

eP566

ePoster Viewing

STD and other genital infections

PREVALENCE AND RISK FACTORS ASSOCIATED WITH MYCOPLASMA GENITALIUM INFECTION IN A SOUTH AFRICAN WOMEN COHORT

J.-H. Dubbink¹, B. Hay², S. Ouburg³, C. Le Roy², S. Pereyre², S.A. Morrè³, **C. Bebear**², R.H. Peters¹

¹Khutso Kurhula project, Anova Health Institute, Johannesburg and Tzaneen, South Africa ; ²USC EA 3671 Mycoplasmal and Chlamydial Infections in Humans, University Bordeaux Segalen, Bordeaux, France ; ³Department of Medical Microbiology & Infection Control, VU University Medical Centre, Amsterdam, Netherlands

Objectives: To determine prevalence and identify risk factors of *Mycoplasma genitalium* infection in a cohort of women in rural South Africa. *M. genitalium* is a sexually transmitted organism associated with several inflammatory reproductive tract syndromes in women such as cervicitis, pelvic inflammatory disease, and infertility. Beside cohorts of Ugandan and Kenyan female sex workers, limited information is available about *M. genitalium* infections in women from sub-Saharan Africa. Several studies recently showed a strong association between *M. genitalium* and HIV acquisition and transmission, especially in African populations.

Methods: Vaginal, anorectal and oropharyngeal samples were available for 601 women aged 18-49 years recruited regardless of symptoms at primary healthcare facilities from Mopani district between November 2011 and February 2012. Eligibility criteria were sexual activity (at least one sex act in previous 6 months) and consent to have three anatomic sites tested. Demographic, clinical, and sexual behavioural data were collected by nurse-administered questionnaire. HIV-status was self-reported and classified as positive, negative (tested <6 months ago) or unknown. Real-time PCRs were performed on vaginal, rectal and pharyngeal samples using the open channel on the cobas® 4800 system (Roche Molecular Systems) with the *Mycoplasma genitalium* LightMix® kit (TIB MOLBIOL) according to the manufacturer's instructions. For macrolide resistance, detection of mutations in the 23S rRNA gene and *mgpB* genotyping was performed on *M. genitalium*-positive samples. Statistical analysis was performed using chi-square and Mann-Whitney tests to compare dichotomous and continuous variables between groups.

Results: Six hundred and one vaginal and 98 randomly selected pharyngeal samples were tested. Prevalence of vaginal *M. genitalium* infection was 8.7% (95% confidence interval [CI] 6.4-10.9%). No oral infection was detected. Women with vaginal *M. genitalium* infections were younger than those without infection (27 vs. 31 years; p=0.008). Reliable HIV status was available for 459 women (76%); *M. genitalium* infection was more prevalent among HIV-infected women than those without HIV infection (12% vs. 6.3%; OR, 2.0; 95% CI, 1.03-3.9; p=0.04). There was no association of *M. genitalium* infection with use of male or female condoms during the last sex act (OR, 0.7; 95% CI, 0.4-1.3; p=0.26), history of vaginal discharge syndrome (OR, 0.8; 95% CI, 0.4-1.7; p=0.5) or presentation with vaginal symptoms (OR, 1.1; 95% CI, 0.6-2.0; p=0.8). The mean Ct values of 38.79 and 37.85, respectively obtained from women with and without HIV-infection infected by *M. genitalium* were not significantly different (p=0.26). *M. genitalium* rectal infection and macrolide resistance are under investigation.

Conclusion: *M. genitalium* vaginal infection was highly prevalent in this South-African population, as already described in other African resource-limited settings. We also observed an association between HIV status and *M. genitalium* infection in this study.