COMPARISON OF SECONDARY INTENTION HEALING VS PRIMARY INTENTION HEALING FOR THE TREATMENT OF CHRONIC PILONIDAL SINUS

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Pilonidal sinus is an abnormal hair containing pocket in the skin usually located in the intergluteal cleft. Regarding the pathogenesis of pilonidal sinus, multiple theories have been presented; initially labeling it as an embryological entity followed by the view that it is an acquired condition whereby sitting and bending play the role of predisposing factors.

Many procedures have been described to treat this condition but so far the procedures involving the complete excision of the tract have been widely accepted and are practiced. After complete excision of the tract, whether to leave the tract open or close it by primary intention has been the matter of debate, those who are in favor of secondary intention argue that the procedure has a lower recurrence rate while those who advocate primary intention are of the view that the hospital stay is shortened and the wound heals quickly.

Here in our study, after a slight modification in the two techniques by using a tie-over dressing in the secondary intention healing for 48 hours followed by regular change of dressings, we decided to compare secondary intention healing vs primary intention healing for the treatment of chronic pilonidal sinus in terms of the length of hospital stay and rate of recurrences.

MATERIALS AND METHODS

A total of 70 patients were selected. They were randomly divided into two groups. Group A, 35 patients, was the one where the patients would get primary intention healing by approximating the wound edges with sutures following complete excision of the tract while the Group B, 35 patients, was the one where the patients would have a tie-over dressing for 48 hours after complete excision of the tract followed by daily change of the dressing. There was no significance difference in the age and sex between the two groups. All the patients had their anesthesia assessment done prior to general anesthesia. Prophylactic antibiotics were administered.

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RESULTS

In group A, out of the 35 patients, 3 were lost in the follow up, so the number dropping to 32. The mean length of hospital stay in group A was 3.5 days (range, 3-6 days) while in group B was 4.4 days (range, 4-6 days). Recurrence was reported in 3 patients of group A; 9.37 percent. While none of the patients in group B was found to have recurrence at the end of one year follow up period.

|                  | no recurrence | recurrence | Margin- 
|------------------|---------------|------------|---------
| Group A          | 29 (30.57)    | 3 (1.43)   | 32      |
| Group B          | 35 (33.43)    | 0 (1.57)   | 35      |
| Marginal Column  | 64            | 3          | 67 (Grand Total) |
| Totals           |               |            |         |

The chi-square statistics were 3.43. the p-value was 0.0638 and was not significant (p<0.05)

DISCUSSION

The ideal surgery for a chronic pilonidal sinus is the one that is simple and safe with minimal hospital stay and recurrence rate, although secondary intention healing is considered safe in terms of recurrence but it requires multiple dressing changes and care of the wound for approximately a period of 6 weeks till healing.
has completed. Excision with primary closure has the benefit of quicker healing, fewer days off-work and early return to work. Some surgeons have reported a dehiscence rate of around 50% and a recurrence rate of 20% in primary closure.

In our study the results were comparable to international studies in terms of length of hospital stay and rate of recurrence. In a study carried out in Turkey, the rate of recurrence was found out to be 4.4% in primary closure group and 0% in secondary intention group. However, they slightly modified the two procedures, applying absorbable sutures to skin edges approximating it to the sacral fascia. But in the broad term, the techniques were the same. They attributed the increased incidence of dehiscence and recurrence to the higher incidence of wound infection in the primary closure group. Study by M. Fuzan et al showed that though the patients having secondary intention healing had a longer hospital stay due to drains but the return to work was quicker due to quicker healing, so the overall efficacy still remains questionable.

Other international studies comparing the various techniques have come up with similar results. Overall, the emphasis has been given to the prioritizing the various methods to the individual needs of the patients e.g. a patient having surrounding cellulitis should be considered a candidate to the secondary intention technique to minimize the incidence of wound infection and dehiscence in the short term and recurrence in the long term.

CONCLUSION

Secondary intention healing though has shorter hospital stay and lower recurrence rate but is considered cumbersome for the patient for regular change of dressing and longer time period required for complete healing. Primary closure of the wound on the other hand leaves the patient with the advantage of quicker healing. Both the procedures are considered efficient in the long term, however, the choice of the procedure should be individualized as to the patient's requirements.

REFERENCES

7. Which technique for treatment of pilonidal sinus-open or closed? M. Fuzan, H Bakir, M Soyulu