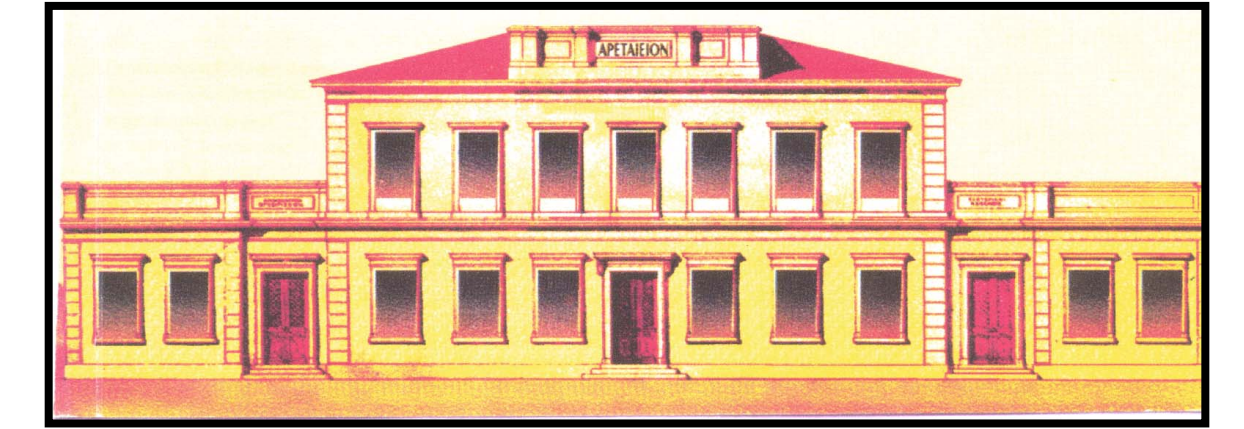




Increased quinolone-resistant *Ureaplasma urealyticum* and *Mycoplasma hominis* isolated in reproductive age women with vulvovaginitis



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Objectives: *Ureaplasma urealyticum* (Uu) and *Mycoplasma hominis* (Mh) are members of a unique group of microorganisms commonly found in the genital system of reproductive age women. However, these mycoplasmas have been associated with a plethora of genital tract infections with different clinical manifestations. We aimed to study the prevalence and the susceptibility to antibiotics of Uu and Mh isolated from the vaginal secretions in a group of reproductive age women with vulvovaginitis.

Methods: Vaginal samples from 3702 symptomatic women of reproductive age, presenting with signs and symptoms of vulvovaginitis to the Outpatient Clinic of Aretaieion University Hospital from January 2007 to October 2011, were studied. For the isolation and susceptibility testing of both mycoplasmas the commercial kit *Mycoplasma* IST2 (BioMerieux, France) was used. After inoculation onto the respective nutrient medium, the samples were incubated at 36-37°C for 48h in aerobic conditions.

Results: Out of the 3702 samples Uu was isolated in 769 (20.8 %) samples while Mh in 70 (1.9 %), always in association with Uu. Only concentrations of > 10⁴ CFU/ml at 48h were included as positive samples in the study. As for the susceptibility testing to antibiotics, we considered both resistance and intermediate susceptibility as resistance and the data is presented as such. In the isolates studied, doxycycline and tetracycline displayed the lowest percentages of resistance (1.0 % and 3.0 %, respectively). Among the macrolides, the same percentages for clarithromycin, azithromycin and erythromycin were 12.2 %, 17.6 % and 18.1 %, respectively. In contrast, the genital mycoplasmas tested showed decreased susceptibility to quinolones. Specifically, 86.1 % and 53.7 % of the mycoplasmas were resistant to ciprofloxacin and ofloxacin.

Conclusions: The isolates studied were highly resistant to quinolones, due to the increased and irrational use in the last years. As a result, it is imperative to stop the empirical treatment of genital mycoplasmas and clinicians must adjust the therapeutic approach to the results of the in vitro susceptibility testing.

Antibiotics	Resistance (%)
DOT	1.0
OFL	53.7
ERY	18.1
TET	3.0
CIP	86.1
AZI	17.6
CLA	12.2