

SURGICAL SITE INFECTIONS IN PATIENTS FOLLOWING OPEN HEART SURGERY: A STUDY ON INCIDENCE, RISK FACTORS AND MICROBIOLOGICAL PROFILE

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ABSTRACT

Purpose: Surgical site infection (SSI) is an important cause of morbidity and occasional mortality following open heart surgery. The aim of this study is to find out the incidence of surgical site infections in patients undergoing open heart surgery, the organisms responsible and the risk factors associated with such infections. **Patients and Methods:** Consecutive patients undergoing open heart surgery between June 2014 and December 2015 have been included for study. The exclusion criteria being age less than 30 years, penicillin/cephalosporin allergy and any other associated systemic infections the parameters studied were age, sex, obesity, hypertension, diabetes, and myocardial infarction, length of pre and postoperative hospital stay and duration of surgery. Suspected sites of infection were cultured. Postoperative follow up was done every month for six months. **Results:** One hundred thirty five patients who had median sternotomy for open heart surgery have been studied. Seventeen patients (12.59%) developed surgical site infection (SSI) infection (superficial sternal wound infection and leg wound infections) and all got cured with conservative management. Organisms isolated at SSI were *Staphylococcus aureus*-7(41.17%), *Escherichia coli*- 3 (17.6%), Coagulase negative *Staphylococcus* - 2(11.76%), *Klebsiella pneumoniae* 2 (11.76%) , *Pseudomonas aeruginosa* -2 (11.76%) and *Proteus species* -1 (5.8%) . Surgical site infection has increased the postoperative hospital stay and the total treatment cost. **Conclusions:** The incidence of surgical site infections in this centre was comparable with other studies from India as well as abroad. Surgical site infection may occur due to non *Staphylococcus aureus* organisms. Uncontrolled diabetes mellitus and male sex are associated with higher infection rates.

KEYWORDS: Diabetes Mellitus, Median Sternotomy, Open Heart Surgery, *Staphylococcus Aureus*, Surgical Site Infections (SSI)