

Original Article

A comparative study between open & closed technique of pilonidal sinus excision

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Abstract

Background: It derived from Latin word meaning nest of hair. The term pilonidel sinus describes a condition found in the natal cleft overlying the coccyx, consisting one or more usually, midline opening. It is chronic inflammatory condition usually affects the young adult.

Objectives: To compare the outcomes between open and closed technique of surgical management of pilonidal sinus.

Methods: A total 50 patients of pilonidal sinus were admitted. Details history, physical examination, and investigations like sinogram were done. The patients were divided into two groups like group A (open) group B (closed technique). Each group include 25 patients.

Results: Wound infection was found in 4 (8%) patients in open technique managed with regular dressing and antibiotics. Complications were found in 10 cases in closed technique managed in closed dressing. Recurrence rate found in open technique 3 (6%) patients and closed technique 7 (14%) patients.

Conclusion: From our experience, It is surgical challenge. Both technique is effective but open technique is better option as recurrence rate is low.

Key words: Pilonidal sinus, open technique, close technique, wound infection, recurrence.

Introduction:

The term pilonidal sinus describes a condition found in the natal cleft overlying the coccyx, It is a chronic inflammatory condition that usually affects young adults results from invasion of fallen hair into the skin. It presents as inflammation, abscess and sinus formation.¹ The treatment regimen should ideally minimize pain, allow short hospital stay reduce complication and rate of recurrence and provide rapid recovery and return to normal daily activities.² There are several surgical procedure describes for the treatment of Pilonidal sinus. Most common open and lay out another excision and primary closure.³

Materials and Methods:

This prospective study was carried out over 50 patients in the surgery department of Dhaka National Medical College Hospital from admitted patients, from April 2015 to March 2018, The patients were randomly placed into two groups. Group A comprised of patients planned for under go open technique and group B for closed technique of surgery. The patient with acute sinuses or recurrent sinuses or who refused or lost in the follow up or having some other pathology were

excluded. After admission all patient were listed for operation, patients were placed in prone position and spinal anesthesia were given. Presents of more than one sinus tract preoperatively assessed with blunt probe. For group A, excision of sinus tract and lay open then regular dressing done, for group B probe guided elliptical excision(taking margins of normal tissue) around the sinus, then primary closure, dressing done on the second postoperative period. All patients were called for review after 2 weeks, 1 month, 3 month, 6 month, 12 months, respectively.

Results:

Table-I: Distribution of study patients according to Age (n = 50)

Age	Group A n = 25		Group B n = 25	
	n	%	n	%
16-25	15	60	15	60
26-35	05	20	05	20
36-45	05	20	05	20

Table-II: Sex distribution

Sex	Group A n = 25	Group B n = 25
	n %	n %
Male	24	24
Female	01	01

Table-III: Surgical outcomes of group A (open technique) group B (close technique)

Outcome	Group A	Group B
Surgical time in minutes	60±20mm	80±10mm
Mean healing time in days	20.3 (range 20-30 days)	11.41 (range 10-14 days)
Hospital stay	5±2 days	3±2 days
Wound infection	4	10
Recurrence rate	3	7

A total 50 patients with pilonidal sinus were included in this study. 48 (96%) were male and 2(4%) were female patients. male female ratio was 24:1. Mean age for group A were 26.5 while range (16-45yrs), while mean age for group B were 24 range (16-29 yrs.) comprised of 25 for group A and 25 for group B. All of 45 pts (90%) having their sinus opening is the midline. 5(10%) were to have lateral extension to the main tract.

Surgical time in minutes 60±20 min. in Group A. 80±10min. in Group B. Mean healing time in 20.3 (range 20-30 days) in group A. 11.41 (range 10-14 days) in group B. Wound infections in group A were 4 and wound infections for group B were 10. Recurrence rate in group-A were 3, recurrence rate in group B were 7.

Discussion:

It is not a life threatening condition There an some controversy either open or close technique which was performed.⁴ The open method has its own advantage and disadvantage, same close method also.⁵ The main advantage of open technique less recurrence rate less surgical time, low wound infection but the disadvantage is daily dressing, long healing time and more hospital stay as observed in our study.⁶ Shahida et al did a comparable study on 40 patients. They found significant difference in hospital stay, wound healing and recurrence between two groups, similar to our findings.⁷

AneesK Nile et al did a comparative study on 60 patients and found hospital stay with open group is lesser as compared to close group.⁸ Similar finding of Mehmet

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et al study, however there is significant difference in term of complication like wound healing and recurrence in both groups which is similar to our study.

Conclusion:

Open technique is better than close technique in management of pilonidal sinus surgery as wound infection recurrence is low compared to close technique. Only disadvantage is long healing time and regular dressing is needed.

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