To Study The Antibiotic Susceptibility Pattern Of Organisms Responsible For Post Operative Wound Infection

Apeksha M Ghule[1*], Mangala Ghatole[2], Virendra Kashetty[3]

1. Assistant Professor, Department of Microbiology, Ashwini Rural Medical College, Hospital and Research Centre, Kumbhari
2. Professor and Head, Department of Microbiology, Ashwini Rural Medical College, Hospital and Research Centre, Kumbhari.
3. Professor, Department of Microbiology, Ashwini Rural Medical College, Hospital and Research Centre, Kumbhari.

Corresponding Author: Apeksha M Ghule

Email: drmahiv@gmail.com

Abstract

Background and aims: Surgical site infections (SSIs) are a common cause of healthcare-associated infection. Sources of surgical site infections can include the patient's own normal flora or , indigenous flora of the lower gastrointestinal tract and genitourinary tract, or organisms present in hospital environment. It is important to know the bacteriology of SSI to formulate emperic antibiotic therapy. Therefore, the present was undertaken to evaluate the antibiotic susceptibility pattern of organisms responsible for post operative wound infection. **Material and Methods:** The present study was a prospective study carried out in the Department of Microbiology. Pus samples were collected from the General surgery, Obstetrics & gynecology & Orthopedics wards from the patients, who had undergone operations & who had developed signs & symptoms of post-operative wound infections. Antibiotic susceptibility testing was done according to modified Kirby bour's disk diffusion technique. **Results:** Among these SSI cases, 126(50.81%) cases were having clean wound. 116 (46.74%) wounds were clean-contaminated and 6(2.42%) wounds were contaminated. 185(74.60%) samples yielded monomicrobial growth while 36(14.52%) samples yielded polymicrobial growth. Gram negative isolates were predominant i.e. 171 (69.35%) than gram positive isolates were 86(34.68%). Staphylococcus aureus was the predominant organism followed by E. coli and Acinetobacter spp. **Conclusions:** On routine, microbiological analysis of wound specimens and their antibiotic susceptibility testing are recommended, which will guide Doctors to treat wound infections to reduce the spread of disease-resistant bacteria. Further, our study findings also help the hospital to develop evidence-based policy for chemoprophylaxis of SSI.

Keywords: Surgical site infection, Antibiotic susceptibility, Staphylococuss aureus, E.coli