Title: Drug susceptibility and Frequency of Gram Negative Bacteria in Septicemia; in Shahid Sadooghi specialized & sub_specialized Hospital of Isfahan. (2008_2010)

Authors: 1- Nikravan. M  
2- Vaziri.S  
3- Zamani.R

Abstract: Background and Objectives: The prevalence of microorganisms in Septicemia and their drug resistance pattern is different in the word wide. One of the major problems in bacteria infections treatment, which medical society has worried about, is this various degrees of resistant pattern. So the aim of this study was detection of this local pattern in Gram Negative Bacteria isolated from patients with septicemia that referred to Shahid Sadooghi Hospital of Isfahan.

Materials and Methods: This study was performed on 2472 patients during two years. Blood samples have taken in BHI vials. Standard microbiological tests were carried out for determining of Gram Negative Bacteria samples. Antibiotic Susceptibility was performed by disc diffusion method according to CLSI criteria.

Results: Of the 2472 patients, 178 cases (7.2%) had bacterial infection. 146 (82%) cases were shown as Gram positive and 32 (18%) cases as Gram negative bacteria that in order of frequency included: Klebsiella 10 (5.6%), E.coli 9 (5.1%), Acinetobacter 8 (4.4%), Pseudomonas 3 (1.7%), Enterobacter 1 (0.6%), Proteus 1 (0.6%). Of these cases, Acinetobacter had resistance to all of common antibiotics completely. Except for Acinetobacter, all of above bacteria had high level of sensitivity to Amikacin(S=85%), suitable sensitivity to Imipenem and Meropenem(S=75%), acceptable sensitivity to Gentamycin(S=70%) and Ciprofloxacin(S=65%); but all of them had resistance to Ampicillin(S=00%). Klebsiella, had low sensitivity to Ceftriaxone, Ceftizoxime, Cefotaxime, Ceftazdime(S<35%), but other bacteria had suitable sensitivity(S>70%). All of above bacteria were high resistance to Cefazolin and Cefixim(S=15%).

Conclusion: Spread of gram negative resistant bacteria and low sensitivity to some common antibiotics (such as Cephalosporins) are reasons for rational antibiotic therapy. Considering severity of complication, it is recommended that appropriate antibiotics should be prescribed immediately before preparation of laboratory results, according to local drug sensitivity pattern. But, with regard to sample importance and subsequent complication, it seems that proper treatment pattern should be introduced by standard antibiogram test and consequently appearance of drug resistant strains will be prevented.

Drug susceptibility, Gram Negative Bacteria, Septicemia, Blood Infaction

Presentation: Poster