

(cause of Bacterial Vaginosis) was found to top the list. Also, unprotected sex during first sexual intercourse and multiple sexual partners are found to be the major risk factors for the wide spread of Bacterial vaginosis among the study's young women.

**Method** Bacteriological and differential laboratory tests (microscopic examination, normal physiological saline wet-preparation, Potassium Hydroxide (OH) solution, whiff test, the litmus paper/PH level test, and gram staining) were carried out on High vaginal swab (HVS) specimens collected aseptically within 6 months from non-pregnant, non-menstruating young women who are not on antibiotics for a week before specimens were collected, and whose consent is sought before the study. The Study population is made up of both STD center attending and non-attending young women (mean age=25.50). In addition, a standard questionnaire ( $r=0.77$ ) was administered to answer the major research/study questions on the major risk factors for Bacterial vaginosis.

**Result** From the 200 HVS collected, 68 % of primary isolates were isolated: *G vaginalis* (51.72%), *C albicans* (41.92%), and *T vaginalis* (06.36%) respectively ( $p<0.0001$ ). According to the result from the study questionnaire, among 200 respondents, 37.71% had their first sexual intercourse without any protection, 39.16% were protected during their first sexual intercourse, and 23.13% did not recollect. Also, 31.65% had engaged in sexual intercourse with more than one sexual partner before with no protection in few occasions, 37.21% had had multiple sexual partners before with protection, 31.14% declined to provide answer to the multiple sexual partner questions.

**Conclusions** Bacterial vaginosis was found to be the most prevalent among young women in urban cities in Nigeria, and the major risk of contracting the infectious disease is unprotected sexual intercourse with multiple partners, and during first sexual intercourse. However, there is need for effective and efficient sex education and awareness to encourage the partners to be faithful to one another and for the promotion of safe sexual intercourse by using preventive means such as condoms.

#### P3-S7.04 CANDIDA SUSCEPTIBILITY TO ANTIFUNGALS IN GOMEL REGION (BELARUS)

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Candidiasis is a fungal infection that often affects urogenital tract. About 75% of women had at least one episode of vulvovaginal candidiasis. Recent times chronic cause of candidiasis is prevalent in the clinical picture of the disease in Belarus. Along with *Candida albicans* other yeasts (*Candida crusei*, *Candida tropicans*, *Candida glabrata*, *Candida parapsilosis*, etc) play a role in pathogenesis of the disease. Wide use of fluconazole in Belarus as well as prophylactic treatment during prolonged antibiotic use caused the grow of the resistance to the drug. Aim of our study was to reveal the incidence of urogenital candidiasis in patients who where checked up for STI in Gomel dermatovenereal hospital (Belarus), to study the resistance of *Candida spp.* to nystatin, clotrimazole, and fluconazole in vitro.

**Materials and Methods** We observed 4397 patients using clinical examination, microscopy, and cultural examination. Susceptibility to antifungal was studied by cultured method in vitro in 187 samples from the patients.

**Results** Urogenital candidiasis clinically and was diagnosed in 473 patients (10.8%) and confirmed by laboratory tests. Susceptibility to nystatin was founded in 183 cases (97.8%), to clotrimazole—in 125 cases (66.8%). Susceptibility to fluconazole was much lower and was registered only in 37 cases (19.8%).

**Conclusions** Candidiasis is a current problem for gynaecologists and venreologists in Belarus. Its rate reaches 10% among all patients coming for follow-up for STI. Effective treatment for candidiasis

should be developed. Wide use of fluconazole should be reevaluated because of its low susceptibility.

#### P3-S7.05 PHENOTYPIC CHARACTERISATION OF CLINICAL TRICHOMONAS VAGINALIS ISOLATES AMONG AAWSW IN SEXUAL PARTNERSHIPS

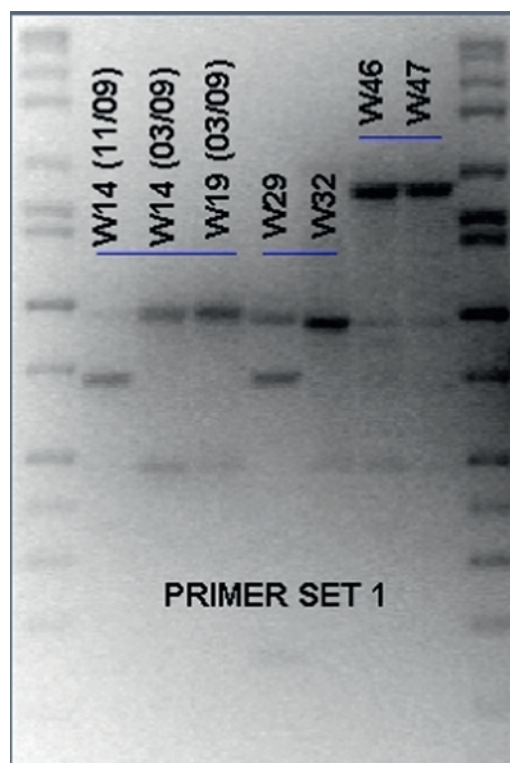
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**Background** *Trichomonas vaginalis* (TV) is the most common non-viral sexually transmitted infection in the world. TV prevalence in US women is consistently highest among African Americans (AA). However, little data exists on the risk of TV infection among women who have sex with women (WSW) and the mechanism of transmission is poorly understood. The goal of this study was to evaluate the concordance of TV isolates among AAWSW involved in sexual partnerships using the random amplified polymorphonuclear DNA (RAPD) technique.

**Methods** AAWSW involved in sexual partnerships and participating in a cross-sectional study of STI prevalence rates at the Mississippi State Department of Health STD clinic in Jackson, MS, were selected for this study if both women in the partnership were infected with TV. All women completed a confidential survey asking detailed sexual history questions about female and male partners during the past 12 months. The RAPD technique utilising six unique PCR primers was performed on TV clinical isolates from each sexual partnership. RAPD amplicons were collated and categorised to determine genetic similarity between isolates from paired couples.

**Results** TV isolates from three paired couples were included in this study. RAPD profiling demonstrated that only one out of the three pairs of TV isolates was concordant see Abstract P3-S7.05 figure 1.



Abstract P3-S7.05 Figure 1 Primer Set 1.

Within this concordant pair, both women reported engaging in oral sex and sharing wet towels during sexual activity. One woman in this pair reported recent sex with a male partner while the other woman denied history of other sexual partners during the past 3 months and had not had sex with a male partner in 5 years. Additionally, a follow-up visit of one of the members of this concordant union demonstrated a RAPD pattern discordant with previous findings indicating that the individual's initial treatment was successful and that she had acquired a new TV infection.

**Conclusions** Given the phenotypic similarity of banding patterns within one AAWSW sexual partnership, female to female transmission of TV may have occurred. The frequency of TV transmission between WSW is unknown at this time; however, the use of RAPD appears to be informative for differentiating isolates of TV. A prospective study examining the epidemiology and incidence of TV infection among WSW is necessary.

### P3-S7.06 VAGINAL DISCHARGE IN WOMEN LIVING WITH HIV ATTENDING AN AIDS CLINIC IN MANAUS, BRAZIL

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**Background** A vaginal discharge and/or vulvar itching and irritation usually characterise Vaginitis, and a vaginal odour might be present. The three diseases most frequently associated with vaginal discharge are BV (replacement of the normal vaginal flora by an overgrowth of anaerobic microorganisms, (*Gardnerella vaginalis*), trichomoniasis, and candidiasis.

**Objectives** To estimate the prevalence of vaginal discharge in HIV women attending the Institute of Tropical Medicine in Manaus, Amazonas, Brazil.

**Methods** A cross-sectional study performed among women attending the AIDS clinic from March to December 2010. They were invited to take part in the study and answered an interview including demographic, behavioural and clinical data. They underwent in a gynaecological examination and it was collected vaginal samples for diagnosing *Trichomonas vaginalis*, *Gardnerella vaginalis* and *Candida spp.*

**Results** A total of 338 women were included in the study. Median age was 32 (IQR (IQR): 27; 38) years and median of schooling nine (IQR: 4; 11) years. Prevalence rate of vaginal discharge was 45.8% (95% CI 40.5% to 51.1%). Prevalence of *Trichomonas vaginalis* was 1.2% (95% CI 0.5% to 2.4%), *Gardnerella vaginalis* 35.8% (95% CI 30.7% to 40.9%) and Candidiasis 21.3% (95% CI 16.9% to 25.7%). Median of first sexual intercourse was 16 (IQR: 14; 17) years and 53.6% were married or reported a stable partner. Risk factors reported were: injecting drug use (1.2%), no-injecting drugs (15.2%), previous STI (32.4%), commercial sex workers (16.4%), more than one partner in the last year (12.4%) and in life (94.7%). Regarding clinical symptoms, 50.9% reported chronic pelvic pain, 53.3% vaginal discharge, 47.6% vaginal itching, 22.8% dysuria and 9.5% genital bleeding. CD4 counts were more than 500 cells/mm<sup>3</sup> in 29.4% and viral load were <1.00 copies/ml in 53.8%. A total of 53.9% of women reporting vaginal discharge had a positive test for at least one disease. In the final model of logistic regression the only variable remained was having viral load <1000 copies/ml decreased the risk of vaginal discharge.

**Conclusions** Regardless the low cost and large availability of GRAM stain and cytological tests in health services for women with AIDS, there are difficulties which remain to identify interventions that refer to social, cultural and environmental influences on vaginal infections in this group.

### P3-S7.07 DETECTION OF *TRICHOMONAS VAGINALIS* IN HIV POSITIVE WOMEN IN PRETORIA, SOUTH AFRICA

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**Background** The aim of this study was to detect *Trichomonas vaginalis* infection in HIV positive women receiving anti-retroviral therapy in Pretoria, South Africa.

**Methods** Self-collected vaginal swab specimens from 95 consecutive patients attending the anti-retroviral clinic (Tshwane District Hospital) were analysed. *Trichomonas vaginalis* was diagnosed by wet mount microscopy, culture using InPouch and a commercial PCR assay targeting the DNA repeat units. Trichomoniasis was diagnosed if any test was positive.

**Results** Five (5.3%) of the 95 specimens were positive by wet mount microscopy, 21 (22.1%) were culture positive and 28 (29.5%) were detected by PCR. All culture and wet mount positive specimens were PCR positive. The sensitivity and specificity of wet mount microscopy compared to culture were 23.8% and 98.7% respectively. PCR detected seven additional positive specimens than culture. The specificity of PCR compared to culture was 100%, with a sensitivity of 90.5%. The prevalence of *T vaginalis* was found to be 29.5% in this study.

**Conclusions** Previous studies in South Africa focused on the prevalence of trichomoniasis in pregnant women and women without HIV status and from lower socio-economic groups. This is the first report in HIV positive women receiving ARV treatment. There was a high prevalence (29.5%) of *T vaginalis* in this group. This is similar to that reported from Nigeria (24.4%) and Ivory Coast (27.0%), whilst the rate reported in Congolese (18.6%) HIV positive women was lower. Using microscopy alone for the diagnosis of trichomoniasis as is the current practice in most laboratories in South Africa is inadequate and leads to missed infections.

### P3-S7.08 CLINICAL EVALUATION OF THE APTIMA® *TRICHOMONAS VAGINALIS* ASSAY ON THE TIGRIS® DTS® SYSTEM IN ASYMPTOMATIC AND SYMPTOMATIC FEMALE SUBJECTS

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**Background** This study evaluated the clinical performance of the APTIMA® *Trichomonas vaginalis* (ATV, Gen-Probe Incorporated) Assay, a nucleic acid amplification test for the diagnosis of *Trichomonas vaginalis* (TV) infection, in asymptomatic and symptomatic women.

**Methods** This prospective, multicenter clinical trial enrolled 1025 women attending US OB-GYN, adolescent, family planning, or sexually transmitted disease clinics. Four specimen types were collected from each subject: physician-collected vaginal swab, endocervical swab, ThinPrep specimen, and first-catch urine. Of three vaginal swabs collected from each subject, one was used for wet mount microscopic examination, one for culture, and one for molecular testing for TV. The order of collection for each vaginal swab sample was rotated to minimise sampling bias. Each specimen was tested by ATV assay using the automated TIGRIS DTS system. ATV assay performance in each sample type was determined by comparing ATV assay test result to the patient infected status (positive in saline wet mount and/or culture) for each sample.