conferenceseries.com
1376th Conference

7th Asia Pacific

STD and Infectious Diseases Congress

October 23-25, 2017 Osaka, Japan

Posters

Fatma Koksal Cakirlar et al., J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Distribution of AdeABC efflux system genes in *Acinetobacter baumannii* isolates isolated from blood cultures of hospitalized patients and their relationship with Carbapenem resistance

Hamza Ari[1], Okanaydogan[1], Mehmet Demirci[2] and Fatma Koksal Cakirlar[1]
[1]Cerrahpasa Faculty of Medicine, Turkey
[2]Beykent University, Turkey

Statement of the Problem: *Acinetobacter baumannii* is an important nosocomial pathogen leading various infections. The major efflux mechanism associated with carbapenem resistance in *A. baumannii* is the chromosomally encoded tripartite efflux system, AdeABC. Its' over expression is regulated by adeRS genes which encode two-component regulatory system. This study investigated the distribution of the AdeABC efflux pump genes and their relationship to carbapenemases production in *A. baumannii* isolates isolated from blood cultures of hospitalized patients.

Methodology & Theoretical Orientation: A total of 97 *A. baumannii* were isolated from blood cultures of hospitalized patients in Cerrahpasa medical faculty hospital in Istanbul, Turkey. The Phoenix Automated System was used to identify isolates and determine antibiotic susceptibility. AdeRS mutations and adeB gene expression of drug efflux genes were analyzed by sequencing and qPCR, respectively.

Findings: Of our 97 isolates, 61 were carbapenem resistant. Resistance rates of carbapenem resistant *A. baumannii* (CRAB) isolates were found to be 100% for ceftazidime, 96.7% for cefepime, piperacillin-tazobactam, ciprofloxacin, trimethoprim-sulfamethoxazole, 86.8% for amikacin, 75.4% for gentamicin and netilmicin. All isolates were positive for the adeB genes. Significant over expression (3.45-52.18) of adeB was observed in 49 CRAB isolates whereas only 12 CRAB isolates (0.23-0.54) and non-CRAB isolates (0.109-0.783) had less increased levels. In 80.3% of CRAB isolates were positive for the adeRS genes. The p.Val120Ile change in the AdeR amino acid sequence was determined in 42.8% in adeB-overexpressing CRAB isolates. The p.His158Leu and p.Pro116Ser changes were found in 36.7% of these isolates. None of the CRAB isolates had p.Val120Ile, p.His158Leu and p.Pro116Ser changes. In the AdeS amino acid sequence, p.Gly293Ser, p.Leu105Phe and His227Asp changes were most commonly found in adeB-overexpressing CRAB isolates, whereas pGly293Ser change was detected in only %8 of non-CRAB isolates.

Conclusion: The results showed that were significantly associated with between the AdeABC efflux system and both carbapenem and multiple drug resistance in our *A. baumannii* isolates.

Biography

Fatma Koksal Cakirlar has been working as lecturer in Istanbul University Cerrahpasa Medical Faculty, Department of Medical Microbiology, Istanbul, Turkey and she works on hospital infections, drug resistance, nano-technology and rapid diagnostic devices.

fatma.koksal@istanbul.edu.tr

Notes:

Hatice Nur Halipci Topsakal et al., J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Development of biosensor platforms for rapid detection of *Escherichia coli* from clinical isolates

Hatice Nur Halipci Topsakal[1], Ashabil Aygan[2], Ahmet Altindal[3], Cigdem Oruc[3] and Fatma Koksal Cakirlar[4]
[1]Istanbul Ayvansaray University, Turkey
[2]Kahramanmaras Sutcu Imam University, Turkey
[3]Yildiz Technical University, Turkey
[4]Cerrahpaşa Faculty of Medicine, Turkey

Background & Aim: Today, we face with increasing resistance of pathogenic bacteria that cause infection in the hospital and community. Therefore, there is a growing need for selective recognition of bacteria in clinical samples. Biosensors-based analysis systems used to the diagnosis of bacteria have been one of the most important techniques due to demonstrated low cost, fast response, high sensitivity and high selectivity. DNA aptamers have a promising role and they have inherent advantages in stability and facility of generation and synthesis. In this study, it is aimed to develop ssDNA containing biosensor array which can give rapid results for identification of intended bacteria *Escherichia coli*.

Methodology & Theoretical Orientation: Cell-based Systematic Evolution Of Ligands By Exponential Enrichment (SELEX) to isolate an *E. coli*-aptamer that shows strong binding was performed. After selection process one of the ssDNA aptamer was chosen that strongly binds to *E. coli*. The selected aptamer was placed on two different biosensor platforms containing silica and Quartz Crystal Microbalance (QCM) materials. Binding experiments of *E. coli* to biosensor platforms were carried out using impedance spectrometry and frequency analyzer.

Findings: The fluorescently labeled aptamer was purchased commercially and it was detected that the aptamer was ligated with *E. coli* using a fluorescent microscope. Whether or not our aptamer ligates to 50 *E. coli* strains isolated from blood cultures of hospitalized bacteraemic patients were examined, for specificity and susceptibility. We showed that our fluorescently labeled aptamer binds to a variety of *E. coli* strains at a certain level.

Conclusion & Significance: With biosensor based medical diagnostic system, identification could be done easier and faster thus enable infection control, treatment and surveillance to be done more quickly and easily. In addition, early diagnosis and treatment will reduce mortality, morbidity and high costs.

Biography

Hatice Nur H. Topsakal is a PhD candidate. She has been working as lecturer in Istanbul Ayvansaray University Plato Vocational School, Medical Laboratory Department. She works on Microbiology, and interested in DNA technologies. She is a holder of scholarship from the Scientific And Technological Research Council Of Turkey(Tubitak)

haticetopsakal@ayvansaray.edu.tr

Notes:

Sinem Ozdemir et al., J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Identification and Macrolide-Lincosamide-Streptogramin B (MLSB) resistance phenotypes and slime production of coagulase-negative *Staphylococci* isolated from bloodstream infections in Turkey

Sinem Ozdemir, Okan Aydogan and Fatma Koksal Cakirlar
Cerrahpasa Faculty of Medicine, Turkey

Aim: The aim of this study is identification and determination of the MLSB type resistance, antibiotic resistance patterns and slime production of CoNS isolated from blood cultures of hospitalized patients with bacteremia.

Methodology & Theoretical Orientation: Blood cultures were analyzed by the Bactec 9120 system. The identification and antimicrobial resistance of the CoNS were determined by Phoenix automated system and MALDI-TOF MS. Antibiotic susceptibilities were evaluated according to EUCAST. The slime production was evaluated with Congo red agar method.

Findings: A total of 160 CoNS strains were isolated from blood samples of patients with true bacteremia who were hospitalized in intensive care units and in other departments of Istanbul University Cerrahpasa Medical Hospital between 2015 and 2017. Among CoNS isolates, *Staphylococcus epidermidis* was the most prevalent species (51.2%) followed by *Staphylococcus hominis* (20%), *Staphylococcus haemolyticus* (11.8%), *Staphylococcus capitis* (4.3%), *Staphylococcus saprophyticus* (1.8%), *Staphylococcus cohnii* (1.25%), *Staphylococcus lugdunensis* (0.6%), *Staphylococcus schleiferi* (0.6%), *Staphylococcus warneri* (0.6%) and *Staphylococcus pettenkoferi* (0.6%). Resistance to methicillin was detected in 80.5% of CoNS isolates. Methicillin-resistant CoNS isolates (MRCoNS) were determined to be more resistant to antibiotics than methicillin-susceptible CoNS isolates (MSCoNS). Resistance rates of MRCoNS and MSCoNS isolates to the antibacterial agents, respectively, were as follows: Gentamicin 38.7% and 0%, erythromycin 83.5% and 32%, clindamycin 38.6% and 14.8%, trimethoprim-sulfamethoxazole 49.4% and 8.3%, ciprofloxacin 67.8% and 21.7% tetracycline 50% and 34.7%, rifampicin 42% and 0%, teicoplanin 4.9% and 0%. None of the isolates were resistant to vancomycin. The inducible MLSB, structural MLSB and efflux type resistance were determined in 44.9%, 1.12% and 38.2% of MRCoNS and in 14.8%, 0% and 14.8% of MSCoNS, respectively. Slime production was determined higher in MRCoNS.

Conclusion & Significance: These results underline the importance of continuous surveillance and efforts to improve the outcome of serious bloodstream.

Biography

Sinem Ozdemir, PhD, is working on hospital infections and drug resistance at Istanbul University Cerrahpasa Medical Faculty, Department of Medical Microbiology, Istanbul, Turkey

sinemoz82@yahoo.com.tr

Notes:

Jean Paul Mulaja, J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Prevention, HIV testing and access to care for sex workers: Case of Lubumbashi, DR Congo

Jean Paul Mulaja
Equilibre International Limited, DR Congo

HIV prevalence in Congo-Kinshasa remains relatively high at 9.1% and reaches 24% among sex workers. Lubumbashi by its geographical position made border with two countries and constitutes a high migration and trade exchanges that attract sex workers. To carry out the activities, we have set up a team of five people, including a medical doctor, an advisor, a laboratory assistant and two facilitators. The approach used is as follows: Program of the place and fixing of the working hours with the beneficiaries. From 2013 to December 2015, 586 sessions were conducted for 2342 participants, 438 people accepted voluntary screening-19%, 46 positive cases or 10.50%. In terms of sexually transmitted infection, 208 sex workers benefited from the consultation of which 133 cases cared for or 64% and in relation to condoms 126160 unit were distributed. Prevention and screening in mobile strategy is an approach that works with female sex workers. However, the care of HIV-positive people remains confronted with the mobility of the beneficiaries who regularly changes sites or even countries without advising the team in charge of supervision. Another strategy should be found to ensure that HIV-positive sex workers can be kept as long as possible in the care system.

Biography

Jean Paul Mulaja is the Execuitve director of Equilibre International DRC

equinterdc@gmail.com

Notes:

Stephanie Rachel C Ang et al., J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Prospective cohort study of the qSOFA score versus the SIRS criteria in the determination and prognostication of sepsis in Philippines tertiary hospital

Stephanie Rachel C Ang, Onion Gerald V Ubaldo, Maria Fe Raymundo-Tayzon, Cybele Lara R Abad, Karl Evans R Henson, Irmingarda P Gueco and Jude Erric L Cinco
The Medical City, Philippines

Sepsis is a leading cause of mortality both locally and worldwide. Despite this, early diagnosis of sepsis remains difficult with a significant number not fulfilling SIRS criteria. In 2016, the Sepsis-3 guidelines modified its definition to include qSOFA score. To compare the two, 295 adult patients in the emergency room with suspected infection were included in the study and simultaneously determined their qSOFA score and SIRS criteria. The presence of sepsis was adjudicated by three infectious disease specialists and outcomes within the first 48 hours were acquired. Sensitivity, specificity, positive predictive and negative predictive values for qSOFA and SIRS were computed using constructed confusion matrices and overall predictive accuracy was measured by the AUROC. The qSOFA score was specific (95.5%) but poorly sensitive (46.3%) test compared to the SIRS criteria (sensitivity 73.7% and specificity 60%). Both qSOFA and the SIRS criteria significantly co-related with sepsis positivity but the qSOFA score had superior overall predictive accuracy at 70.9% compared to the SIRS criteria. The adjudicators had moderate strength in agreement (Fleiss' kappa=0.39) and a percentage agreement of 60%. Based on our findings, we conclude that the qSOFA score is a more accurate predictor of sepsis but should not be used as a preliminary sepsis screening tool.

stephanierachelang214@gmail.com

Notes:

Nurul Hasanah et al., J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Risk factors associated to syphilis infection among men who have sex with men (MSM): A cross-sectional study in 3 cities, Indonesia, 2013

Nurul Hasanah[1], Yovsyah[2], Triyunis Miko Wahyono[2], Ari Wulan Sari[3] and Ni Ketut Susilarini[4]
[1]Country Coordinating Mechanisms-Global Fund, Indonesia
[2]University of Indonesia, Indonesia
[3]Coordinating Ministry Human Development & Cultural Affairs, Indonesia
[4]NIHRD Ministry of Health, Indonesia

This article reports prevalence of syphilis infection using surveillance data on MSM from three Indonesian cities. Factors associated to syphilis and behavioral factors assessed by multivariate logistic regression. According to IBBS 2007 to 2013 syphilis prevalence among MSM increasing from 1% to 12.7%, while in other key at risk populations was decreased. Factors associated to syphilis infection among MSM are: Age, level of education, HIV status, history of STI, condom use, drugs consumption and or drugs injection use, number of sexual partners and access to STI service clinic. The aim of this study is to find associated factors of syphilis infection among MSM. It is a cross sectional study with a sample of 669 MSM through RDS method and derived from the 3 major cities in Indonesia through the interview and laboratory diagnosis of syphilis is performed by TPHA and RPR. The prevalence of syphilis among MSM in 3 cities is 11.36% and significant factors related are HIV status (p=0.000), OR=2.89 (95% CI 1.63- 5.11), Age>24 years p=0,008, OR=(p=0.008), OR=1.97 (95% CI 1.19- 3.25). Low educational level, condom use, drugs consumption and or drugs injection use, the number of sexual partners, and access to STI service clinic are not significantly related. HIV status as a biological factors have a strong relation with syphilis prevalence among MSM group population within 3 major cities in Indonesia OR=2.89 (95% CI 1.63- 5.11).

nurulmardhanu@gmail.com

Notes:

conferenceseries.com
1376th Conference

7th Asia Pacific

STD and Infectious Diseases Congress

October 23-25, 2017 Osaka, Japan

Accepted Abstracts

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Streptococcus suis: Bacteremia presenting with fever, rashes, arthritis and neurologic deficits

Ahmad M Domado and Jill Itable
Southern Philippines Medical Center, Philippines

Streptococcus suis is a Gram-positive coccus acquired through exposure to infected swine. The most common clinical manifestation is meningitis often accompanied by bacteremia. *S. suis* is an emerging pathogen with significant complications, but remains to be underreported. Only 1,584 cases of *S. suis* infection have been reported worldwide with most of the cases concentrated in Southeast Asia where swine quantity is high. Despite a booming hog industry in the Philippines and increasing prevalence in its neighboring countries, *S. suis* infection remain unreported in our country due to either lack of available diagnostics or misdiagnoses. We report a case of a 52-year-old male who came in due to fever, generalized violaceous purpuric rash, headache and nuchal rigidity. Patient was diagnosed with meningitis clinically. Patient consumed a diseased swine 5 day prior to admission. Blood culture was positive for *Streptococcus suis* II and clinical improvement was achieved with antibiotic treatment. Our patient is the second Filipino and the first documented case to be diagnosed in the Philippines. Patient is also the first documented case of a Filipino with *Streptococcus bacteremia* presenting with meningitis, hearing loss, skin lesions and arthritis. In *S. suis* infection, antibiotic treatment should be started without delay because a high mortality rate of up to 68% is observed in patients with septicemia and septic shock. With increased awareness and available diagnostics, a future outbreak, can be prevented.

ahmaddomado@yahoo.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Delay in diagnosis of pulmonary tuberculosis in low and middle-income settings: Systematic review and meta-analysis

Fentabil Getnet Yimer, Yemane Berhane, Nega Assefa, Bizatu Mengistie and Alemayehu Worku
Addis Ababa University, Ethiopia

Assessment of time delays in diagnosis of tuberculosis is essential to evaluate effectiveness of control programs and identify programmatic impediments. We have reviewed recent studies to summarize patient, health system and total delays in diagnosis of pulmonary tuberculosis in low- and middle- income countries. The review was done following standard procedures of the preferred reporting items for systematic reviews and meta-analyses (PRISMA) statement and checklist. Web-based databases were searched to retrieve relevant studies from 2007 to 2015 including Springer link, PubMed, Hinari and Google scholar. Searching terms were pulmonary tuberculosis, diagnostic delay, patient delay, health system delay, provider delay, doctor delay, health care seeking and health care seeking behavior. Retrieved studies were summarized by systematic review and meta-analysis using comprehensive meta-analysis software. 40 studies involving 18,975 patients qualified for systematic review and 14 of them for meta-analysis. The median total delay ranges from 30 to 366.5 days; with a relatively more for patient delay (4 to 199 days) compared to health system delay (2 to 128.5 days). The key determinants of patient delay were poor literacy, long distance to the nearest health facilities, evil/bad luck perception, poor knowledge, first care seeking from informal providers, self-medication, pulmonary co-morbidity and mild severity of illness among others. Likewise, good functional status, unusual symptoms, first care seeking at private/low level facilities, normal chest X-ray and smear negativity were key determinants of health system delay. The meta-analysis showed 42% of pulmonary tuberculosis patients delayed seeking care by a month or more; uneducated patients [pooled OR=1.5, 95% CI=1.1-1.9] and who sought initial care from informal providers [pooled OR=3, 95% CI=2.3-3.9] had higher odds of patient delay. Delay in diagnosis is still a major challenge of tuberculosis control and prevention programs in low and middle-income settings. Efforts to develop new strategies for better case-finding and improving patients' care seeking behavior need to be intensified.

b.infen4ever@gmail.com

conferenceseries.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Comparison and association of comprehensive HIV/AIDS knowledge and acceptance attitude towards people living with HIV/AIDS among female youth aged 15-24 in three West African Countries: Ivory Coast, Cameroon and Gabon

Henok Kessete Afewerky[1], Eyasu H T[2], Simon A G[1], Afewerki W T[1], Minet T H[1] and Russom T[2]
[1]Huazhong University of Science and Technology, China
[2]Asmara College of Health Sciences, Eritrea

Background & Aim: Nationally representative as well as comparative studies had never been done in three West African countries: Ivory Coast, Cameroon and Gabon. Hence, this study focuses on comparison of HIV/AIDS related knowledge and acceptance attitude towards people living with HIV/AIDS (PLHA) of female youth among the three highly prevalent West African countries.

Methods: The study utilized nationally representative datasets from Demographic and Health Surveys (DHS) of Ivory Coast 2011/12, Cameroon 2011 and Gabon 2012. IBM SPSS 22 was used to run multivariate logistic regression to find out the associates of HIV/AIDS related knowledge and attitudes as well as comparison among the countries.

Results: There was lack of comprehensive HIV/AIDS knowledge and acceptance attitude towards people living with HIV/AIDS in the three countries. Age, residence (except Cameroon), educational level, religion (only in Ivory Coast), marital status and wealth index (except Ivory Coast) were significant associates of comprehensive HIV/AIDS knowledge. On the other hand, age (except Gabon), residence (only in Ivory Coast), educational level (except Gabon), religion (only in Cameroon), wealth index and comprehensive HIV/AIDS knowledge showed significant associations with acceptance attitude towards people living with HIV/AIDS. Higher comprehensive HIV/AIDS knowledge was detected among youth in Gabon (AOR=2.08, $p<0.001$) and Cameroon (AOR=2.06, $p<0.001$) than in Ivory Coast. Results of acceptance attitude were in reverse manner to knowledge where less acceptance attitude was detected in Gabon (AOR=0.89, $p=0.023$) and Cameroon (AOR=0.86, $p=0.003$) than in Ivory Coast. However, comprehensive knowledge and acceptance attitude in Cameroon did not differ significantly from Gabon.

Conclusion: Generally, very low comprehensive HIV/AIDS knowledge and acceptance attitude towards PLHA were observed in the three countries and specifically in Ivory Coast. At this instant, it is urgent to give emphasis on education to adolescents and rural residents. A need to convey information in a way that is contextually appropriate, socio-culturally acceptable and gender-sensitive is suggested.

henokessete@hust.edu.cn

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

7TH ASIA PACIFIC
STD AND INFECTIOUS DISEASES CONGRESS
OCTOBER 23-25, 2017 OSAKA, JAPAN

Toxic shock syndrome due to *Streptococcus pyogenes* in an 80 year's old post-knee arthroplasty patient: A case report

Jenny Mae A Quinivista Yoon and Ryan M Llorin
St. Luke's Medical Center-Global City, Philippines

Prosthetic Joint Infection (PJI) is one of the leading causes of arthroplasty failure. A high incidence of PJI follows Staphylococcus aureus and coagulase-negative *Staphylococci*. On the other hand, *Streptococcus pyogenes* PJI is extremely rare with only a very few case reports in the literature. Toxic shock syndrome resulting from *Streptococcus pyogenes* infection, however, has a reported mortality rate as high as 30 to 70%, hence early recognition of this potentially fatal infection is crucial to the successful management of patients. In this article, we report a case of an 80 year's old male who developed streptococcal toxic shock syndrome in association with a severe group-A streptococcal infection of the knee after a total knee arthroplasty done two years ago.

yoon_jenny@yahoo.com

conferenceseries.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

People living with HIV, social capital and health related quality of life

Tolbert Mucheri and Johannes John-Langba
University of Cape Town, South Africa

People Living with HIV (PLHIV) face unique challenges depending on their location, gender and age group. Despite recognized advancements made in suppressive medication and remarkable achievements by governments to ensure universal access to HIV-related medication mortalities remain high. Optimal usage of medication and adherence remain sub optimal especially in rural communities. To what extent is social capital as an endogenous enabling factor explains disparities in healthcare utilization?. Previous scholars have explored diverse economic benefits of social capital but limited empirical evidence exist to support the role of social capital in healthcare utilization especially amongst marginalized groups of people such as PLHIV. Grounded on the Andersen and Newman model of healthcare utilization and social capital theory, the study employed a mixed method research design. A total of 399 adult PLHIV were reached through time-location sampling and interviewed using a survey questionnaire in rural Zimbabwe. Semi-structured in-depth interviews were also conducted with 40 purposively selected key informants that included healthcare workers, HIV/AIDS service providers and community leaders. A statistically significant association was found between social capital and healthcare utilization. The binary logistic regression model was statistically significant, $\chi 2$ (11)=129.362, ($p<0.005$), it correctly classified 80.20% of cases and explained 59.3% of the variance in healthcare utilization (Nagelkerke R-Square=59.30%). Social capital was a significant predictor of HIV/AIDS-related healthcare utilization ($p<0.001$). The results indicated that strong social capital increased the odds of utilization of HIV/AIDS-related healthcare a factor of 59.84. Gender ($p<0.05$, odds ratio=3.4), discrimination ($p<0.05$, odds ratio=7.7) and household headship ($p<0.001$, odds ratio=4.3) were other significant predictors of healthcare utilization. Recommendations are made to integrate social capital in designing interventions and policies to improve HIV-related healthcare utilization in rural context.

tolbertmucheri@yahoo.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

7TH ASIA PACIFIC
STD AND INFECTIOUS DISEASES CONGRESS
OCTOBER 23-25, 2017 OSAKA, JAPAN

The role of education related to vaccine-preventable sexually transmitted diseases

Jonathan Cho
University of Texas, USA

Sexually Transmitted Diseases (STDs) are a huge healthcare concern among adults worldwide and can cause increases in healthcare costs and complications in affected individuals. Several STDs, such as hepatitis B and human papillomavirus, can be prevented through pre-exposure vaccinations while vaccines for other STDs are currently being explored. Even with the widespread availability of certain vaccines, the prevalence of vaccinated individuals remains low. The low rate of vaccination can be attributed to access to recommended care and lack of education for both providers and patients. Many patients have not heard of vaccine-preventable STDs and its related vaccines but are willing to receive vaccinations if the government recommends patients to receive vaccinations and if the vaccine is easily accessible. Some studies have also shown a significant correlation between the individuals level of education and vaccination rates. Increasing awareness and education to providers regarding their role on vaccine-preventable STDs also increased the rate of vaccinated patients. If STDs are not treated appropriately, it can lead to significant health problems such as advanced infectious complications, organ dysfunction and in some cases, cancer. By appropriately informing patients about STDs and vaccination schedules, these complications can be avoided. This presentation outlines the importance of vaccines in the setting of STDs, interventions used to increase vaccination rates and the significance of provider interaction when educating patients.

jcho@uttyler.edu

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Survival of HIV-positive patients with cancer: Single institution experience

Luis Ernesto Cuellar Ponce de Leon, Andrea Carolina Anampa-Guzman, Alexis Manuel Holguin Ruiz, Juan Isidro Velarde Marca, Diana Portillo Alvarez and Esther Luna Reyes
Instituto Nacional de Enfermedades Neoplasicas, Peru

Introduction & Aim: People infected with HIV have significant higher risk to develop cancer compared with uninfected people of the same age. The aim of this study was to determine the characteristics and survival in HIV positive patients with cancer.

Methods: This retrospective cohort study included 333 HIV positive patients with cancer in the Infectious Disease Unit of Instituto Nacional de Enfermedades Neoplasicas (INEN) within 2005-2014. The patients were divided into two groups based on their type of cancer: NADM: Non-AIDS-defining malignancies (n=99) and ADM: AIDS-defining malignancies (n=234). These patients received chemotherapy and HAART. The medical records, demographic data, viral load, CD4 count and co-infections were reviewed. Data were analyzed using t-test and chi-square test. Survival curves were done.

Results: The ADM were significantly more frequent during the 2005-2009 period (p=0.002). The patients who had NADM were significantly older (p=0.0024) and had significantly higher CD4-cell count at cancer diagnosis (p=0.012). The mean OS time was 3.42 years. The mean OS of patients with NADM was significantly higher than patients with ADM, 4.19 and 2.68 months, respectively (p=0.0002).

Conclusions: The frequency of NADM is increasing. HIV-infected patients with NADM are older than patients with ADM, but have a better immunological state at the moment of diagnosis. This could explain the higher OS in people with NADM.

lcuellar@inen.sld.pe

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Evaluation of diallyl phthalate biodegradation mechanisms in the treatment of synthetic wastewater

Mitra Gholami[1], Ehsan Ahmadi[2], Mahdi Farzadkia[1] and Ramin Nabizadeh[1]
[1]Iran University of Medical Sciences, Iran
[2]Tehran University of Medical Sciences, Iran

Phthalic acid esters including Diallyl Phthalate (DAP) which commonly named as phthalates are considered as top priority and hazardous pollutants and have been received significant concerned over the last decades. In this study, performance of Moving Bed Biofilm Reactor (MBBR) for biological removal of DAP from synthetic wastewater was evaluated. The effects of different operation conditions including: Hydraulic retention time, DAP loading rate and aeration rate on process were investigated. In optimum conditions, 93.85% removal efficiency were achieved for DAP. Moreover, MBBR achieved to remove about 92.44% of COD. The results showed that DAP had a high biodegradation, according to the selected parameters such as half saturation constant, overall reaction rate and maximum specific growth rate. The Stover-Kincannon and second order (Grau) models were found as the best models for designing and predicting MBBR performance due to their high co-efficient of determination which were 0.98 and 0.99, respectively. The main metabolites were phthalic acid and catechol which can demonstrate that side ester chains (de-esterification) detachment is the main microbial degradation pathway. Finally, the remained benzene ring was broken to 2-hydroxy muconic semi-aldehyde. According to the bio-degradation pathway and metabolites produced, MBBR process can be considered as a reliable way for treating DAP wastewater.

gholamimitra32@gmail.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

Cytomegalovirus, Varicella zoster meningoencephalitis and ischemic stroke in an HIV-AIDS patient: A case report

Monica Pia P Reyes and Ryan M Llorin
St. Luke's Medical Center-Global City, Philippines

Along with the increasing number of newly diagnosed Human Immunodeficiency Virus (HIV) patients per day in the Philippines (26 new cases/day) is an increasing number of HIV patients diagnosed with Central Nervous System Infection (CNSI) and Stroke. A study shows that the risk of ischemic stroke was higher among those with HIV infection compared with uninfected people (hazard ratio 1.17). Mechanisms of ischemic stroke include HIV-associated vasculopathy, opportunistic infections or neoplasia, cardioembolism and coagulopathy. This case report aims to present a CNS co-infection of the three most documented viruses that causes stroke: Cytomegalovirus (CMV), Varicella zoster virus (VZV) and HIV. The inflammatory cascade in these infections promotes atherosclerosis, plaque rupture, and thrombosis, leading to ischemic stroke. A 35-year-old male with HIV who is non-compliant with anti-retroviral therapy and who had recent untreated Shingles was brought in with decreased sensorium, signs of meningeal irritation and right-sided neurologic deficit. Computed tomography scan revealed acute to sub-acute infarct, left middle cerebral artery territory. He was admitted and started empirically on vancomycin, ampicillin, cefepime and ganciclovir for central nervous system infection. HIV work-up revealed a CD4 of 11 cells/mm^3 and HIV-1 RNA of 1,124,215 copies/mL. CMV IgG is positive at 65 U/mL. Lumbar tap done had an elevated opening pressure with elevated cerebrospinal fluid (CSF) protein, low-normal CSF glucose, and pleocytosis with lymphocytic predominance. Viral panel showed CMV viral load of 634,000 copies/mL and VZV IgG 44.4 mIU/L clinching the diagnosis of concomitant CMV-VZV meningoencephalitis in this HIV patient. Magnetic resonance imaging and angiogram is compatible with viral vasculopathy. The pathogenic mechanisms of VZV reactivation in the CNS include neuronal and glial direct infection and immune-mediated lesions including vasculitis and demyelinization while CMV infection of vascular smooth muscle cells induces production of powerful pro-inflammatory cytokines which accelerate atherosclerosis development. This might be the first reported case of co-infection of the CMV-VZV-HIV meningoencephalitis and ischemic stroke.

monicapiareyes@yahoo.com

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

The Axshya Kiosks: An innovative model for increasing access to TB information and service, an experience from India

Sajna Sarasita Nayak, Jaya Prasad Tripathy, Subrat Mohanty, Gayadhar Mallick and Pooja Agarwal
International Union Against Tuberculosis and Lung Diseases, India

There are issues related to having right information about disease, diagnostic procedures and treatment adherence, accessibility to services by the affected community (daily wage earners, school children, industrial workers, PLHIVs) and TB patients. Most important need is to align the time, place and observation to the patients' convenience. Under the program TB patients are expected to take treatment under the observation of a DOT provider (community volunteer/health facility). This process may not be convenient to the patient particularly for the patients who reside in urban slums. There is a need to align the time, place and observation to patient convenience and making the process more respectful and flexible. Axshya Kiosks are set up in public health facilities such as chest or district hospitals, medical colleges and community settings and in and around densely populated urban zones and industrial areas where TB rates are higher. They offer services for extended hours from 6 AM to 9 PM, during which time trained community volunteers administer TB treatment, collect sputum samples and provide drop in consultations for patients and their families seeking information and counseling services. The Union's Project Axshya has established 97 tuberculosis (TB) treatment and information kiosks in 40 cities in India to provide better and more patient-center care. The kiosks address the common challenges faced by the community, including the limited opening hours of healthcare centers, difficulty in accessing care and a lack in personalized service. Patient-friendly diagnosis, treatment adherence, treatment completion and success rate and decrease in default and failure rate for TB services through AKs. AKs may complement DOTS in the long run to end TB. This model can be replicated by other countries as well.

snayak.hr@theunion.org

Direct evidence of viral infection and mitochondrial alterations in the brain of fetuses at high risk for schizophrenia

Segundo Mesa Castillo
Havana Psychiatric Hospital, Cuba

There is increasing evidences that favor the prenatal beginning of schizophrenia. These evidences point toward intra-uterine environmental factors that act specifically during the second pregnancy trimester producing a direct damage of the brain of the fetus. The current available technology does not allow observing what is happening at cellular level since the human brain is not exposed to a direct analysis in that stage of the life in subjects at high risk of developing schizophrenia. In 1977, we began a direct electron microscopic research of the brain of fetuses at high risk from schizophrenic mothers in order to find differences at cellular level in relation to controls. In these studies, we have observed within the nuclei of neurons, the presence of complete and incomplete viral particles that reacted in positive form with antibodies to herpes simplex hominis type I [HSV-1] virus and mitochondria alterations. The importance of these findings can have practical applications in the prevention of the illness keeping in mind its direct relation to the etiology and physiopathology of schizophrenia. A study of amniotic fluid cells in women at risk of having a schizophrenic offspring is considered. Of being observed, the same alterations that those observed previously in the cells of the brain of the studied fetuses it would intend to these women in risk of having a schizophrenia descendant, previous information of the results, the voluntary medical interruption of the pregnancy or an early anti HSV-1 viral treatment as preventive measure of the later development of the illness.

segundo@infomed.sld.cu

J AIDS Clin Res 2017, 8:9 (Suppl)
DOI: 10.4172/2155-6113-C1-021

An innovative approach for engaging key populations in HIV continuum of care in Malaysia: STI friendly clinic by the Ministry of Health, Malaysia

Shamala Chandrasekaran[1], N Aziz[2] and P Ellan[1]
[1]Malaysian AIDS Council & The Malaysian AIDS Foundation, Malaysia
[2]Ministry of Health Malaysia, Malaysia

While the HIV continuum of care posits that early identification and treatment of HIV infection coupled with information and education about treatment and adherence, emotional management and healthy living with HIV could markedly decrease onward HIV transmission, Key Populations (KPs) at risk for HIV in Malaysia are undoubtedly challenged with stigma and discrimination in addition to prohibitive legal and socio religious environment that negatively impact their access to prevention, treatment and care services. To encourage the KPs access appropriate treatment and care services, Ministry of Health Malaysia (MOH) introduced the Sexually Transmitted Infection (STI) friendly clinics with the cooperation of the Malaysian AIDS council for the very first time in Malaysia. These clinics were specifically designed to focus on testing and management of STIs and HIV. The STI friendly clinic is unique in its approach of engaging government healthcare workers to provide quality medical care in a safe, friendly and stigma free environment for the KPs. Since its inception in 2016, 50 government healthcare providers were sensitized to provide STI/HIV friendly services to the KPs. There are now 23 STI friendly clinics throughout Malaysia which has reached out to more than 500 people-who inject drugs, sex workers, men who have sex with men and transgender population. Patients are treated mostly through the syndromic approach using the guidelines by the MOH. All patients with symptoms and complaints are tested for STIs. These clinics strive to ensure early identification, treatment adherence and regular testing among KPs with an enabling environment regardless of their sexual orientation, sex and gender identities. This approach is exemplary in addressing poor engagement of KPs at risk for HIV/STI infection in treatment and care services. Similar effort needs to be replicated widely in Malaysia to further witness a significant change in their engagement in HIV care continuum.

shamala@mac.org.my