

Prevalence of cases of *Mycoplasma hominis*, *Mycoplasma genitalium*, *Ureaplasma urealyticum* and *Chlamydia trachomatis* in women with no gynecologic complaints

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Abstract

Purpose To evaluate the prevalence of *Mycoplasma hominis*, *Mycoplasma genitalium*, *Ureaplasma urealyticum*, *Chlamydia trachomatis*, *Trichomonas vaginalis* and *Neisseria gonorrhoeae* in women with no gynecologic complaints screened in the Human Reproduction outpatient clinic of Faculdade de Medicina of ABC, Brazil.

Methods A total of 106 women without gynecologic complaints and in reproductive age were evaluated. DNA was extracted from cells of the genitourinary tract with bacteria for the detection of six types of bacteria by polymerase chain reaction.

Results We found that 11.3 % of women had infection with *M. hominis* and 2.83 % for *C. trachomatis*. The other bacteria investigated occurred in 2.83 % of women. The percentage of infections identified was 15 %.

Conclusion The data showed a low percentage of women with genitourinary tract bacteria without symptoms. However, these infections can be sexually transmitted, and relate to infertility and other serious illnesses. The identification and treatment of infection in asymptomatic woman can avoid transmission and future genitourinary tract complications.

Keywords Asymptomatic · Bacterial infection · *Chlamydia trachomatis* · *Mycoplasmataceae* · Urogenital system

Introduction

The normal microbial flora of the vagina plays an important role in preventing genital and urinary tract infections in women. Thus an accurate understanding of the composition and ecology of the ecosystem is important to understanding the etiology of these diseases [1].

Reproductive tract infections (RTIs) are a major cause of ill health globally. RTIs can be caused by sexually transmitted infections (STIs), overgrowth of organisms normally present in the reproductive tract, and medical and surgical procedures including insertion of intrauterine devices and induced abortions. In women, RTIs can be asymptomatic, and even when symptomatic their presentation can overlap with and be misdiagnosed as normal physiologic change, and normal physiologic discharge may be misdiagnosed as RTI [2]. RTIs are primarily attributed to contamination with germs or unclean substances through various routes such as sexual contact, ingestion of contaminated food, use of unclean needles or an internal imbalance or over-exertion and stress [2].

Most of RTIs can cause alterations on male and female genital traits and potentially predisposing to sequelae [3]. In women, Chlamydia or Mycoplasma infection can lead to alterations on uterine tube and difficult the spermatozoa migration [3].

Screening programs of RTI, preferentially for Chlamydia, have been implemented in some countries, such as the UK, USA, Sweden, Denmark, Netherlands [4–7] to improve case finding. The screening debate among public health researchers, RTI specialists and policy makers remains polemic [8]. In underdeveloped countries, the question has not been addressed and screening is only performed when a symptom is present.

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