002 from University of Sheffield, United Kingdom and Masters of Pathology (Medical Microbiology) in 2012 from National University of Malaysia. She is a Clinical Microbiologist and Senior Medical Lecturer at Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia. Her interest is in bacteriology, particularly on antibiotic resistant organisms. She has published 10 articles in journals and presented in conferences locally and internationally.

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**Notes:**

***In vitro* anti-amoebic potential of medium chain triglycerides compounds**

Nurul Azira Binti Mohd Shah<sup>1</sup>, Wan Nor Amilah Wan Abdul Wahab<sup>2</sup>, Siti Farah Alwani Mohd Nawati<sup>1</sup>, Baha Latif<sup>1</sup>, Zaini Mohd Zain<sup>1</sup>, Rosliza Suhaimi<sup>1</sup> and Nazli Zainuddin<sup>1</sup>

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<sup>2</sup>Universiti Sains Malaysia, Malaysia

**Background:** Amoebiasis is a parasitic disease caused by *Entamoeba histolytica* that causes death in developing country. The gold standard treatment for amoebiasis is metronidazole. However, the emergence of resistant against metronidazole has been increasingly reported. Thus, it is important to search for other alternative control measure which is safe and effective. Medium chain triglyceride (MCT), an active compound in natural products is widely available as a nutrient supplement and has been shown to have anti-protozoal properties.

**Objective:** Therefore the objective of this study is to investigate the potential effect of medium chain triglycerides (MCT) against amoebic infections.

**Methods:** The trophozoites of *Entamoeba histolytica* HM1: IMSS strain were axenically cultivated in TYI-S-33 medium in culture flasks and incubated anaerobically by using Anaerocult A (Merck). The anti-amoebic effect was determined by measuring the minimum inhibitory concentration (MIC) of *E. histolytica* against MCT active compounds which include lauric acid, capric acid, caprylic acid and caproic acid were based on scoring of trophozoites growth using the standard method.

**Results:** Lauric acid and capric acid exhibited anti-amoebic effect with minimum inhibitory concentration (MIC) of 400 µg per ml and 800 µg per ml respectively.

**Conclusion:** In conclusion, MCTs was active against *E. histolytica in vitro* and should be considered as a probable anti-amoebic compound in amoebiasis.

**Biography**

Nurul Azira Binti Mohd Shah has completed her degree in Bachelor of Medicine and Bachelor of Surgery (MBBS) from University of Malaya, Malaysia. She was also awarded Master of Pathology (MPath) in Clinical Microbiology from Universiti Sains Malaysia. She is a Clinical Microbiologist and Medical Lecturer in Universiti Teknologi MARA, Malaysia.

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**Meningitis, intracranial abscess and suppurative thrombophlebitis of the lateral and/or cavernous sinuses are dreadful complications of chronic infectious/inflammatory conditions of the middle ear: A rare case of meningitis caused by recurrent cholesteatoma**

Veeraraghavan Meyyur Aravamudan

National University Hospital, Singapore

A 46 year old Malay male with past surgical history of mastoidectomy in 2007 for cholesteatoma was admitted with sudden onset of headache, altered level of consciousness and lethargy for 1 day. Associated symptoms included multiple episodes of non-projectile vomiting and photophobia. He denied blurring of vision, otalgia and otorrhea. Physical examination revealed a lethargic looking male patient with a GCS of 3. His temperature was 38.5°C. Neck rigidity was present on movement in all directions. Cranial nerve and fundoscopic examination was unremarkable. He had skew deviation of eyes to right. Rest of the neurological examination did not reveal any motor deficits. He was started on empirical intravenous ceftriaxone, vancomycin, acyclovir and ampicillin for clinically suspected meningitis while awaiting lumbar puncture results. Computerized tomography (CT) of brain was normal. Cerebrospinal fluid (CSF) obtained from lumbar puncture showed cell count of 900 units per mm<sup>3</sup> with 80% lymphocytes and 20% neutrophils, protein of 0.92 gram per liter and glucose was 1.7 mmol per liter. Gram stain did not reveal any organism and cultures were negative. Polymerase chain reaction (PCR) for neurotropic viruses i.e., HSV, measles, mumps and enterovirus were negative. Cerebrospinal fluid acid fast bacillus (AFB) smear was negative. Computerized tomography (CT) temporal bone with contrast showed right middle ear and mastoid cholesteatoma with surrounding infected granulation tissue which extended into the inner ear and intracranially. He was subsequently referred to ENT and underwent right modified radical mastoidectomy. He made a good clinical recovery. Cholesteatoma is a destructive and expanding growth consisting of keratinizing squamous epithelium in the middle ear and/or mastoid process. Because of their erosive and expansile properties they can destroy the ossicles and can potentially spread into the base of the skull into the brain causing meningitis. Even though the incidence of cholesteatoma causing meningitis is rare, these are still potential life threatening complications. Cholesteatoma is still considered a surgical disease requiring either the complete removal of its squamous lined matrix or its exteriorization for continued aural toilet and ventilation. In the pre-antibiotic era, the mortality rate from intracranial complications following the otologic diseases was approximately 75%. In the post-antibiotic era, mortality was around 34%. Meningitis is the most common intracranial complication. There are three dissemination passages for the occurrence of otogenic meningitis which are hematogenous, congenital dehiscence (such as Hyrtl's fissures) or preformed (osseous erosion). Every patient with suspicion of complication needs to be followed up by several medical specialties and must be submitted to full physical exam and computerized tomography with contrast. The treatment must be aggressive with early initiation of intravenous antibiotic and early drainage of the infectious focus in order to reduce the morbidity and mortality rate. Early recognition and computerized tomography of temporal bone were important in diagnosis of meningitis secondary to cholesteatoma and prompt referral to ENT surgeon for early surgery should be considered to avoid long-term complications.

**Biography**

Veeraraghavan Meyyur Aravamudan is senior resident in advanced internal medicine at National University Hospital, Singapore

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**Evaluating the prevalence of drug resistance in intermittent preventive treatment for malaria during pregnancy****Onyinye Jane Onyemaechi**

First Moscow State Medical University, Russian Federation

**Background & Objective:** Due to the poor patient compliance with prophylaxis and increasing resistance of parasite strains to chloroquine, administration of intermittent preventive treatment in pregnancy (IPTp) with sulfadoxine/pyrimethamine is now recommended for all pregnant women living in areas with stable malaria transmission. However, resistance to sulfadoxine/pyrimethamine is on the increase which risks the drug being compromised. Thus, an urgent need exists to assess alternative drug regimens for IPTp.

**Design & Method:** Numerous molecular epidemiologic studies showed that resistance to pyrimethamine is associated with the acquisition of mutations in *Plasmodium* spp. dihydrofolatereductase (dhfr) genes while resistance to sulfadoxine is associated with 3 mutations in dihydropteroate synthase (dhps gene). Each mutation leads to a decrease in sensitivity to pyrimethamine (dhfr gene) and sulfadoxine (dhps gene).

**Results:** On a systematic review, results indicated that 2 doses of IPTp with sulfadoxine/pyrimethamine retained activity to reduce placental malaria and low birth weight amongst pregnant that visited the clinic. About >60% of the pregnant women that visited the clinic benefited with 2 doses of IPTp in the proportional reduction of peripheral parasitaemia at delivery compared with that at enrolment while the rate of resistance was at <39% and the proportion of placental infection was reduced by 75% compared with the efficacy of chloroquine prophylaxis administered the previous year.

**Conclusion:** An alternative approach involves systematic detection of placental infection at delivery by using blood smear, rapid diagnostic test or PCR with placental blood. Conversely, placental infection prevalence may change with time because of changes in sulfadoxine/pyrimethamine efficacy (likely to decrease) and quality of IPTp implementation (likely to increase). Such an approach would also provide baseline data to assess efficacy of all preventive measures against pregnancy-associated malaria, including IPTp and use of insecticide-impregnated bed nets and will enable assessment of these effects in a specific population.

**Biography**

Onyinye Jane Onyemaechi is a 5th year medical student at First Moscow State Medical University I.M Sechenov, Russia. She is a member of Build Africa Capacity and also she is the president of Association of Nigerian Scholarship students in Russia. In 2011, she was awarded scholarship for her astounding academic excellence to study medicine in Russia. Her interest in tropical medicine grew with her increasing desire to help eradicate malaria. She has been a part of research programs, one of which resulted in the abstract "Evaluating the prevalence of drug resistance in intermittent preventive treatment for malaria during pregnancy". She understands how to successfully fight for malaria eradication and collective efforts are vital and hopes made people to get inspired to make contributions towards achieving malaria eradication.

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University of Puerto Rico, USA

Zika virus (ZV) is a mosquito-borne *Flavivirus* primarily transmitted by *Aedes aegypti* mosquitoes found in tropical regions. ZV infection may occur by vertical transmission to the fetus or by intrapartum transmission from a viremic mother to the newborn, and may have severe implications to the newborn health including microcephaly. The World Health Organization and the Centers for Disease Control and Prevention (CDC) activated their respective emergency operations centers to better coordinate response to the ZV outbreak. The Neonatology Section, University of Puerto Rico provides services in a Level 3 Neonatal Intensive Care Unit. A protocol was design based on the CDC and the Puerto Rico Health Department guidelines. The specific aim is to identify, evaluate and treat appropriately all fetus/newborns with possible intrauterine ZV exposure. The protocol included a quality improvement strategy with process mapping for all deliveries with documented prenatal ZV exposure. All interventions will follow the standard evaluations and procedures based on the infant's needs as recommended by the American Academy of Pediatrics and the CDC recommendations. Review of the process map with local managers and frontline health professionals revealed multiple areas which require improvement, such as including new questions of events occurring during prenatal period and accessibility to prenatal laboratory and fetal ultrasounds for appropriate identification of cases and avoid adding steps that do not add value to the process, will dramatically increase the cost of interventions in a time of decreased funding and may interfere with the standard newborn care and the promotion of breastfeeding practices.

**Biography**

Leticia Gely has completed her MD from University of Puerto Rico, School of Medicine. She has completed Pediatric Residency at the University of Puerto Rico in the year 2013 and is a Board Certified Pediatrician. She is currently a 2nd year Fellow in the Neonatal-Perinatal Medicine Program at the University of Puerto Rico. She is a Member of National Academic Associations.

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## e-Posters



*Infectious Diseases 2016*

**An unusual cause of abdominal pain in a post-menopausal woman with advanced cancer**Gabriela Sanchez Petitto<sup>1</sup>, Rosbel M Brito<sup>2</sup> and Gabriel M Aisenberg<sup>1</sup><sup>1</sup>University of Texas Health Science Center at Houston, USA<sup>2</sup>Houston Methodist Hospital, USA

A 67-year-old post-menopausal woman with advanced stage histiocytic sarcoma of the pelvis, presented with 4-day history of abdominal pain and fever. She had local tumor invasion to bladder and cervix requiring bilateral percutaneous nephrostomy tubes. She received chemotherapy and radiotherapy with partial tumor regression. On examination she had an enlarged suprapubic mass and foul-smelling vaginal discharge. A computed tomography (CT) scan demonstrated a large cervical mass occluding the cervical os, causing dilatation of the endometrial cavity, doubling its size compared to one month prior. The patient was started in broad spectrum antibiotics and a cervical catheterization was intended unsuccessfully. A CT guided percutaneous uterine drain was placed in her abdomen and purulent drainage grew *Prevotella loescheii*. Blood and urine cultures were negative. She was discharged under oral sulfamethoxazole/trimethoprim and metronidazole with clinical improvement. In the subsequent months she underwent chemotherapy and radiotherapy and required long-term percutaneous drainage. Pyometra is defined as the accumulation of pus in the uterine cavity and thought to be a result of interference with the natural drainage of the uterus. Symptoms are non-specific and easily misdiagnosed. Diagnosis can be made clinically by drainage of pus from the uterine cavity and with imaging. Treatment includes drainage along with antibiotics to cover microorganisms such as *Lactobacillus iners*, *Prevotella* spp., and *Lactobacillus crispatus*. Vague abdominal symptoms in a post-menopausal woman with pelvic malignancy should raise concern for pyometra and prompt treatment has to be instituted to prevent the development of the most catastrophic complication; uterine perforation.

**Biography**

Gabriela Sanchez Petitto has completed her MD from the Universidad Central de Venezuela, School of Medicine. She is currently a Postgraduate student of Internal Medicine at the University of Texas Health Science Center at Houston. She has worked in several projects with hematological malignancies and in the upcoming future with antibiotic resistance projects.

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**Significance of polymerase chain reaction (PCR) analysis of vitreous humor in an immunocompromised patient with necrotizing retinochoroiditis**

**Gabriela Sanchez Petitto, Astrid Serauto, Min Ji Kwak and Gabriel Aisenberg**  
University of Texas Health Science Center at Houston, USA

A 36-year-old woman with newly diagnosed nephrotic syndrome presented with a 10-day history of progressive vision loss. On ophthalmological exam, visual acuity was 20/800 in both eyes. The left eye showed grade 4 disc edema and both retina had vitreous and intraretinal hemorrhages. HIV serology was positive, CD4 count of 17/ul and viral load of 375000 copies/ml, newly diagnosed. CT head was normal. Cerebrospinal fluid analysis is unremarkable. Serum and CSF immunoglobulins against *Toxoplasma* spp., PCR for herpes simplex virus 1 and 2, varicella-zoster (VZV) and *Cytomegalovirus* (CMV) were negative. Empirical ganciclovir, trimethoprim-sulfamethoxazole and prednisolone were started. Vitreal fluid extracted by paracentesis was positive for toxoplasma antigen and negative for CMV and VZV in both eyes. The diagnosis of toxoplasma retinochoroiditis was confirmed. The patient continued a 6-week course of antibiotics with clinical improvement at 4 weeks. In immunocompromised patients is difficult to establish a diagnosis of ocular toxoplasmosis based upon the lesions' appearance, since atypical lesions are common and obtaining reliable results for immunodiagnostic assays is more difficult. The best clue to diagnosis is recognition of the clinical presentation and the detection of the agent in ocular samples by molecular biology. Confirmation of diagnosis is higher for PCR of vitreous samples compared to aqueous humor; this due to the fact that, anatomically the vitreous humor is closest to the necrotic lesions, leading to a better sampling of the parasitic DNA. In summary, a positive PCR study for *T. gondii* became a dependable alternative to diagnose retinochoroiditis in an immunocompromised patient.

**Biography**

Gabriela Sanchez Petitto has completed her MD from the Universidad Central de Venezuela, School of Medicine. She is currently a Postgraduate student of Internal Medicine at the University of Texas Health Science Center at Houston. She has worked in several projects with hematological malignancies and in the upcoming future with antibiotic resistance projects.

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Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Diagnosis of intestinal tuberculosis by tissue Xpert MTB/Rif in an HIV-1 patient: Report of a unique case****Jose Gonzales Zamora<sup>1</sup>, Jorge Alave<sup>2</sup> and Alberto La Rosa<sup>2</sup>**<sup>1</sup>Augusta University, USA<sup>2</sup>Asociación Civil Impacta Salud y Educación, Peru

**Introduction:** HIV has changed the epidemiology of tuberculosis and is now considered the main risk factor for extra-pulmonary involvement. In recent years, molecular techniques have emerged as promising diagnostic tools. Only Xpert MTB/Rif assay has been advocated by the WHO for diagnosis of extra-pulmonary TB. Scarce data is available on its utility in gastrointestinal tuberculosis. We report a case of an HIV patient with intestinal tuberculosis diagnosed by XpertMTB/Rif.

**Description:** A 31 year-old HIV patient presented with diarrhea, fever, diffuse abdominal pain and weight loss for the last month. Bilateral crackles and right lower quadrant pain were found on physical exam. His CD4 count was 172 cells per ml and his HIV-1 viral load was 2026 copies/ml. Bilateral alveolar infiltrates were seen on the chest X-ray. Ultrasound showed enlarged peritoneal lymph nodes and thickening of the ileocecal region. Smear and Xpert MTB/Rif from sputum were negative. Patient underwent a colonoscopy which showed irregular congested ulcers in ileum, sigmoid and rectum. Xpert MTB/Rif from biopsy was positive for TB. Standard 4 drug therapy was started and patient improved significantly.

**Discussion:** The majority of experience with Xpert MTB/Rif has been on sputum samples, but it has also been used in a variety of fluid and tissue samples. It has a sensitivity of 89% and specificity of 74% for the diagnosis of extra-pulmonary tuberculosis. To our knowledge, there are no reports on the use of Xpert MTB/Rif in intestinal biopsies. Our case is a precedent for the use of this assay in the future.

**Biography**

Jose Gonzales Zamora has obtained his MD degree at Universidad Nacional Federico Villarreal in Lima, Peru. He has completed his Internal Medicine Residency at John H. Stroger Hospital and Infectious Disease Fellowship at Rush University Medical Center in Chicago, Illinois, USA. He is currently an Assistant Professor of the Infectious Disease Division at Augusta University in Augusta, Georgia, USA.

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**Outreach modalities and their efficacy on encouraging individuals to seek HIV prevention and testing information**

**Tania M Kohal**

Oakland University William Beaumont School of Medicine, USA

**Introduction:** Advances in pharmacological therapy have changed the narrative of individuals diagnosed with HIV, prolonging quality and length of life, however, prevention remains key in preventing transmission. Our project aims to assess how individuals obtain HIV information and testing services in the hope to better inform how resources for prevention can be effectively allocated.

**Methods:** Our study involved designing a flyer to be placed in two clinics, Affirmations and American Indian Health Family Services (AIFHS) in a general information area and a testing area. The flyers contained different web addresses directing individuals to the same web module. This web module contained information about HIV and a survey querying prior testing, risk assessment and demographic factors. A link was provided from the web module to a website where testing resources were available. We designed a method of tracking web traffic to ascertain the initiative individuals were taking in seeking further information. A focus group was done to evaluate how individuals obtain HIV information for which a qualitative analysis was done.

**Results:** Individuals do not readily engage in paper-media based information sources and are more likely to seek out web-based information on their own or respond to directed intervention by peers, physicians, etc.

**Conclusion:** Our study indicates that resources may be better directed towards web-based information sources and that a directed approach involving healthcare providers, peers, etc. is most effective in encouraging prevention-seeking behaviors.

**Biography**

Tania M Kohal was graduated from the University of California Berkeley with Bachelor's degrees in Molecular and Cellular Biology and Latin.

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**Notes:**



**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Necrotizing pneumonia****Luis Del Carpio Orantes**

Mexican Social Security Institute, Mexico

**Case Report:** Male patient 36 years old with no history of importance except filing burn in your hands by electricity, admitted with symptoms 20 days of evolution characterized by fever, cough and yellowish expectoration, being treated with common antimicrobials previously, developed persistent fever so as right pleuritic pain, so entered, diagnosis protocol which only evinced leukocytosis of 13500/mm<sup>3</sup> without respiratory, kidney or liver involvement starts. Smears are performed in series of 3 being negative, a first scan, which reports pneumonic process 70% with diffuse cavitory lesions in addition to air bronchograms (March 14), started treatment with imipenem and vancomycin is performed. The report cultivation expectoration was *Staphylococcus epidermidis* coagulase negative resistant to vancomycin handling adjusted with linezolid, a second tomography was performed which demonstrated increased cavitory, extended zones into the pleural cavity with multiple septums and fluid levels, so as destruction of lung parenchyma in middle and lower lobe of the right lung (March 20); by poor evolution of painting it was decided to send chest surgery but was managed conservatively, died after 5 days in the service management.

**Conclusion:** This case has clinical significance, since it illustrates the severity of necrotizing pneumonia, also aggressiveness with coagulase-negative germs, referred to as nosocomial pathogens emergency epidemiological displayed. The importance of pulmonary tomography for the diagnosis and therapeutic decisions also emphasized that in this case was fully indicated the surgical management, primordial mainstay of treatment of necrotizing pneumonia, combined with the antimicrobial medical treatment.

**Biography**

Luis Del Carpio Orantes is a Medical Specialist in Internal Medicine and also an Internist in Mexican Social Security Institute. He is assigned to ICU Internist, D'Maria Hospital and he is also an Expert Columnist for the Iberoamerican Society of Scientific Information with the theme of emerging viruses. He has published articles related to intensive care (negative pressure pulmonary edema and disseminated intravascular coagulation in the ICU) and epidemiology, regarding dengue, zika, chikungunya and influenza which can be referred in PubMed and other index. He is an Independent Researcher, projects a research on the treatment of dengue.

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**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Gender dynamics and socio-cultural determinants of MERS-CoV in Saudi Arabia****Muhanad Ali**

University of Toronto Scarborough, Canada

**M**iddle East Respiratory Syndrome (MERS) is a severe viral respiratory illness that is caused by a new strain from the beta group of coronavirus (CoV). At both the global and national level within Saudi Arabia, men are at a greater risk of contracting the virus (68%) in comparison to women, which fosters an interesting question: What accounts for these gender based differences in the MERS infection rates between men and women? This study seeks to challenge the assumption that biological differences in vulnerability (genetic disposition) are the primary drivers for the disparate male infection rates and shift towards a framework of analysis that embraces the unique dynamics of gender roles. To demonstrate this analytical framework, this paper will consider several gender based risk factors such as gender segregation, religious and cultural practices and social roles pertaining to livestock management within Saudi Arabia. The literature review examined for this study found that gender based risk factors (gender segregation, religious and cultural practice and social roles pertaining livestock management) may lead to varying rates of exposure to MERS-CoV. Moreover, it illustrated a gap in our current knowledge and understanding of how gender dynamics affect infectious diseases, especially concerning the issue of containment of and protection from MERS.

**Biography**

Muhanad Ali is currently pursuing his Bachelor of Science in Health Science, Critical Development Studies and Anthropology from the University of Toronto Scarborough Campus. His focus is on how factors such as colonialism, globalization and socio-cultural or even socio-ecological factors play into the origin, maintenance and emergence of old and new infectious diseases. He is currently the Co-Director for the University of Toronto International Health Program (UTIHP-UTSC) and serves as YHAN (Youth Health Action Network) Member for the City of Toronto Public Health in Toronto, Canada.

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**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Increase of gram negative multi resistance in cases of HAI in a PICU of reference****Andre Ricardo Araujo Da Silva**  
Federal Fluminense University, Brazil

**M**ultidrug-resistance is a global concern. This is a major problem within intensive care units (ICU), where usually doctors have few options to treat healthcare associated infections (HAI). The aim of our work is to describe profile of Gram-negative resistance in cases of HAI occurred in a Pediatric Intensive Care Unit (PICU) of reference. We did a prospective study of all HAI reported in PICU of Prontobaby-Children's Hospital, with focus in infections due to Gram-negative bacteria. We used National Healthcare Safety Network (NHSN) criteria to define HAI. Gram-negative resistance was defined according Magiorakis criteria. In seven-years of follow-up (from January 2009 to December 2015), we reported 224 HAI. 65 cases were due to Gram-negative and global rates of resistance reported were 47.7%. HAI rates ranges from 9.4 to 15.1 per 1000 patient-days in PICU, during the study. In five of seven years, Gram-negative resistance was higher than 50%. During this period only two HAI due to Enterobacteriaceae resistant to carbapenem were reported (0.9% of all HAI). The main agents founded are Enterobacteriaceae ESBL producers and *P. aeruginosa* resistant to carbapenem. In our casuistic, we found higher rates of Gram-negative bacterial resistance in cases of HAI. To avoid this problem, it is necessary to develop strategies to reduce incidence of HAI, even in critical ill children. Also, new treatment options are urgently needed.

**Biography**

Andre Ricardo Araujo Da Silva has completed his PhD from FIOCRUZ-National Institute of Infectology, Brazil. He is an Associate Professor of Neonatology at Federal Fluminense University, Brazil, Coordinator of Scientific Program of Medicine Course and also leads the Laboratory of Teaching of Prevention and Control of Healthcare associated infections. He has published more than 15 papers in reputed journals and is a Member of International Federation of Infection Control.

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August 24-26, 2016 Philadelphia, USA

***Candida* score in intensive care unit**Luis Del Carpio Orantes  
Hospital D' Maria, Mexico

**Objective:** Casuistry of invasive candidiasis is reviewed on an intensive care unit, applying the candida score to assess their potential predictor of HIV infection.

**Design:** Retrospective, observational and descriptive study.

**Methods:** The *Candida* score is applied retrospectively all identified cases of invasive candidiasis to evaluate its effect predictor of the disease; also the most common strains and their risk factors identified in this population are identified.

**Results:** The casuistry of the intensive care unit were reviewed, which had 102 patients in the period 1 January to 31 December 2014, of which *Candida* infection in 14 patients (13.7%) was reported. Being the most affected female gender with 10 patients (71.4%), also the most affected age group was 81-90 years, followed by 71-80 years. The stay in the ICU, at the beginning of candidiasis averaged 8 days. Infection of an anatomical site was identified in 9 patients and in 5 patients in two anatomical sites with predominant involvement in the lungs (10 isolates), the urinary tract 2<sup>nd</sup> highest incidence (7 cases), it is noteworthy that no cases of candidemia and there was only one isolate in a central catheter, which was classified as catheter colonization; other cases invasive pulmonary candidiasis and urinary level (the latter probably bladder colonization, favored by use of urinary catheters) were considered. The most frequent isolates were *Candida albicans* (10 patients) followed by *C. krusei* (4 patients), *C. tropicalis* and *Candida* sp., in 3 patients, respectively. The score *Candida* was positive in 7 patients (50% score >2.5) but did not correlate with mortality as these patients, only 3 of them were fatal, *C. albicans* being the most deadly. In this casuistry 8 patients had a good outcome. The presence of a central venous catheter (14 patients), the long stay in the unit (12 patients) and the use of broad spectrum antimicrobials as prior (10 patients) were identified as predisposing factors. Risk factors being the bearer of chronic lung disease, sepsis and cardiovascular disease in 8 patients respectively were identified. Candidiasis appeared after a common course of broad spectrum antimicrobials (3rd generation cephalosporins basically) in 10 patients and only 4 had begun with an antimicrobial greater spectrum (carbapenem, glycopeptide or fluoroquinolone); once identified candidiasis, management began with triazolido (fluconazole in 9 cases and voriconazole in 1 case), meriting a second antifungal adjustment scheme with an echinocandin or voriconazole in 4 cases by persistent candidiasis. Of the 6 deaths, 4 had started operation with fluconazole and despite having given a second scheme with an echinocandin or voriconazole, the prognosis is not improved.

**Conclusion:** We conclude that the *Candida* score is a predictive indicator and signals to patients who are at risk for infection with *Candida* (score >2.5), but does not predict the mortality rate of each case. Risk factors and predisposing factors are similar to those reported in other series, only highlighting in this series, the presence of chronic lung disease, as correlational would explain the higher incidence of lung isolation level and in elderly patients. Also regarding the treatment employed, it is recommended that a positive *Candida* score, antifungal management spectrum starts, primarily an echinocandin or voriconazole, to try to improve the survival rate of these patients, who are often elderly patients, anergic, diseases chronic degenerative and high rate of morbidity and mortality and can be considered as neutropenic patients. In this series, chronic lung disease served as a major risk factor, which has not been previously reported, since in the literature to *Aspergillus* is mentioned as the leading pioneer in these patients which was not confirmed.

**Biography**

Luis Del Carpio Orantes is a Medical Specialist in Internal Medicine and also an Internist in Mexican Social Security Institute. He is assigned to ICU Internist, D'Maria Hospital and he is also an Expert Columnist for the Iberoamerican Society of Scientific Information with the theme of emerging viruses. He has published articles related to intensive care (negative pressure pulmonary edema and disseminated intravascular coagulation in the ICU) and epidemiology, regarding dengue, zika, chikungunya and influenza which can be referred in PubMed and other index. He is an Independent Researcher, projects a research on the treatment of dengue.

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**Clonal spread of *Staphylococcus aureus* isolates with reduced sensitivity to chlorhexidine in Kuwaiti hospitals**Leila Vali, Ali A Dashti and Febine Mathew  
Kuwait University, Kuwait

It is essential to reduce the bacterial load and ensure the effectiveness of hygienic conditions in hospitals. Chlorhexidine is one of the most widely used biocides. Since resistance genes to quaternary ammonium compounds have appeared more frequently in staphylococci, we aimed to identify *S. aureus* with reduced sensitivity to Chlorhexidine in Kuwaiti hospitals. We collected 97 methicillin-resistant (MRSA) and 100 methicillin-sensitive (MSSA) *S. aureus*. We amplified *mecA*, *blaZ*, *qac A/B*, *qacH*, *qacH2*, *qacG*, *smr*, *norA*, *PVL* and *agr* genes. Antibiotic sensitivity testing for 10 antibiotics and MIC/MBC of chlorhexidine were determined. MLST, spa typing and PFGE were used to identify genetic variations. The predominant genes were *mecA*, *blaZ*, *norA*, *qacA/B*, *smr*, while *qacG*, *qacH*, *qacH2* were not detected. All isolates were sensitive to vancomycin, teicoplanin and tigecycline. The range of MIC for chlorhexidine for *qacA/B* positive isolates was 4-30 mg/l, however the MBC (0.94-60 mg/l) was statistically greater than MIC ( $p < 0.0001$ ). Typing methods showed all the isolates with reduced sensitivity to chlorhexidine containing *qacA* were ST239-III-t945-PVL<sub>-</sub>. The presence of *qac* genes does not necessarily imply increased resistance to chlorhexidine or any other antimicrobial agents. However MBC of chlorhexidine was higher for the isolates containing *qacA/B* compared to those without. We observed clonality among the *qacA/B* positive isolates with reduced sensitivity to chlorhexidine (HA-MRSA-ST239-III-t945 PVL<sub>-</sub>). Reduced sensitivity may be a contributing factor to survival of this clone in hospitals. It is crucial to strictly monitor dilution standards to avoid low level exposure of HA-MRSA-ST239-III to biocides, specifically in the developing countries.

**Biography**

Leila Vali has completed her PhD from Edinburgh University and Postdoctoral studies from Medical College of Wisconsin, Milwaukee and Edinburgh University. She has been a Lecturer in Strathclyde University, UK and is currently an Assistant Professor in Kuwait University. He has published more than 25 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Waterhouse-Friderichsen syndrome****Luis Del Carpio Orantes**

Mexican Social Security Institute, Mexico

**Case:** Woman 24 years old with no history of importance except being operated caesarean operation two months and a half without incident, resulting in macrosomia product.

Enter a room trauma shock seizures witnessed at home and during transportation to the hospital, clouding, state initial shock, hypoglycemia, fever, with a history of non-specific prodrome 7 days prior characterized by fatigue and weakness, adding fever 72 hours previous and also presenting with behavioral disorders disorientation 24 hrs prior to admission, the previous night generalized purpuric dermatosis is added. Upon initial review apparently glasgow of 14, but disorientated and psychomotor agitation, presenting shock unresponsive to water resuscitation initial, feverish with suspected neuroinfection, so she underwent cranial tomography which is reported only discrete brain edema; passes intensive therapy for management of shock, after endotracheal intubation seizures and involvement of consciousness. Upon arrival even with persistent hypotension despite double scheme amines (dopamine, norepinephrine) and fluid resuscitation, also high ventilatory requirements with data from acute lung injury, in frank anuria and acute renal injury, severe metabolic acidemia that warrants management bicarbonate, hematologic data franca fails with disseminated intravascular coagulation and purpura generalized data. The antimicrobial management that had been initially with ceftriaxone-vancomycin, leaving vancomycin-meropenem also dose intravenous hydrocortisone (500 mg) is given for suspected acute adrenal insufficiency (manifested by shock, tendency to hypoglycemia, hyponatremia, hypokalemia) is set, is it gives renal support with loop diuretic infusion as well as bicarbonate infusion. He remains in the intensive care unit for 10 hrs, no response to management, a refractory shock, severe sepsis and multiple organ dysfunctions were considered. Since studied with neurological, metabolic and hematological disorders, kidney damage, lung damage, criteria for disseminated intravascular coagulation coupled with widespread purpura, Waterhouse-Friderich sensyndrome was considered, which was devastating for the patient. A 5-day incubation of blood cultures growth coagulase-negative staphylococci were reported, being sensitive to Vancomycin, definitive bacteriological diagnosis, staphylococcus haemolyticus. Negative serology for dengue and leptospirosis were reported, requested by endemic area meet such conditions. First case reported in adults Waterhouse-Friderichsen syndrome secondary to *staphylococcus haemolyticus* is concluded.

**Biography**

Luis Del Carpio Orantes is a Medical Specialist in Internal Medicine and also an Internist in Mexican Social Security Institute. He is assigned as ICU Internist at D'Maria Hospital and he is also an Expert Columnist for the Iberoamerican Society of Scientific Information. He has published articles related to intensive care (negative pressure pulmonary edema and disseminated intravascular coagulation in the ICU) and epidemiology, regarding dengue, zika, chikungunya and influenza.

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**Infectious cause of benign prostate hyperplasia**

Jamshaid Iqbal

Kuwait University, Kuwait

**Background:** Prostate cancer and benign prostatic hyperplasia (BPH) represents the most common urologic disease among the elderly males resulting in more than 2 million visits per year. BPH affects about one-quarter of men in their 50s. The pathogenesis of BPH is not yet completely understood however, the role of chronic inflammation is emerging as an important factor in BPH development and progression. Recently, the studies have found that *T. vaginalis* may be associated with asymptomatic infections in 50-75% of infected men. In this study we investigated the possibility of asymptomatic persistence of *T. vaginalis* in the prostate gland using benign hyperplastic prostate tissue as prostate condition other than clinical prostatitis.

**Materials & Methods:** We investigated the occurrence of *T. vaginalis* in prostate tissue of 75 men of >50 years of age suspected and treated for BPH by transurethral resection of the prostate at the Mubarak Al-Kabir Teaching Hospital, Kuwait. The presence of *T. vaginalis* infection in the prostate tissue was determined by PCR analysis of the DNA extracted from the tissue and Immunocytochemistry of the tissue sections of the prostate tissue. In addition, P16 antigen was also detected in the tissue sections. The antibodies to *T. vaginalis* were also determined in blood.

**Results:** We detected *T. vaginalis* DNA in 18 of 75 (24%) and P16 antigen in 16/75 (21%) of BPH tissue samples, of which only 7 (39%) BPH tissues were positive by immunocytochemistry. In addition, three *T. vaginalis* DNA-negative prostate tissues were also positive immunochemistry. *T. vaginalis*-specific antibodies with predominantly IgG4 antibodies were detected in 23 (31%) cases.

**Conclusion:** Our preliminary study suggests a direct evidence of *T. vaginalis* in BPH tissues with no clinical signs of prostatitis. We hypothesize that chronic *T. vaginalis* infection of prostate tissue may lead to BPH in elderly people.

**Biography**

Jamshaid Iqbal is a consultant at Mubarak Al-Kabir Teaching Hospital, Kuwait and he is the director at center for medical education and faculty of medicine at Kuwait University, Kuwait.

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August 24-26, 2016 Philadelphia, USA

**Epidemiological pattern of influenza in Tunisia: Season 2015 - 2016**

Sakly Mouna, Zorruga M, Bouguerra H, Elbekri S, Dellagi R, Abdedaim N, Atawa T, Gallalou J, Ben Mansour H, Ounan H, Slim A, Ben Salah A, Jazi S and Selmane R

El Manar University, Tunisia

**Introduction:** the Influenza is an acute viral infection transmitted by air. It's a highly contagious disease that can cause serious complications, especially among vulnerable people, it presents a major public health issue with a considerable socio-economic impact.

**Purpose:** Review the epidemiological situation of influenza in Tunisia in The 2015-2016 season. Determine if the A (H1N1) virus has a particular virulence in Tunisia during the 2015-2016 season. Make recommendations to overcome challenges.

**Methods:** This retrospective study is based on data issued by the National influenza surveillance unit; it relies on a descriptive analysis of influenza surveillance data provided by the network of sentinel sites and national influenza center (NIC).

**Results & Discussion:** Influenza surveillance in Tunisia has been established since 1999 with the creation of network sentinel sites, but it significantly developed on March 2014, by the enhancement of the national influenza surveillance system. In Tunisia, clinical, epidemiological and virological surveillance of influenza began in week 40/2015 (1<sup>st</sup> of October 2015) and ended in week 18/2016 (30<sup>th</sup> of April 2016). During the period of study: 96,240 cases ILI (Influenza-like illness) were collected from a total of 1,394,782 patients seen at sentinel ILI sites, representing 6.9% of total patients versus 7.7% during the 2014-2015 season. The epidemiological surveillance of influenza on the Tunisian territory showed that the influenza epidemic was spreading in the winter season 2015/2016 during fourteen weeks from the 25<sup>th</sup> of January 2016 (2016 / W4) to the 29<sup>th</sup> of April 2016 (2016/ W18) with an incidence rate of 10.3%. It started a little later than it did during the previous season and lasted relatively longer (14 weeks versus 8 weeks). During the 2014-2015 season, influenza reached its peak during the coldest weeks (S6 to S9) and there was an inverse trend of the monthly average temperature. This correlation has not been observed during this season having regard to the shift of the cold season. In fact, this flu season peaked during the week of 14 to 20 March 2016 (2016/S12), later than usual. These findings were also observed in Europe and in USA. All of the 24 governorates of Tunisia have been affected by the influenza and the incidence is higher in the most populated regions. Children 5 to 16 years are the most affected. Among the visits for influenza-like illness (ILI), 190 severe cases were hospitalized representing a comparable proportion to the previous season (0.19% vs 0.2%) and were mainly infected with A (H1N1) pdm09 virus (57% of cases). The average age for these severe cases was 46.5 years, with extreme ages varying between 6 months and 73 years. Their lethality was significantly higher than that observed during the previous season (20% vs 3%) and was H1N1 associated in 73.7% of cases. During Week 12, there was an increased circulation of influenza viruses in Tunisia and subsequently there were the highest number of deaths (10 deaths representing 26.3% of all influenza deaths). 37.1% of influenza deaths had no risk factors. The co-circulation of the three influenza viruses began in late January (W4) with a gradual increase in the circulation of the type A (H1N1) pdm09 virus. During the week W12, the type A (H1N1) pdm09 virus was more common than the type B. The seasonal distribution of three types of influenza viruses was: Virus A (H1N1) pdm09 (57.4%), Virus A (H3N2) (38.5%) and Virus B (3.5%). The positivity rate for influenza was 24.4% vs 28.4% during the previous season.

**Conclusion:** The 2015-2016 influenza epidemic started little later than the previous season, marked by the co-circulation of three influenza viruses and the predominance of the virulent type A (H1N1) pdm09 virus, the impact of the epidemic in terms of ILI consultations and hospitalizations was comparable to the previous season, but the lethality of severe cases was significantly higher. Viruses know no borders, control and fight against the influenza require a global vision of the dynamics of the disease in our country, as well as around the Mediterranean in order to better contain any unusual event.

**Biography**

Sakly Mouna has completed her Medicine studies from El Manar University, Faculty of Medicine of Tunisia. She has submitted her Doctoral thesis in Medicine in 2002, completed Master of Advanced Studies in Economy Health and Hospital Management from the Faculty of Medicine of Tunisia in 2009, Master of Advanced Studies in Tobacco from the Faculty of Medicine of Tunisia in 2010 and Certification Green Belt Lean Manufacturing and Management L2M in 2016. She is the Coordinator of child health programs and primary health care quality program in Tunisia and she is also the Tunisian focal point on disability and deafness and a National Trainer in the counseling and HIV screening among pregnant women. She has published some papers in reputed journals. She is a Reviewer of *Public Health Review*, France since 2016 and a Teacher of the national maternal and newborn health program in the University Mohamed El Matri at Tunisia.

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**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Some methods for combating of superbugs****Samer M Al-Hulu**

Al-Qasim Green University, Iraq

Superbugs is the term which used for describing of multidrug-resistant organisms that evolved and developed resistance to at least one type of antimicrobial drug or antibiotic. MRSA, VRE, ESBLs are some examples on superbugs. The combating of superbugs can be achieved by proper hand washing and using of good hand hygiene. DNA Sequencing of superbugs playing an important role in combating of spread such as DNA sequencing from patient and compared with database for determining source of infection. Using of Nano-based therapy for combating of superbug such as using of nano metals and metallic oxides which having high activity against board spectrum antibiotic resistant bacteria such as AgNPs which having high activity against MRSA and silver resistant *E. coli*, also using of Nano-enabled antibiotics such as using drug delivery system and using of other methods such as cellulose nano crystals-porphyrin, CNTs and others. Other solution for combating of superbugs is prevent of antibiotic misuse and overuse which due to developing of resistant for antibiotics via one or more mechanisms of DNA alteration. Essential oil having a new weapon for combating of superbugs, oil is derived from variety of natural sources including plants or component of plants such as flowers, leaves and others, these oil having complex mixtures of chemicals which having antimicrobial activity. Phage therapy is plays an important role for fighting of drug-resistant pathogens.

**Biography**

Samer M Al-Hulu is an Assistant Professor of Microbiology. He has completed his PhD from College of Science, Babylon University. He has published more than 14 papers in microbiology field. He has trained at Ministry of Health at Laboratory of Babylon Maternity and Children Hospital. Presently, he is working at College of Food Science, Al-Qasim Green University.

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# Accepted Abstracts



*Infectious Diseases 2016*

**Joint Event on 2<sup>nd</sup> World Congress on  
Infectious Diseases****&****International Conference on****Pediatric Care & Pediatric Infectious Diseases****August 24-26, 2016 Philadelphia, USA****Contaminations of devices, solutions and personal hands result at NICU, Emam Reza Hospital, Mashhad City, North East Iran****Ahmad Shah Farhat, Ashraf Mohammad Zadeh, Reza Saeedi and Ahmad Jamshid Rezaei**  
Mashhad University of Medical Sciences, Iran

**Introduction:** Infection is a common cause of neonatal death, nosocomial infection may increase neonatal death at NICU, as we know the nosocomial infection is more than 11% at NICU, we decide to study the result of contamination of devices solutions and personal hands at NICU and based on the type of bacteria and the device which is contaminated we take the serious steps for prevention of contaminating and its disinfection.

**Method:** All devices and solutions which were related to neonates studied with culture during Jan 2014-Jan 2015 at NICU of Emam Reza Hospital, Mashhad, Iran. Two samples were taken by head nurse weekly. If the culture was positive after disinfection of devices another's culture was taken.

**Result:** From 155 samples, 66 samples were sterile (42/6%) and 89 (57/4%) contaminated. Common organisms were Gram positive non pathogen (25/8%), *Staphylococcus coagulase negative* (12/9%) and *Staphylococcus aureus* (6/5%).

**Conclusion:** This study shows that the common contaminable organisms are same as nosocomial organisms at our NICU and common contaminated places are incubator and personal hands.

**Recommendation:** Attention to disinfection of incubators and hands washing at NICU will be very important factors for contamination control.

**Biography**

Ahmad Shah Farhat is currently an Assistant Professor of Neonatology. He has completed Neonatology Subspecialty from Mashhad University of Medical Sciences, Iran. He is a Vice Chancellor of Neonatal Research Center in this university since 2006 and Consultant Neonatologist of Neonatal Intensive Care Unit since 1992. He has published 66 papers in local and international journal, 19 books, 120 participation in national and international congress with lecture and poster presentation. He was a Member of 50 national scientific organs during last 23 years. He has 10 scientific honors in pediatric and neonatology.

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**The evaluation of concentration of calprotectin in pleural fluid with causes of exudative pleural effusion**

Mohammad Reza Hashempour, Ali Aryannia, Mahshid Mehrjerdian, Mojtaba Kiani and Gholam Reza Roshandel  
Golestan University of Medical Sciences, Iran

**Background:** Nowadays, routine invasive techniques to diagnose the causes of exudative pleural effusion are going to be replaced by new non-invasive methods such as biomarkers which with the same diagnostic accuracy can confirm malignant situations at least in a group of cases who do not need more invasive means.

**Aim:** To evaluate concentration of calprotectin in pleural fluid with causes of exudative pleural effusion.

**Materials & Methods:** In this descriptive-analytical and case-control study, the calprotectin concentrations in pleural fluid was evaluated in 90 patients with exudative pleural effusion and compared among two groups including 34 patients with malignant pleural effusion (MPE) and 56 patients with benign pleural effusion (BPE) in Sayyad Shirazi Hospital in Gorgan of Iran in 2014. All patients underwent examination and the necessary laboratory tests were done and closed pleural biopsy was performed if necessary. Collected data were analyzed by SPSS-21 statistical software and chi-square, t-test, ANOVA and logistic regression analysis.

**Results:** Calprotectin concentration was ( $107.72 \pm 10.59$ ) in patients with malignant causes and ( $114.42 \pm 23.95$ ) in others. Calprotectin concentration was ( $122.34 \pm 27.03$ ) in patient with TB. The results showed that this difference was statistically significant ( $p=0.05$ ) and calprotectin rate is lower in the malignant pleural effusion. Especially, when the results were compared with patients with TB, this difference was more prominent ( $p=0.01$ ).

**Discussion & Conclusion:** According to higher levels of calprotectin in tuberculous pleural effusions, maybe we can achieve important results in differentiating between malignant and non-malignant pleural exudate, without the need for invasive procedures, by putting together the clinical symptoms, the calprotectin concentration in pleural fluid and pleural fluid cytology results.

**Biography**

Mohammad Reza Hashempour has completed his Doctorate from Army University of Medical Sciences and Postdoctoral studies in Surgery from Golestan University School of Medicine. He has published papers in reputed journals.

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**Vaccination age changing from infancy and childhood to adolescence and adulthood: An indispensable approach in immunization programs**

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**Objectives:** Despite the positive effects of vaccines on control of many infectious diseases, they are not completely safe. The purpose of this article is to draw attention to the problems associated with newborns and infants immunization.

**Methods:** For each subject, a review of electronic sources was carried out in the PubMed and Google Scholar using appropriate key words.

**Results:** For different reasons including the differences between the immune systems of newborns/children and adults, severe adverse events and inefficacy of vaccines, deceptive advertising and inadequate parental awareness about vaccines and vaccination; newborns and children are at risk and a decline in public confidence is observed.

**Conclusions:** The revision of vaccination age changing (at least for some vaccines) in order to maintain newborns/children's health and to prevent the return of infectious diseases is required. To achieve this goal, new retrospective and prospective studies to reassess the safety, efficacy, quality and protection duration of vaccines, proper implementation of good clinical practice, establishment of a network vaccine safety database by collaboration of international organizations, vaccine manufacturers and academic centers for sharing of information and enhancement of awareness of healthcare professionals and people about immunization at global level are needed.

**Biography**

Say-yed Hesameddin Tafreshi is affiliated to Pasteur Institute of Iran, Iran

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**Notes:**

**Antiplasmodial activity of biosynthesis nanoparticles from seaweeds *Plasmodium falciparum***

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Malaria is one of the most prevalent infectious diseases in the world. Treatment for malaria is commonly inadequate due to the lack of quality assured effective drugs. The effectiveness of these drugs is declining at an ever accelerating rate with consequent increase in malaria related morbidity and mortality. The newest antiplasmodial drug from plants is needed to overcome this problem. The seaweeds species are a good source of bioactive entities which exhibits many therapeutic properties. The present study was carried out to test the antiplasmodial activity of three seaweeds species distributed along the South East coast of India. Biosynthesis silver nanoparticles from *Sargassum* sps *Caulerpa taxifolia* and *Dictyota dichotoma* plant exhibited *in vitro* antiplasmodial activity against *Plasmodium falciparum*. Of which, the nanoparticles of *D. dichotoma* exhibited high antiplasmodial activity ( $IC_{50}=60.11 \mu\text{g.ml}^{-1}$ ). Statistical analysis reveals that, significant antiplasmodial activity ( $P<0.05$ ) was observed between the concentrations and time of exposure. The chemical injury to erythrocytes was also carried out and it shows that no morphological differences in erythrocytes by the synthesized nanoparticles of seaweeds after 48 hours of incubation. The FTIR results of most potent leaf extract-synthesized silver nanoparticles showed the prominent peaks (range between 620.967 to 2854.14) Further, the results of XRD analysis showed the 2 hours intense values (38.11 and 70.57) within the ranges of Bragg's reflection. In addition, the SEM analysis showed the results of particle sizes (50-100 nm). This study shows that the biosynthesized silver nanoparticles had a source of lead compounds for the development of new drugs for the treatment of malaria.

**Biography**

Syed Ali M is now currently working as the Head of the department and Research Department of Biotechnology at Mohamed Sathak College of Arts and Science (Affiliated to University of Madras), Chennai, India. He had completed Phd in Oceanography – Marine Biotechnology 2011 (Title: Screening of various biological resources from Gulf of Mannar for the management of Dengue fever) and also Master of Philosophy and Master of Science in Marine Biotechnology, 2006. He had published 4238 international publication in peer reviewed journals and also contributed three book chapter. He is the member of five scientific committee to all over the world especially European Society of Clinical Microbiology and Infectious Disease, Europe (Member ID: 123822) and Advisory Board Member of all of the world.

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