

Prevalence of extended spectrum β - lactamase producing Gram-negative bacilli of community acquired urinary tract infections

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Abstract:

Background: Urinary tract infections are the second most common cause of community-acquired nosocomial infections. The dramatic and rapid increase of antibiotic resistance to organisms causing infections like UTIs, became the most important health problem across the world. ESBL-producing Gram-negative bacilli nosocomial and community acquired infections has been a challenging problem. The goal of this study is to determine the frequency and antibiotic susceptibility of ESBL-producing gram negative bacilli in community-acquired UTI and help to predict risk factors associated with them.

Materials and methods: In this study, 736 urine samples were collected during the nine-month period from 1 April 2015 to 1 January 2016. After identifications, screening and final verification of ESBL-producing gram negative bacilli 106 patients enrolled in the study. Then, on the basis of structured forms, information about demographic characteristics and underlying conditions of these patients collected.

Outcomes: In this study, 49 men and 57 women participated, with an average age of participants was 61 years of age, there was no difference between men and women. The youngest person in the study was 19 years old and the oldest 90 years old. In this study, the most common organisms isolated were: E-Coli 69.8%, Klebsiella pneumoniae 17 %, Enterobacter 11.3 % and Citrobacter 1.9 %.

All isolated organisms were susceptible to colistin and the most common risk factor in the study in female gender was diabetes mellitus. However, recent antibiotic use was most prevalent risk factor in both genders. . .

Conclusion: In general, antibiotic resistance in this study was very high and irrational use of antibiotics is the most common risk factor in this study.