

The HR-HPV incidence was 10.6% in 6 months visit and 6.5% in 12 months visit. Variables associated with HR-HPV incidence were: age  $\leq 30$  years, combined oral contraceptive use, smoking and detectable HIV viral load. The HR-HPV clearance was 31.7% and was associated with age  $> 30$  years and lymphocytes count  $> 350$  cels/mm<sup>3</sup> at enrolment. Nulliparous women had higher HR-HPV clearance rates.

**Conclusion** These findings have contributed to the knowledge about the group of women that need a more careful HPV screening, while described the association of efficient immunological response and HIV viral suppression with a lower HR-HPV incidence and increased clearance of HPV-HR.

**P3.11 BIOTYPES, BIOFILM AND PHOSPHOLIPASE C PRODUCTION OF *GARDNERELLA VAGINALIS* ASSOCIATED WITH NORMAL FLORA AND BACTERIAL VAGINOSIS**

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**Introduction** Bacterial vaginosis (BV) is the most common vaginal infection among women around the world, characterised by the replacement of the normal vaginal microbiota by anaerobic bacteria, mainly *G. vaginalis* a Gram negative coccobacillus that is isolated in up to 98% of the cases. This bacterium is classified into eight biotypes and has several virulence factors such as the production of biofilm and phospholipase C (PLC) that are associated with gineco-obstetric complications. Therefore, it is necessary to evaluate the relationship between biotypes and virulence factors with BV, which was the main objective of this study.

**Methods** 250 samples of vaginal swab were analysed; the samples were inoculated on Columbia agar for the isolation of *G. vaginalis*. We use Amsel and Nugent criteria for the classification of vaginal flora and for the diagnosis of BV. For biotyping, we use Piot *et al* 1984 classification (hydrolysis of hippurate,  $\beta$ -galactosidase and lipase). Biofilm production was performed in 96-well plates and the results were classified as non-producing ( $< 0.1$ ), moderate (0.1–0.2) and abundant ( $> 0.2$ ). We measured PLC production on skim milk agar.

**Results** We isolated *G. vaginalis* in 75% (187) of the samples, of wich 15% (37) were associated with BV whereas 60% (150) with normal flora. We identify biotypes 1 (19%), 2 (8%), 5 (16%) and 6 (57%) in BV cases, whereas in normal flora we identify the same biotypes at different frequency [1 (22%), 2 (11%), 5 (21%) and 6 (46%)]. We observed PLC production in 22% of the cases associated with BV and at 27% in normal flora. We observed that 76% of strains associated with BV were non-producers, 19% were moderate and 5% were abundant, whereas in the normal flora group was 66%, 26% and 8%, respectively.

**Conclusion:** *G. vaginalis* was isolated in 75% of the samples (15% associated with BV and 60% in normal flora). We identified biotypes 1, 2, 5 and 6 of *G. vaginalis*; the production of PLC and biofilm was similar in both study groups. We couldn't associate biotypes and virulence factors with BV.

**P3.12 FREQUENCY AND DISTRIBUTION OF *CHLAMYDIA TRACHOMATIS* INFECTION AMONG YOUNG PREGNANT WOMEN IN ARGENTINA**

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**Introduction:** *Chlamydia trachomatis* causes the most frequent bacterial Sexually Transmitted Infection (STI) in the world. Previous results showed that in Buenos Aires, Argentina, adolescent pregnant women have an unusually high prevalence of this infection. Our aim was to define the frequency of *C. trachomatis* infection among pregnant women, and to describe its association pattern.

**Methods** Starting on May 2016, voluntary participation for this study was offered to every pregnant woman attending the Hospital Materno Infantil "Ana Goitia" (Avellaneda, Buenos Aires) during her routine pregnancy control. Those who accepted and signed the Informed Consent form were enrolled. Cervico-vaginal lavage and first catch urine samples were collected. Detection of *Chlamydia trachomatis* was performed using Real Time PCR. This preliminary report shows the results for the first four months of a two years study, which is still ongoing.

**Results** One hundred and nineteen pregnant women aged between 14 and 39 years-old were enrolled, with a mean age of 22.85 years-old. Sixty four (53.78%) of them were younger than 22 years-old. *C. trachomatis* infection was detected on 22 (18.49%) women. The majority of the chlamydia infected patients (76.19%) were 21 years-old or less, which is statistically significant related to the age distribution of the whole analysed group OR: 3,27 (1.11–9.62)  $p < 0.05$ . Eleven out of 16 *C. trachomatis* infected patients (68.75%) were associated to lack of inflammatory reaction on vaginal content.

**Conclusion** The frequency of *Chlamydia trachomatis* infection on the analysed group was high, and was also significantly associated to the age of the studied women, being higher on women younger than 21 years-old (25%) than on the older ones (9.09%). This evidence supports the need of assessing the addition of the detection of *C. trachomatis* infection to routine pregnancy control of younger women in Argentina.

**P3.13 HIGH-RISK PAPILLOMAVIRUS INFECTION AND CERVICAL CANCER AMONG WOMEN LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS: BRAZILIAN MULTICENTRIC STUDY**

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**Introduction** Although HPV infections can clear spontaneously, persistence of high-risk-HPV is a risk factor for cervical cancer

among women and it is even higher in HIV-infected women. Our goal was to determine the prevalence rate of High-risk (HR) HPV and associated factors among HIV-infected women attending referral care centres for HIV/AIDS in different regions of Brazil.

**Methods** Cross-sectional study conducted among HIV-infected women attended at referral care centres for HIV/AIDS in nine states of Brazil. Women from 18 to 49 years that accept to participate and were not pregnant at the time of the approach were recruited for the study. The HPV screening was realised using qPCR in closed system, *In vitro Diagnostic*, COBAS-HPV Roche. The cytology results were available by the Bethesda System.

**Results** A total of 802 (89.1%) women participated. Median age was 39 (Inter quartile range (QR34-46)) years and median education was 9 (IQR6-11) years. The general prevalence of HR-HPV was 28.4% (228/802). The prevalence rate of HPV-16 was 8.1% (65/802), HPV 18 was 3.7% (30/802) and other types of HR-HPV were 23.6% (189/802). The factors associated with HR-HPV in the multivariate logistic regression analysis were: age ranging from 18 to 34 years [OR=1.43 (95% CI:1.18–1.75)], drug abuse [OR=1.61 (95%CI:1.10–2.42)] and abnormal cervical cytology [OR=1.56 (95%CI:1.34–1.81)].

**Conclusion** Results showed high prevalence of high-risk HPV infection in women living with HIV in Brazil. The infection was significantly associated with age less than 35 years old, illicit drug use and abnormal cervical cytology. HR-HPV test in HIV-seropositive women is a useful procedure to implement cervical cancer screening.

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**P3.14** **PREVALENCE OF CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEA AND ASSOCIATED FACTORS AMONG WOMEN LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS IN BRAZIL: A MULTICENTER STUDY**

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**Introduction** *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (GC) cause infections in the female genital tract, increasing susceptibility to and infectiousness of HIV. Our objectives were to determine prevalence and associated factors of CT and GC among HIV-infected women in Brazil.

**Methods** Cross-sectional study, including HIV-infected women attending nine referral centres in nine states of Brazil, aged 18 to 49 years, not pregnant. An interview was conducted including sociodemographic, epidemiological and clinical characteristics. After the interview, gynaecological examination was conducted to collect cervical cytology and vaginal secretion to

*Chlamydia trachomatis*, *Neisseria gonorrhoeae* and HPV tests through molecular biology.

**Results** A total of 802 (89.1%) women participated. The prevalence of CT was 17 cases (2.1%) and GC was 7 cases (0.9%). The prevalence of a positive test for both CT and/or GC was 2.7%. The factors associated with positive CT/GC test in the multivariate logistic regression analysis were abnormal papanicolau smear [OR 4.1 (95% CI:1.54–11.09)] and the presence of abnormal cervical discharge [OR=2.6 (95% CI:1.02–6.71)]. Among the 377 women that reported previous STI: 245 (65.0%) reported using condom more frequently after being diagnosed. Regarding how they discovered the STI, 62 (16.4%) the partner told he was infected by an STI; 157 (41.6%) had STI symptoms and looked for care and 158 (41.9%) discovered it in a routine consultation for another reason.

**Conclusions** The control of STI represents a unique opportunity to improve reproductive health of women living with HIV. This diagnostic can change their behaviour and reduce the sexual transmission of HIV and bacterial STI. Controlling STI and identifying factors associated with such diseases continues to be an important element in the design of interventions targeting STI and as a result, HIV prevention in Brazil.

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**P3.15** **UNPROTECTED SEX WITH NON-COMMERCIAL PARTNERS AS THE MAIN RISK FACTOR TO GET STI FOR FEMALE SEX WORKERS IN ARMENIA**

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**Introduction** HIV Biological and Behavioural Surveillance surveys (BBSS) were conducted among female sex workers (FSW) in Armenia in 2010, 2012, and 2014. These surveys used respondent driven sampling (RDS), an effective method for recruiting hidden populations.

**Methods** In 2016 the BBSS using RDS among FSW were conducted in Yerevan the capital of Armenia. The sample size was 300. Prevalence of HIV, syphilis, Trichomoniasis, *Neisseria gonorrhoeae* (NG) and *Chlamydia trachomatis* (CT) were measured and knowledge and sexual risk behaviours were assessed.

**Results** HIV prevalence was low at 0.1% among FSW in Yerevan. NG prevalence was 4%, 29% of FSW were positive for Trichomoniasis. The prevalence of CT was 12%, syphilis prevalence was 4%. 34% of FSW in Yerevan reported having had genital ulcers or sores in the past 12 months.

More than 95% of FSW in all survey locations reported using condoms the last time they had sexual intercourse with a client. 89% of FSW in Yerevan reported sex with non-commercial partners in the past 12 months and 38% reported not using condoms during their last sex with them.

**Conclusion** There was a significant increase from 90.2% in 2012 to 99.6% in 2016 in the use of condoms with the most recent client among FSW. But there was no overall significant change in STI prevalence among FSW between 2012 and 2016. Many FSW reported having sex with non-commercial