A STUDY TO EVALUATE THE EFFECTIVENESS OF IODINE IMPREGNATED PLASTIC ADHESIVE DRAPE DURING ABDOMINAL SURGERIES IN PREVENTING SURGICAL SITE INFECTIONS.

ABSTRACT

BACKGROUND

Even though theoretically the use of plastic adhesive incise drapes are arguable, reports have been published regarding their usefulness in limiting bacteria around the surgical site and for preventing SSI are conflicting. In view of these controversies, and because their use is widespread, a systematic review of the possible usefulness of adhesive drapes is justified to guide clinical practice.

METHODOLOGY

Patients who were posted for emergency and elective laparotomies, (Clean-contaminated and contaminated surgeries) over a period of one year between July 2016 and June 2017 in our institution. Total 62 patients were divided in to two groups. Group 1 had iodine impregnated incise drape applied and Group 2 had no drape and were assessed pre-operatively, intraand post-operatively followed for 30 days for SSI. Descriptive analysis was performed using the $X^2$ or Fisher exact test or Student t-test or the Mann-Whitney U test as appropriate.
RESULTS

Total 62 patients were studied, 29 laparotomies with drape and 33 cases without drape. Overall incidence of SSI around 27% with more in emergency surgeries(35%) than elective surgeries(13.63%) with a relative risk of 2.5. In the drape group 7 patients developed SSI (incidence 24.13 in 100), and in no drape group, 10 patient developed surgical site infection(30.030 in 100), with no statistically significant difference in the incidence of SSI between two groups. Surgeries lasting more than 3 hours has a higher incidence of SSI 33% than surgeries lasting for less than 3 hours (25.5 %). SSI was higher in diabetic patients(15.4%) than non-diabetic patients(11%) with a relative risk of 68.24 and attributable risk of 0.58%. Length of the hospital stay was similar in both groups[7.8(1.53) and 8.21(1.49)]. E-coli was found to be the most common organism(35.2%) causing SSI.

CONCLUSION

Findings from our study do not support the use of iodine impregnated incise drapes as a routine practice in laparotomies for preventing SSI. Its use should be limited to clean surgeries and long duration procedures.