



ASSESSMENT OF THE MANAGEMENT OF PYOGENIC ABSCESS BY DIFFERENT METHODS

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ABSTRACT

INTRODUCTION:One of the most common acute conditions in Surgical Department is Pyogenic abscesses . Many modalities being invented , the treatment is incision and drainage. The Objective of this study is to compare the conventional method of incision and drainage with alternative methods of primary closure with closed suction drain versus Incision and Drainage.

METHODS: Cross Sectional Analytical study design with randomization was used. A total of 48 patients admitted to a tertiary hospital were randomly divided into two groups . A group of 24 patients (closed) treated with primary closure with closed suction drain and other B group (open) of 24 with the conventional method of incision and drainage.

RESULTS:Closed group patients had lesser time to heal, lesser bleeding , lesser duration of hospital stay, lesser number of dressing changes, lesser pain during dressing change, and better scar as compare to the open group.

CONCLUSION:The method of incision, curettage, and primary closure with closed suction drain is more effective than conventional incision and drainage. Patient treated with closed group were having reduced postoperative pain with less duration of analgesic intake, less bleeding , more rapid recovery, reduced hospital stay and early return to normal work. Hence this study

KEYWORDS : Pyogenic Abscess , Incision , Drainage , Suction

INTRODUCTION

Incision and drainage for abscess which are the most common cases in any Surgical Department and remains common method of Treatment till recently This conventional method has its own disadvantages also such as periodic painful dressing changes and delayed healing with prolonged hospitalization. This old method of treatment was first challenged by Ellis,¹ in 1951, who described primary closure of incised and drained abscess in 30 patients with anorectal abscess.

One of the most common acute conditions in Surgical Department is Pyogenic abscesses . Many modalities being invented , the treatment is incision and drainage.

The Objective of this study is to compare the conventional method of incision and drainage with alternative methods of primary closure with closed suction drain versus Incision and Drainage.

METHODOLOGY

Ethical approval was taken and consent from the patients was duly taken . Patients admitted in Our tertiary care hospital with abscess were included in this study. Patients, aged between 15 to 70 years, abscesses in back, trunk, breast, and extremities and size of 5-10 cm are included in the study. Patients with immunocompromised states, cold abscess, diabetes, healing disorders and above 70 years were excluded .

A total of 48 patients were selected. The study population was randomly divided into two groups. Comparison was done based on wound healing time (number of days from the time of incision up to complete epithelialization in open group and up to skin suture removal in closed group), number of days of hospital stay (number of days from time of incision till discharge), need for frequent dressing change (assessed by discharge from the operated site), and pain during dressings (assessed by visual analog scale [VAS]), cosmetic of scar (assessed by VAS – hyperpigmented scar, keloid), and any complications, which included recurrence and wound gaping.

P value of 0.05 and less was considered as statistically significant. Data were analyzed using a computer software

Epi Info version 6.2 (Atlanta, Georgia, USA) and Microsoft Excel for Windows.

RESULTS

In closed group Wound healing time was faster than in open group. Wound healing time was analyzed quantitatively within the group. The P value is statistically highly significant ($P < 0.001$)

Hospital stay was less in closed group than in open group . Number of dressings required was assessed by the discharge from the operated site. Number of dressing changes required in closed group was less than in open group as there was less discharge from the wound.

Pain Assessment: This mean VAS was analyzed quantitatively within both groups.

Subjective-objective pain score assessment: Since the pain threshold and tolerance varies from person to person, the patient was considered as his or her own control, in the score used for the pain assessment.

PAIN SCORE GRADE

5. Excruciating, throbbing pain. Patient is very apprehensive, prefers to keep the affected part immobile and will prevent anyone from touching it.
4. Severe throbbing pain. Patient is anxious, avoids contact, will allow gentle surface touch but is always on the verge of withdrawing the part.
3. Moderate pain. Patient allows touch, withdraws only if pressure is applied.
2. Mild pain. Patient allows touch and permits pressure but will prevent the observer from applying deep pressure.

Pain is noticed only when patient's attention is drawn to the area. Tenderness is present on pressure. Patient may allow pressure deep enough but not to the same extent as on the identical opposite side or normal surrounding area. 0.No

pain, no tenderness. The pressure tolerance is the same as the opposite side or normal surrounding area

Scar Assessment: This mean VAS was analyzed quantitatively within both groups. There was significant difference both groups which was statistically highly significant ($P < 0.001$).

Complications were found three times more common in closed group than in open group.

DISCUSSION

Total 48 study subjects were studied. The comparison was done in regards with wound healing time, hospital stay days, number of dressings required & Complications. In our study, wound healing time was significantly faster in closed group as compared with open group (<0.001). A study done by Dubey and Choudary² correlates with our study. In their study, they found that wound healing was faster in acute abscesses treated with primary closure than conventional incision and drainage. In our study, mean number of days of hospitalization was significantly less in closed group as compared to open group. A similar finding was observed in a study conducted by Abraham *et al.*³ In our study, number of dressings required was compared depending on the discharge from the operated site in both the groups. Patients in closed group required less number of dressings than the open group as there was less discharge from the wound from day 7. This finding was statistically significant too and also correlates with the study conducted by Singer *et al.*⁴ In our study, post-operative pain and scar assessment were done by VAS. The difference in pain scores was statistically significant on day 5 in closed group indicating decreased intensity of pain than open group. Similar findings were correlated by a study conducted by Kale *et al.*⁵ While comparing scars of both groups using VAS score; it was found that closed group patients had significantly better scars as compared to open group. This was comparable to study carried by Edino *et al.*⁶ In our study, complications were 3 times more common in closed group as compared with open group. Similar findings with respect to recurrence of abscess were seen in a study conducted by Khanna *et al.*,⁷ but no such study with the complication of wound gaping was found in the literature.

CONCLUSION

Incision and drainage with primary closure and the negative suction drain were associated with faster healing, less post-operative pain, and need for less post operative stay and lesser complications. Primary closure with negative suction drain is a better option over the conventional method of incision and drainage for an acute abscess.

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