

Surveillance of Antimicrobial Resistance of Gram Negative Bacilli Isolated from Hepatogastroenterology Intermediate Care Unit

Thesis

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Abstract

Background: Patients in the Hepatogastroenterology intermediate care unit have encountered an emergence of antimicrobial-resistant pathogens.

Aim of the study: The aim of the study is to detect the prevalence of gram negative bacilli isolated from patients admitted to Hepatogastroenterology intermediate care unit and identify their antimicrobial resistance using Active Screening Culture(ASC).

Patients and methods: This is a prospective study and conducted on 100 patients admitted to the Hepatogastrointestinal intermediate care unit. All the patients were subjected to laboratory investigation including rectal swabs at the day of admission to the ICU then after 5 days and imaging.

Results: E.coli, the most common organisms isolated from cirrhotic patient in 1st and 2nd rectal swabs (56%), is sensitive to meropenem (89.3%) and resistant to ciprofloxacin(64.3%)(P-value = 0.031). Cirrhotic patient with Child-Pugh C were associated with high incidence of E.coli appearance in both rectal swabs (62.5%)(P- value = 0.043). The study showed that 36% of the studied patients died but no association between type of the organism and the fate of the patients (P-value = 0.684). Patients with no history of animal contact had high incidence of Klebsiella pneumoniae (42.9%) (P- value = 0.043) while patients with animal contact had high incidence of Enterobacter (90.9%) (P- value = 0.032). Most of the patients who died in the ICU had high bilirubin level (6.73±4.60)(P-value=0.001), high level of serum urea (120.33±26.02) (P-value=0.014) and serum creatinine (2.54±2.20) (P-value<0.001).

Conclusions: Antibiotic resistance to the commonly used antibiotics is increasing. E.coli is most common isolated organism, sensitive to meropenem and resistant to ciprofloxacin.

