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Original Research Paper

General Surgery

CLINICAL PROFILE, PRESENTATION AND MANAGEMENT OF PILONIDAL SINUS DISEASE - OUR EXPERIENCE.

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ABSTRACT **Background:** It is a common acquired chronic inflammatory condition seen mostly in males and 3rd decade of life. **Aim:** To study outcome of Limbergs rotational flap for management of pilonidal sinus. **Patients and Methods:** This study is a prospective case series analysis conducted in department of General Surgery, GMC Anantnag for a period of 1 year. This study included 35 patients after fulfillment of inclusion and exclusion criteria. **Results:** In our study 35 patients were included among which 25 patients (71.4%) were males. Most common age group was 20 to 30 year (68.57%). In our study operative time was 40-80 minutes for 30 patients. 3 patients in our study had post operative complication. Seroma developed in 2 patients (5.7%). **Conclusion:** Limberg flap is an effective option for management of pilonidal sinus disease with minimal recurrence and post operative complications.

KEYWORDS : Pilonidal sinus disease, Limberg Flap, Sacrococcygeal pilonidal disease

INTRODUCTION:

Pilonidal sinus is a chronic inflammation and infection of sacrococcygeal region [1]. It is an acquired condition with high patient discomfort. It occurs two times more commonly in men than in women, usually between the age of 20 to 30. It occurs two times more commonly in men than in women, usually between age of 20 to 30[2-3]. Many theories have been proposed for etiology of pilonidal sinus. Initially it was characterized by presence of subcutaneous infection with characteristic epithelial tract situated in upper half of natal cleft and generally containing hair[4-5]. It is now concluded that pilonidal sinus disease has an acquired etiology[2].

Various factors cause the disease likely nest of hair, deep natal cleft, sedentary life style, obesity, family history, poor hygiene[6]. Deep natal cleft is favorable for sweating and penetration of hair. Patients may present as discharge, pain, and abscess[7-8]. Patients may present in four different clinical forms as symptomatic, acute pilonidal abscess, chronic fistulizing form or complex pilonidal sinus disease. The chronic fistulizing form is most common clinic presentation.

Various conservative and surgical methods have been proposed likely clipping, shaving of hair, excision of sinus, drainage of abscess. Numerous flap reconstructions have been proposed like Limberg flap, modified limberg flap, Karydakis flap[9-11]. Main goal of treatment is early return of patient to normal life, eliminating recurrence of disease. Among different modalities rhomboid excision with flap reconstruction eradicates the etiology. In limberg flap tension free repair is made. It is one of the best methods with minimum complication and almost nill recurrence[12].

Patients And Methods:

Our study included 35 patients who underwent surgery in department of General Surgery Government Medical College Anantnag over a period of 1 year January 2021-2022 after fulfillment of inclusion and exclusion criteria.

Inclusion criteria:

Patients with clinical diagnosis of pilonidal sinus disease in sacrococcygeal area.

Exclusion criteria:

Local pathologies like eczema, fungal infection, and recurrent disease were excluded.

All patients were subjected to detailed history, clinical examination and laboratory investigation. Data was obtained on predesigned proforma. Informed written consent was taken and patients were subjected to pre anasthetic checkup and preoperative preparation.

Operative Technique:

Anasthesia: SAB

Position: Prone with buttocks strapped apart using adhesive.

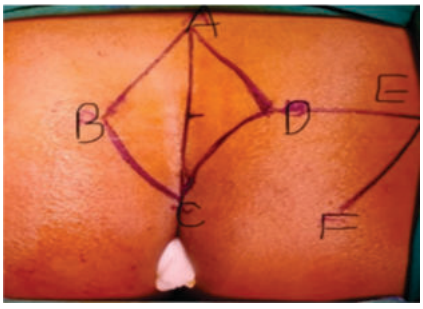

Figure 1 : Marking for rhomboid excision and rotational flap for patient with Saccrococcygeal Pilonidal sinus.

Under all aseptic precautions part cleaned and drapped, using sterile marker markings made for rhomboid as well as flap. Markings were made in such a way that it included all pits. The long axis was marked A-C and in a way that it included all pits.

Mid point of long axis taken and B-D drawn perpendicular to long axis. B-D is 60 % of long axis. D-E drawn and is direct extension of B-D and the length should be equal to A-B. E-F should be parallel to D-C.

Methylene blue injected to facilitate total excision of involved tract. Rhomboid excision of skin done down to pre sacral fascia. Flap raised and complete hemostasis achieved. Rotation of flap done and closure done in two layers. Suction drain kept in situ.

Drain was removed on third postoperative day, sutures removed after 2 weeks. Patients are advised to avoid putting pressure on flap and avoid long term sitting. Patients were followed up at 2 weeks, 1 month and then 6 months.

Statistical Methods

The recorded data was compiled and entered in a spread sheet (Microsoft excel) and then exported to data editor of SPSS Version 20.0 (SPSS Inc, Chicago, Illinois, USA).

RESULTS:

Our study had 35 patients out of which 25 patients (71.4%) were men and 10 patients (28.57%) were women.

Table 1: Sex distribution of patients with pilonidal sinus.

Gender	Number/Percentage
Men	25 (71.4%)
Women	10 (28.57%)
Total	35 (100%)

Table 2: Age distribution of patients with pilonidal sinus.

Age	Number/Percentage
20-30 year	24 (68.57%)
30-40 year	7 (20%)
40-50 year	4 (11.4%)
Total	35 (100%)

Most common age group involved was 20-30 years. About 24 patients were present in this age group (68.57%). 7 patients were present in age group of 30-40 year.

Table 3: Presentation of patients with Pilonidal sinus.

Presentation	Number/Percentage
Discharge	24 (68.57)
Pain	7 (20%)
Abscess	4 (11.4%)
Total	35 (100%)

In our study 24 patients (68.57%) presented with discharge, 7 patients (20%) with pain and 4 patients as abscess.

Table 4: Post operative Complications

Complications	Number/Percentage
Seroma	2 (5.7%)
Infection	1 (2.8%)
Necrosis	0
Recurrence	0
Total	35 (100%)

In our study 3 patients developed post operative complications. 2 patients had seroma (5.7%) and 1 patient had wound infection (2.8%).

Table 5: Discharge of patients

Discharge	Number of patients
4th postoperative day	32
7th postoperative day	3
Total	100

32 patients in our study were discharged on 4th post operative day and remaining 2 on 7th post operative day.

DISCUSSION:

Pilonidal sinus disease is a chronic acquired inflammatory condition with high recurrence and morbidity. It is seen most commonly in young males. Numerous techniques have been proposed but are associated with recurrence, prolonged hospital stay[13-14].

Ideal technique has to be simple, easy to perform, cost effective, less post operative pain, less complication and minimal recurrence[15]. There should be early resumption of activities. In our study there were 35 patients out of which 25 patients were male (71.4%) and 10 patients were female (28.57%). Most common age group involved was 20-30 year. About 24 patients were involved in this age group (68.57%). 7 patients (20%) were involved in age group of 30-40 year and 4 patients in 40-50 year age group. Results of our study were comparable to other studies[16]. In our study 24 patients (68.57%) presented with discharge, 7 patients with pain (20%), 4 patients (11.4%) as abscess.

In our study average operative time was 40-80 minutes for 30 patients. 32 Patients in our study were discharged on 4th postoperative day and remaining on 7th postoperative day. All patients were followed up after period of 2 weeks then 1 month and then six months. 3 patients in our study developed postoperative complications. In our study 2 patients developed seroma (5.7%) and 1 patient developed wound infection (2.8%). Results of our study were comparable to similar study[17] which showed 16 patients had post operative complication. In his study there was no recurrence.

In our study patients returned to normal work in 2-3 week[18] . Similar results were observed in another study [19] where patients showed resumption to normal routine within 2 weeks.

CONCLUSION:

Limberg rotational flap for pilonidal sinus disease is very effective and reliable procedure. It is simple to perform, cost effective, fewer post operative complications and early ambulation. Among 35 subjects involved in my study only 3 had postoperative complication with no recurrence.

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