DETECTION OF GENITAL MYCOPLASMAS IN WOMEN VISITING THE INFERTILITY CLINIC OF AN ACADEMIC HOSPITAL, PRETORIA, SOUTH AFRICA

Introduction Sexually transmitted infections (STIs) continue to be a significant public health problem with a high burden in women of reproductive age. Rates of Chlamydia trachomatis, Neisseria gonorrhoeae and Mycoplasma genitalium are frequently tested for and rates of infection are generally high in African settings, but the prevalence of other genital STIs is largely unknown. This study was aimed at determining the prevalence of genital mycoplasmas in infertility patients visiting the infertility clinic of a tertiary academic hospital in South Africa.

Methods In this pilot evaluation self-collected vaginal swabs were obtained from 51 women visiting the infertility clinic. The genomic DNA was extracted from the swabs using the ZR Fungal/Bacterial DNA MiniPrep (Thermo Scientific, USA) and analyzed using the Anyplex II STI-7 (Seegene, Korea) real-time PCR assay for the simultaneous detection and identification of seven STIs including the four mycoplasma species.

Results The real-time PCR assay detected the following genital mycoplasmas and co-infections in the 51 women: U. parvum (55% (28/51)), M. hominis (20% (10/51)) and U. urealyticum (16% (8/51)). Among the nine patients where mixed infections were observed, M. hominis and Ureaplasma spp. were frequently detected together (67% (6/9)). In addition to the mycoplasmas, one woman tested positive for C. trachomatis; N. gonorrhoeae and T. vaginalis were not detected.

Conclusion This pilot study demonstrated an unexpectedly high rate of genital mycoplasma infections among women visiting an infertility clinic. The burden of genital mycoplasma infection is largely unknown and warrants further investigation, in particular with regards to the prevalence and clinical significance in different population groups.

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