

Methods Women aged 16 to 25 years were recruited from sexual health clinics (SHC) and general practice clinics (GP) in South-Eastern Australia and provided with kits containing vaginal swabs and microscope slides to self-collect vaginal smears at 0, 6 and 12 months; 6- and 12-month samples were returned via post. Vaginal smears were scored using the Nugent method. BV prevalence was measured at time of recruitment and adjusted ORs (AOR) calculated to explore associations; BV incidence was measured over the study period and adjusted HRs (AHR) calculated to explore predictors of infection. Incident BV was diagnosed if a participant at baseline had a Nugent score <7 followed by a subsequent Nugent score of 7–10 at 6 or 12 months. Women diagnosed with BV at recruitment were excluded from the incidence analysis.

Results Overall, 1116 women were recruited from 29 clinics; slides were available for 1112 (99%) women at the baseline and 875 women (79%) at study completion. The prevalence of BV at recruitment was 11.8% (95% CI 9.9 to 13.7). Prevalent BV was associated with increased numbers of recent male sexual partners (AOR=2.2; 95% CI 1.0 to 4.6), a recent female sexual partner (AOR=3.2; 95% CI 1.6 to 6.5), being recruited from SHC (AOR=1.7; 95% CI 1.1 to 2.5) and having a lower level of education (AOR=0.5; 95% CI 0.3 to 0.7). There were 88 cases of incident BV yielding an incidence of 8.8 per 100 women years (95% CI 7.1 to 10.8). Incident BV was associated with increased numbers of new sexual partners (AHR=1.7; 95% CI 1.1 to 2.5). Both prevalent and incident infections were associated with increased numbers of self-reported symptoms, in particular “abnormal vaginal discharge” and “abnormal vaginal odour”.

Conclusion These are Australia’s first community-based BV prevalence and incidence estimates and show that BV is very common among young women and frequently associated with increased sexual activity.

P1-S1.29 USE OF MOLECULAR SEQUENCING TO COMPARE THE VAGINAL MICROBIOTA OF HEALTHY WOMEN AND WOMEN WITH BACTERIAL VAGINOSIS IN INDIA

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Background Lactobacillus species is an integral part of vaginal microbiota that maintains a healthy environment and plays an important role in preventing STI and HIV. We examined 20 women to investigate the difference in the diversity of Lactobacillus species present when the women are healthy or have Bacterial Vaginosis (BV).

Method Between February and November 2010, samples from a total of 20 women attending Prerana Women’s Health Clinic were collected. Out of 20, 10 women were considered healthy and 10 women were diagnosed with BV based on Amsel’s Criteria. In addition, Gram stained smears of vaginal fluid were Nugent scored as negative, intermediate, or positive for BV. Based on the Nugent score criteria, nine were Positive, nine were negative and two showed “Intermediate” Nugent Score. Vaginal swabs were taken from the women with informed consent after ethical approval and grown in MRS broth. Gram positive Lactobacilli generating about 600–800 bp amplicon by 16SrDNA PCR were further characterised by sequencing.

Result *Lactobacillus crispatus* (40%) and *Lactobacillus jensenii* (40%) were the most common Lactobacillus species found in the vaginas of

healthy women, the same Lactobacillus species found in healthy women in other countries. *L. crispatus* was cultured from 40% of healthy women and none of women with BV. *L. jensenii*, *L. gasseri*, and *L. acidophilus* were cultured from 40%, 10% and 10% of healthy women respectively; and none of the women with BV. *Lactobacillus iners* was not detected among healthy women or women with BV in our sample. Other organisms found among women were *Staphylococcus epidermidis* (60% among women with BV and 30% among healthy women), *Streptococcus anginosus* (40% among women with BV and 20% among healthy women). Some *Corynebacterium* spp were common among both women with BV and healthy women. Among the two women with “Intermediate” nugent score, one did not show growth of any Lactobacillus and in the other case there was growth of *Lactobacillus salivarius*.

Conclusion Our findings showed Lactobacilli species present in healthy vagina of women in India do not differ from those reported from other countries. This information is useful for the development of microbicides for HIV prevention as well as better understanding of the reproductive health of women in India.

Epidemiology poster session 1: STI trends: Chlamydia trachomatis

P1-S1.30 CHLAMYDIA TRACHOMATIS PREVALENCE AND DETECTION IN MEN ATTENDING THE UROLOGIST’S OFFICE TO GET TESTED FOR SEXUALLY TRANSMITTED INFECTIONS IN ST PETERSBURG

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Objectives The data about the prevalence sexually transmitted infection (STI) as *Chlamydia trachomatis* (CT) among the Russian population is limited and controversial. This information is of great scientific and health care interest. The aim of the study was to evaluate the prevalence of genital CT infection among male attendees of the urologist’s office in STI clinics in St. Petersburg and the role of molecular tests in low-resource settings.

Methods The prospective, multicenter study was undertaken throughout urologist’s offices in St. Petersburg during the January 2007–December 2009 timeframe. Urethral samples from 907 men (mean age 31.7 years), who were seeking to be routinely tested for STIs and with no HIV, gonorrhoea, syphilis and *Trichomonas vaginalis* detected in the time of study, were collected to be tested for CT infection by culture and in-house RT-PCR assays in St. Petersburg and to be confirmed in Amsterdam.

Results The results are presented in the Abstract P1-S1.30 table 1. In total CT infection was found in 6.4% of men tested by RT-PCR. Urethral specimens were tested by culture and RT-PCR assays for CT finding positivity rates of 2.2% (n=466 culture samples) and 7.6% (n=804 RT-PCR samples). Use of only culture test would result in missing up to 60% of CT+ cases (p<0.0001). Symptoms were presented in 48% of CT+ men. CT was less often detected in men reporting previous CT infection, as compared with first CT infection—4.3% vs 7.4% (p=0.0475). Only 14/907 (1.5%) questioned men openly reported being MSM but CT prevalence in this small group was 28.6% (p<0.0001). CT positivity assessed in St. Petersburg by culture and in-house RT-PCR tests was confirmed in Amsterdam by a molecular CE marked CT test.