

Evaluation of dysentery bacterial frequency and antibiotic resistance pattern in children admitted to Bu-Ali hospital in Ardabil city in 2014

Abstract

Introduction

Gastroenteritis is one of the most important diseases in all parts of the world; and this disease is more dangerous among children, elderly, people who are undernourished and those who live in worse conditions. The importance of early treatment of these infections and the increased incidence of bacterial resistance tended us to found antibiotic sensitivity of dysentery causes in our area with designing this study; and find better therapies used in the treatment of patients.

Material and Methods

This descriptive analytical study carried out on all children who referred to Bu-Ali hospital with dysentery in 2014. In this study, children were recruited at first, then were entered in check list all received information such as demographic information, symptom type, duration and etc. Then stool samples taken from patients (before receiving antibiotic in hospital) and samples were assessed for isolation of bacterial agents in the microbiology lab of Bu-Ali hospital. After receiving report from the lab, these data were analyzed associated with information in check lists by SPSS v16 software.

Results

In this study, 52 children were recruited with dysentery that 61.5% were boy, with the average age of 4.82 years. The most prevalence bacteria were pathogenic E. coli with 34.6%. In assay the bacterial resistance, was observed that in *Shigella sonnei* most sensitivity was related to imipenem, gentamicin and

ceftazidime and most resistance to cotrimoxazole, in Sh. Flexeneri highest sensitivity was related to ciprofloxacin and highest resistance to cotrimoxazole; Sh. dysentery was sensitive to ofloxacin, ciprofloxacin, gentamicin and resistant to cotrimoxazole and in Sh. boidi most sensitivity was related to gentamicin whereas showed high resistance to majority of antibiotics. In pathogen E. coli most sensitivity was showed to imipenem, ciprofloxacin and gentamicin and most resistance to cotrimoxazole and finally, for Salmonella group D azitromicin, ceftazidime and amikacin were the effective drugs.

Conclusion

The results of this study showed that different bacterial species showed maximum sensitivity to different drugs whereas majority of them were resistance to cotrimoxazole.

Keywords: bacterial dysentery, antibiotic resistance, Bu-Ali hospital