

Prevalence of *Mycoplasma hominis* and *Ureaplasma urealyticum* as Causative Agents of Non-Gonococcal Urethritis in Men and Determination of Anti-Bacterial Resistance Rates

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Abstract : Objective: The aim of this study was to determine the prevalence of *Mycoplasma hominis* and *Ureaplasma urealyticum* as the causative agents in men with non-gonococcal urethritis, and anti-bacterial resistance rates. Methods: The Study was carried out in the two Medical Microbiology Laboratories belonging to: Konya Education and Research Hospital and ANS Practice and Research Hospital, Afyon Kocatepe University, between January 2012 and December 2015. Urethral samples were obtained from patients by using a swab. *Mycoplasma hominis* and *Ureaplasma urealyticum* were detected by using *Mycoplasma* IST-2 kit (bio-Mérieux, Marcy l'Étoile, France). *Neisseria gonorrhoea* was excluded by Gram staining and culture methods. Results: Of all the one hundred and eighty-eight male patients with urethritis, forty *M. hominis* and forty two *U. urealyticum* were detected. Resistance rates of *M. hominis* strains against to doxycycline, ofloxacin, erythromycin, tetracycline, ciprofloxacin, azithromycin, clarithromycin, and pristinamycin were found as 5 %, 65 %, 25 %, 5 %, 80 %, 20 %, 20 %, 20 %, 5 %, respectively. Resistance rates of *U. urealyticum* strains against to doxycycline, ofloxacin, erythromycin, tetracycline, ciprofloxacin, azithromycin, clarithromycin, and pristinamycin were found as 4.7 %, 66.6 %, 23.8 %, 4.75 %, 81 %, 19 %, 19 %, 4.7 % respectively. No resistance was detected against to josamycin, for both the strains. Conclusions: It was concluded that; ciprofloxacin and ofloxacin had the weakest; josamycin, doxycycline, and tetracycline had the strongest in vitro anti-bacterial activity, for treatment of the NGU. So josamycin, doxycycline, and tetracycline should be preferred as the first choice of anti-bacterial agents, for treatment of the patients with non-gonococcal male urethritis.

Keywords : antimicrobial resistance, *Mycoplasma hominis*, non-gonococcal urethritis, *Ureaplasma urealyticum*

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