

ABSTRACT

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BACKGROUND AND OBJECTIVE

Laparotomy is one the common surgeries performed in general surgery. Regarding closure of skin in laparotomy there are various materials in use nowadays. This study compares and analyses the advantages and disadvantages of two of the most commonly used methods which are silk suture and skin staples.

METHODS

Between September 2013 and August 2014, 60 patients who got admitted to Department of Surgery, Madurai Medical College, GovernmentRajaji Hospital and underwent midline laparotomy were selected. Of the 60 cases 30 were undergoing elective laparotomy while the other 30 underwent emergency laparotomy. They were equally segregated into two study arms each containing 30 patients with 15 elective and 15 emergency laparotomies. In one arm the laparotomy wound was closed with silk mattress suture while in other arm skin staples were used. Both the groups were compared regarding reduction in surgery time, effect of wound healing, infection rate, post operative pain, and cosmesis. Data was collected and analysed by various statistical methods.

RESULTS

The time needed to closed the wound was reduced significantly with the use of skin stapler than suture. It was found that the operative time was reduced to nearly one fourth with use of stapler. For a given length of incision it was found that stapler needed more bites than suture. The stapler group had significantly less post operative pain with all of them falling below pain score 3. It was found that there was no significant difference in rate of infection and appearance of post operative scar between the two groups. Apart from the more efficient use of theatre time, the psychological effect of rapid wound closure at the end of a long operation on surgeon and theatre staff was very evident during this study.

INTERPRETATION AND CONCLUSION

Using skin staples for closure of laparotomy wounds significantly reduced operative time with less post op pain with no difference in appearance or rate of infection when compared to closure by sutures.

KEY WORDS

Laparotomy, Skin staples, Suture, Infection, Time