R2671

Abstract (publication only)

Community-aquired urinary tract infections: spectrum of causative agents and susceptibility to common antimicrobials. A 4-year study

N. Skarmoutsou*, D. Dimitriadi, P. Katsika, V. Mitraj, S. Konstantopoulou, G. Kasdaglis, M. Martsoukou, M.E. Fakiri (Athens, GR)

Objectives: This study was performed to investigate the spectrum of bacteria associated with community-acquired bacteriuria and their resistance patterns to antibiotics commonly used as empirical therapy. Methods: During a 4 year period (September 2007- September 2011) a total of 3.126 urine samples from outpatients with urinary tract infection (UTI) symptoms were submitted in our laboratory and cultured by conventional methods. Species identification and susceptibility testing was performed with the Wider system (Soria), while the phenotypic detection of the production of extended spectrum b-lactamases (ESBL) was performed by the double disk synergy test, the combined disk test and the two-sided E-test, when necessary, on M. H. agar according to CLSI criteria. Results: Bacterial pathogens were identified in 1.236 samples (39.5%). E.coli encountered more frequently (73%), followed by P.mirabilis (6.4%), K.pneumoniae (5.3%), several Gram negative bacteria (5.7%), E.faecalis (4.5%) and S.saprophyticus (1.9%). ESBL were detected in 15.3% of K.pneumoniae strains, 6.3% of P.mirabilis and 2.1% of E.coli. Susceptibility testing of Gram (–) isolates to most commonly used per-os antimicrobials Ampicillin, Amoxicillin/clavulanic, Cefuroxime, Trimethoprime/sulfamethoxazole and Norfloxacin revealed resistance 44.6%, 9.5%, 9.2%, 26.7% and 8.7%, respectively. Enterococci exhibited resistance to Norfloxacin 8.9%, while all S.saprophyticus strains were susceptible at Trimethoprime/sulfamethoxazole and Norfloxacin. Conclusions: E.coli remains the most prevalent causative agent of community-acquired UTI (73%). Resistance rates to quinolones, amoxiccilin/clavulanic and per-os cephalosporines remained low and it seems that these agents can still be used in empirical antimicrobial therapy of uncomplicated UTI. On the other hand, high resistance rates to trimethoprime/sulfamethoxazole and ampicillin indicates that their use in therapy of UTI may lead to treatment failure.