A STUDY ON BACTERIAL INFECTIONS AMONG 1-12 YEAR-OID CHILDREN HOSPITALIZED IN BU-ALI HOSPITAL IN ARDABIL,IRAN

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Background and Aims: Urinary infection and bacterial septicemia are the most important clinical infections and syndromes which could lead to nephropathy, renal dysfunctions and mortality in children. This study was conducted to identify the bacterial causes of urinary infection and septicemia in 1-12 year-old children hospitalized in Bu-ali hospital in Ardabil, Iran.
Methods: In this descriptive and cross-sectional study, urine of 811 children and blood samples of 173 children hospitalized in Bu-ali hospital in Ardabil were cultured in order to study probable bacterial infections (between 2009 & 2010). The urine samples were cultured in BA & EMB and the blood samples were cultured in BHI & EMB culture media. On the other hand, to determine the antibiotic sensitivity of diagnosed bacteria, antibiogram technique was run by disk diffusion method in MHA plate.
Results: a) From 811 cultured urine samples, 534 cases were positive for E.coli (65.84%), 202 cases positive for Klebsiella (24.91%), 31 cases positive for Enterobacter (3.82%), 20 cases positive for Pseudomonas (2.47%), 20 cases positive for Staphylococcus (2.47%) and 4 cases were positive for Proteus (0.49%). b) From 173 cultured blood samples, 142 cases were positive for Staphylococcus (82.08%), 11 cases positive for Streptococcus (6.36%), 9 cases positive for Klebsiella (5.20%), 7 cases positive for E.coli (4.05%) and 4 cases were positive for Enterobacter (2.31%). c) Antibiogram results showed that E.coli bacteria were sensitive to Nalidixic acid & Nitrofurantoin, Klebsiella were sensitive to Amikacin & Nalixic acid and Staphylococcus bacteria showed high sensitivity to Amikacin & Nalidixic acid and Staphylococcus bacteria showed high sensitivity to Amikacin & Co-trimoxazole.
Conclusions: Escherichia coli and Klebsiella were the most prevalent bacteria in the urine samples and Staphylococcus bacteria were the highly prevalent ones in the blood samples. The most effective antibiotics were Nalidixic acid & Nitrofurantoin for E.coli, Amikacin & Nalidixic acid for Klebsiella and Co-trimoxazole & Amikacin for Staphylococcus, respectively.