

Research Article

Management of pilonidal sinus disease: a 5 years retrospective analysis

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ABSTRACT

Background: Pilonidal sinus disease is an acquired condition which is a chronic intermittent disease, seen commonly in the young people. This condition was first described in 1833 by Herbert Mayo and was termed pilonidal by Hodges in 18805 from the Latin word "pilus" which means hair and "nidus" which means nest. The aim of the study was to analyses and evaluates pilonidal sinus disease and its surgical outcome.

Methods: A cross sectional study was carried in a surgical unit 3 of department of surgery of St John's medical college, Bangalore, which is a tertiary care teaching hospital. The study period was from Jan 2009 to Oct 2013.

Results: A total of 49 patients were included in this study. 38 patients (77.55%) were males whereas 11 patients (22.45%) were females. 48 patients (97.96%) had pilonidal sinus in the intergluteal cleft whereas one patient (2.04%) had pilonidal sinus in umbilical region. 14 patients (28.57%) underwent incision and drainage as the commonest procedure. 10 patients (20.41%) underwent excision with open wound and 8 patients with excision and primary closure (16.33%). Rest had undergone some form of local flap procedure. There was no mortality in this series.

Conclusions: Intergluteal cleft is commonest site where sinus occurs. The most common complication of pilonidal sinus in our series was pilonidal abscess. Limberg's flap is the commonest flap surgery done in our series.

Keywords: Pilonidal, Sinus, Abscess

INTRODUCTION

Pilonidal sinus disease is an acquired condition which is a chronic intermittent disease, seen commonly in the young people. This condition was first described in 1833 by Herbert Mayo and was termed pilonidal by Hodges in 18805 from the Latin word "pilus" which means hair and "nidus" which means nest.¹⁻⁵

The estimated incidence of pilonidal sinus is 26 per 100000 people. This condition is so common that in England alone in year 2000-2001 around 11,534 admissions were recorded by department of health.⁶⁻⁸

During the Second World War, pilonidal sinus was also known as "Jeep disease" as it was common in jeep drivers.^{4,5}

Although the aetiology is uncertain, but most importantly pilonidal sinus is related to the implantation of loose hair into the depth of the natal cleft.³ The risk factors for pilonidal sinus disease are white race, familial tendency, obesity, male gender, young age, excessive sweating and sedentary life style.⁴ The present study was conducted for over 5 years and reports our experience with pilonidal sinus disease.

METHODS

A cross sectional retrospective study was carried in a surgical unit 3 of department of surgery of St John's medical college, Bangalore, which is a tertiary care teaching hospital. The study period was from Jan 2009 to October 2013. All patients operated in this unit were included in this study. Patients operated in other unit or department for pilonidal sinus was excluded from our study.

RESULTS

A total of 49 patients were included in this study. 38 patients (77.55%) were males whereas 11 patients (22.45%) were females. The average age for males was 23.4 years ranging from 17 to 55 years whereas the average age for females was 24.72 years with age ranging from 18-34 years.

Table 1: The pilonidal sinus at different sites.

Sites of pilonidal sinus	Number of patients	Percentage
Gluteal region	48	97.96%
Umbilical region	01	2.04%
Total	49	100%

Table 2: The distribution of different types of pilonidal sinus.

Type	Number of patients	Percentage
Primary sinus	28	57.14%
Recurrent sinus	04	8.16%
Pilonidal abscess	16	32.65%
Recurrent abscess	01	2.04%
Total	49	100%

48 patients (97.96%) had pilonidal sinus (Figure 1) in the intergluteal cleft whereas one patient (2.04%) had pilonidal sinus in umbilical region (Table 1). 28 patients had presented with primary sinus (57.14%) whereas 16 patients (32.65%) presented with pilonidal abscess (Table 2).



Figure 1: Pilonidal sinus in the gluteal cleft.

14 patients (28.57%) underwent incision and drainage and it was the commonest overall procedure. 10 patients (20.41%) underwent excision with open packing and 8 patients with excision and primary closure (16.33%). Rest had undergone some form of local flap procedure (Table 3).

Out of 49 patients, 24 patients (58.54%) had open wounds whereas 25 patients (51.02%) wounds were closed. 3 patients (15.79%) had postoperative complications with one patient having infection and 2

patients having superficial skin necrosis requiring debridement at bedside. There was no mortality in this series.

Table 3: Different surgical procedures done on pilonidal sinus.

Surgical procedure done	Number of patients	Percentage
Excision + open wound	10	20.4%
Excision + primary closure	8	16.33%
Incision and drainage	14	28.57%
Excision + Z Plasty	04	08.16%
Excision + Limberg's Flap	09	18.37%
Excision + Karydakis procedure	03	6.12%
Excision + Duforamental Flap	1	2.04%
Total	49	100%

DISCUSSION

Pilonidal sinus disease is a benign condition that often causes nuisance and disability in young adults.⁹

Males, especially in the age of 16-25 years, are 6 times more commonly affected than females.⁹ In our study also, males were more commonly affected.

Karydakis describes 3 factors that are involved in the hair insertion process namely:

- The invader, which is the loose hair.
- The force, which causes insertion of hair.
- The vulnerability of the skin causing hair insertion in the depth of the natal cleft.^{3,8}

Although, sacrococcygeal region is the most common region for pilonidal sinus, the condition rarely affects other areas also like axilla, neck, umbilical region and interdigital clefts.⁹⁻¹¹

There is no one standard treatment for pilonidal sinus disease. For years, a variety of surgical procedures have been proposed for this condition.¹ They include incision and drainage, cryosurgery, excision with open packing, excision with primary closure, flap surgeries, etc.^{6,12} Conservative management is rarely advocated nowadays, and most of the patients are offered surgical treatment.¹³

Controversy exists even today regarding the best surgical technique. The 2 most popular flap surgeries are Karydakis and Limberg's flap procedure. The basic aim of these surgeries is that it not only eradicates the sinus and the cervixes in which the hair gets accumulated, but the surgery also eliminates the factors responsible for these sinuses. In our study, incision and drainage was the commonest surgical procedure. The commonest flap surgery done in our study was Limberg's flap.^{1,6,14}

The main problem with pilonidal sinus surgeries is complications and recurrences. The reported rate of

complications ranges from 8 to 16%. The complications include infection, haematoma and flap necrosis. In our series, the postoperative complication was 15.79%.^{4,9}

CONCLUSION

Pilonidal sinus is a common clinical condition affecting young adults, especially males. Intergluteal cleft is commonest site where sinus occurs. The most common complication of pilonidal sinus in our series was pilonidal abscess. Limberg's flap is the commonest flap surgery done in our series. There was no mortality in our study.

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