Abstract

Evaluation of antibiotic profile of resistance bacteria isolated from urine of hospitalized children with urinary tract infection Bu Ali Hospital since 2012-2016

Background & objective: *After respiratory and gastrointestinal infections, urinary tract infection is the most common infectious disease in children.Knowledge about common pathogens and antibiotic resistance in each region is essential for empirical treatment.*

The purpose of this study was to determine the distribution of age and sex of urinary tract infection, the prevalence of different microorganisms, the most sensitive antibiotic and antibiotic resistance patterns in patients with antibiotic use history, anatomical abnormalities and urogenital system disorders, and over 4 consecutive years for Clinical use is in emiprical treatment of patients before access to culture and antibiogram results.

Methods:*This retrospective descriptive study was performed on the records of all patients who had been diagnosed with urinary tract infection and positive urine culture during the four years (2012-2016) in Ardabil Children's Hospital.Data on age, sex, history of underlying illness, history of antibiotic use in the last six months, pathogen and its degree of resistance were extracted from the records. The results were analyzed by SPSS version 22 and Chi-square tests.*

Results:*In this study, 271 patients (83% female and 17% boys) had a mean age of 39.0 4 ± 36.30 months and 51.3% of subjects under the age of two years.*

50.9% of the patients had pyelonephritis and 49.1% of them had cystitis. It was also observed that 26.9% of people had antibiotic use in the last 6 months and 21% had a history of urinary tract infection. 20.29% had anatomical disorders and urinary tract disorders, including vesicoureteral most often. E-coli (73.1%) was the most common type of strain in all age groups, followed by Klebsiella and Enterococcus (9.2%), Proteus and Staphylococcus aureus (1.8%) and Pseudomonas aeruginosa (1.5%). The most sensitive antibiotics, regardless of the organism, were nitrofurantoin, and then, respectively, imipenem , ciprofloxacin, gentamicin and amicycin, and the most resistant antibiotics were ampicillin and cotrimoxazole.

The highest sensitivity of E-coli was respectively to nitrofurantoin, imipenem, ciprofloxacin, gentamicin and amikacin, and the highest resistance to ampicillin, cotrimoxazole and cefriaxone, respectively.

Conclusion: *The results of this study showed that urinary tract infections are more common in girls than boys, and the most common type of uropathogen responsible for urinary tract infection in both sexes, and in all age groups, is Escherichia coli, which has the highest susceptibility to nitrofurantoin and imipenem, and also has the highest resistance to cotrimoxazole and ampicillin. These results have been greatly matched by other studies.*

Key words*:urinary tract infection,antibiotic resistance,bacteria*