Indian Journal of Basic and Applied Medical Research; September 2015: Vol.-4, Issue- 4, P. 137-142

**Original article:**

**A prospective study on antibiotic susceptibility pattern of bacterial isolates in a tertiary care teaching hospital**

**Pyarelal1\***

1Associate Professor, Department of Pharmacology, MediCiti Institute of Medical Sciences (MIMS), Ghanpur, Telangana

Corresponding author: Pyarelal

**Abstract**

**Introduction:** Antibiotic resistance has always a great challenge for surgeons in treating post-operative wound infections. Therefore this study was carried out to isolate bacterial pathogens from a post-operative wounds in order to test their antibiotic resistance pattern.

**Methods:** A total of 162 post-operative patients were selected on the basis of inclusion and exclusion criteria admitted in MediCiti Institute of Medical Sciences (MIMS), Ghanpur, Telangana between August 2014 and Jan 2015. Out of 162 swabs taken from wounds of post-operative patients, only n=150 found culture positive analyzed in the Microbiology laboratory. The specimens were inoculated on an appropriate media for isolation of bacteria. Biochemical and serology tests were conducted to confirm the type of bacteria isolated. Antibiotic resistance test was also performed on each of the bacterial isolate, using the CLSI criteria.

**Results**:Most of the patients found to be males n=92 (56.79%) than females 70 (43.20%). Out of 162 samples from post-operative wounds, only n=150 found culture positive.Gram positive bacteria mostly isolated (n=84, 56%) whereas Gram negative bacteria accounted for (n=66, 44%) of isolates. The most frequently isolated organisms in Gram positive bacteria were S. aureus 52 (61.9%) and in gram negative E. coli 26 (39.3%).among gram positive bacterial isolates high level of drug resistance is seen in Ciprofloxacin (35%) and least resistance is seen in Vancomycin 12 (4%). In gram negative isolates gentamicin, Ciprofloxacin showed more resistance (12%) and least or no resistance is found by Imimpenem, Meropenem.

**Conclusion:** The rate of bacteria isolated from clinical specimens was high. The antibiotic resistance pattern will be useful for practicing clinicians.

**Keywords:** Prevalence, Bacterial isolates, Antimicrobial susceptibility pattern, Multidrug resistance