Abstracts

P3.217 HUMAN IMMUNODEFICIENCY VIRUS (HIV) SERODISCORDANCE AND ASSOCIATED FACTORS AMONG HIV POSITIVE CLIENTS ACCESSING ANTI-RETROVIRAL THERAPY IN NIGERIA

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Introduction In Africa, there is increasing evidence that a large proportion of new HIV infections occur in cohabitating couples, many of whom are unaware of both partners’ serostatus. Sub-Saharan Africa has the highest prevalence and incidence of HIV infection worldwide, mostly attributable to heterosexual transmission. In Nigeria, the bulk of the new infections occur in persons who are not engaging in high risk sex, a sub-population that includes cohabiting or married sexual partners. This study was undertaken to determine the prevalence and assess factors associated with HIV serodiscordance status among HIV positive patients accessing ART in secondary health facilities in Ogun State, South West Nigeria.

Methods This is a descriptive cross-sectional study conducted in four secondary health facilities offering HIV services in Ogun State over a six months period. Sample size of 630 was determined using the Cochrane formula and the respondents were consecutively recruited into the study. Data was collected using a structured interview administered questionnaire and analysis was done using the statistical package for social sciences (SPSS) version 17.0. Results was presented using frequency tables, tests of associations was done using the Chi-square test and multiple Logistic regression with level of significance set at 0.05.

Results A total of 637 questionnaires was retrieved (response rate 98%). Two hundred and Seventy eight (43.6%) of the respondents did not know their spouse HIV status while 359 knew partners status. Of the 359, 166 clients are serodiscordant (46.2%) while 193 (53.8%) were seroconcordant. 50.7% were aged 30–39 years, the mean age was 35.8±9.1 years. Significantly more females (74.7%) than males (25.3%) had serodiscordant partners (p-value=0.002). Clients who did not consume alcohol were significantly more likely to have serodiscordant partners compared with clients who consumed alcohol (p-value=0.001). Serodiscordant partners were significantly more among clients with infrequent sexual activities compared with clients with frequent sexual activities (p-value=0.001). Predictors of serodiscordance status among partners were clients who were <35 years old (odd ratio (OR)=1.727, confidence interval (CI)=1.107–2.693) and did not consumed alcohol (OR=2.204, CI=1.070–4.542), with partners whose occupation were skilled (OR=7.159, CI=1.440–35.604) and semi-skilled (OR=6.189, CI=1.216–31.503) and clients with infrequent sexual activities (OR=3.182, CI=1.437–7.046). Conclusion The study indicates that HIV positive clients could have serodiscordant partners if they could modify their lifestyle, have infrequent sexual activities (Not more than twice in a month) with partners that are gainfully engaged. It is therefore recommended that for early identification of at risk partners, couple HIV counselling and testing needs to be scaled up in addition to group-based interventions in order to pick serodiscordant partners early and provided all the necessary behavioural change support required to remain serodiscordant.

P3.218 DEMOGRAPHIC AND CLINICAL PROFILES OF WOMEN WITH BACTERIAL VAGINOSIS AND SEXUALLY TRANSMITTED INFECTIONS: IMPLICATIONS FOR THE MANAGEMENT OF VAGINAL DISCHARGE SYNDROME IN SOUTH AFRICA


Introduction Current South African syndromic management guidelines for vaginal discharge syndrome (VDS), recommend only metronidazole and clotrimazole therapy for women 35 years or older, whose partners have no urethral discharge. This guidance assumes the older women have bacterial vaginosi- s or candidiasis without STIs and that their partners are not asymptomatic. We describe demographic, behavioural and clinical characteristics of women with VDS comparing those with and without frequent sexual activities (p-value=0.001).

Methods This guidance assumes the older women have bacterial vaginosi- s or candidiasis without STIs and that their partners are not asymptomatic. We describe demographic, behavioural and clinical characteristics of women with VDS comparing those with and without frequent sexual activities (p-value=0.001).

Results Among the 637 questionnaires retrieved, 375 (58.9%) were responders with mean age 35.8±9.1 years. Of this, 166 (58.7%) were serodiscordant and 51 (14.2%) met minocycline treatment. Serodiscordant partners were significantly more among clients with infrequent sexual activities compared with clients with frequent sexual activities (p-value=0.001). Serodiscordant partners were significantly more among clients consuming alcohol (OR=2.151, CI=1.298–3.542) and those with partners whose occupation were skilled (OR=2.790, CI=1.297–5.986). Serodiscordant partners were significantly more among clients with infrequent sexual activities (OR=2.693) and did not consumed alcohol (OR=4.542), with partners whose occupation were skilled (OR=7.159, CI=1.440–35.604) and semi-skilled (OR=6.189, CI=1.216–31.503) and clients with infrequent sexual activities (OR=3.182, CI=1.437–7.046). Conclusion The study indicates that HIV positive clients could have serodiscordant partners if they could modify their lifestyle, have infrequent sexual activities (Not more than twice in a month) with partners that are gainfully engaged. It is therefore recommended that for early identification of at risk partners, couple HIV counselling and testing needs to be scaled up in addition to group-based interventions in order to pick serodiscordant partners early and provided all the necessary behavioural change support required to remain serodiscordant.
of BV in the genital specimens was assessed using Gram stain smear and Nugent scoring while that of Candida was assessed using microscopy. In-house multiplex PCR was used to detect the following STI pathogens – Neisseria gonorrhoeae (NG), Chlamydia trachomatis (CT), Trichomonas vaginalis (CT) and Mycoplasma genitalium (MG). HIV positivity was determined using commercial rapid tests. Data was captured into a Microsoft Access 2010 database and exported into Stata 14 for analysis using descriptive statistics, comparing four groups Group 1- women with BV or Candida infection only, Group 2 – women with BV or Candida with an STI, Group 3 – women with an STI infection only and Group 4 – women with no pathogens detected in the laboratory.

**Results**

A total of 771 women – median age 27 years [interquartile range (IQR) 23–32 years], 140 (19.5%) ≥35 years and 326 (43.4%) HIV positive- were enrolled. Of these: 253 (35.3%) were in Group 1, 238 (33.2%) in Group 2, 99 (13.8%) in Group 3, and 127 (17.7%) in Group 4. The proportions of women who were 35 years or older were 20.2%, 13.9%, 19.2% and 29.1% in Groups 1, 2, 3 and 4 respectively (p=0.006) while the HIV positivity was 43.1%, 55.9%, 43.4% and 32.3% in the groups (p<0.001). Condom use at last sexual encounter was 24.6%, 16.6%, 19.4% and 16.8% in Groups 1, 2, 3 and 4 respectively. The groups were similar in other respects although women in Group 2 had significantly higher rates of CT compared to Group 3.

**Conclusion**

There were smaller but significant proportions of women 35 or older had STIs with or without BV or Candida. The use of this age-specific threshold to guide syndromic treatment should be reconsidered, and HIV/STI integration promoted for women with VDS.

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High Levels of Susceptibility in Neisseria gonorrhoeae Isolates from Saskatchewan, Canada (2003–2015) to New and Older Antibiotics Used for Treatment

Introduction Antibiotics should have an efficacy of at least 95% for treating infections caused by Neisseria gonorrhoeae (Ng). When more than 5% of Ng isolates are resistant to an antibiotic, treatment guidelines must be changed to a more effective antibiotic. Trends in the antimicrobial susceptibility (AMS) of Ng isolates from Saskatchewan, Canada were ascertained (2003–2015) to ascertain whether older antimicrobials might be effective.

Methods The susceptibility of 685 Ng isolates to 7 antibiotics was determined by the agar dilution method. β-lactamase production was determined using nitrocefin.

Results From 2006–2012, penicillin resistance was below 5% (0%–4.0%) of Ng isolates tested. Penicillin resistance above 5% occurred in 2003 (6.7%), 2004 (6.8%), 2005 (11.5%), 2013 (27.5%) and 2014 (13.3%). Tetracycline resistance remained above 5% (11.8% to 89.1%) of Ng tested throughout the study. Ciprofloxacin resistance ranged between 0% and 1.9% of isolates tested up to 2009 but was over 5% thereafter. All isolates were susceptible to spectinomycin. Over 95% of Ng isolates tested were susceptible to azithromycin except in 2010 (27.6% resistant; 8/29) and 2013 (7.2% resistant; 3/69). Twelve (1.8%) isolates over the period showed reduced susceptibility to cefixime (2006–1/55; 2012–2/50; 2013–4/69; 2014–2/89; 2015–1/63) and/or ceftriaxone (2012–2/50). One isolate was resistant to both azithromycin and cefixime.

Conclusions Cases of gonorrhoea in Saskatchewan (>95%) are diagnosed by nucleic acid testing with no AMS testing. Our research showed that many no-longer recommended antibiotics (penicillin, ciprofloxacin) were still effective over many years. Even with the recent higher percentages of Ng isolates resistant to penicillin and ciprofloxacin, ~87% of Ng in the province remains susceptible to these antibiotics. The development of NAATs to test for AMS would enhance knowledge of true infection and allow discretion as to whether older but still effective antibiotics could be used in individual patient care.

Factors Associated with Maternal-Child Transmission of HIV-1 in Southeastern Brazil: A Retrospective Study

Introduction Mother-to-child transmission (MTCT) is the main mode of acquisition of HIV-1 among young children worldwide. In Brazil, the southeast region is the geographical area that reports the majority of MTCT cases. The goals of this study were to estimate the rate of HIV MTCT and to identify factors associated with MTCT in Espirito Santo State, in southeast Brazil.

Methods This study was a review of the data from the Brazilian National Information on Reportable Diseases System (SINAN) for HIV-infected pregnant women and for AIDS among children under 13 years old. The study population was comprised of all HIV-infected pregnant women reported to SINAN in the State of Espirito Santo, Brazil between January 1, 2007 and December 31, 2012.

Results A total of 470 women were included in the study. The proportion of MTCT during this period was 14.0% (95% CI 10.9–17.0). In a multivariable logistic regression model incorporating the significant covariates identified in bivariate analyses, women who had less than primary school education had increased odds of MTCT (OR=2.64; 95% CI 1.34–5.22) compared to women with more than primary school education. Emergency caesarean delivery was associated with increased odds of MTCT (OR=4.40; 95% CI 1.12–17.08) compared to vaginal delivery. In addition, pregnant women who did not receive ART during prenatal care had higher odds of MTCT (OR=2.21; 95% CI 1.10–4.47) compared to pregnant women who received ART during prenatal care.

Conclusion Health information systems can provide the basis for monitoring and analysing the health situation in municipalities and states, with a view towards health planning and management. This study identified a high rate of HIV MTCT in Espirito Santo State and effort should be made to encourage health care workers and pregnant women to use MTCT prevention services.

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Antimicrobial Susceptibility Profile of Neisseria gonorrhoeae Detected in a Public Hospital in Buenos Aires, Argentina

Introduction Gonococcal disease is one of the most common bacterial sexually transmitted infections in the world. The emergence of antimicrobial resistance of Neisseria gonorrhoeae (Ng) to the first-line antimicrobial agents already compromise treatment effectiveness and control of Ng infections. The aim of this study was to know the susceptibility profiles of Ng isolates and clinical features of the patients treated at a public hospital located in the suburbs of Buenos Aires.

Methods We studied 40 isolates of Ng recovered between 2014 and 2015 by the laboratory of bacteriology, from patients attending to the STD office of Eva Perón Hospital. Minimum inhibitory concentrations (MICs) were determined for penicillin (PEN), tetracycline (TET), ciprofloxacin (CIP), azithromycin (AZI), cefixime (CFX) and ceftriaxone (CRO) by agar dilution method (CLSI). B-lactamase was performed by chromogenic cephalosporin method (Nitrocefin).