ANTIMICROBIAL RESISTANCE PATTERNS OF UROPATHOGENS AMONG CHILDREN IN ISTANBUL, TURKEY

Ilke Özahi Ipek¹, Abdulkadir Bozaykut², Didem Caktir Arman² and Rabia Gonul Sezer²

¹Department of Pediatrics, School of Medicine, Istanbul Medipol University, Istanbul; ²Department of Pediatrics, Zeynep Kamil Maternity and Children’s Training and Research Hospital, Istanbul, Turkey

Abstract. Urinary tract infections are a common cause of end-stage renal disease in Turkey. This prospective study investigated the antibiotic resistance patterns of uropathogens in order to recommend appropriate therapeutic protocols for children with urinary tract infections in Istanbul, Turkey. Between October 2007 and October 2008, children presenting with a first episode of urinary tract infection to a pediatric outpatient clinic were enrolled in the study. Urine samples were cultured, and antimicrobial susceptibility testing was performed. Children with proven urinary tract infections underwent imaging studies where available. A total of 126 children with a first episode of community-acquired urinary tract infection were enrolled in the study. The median age was 60.6 months; 84.1% of the children were female. Of the 126 urine samples, *Escherichia coli* was the leading uropathogen (81.7%), followed by *Proteus* spp (7.1%), *Klebsiella* spp (4.0%), *Enterococcus* spp (3.2%), *Enterobacter* spp (2.4%), and *Pseudomonas* spp (1.6%). Among the isolated uropathogens, resistance to ampicillin (85.0%), amoxicillin-clavulanate (73.8%), cefazolin (37.3%) and trimethoprim-sulfamethoxazole (42.9%) was remarkable. A large number of *Enterococcus* species were resistant to all antimicrobial agents except vancomycin. A country-based evaluation of antibiotic susceptibility is needed to modify antibiotic treatment. Resistance to antimicrobial agents commonly used to treat urinary tract infections (nitrofurantoin, cefixime) is less a problem than resistance to other antimicrobials (aminopenicillins, cephalosporins, trimethoprim-sulfamethoxazole) frequently prescribed for other indications.

Keywords: antibiotic resistance, uropathogens, children, Turkey

Correspondence: Dr Ilke Özahi Ipek, Çamlık Mah Semerkant Bul Gülistan Evleri, No. 34/5 Aydos/Pendik, Istanbul, Turkey.
Tel: +90 532 257 05 55; Fax: +90 216 394 02 29
E-mail: ipekilke70@gmail.com