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 11.5% (95% CI 9.9 to 15.7). 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 9.8 per 100 women years (95% CI 7.1 to 10.8). Incident BV was associated having 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.

Epidemiology poster session 1: STI trends:
Chlamydia trachomatis

USE OF MOLECULAR SEQUENCING TO COMPARE THE VAGINAL MICROBIOTA OF HEALTHY WOMEN AND WOMEN WITH BACTERIAL VAGINOSIS IN INDIA

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 presenting with and to be confirmed 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 Lactobacillus 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.

Method

Women aged 16 to 25 years were recruited in 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 11.5% (95% CI 9.9 to 15.7). 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 9.8 per 100 women years (95% CI 7.1 to 10.8). Incident BV was associated having 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

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