

# CASE REPORT

## Pilonidal sinus disease: Case report and review of the literature

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### Abstract

Pilonidal sinus disease is a chronic granulomatous condition resulting from the presence of hair in the subcutaneous tissues. Its treatment ranges from simple hygiene measures to complex surgical interventions depending on the mode of presentation. We present a 59-year-old man who had a history of re-current swelling in the left gluteal region of about 2 years duration. After a diagnosis was made of pilonidal sinus disease, he had open surgery with laying open of the sinus and exploration with a probe in the operating room under local anesthesia. The sinus measured about 4 cm. He had drainage of the sinus cavity with curettage of the floor of the sinus. Pilonidal sinus disease may not be as uncommon in our setting as previously thought. A high index of suspicion should be entertained based on the characteristic location and typical presentation of the condition.

**Keywords:** pilonidal sinus, pilonidal disease, pilonidal cavity

### Introduction

Pilonidal sinus disease which literally means “nests of hair” was first described as a disease entity by Mayo in 1833.<sup>1</sup> It became common during World War II affecting over 78,000 American soldiers so called “Jeep disease.”<sup>2</sup>

It is a disease that affects mostly young adults especially during the 2nd and 3rd decade of life and usually occurs in the sacral region between the natal cleft. It is more common in males than females.

It is a chronic granulomatous condition resulting from the presence of hair in the subcutaneous tissues. Its aetiology has been an object of debate as it was initially thought to be congenital but an acquired mechanism is presently favored with hormones, friction, and hygiene playing an important role.

Its presentation can range from asymptomatic to chronic re-current abscess formation and it can be associated with significant discomfort and loss of time from work.

Its treatment ranges from simple hygiene measures to complex surgical interventions depending on the mode of presentation.

It may present a diagnostic dilemma resulting in patients presenting to several practitioners. The aim of this report was to present our experience with the management of a

patient who presented with the classic features of Pilonidal sinus disease but whose diagnosis was not made promptly before presenting to us despite visits to several practitioners over a period of about a year.

### Case presentation

We present a 59-year-old man who had a history of re-current swelling in the left gluteal region of about 2 years duration. The swelling was associated with re-current pain and occasional purulent discharge. He did not have a fever, neither was there another intercurrent illness or significant comorbidities. There was no history suggesting of any immune deficiency state.

Physical examination revealed a healthy looking middle-aged man who was afebrile. He had a nodular swelling measuring 4 cm by 2 cm at the left gluteal area adjoining the natal cleft with a discharging sinus at its summit.

Investigations requested were essentially normal. The retroviral screen was non-reactive.

A diagnosis of Pilonidal sinus disease was made.

He had open surgery with laying open of the sinus and exploration with a probe in the operating room under local anesthesia. The sinus measured about 4 cm. He had drainage of the sinus cavity with curettage of the floor of the sinus. No hairs were found. Hemostasis was achieved and the cavity

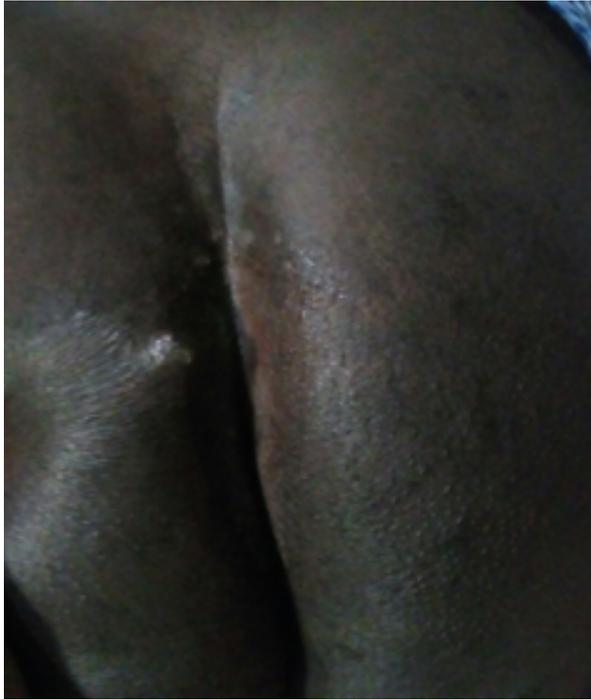


Figure 1. Preoperative photograph: pilonidal sinus disease of left gluteal cleft



Figure 2. Intraoperative picture with the sinus probe in-situ

was packed loosely with honey soaked gauze and the wound was dressed every other day and allowed to heal by second intention. It took about 21 days for the cavity to close up.

## Discussion

Pilonidal sinus disease is more commonly found in young adults especially during the 2nd and 3rd decade of life. It is said to be rare after the age of 40 years. Male gender, obesity, deep natal cleft, occupation or sports that require pro-

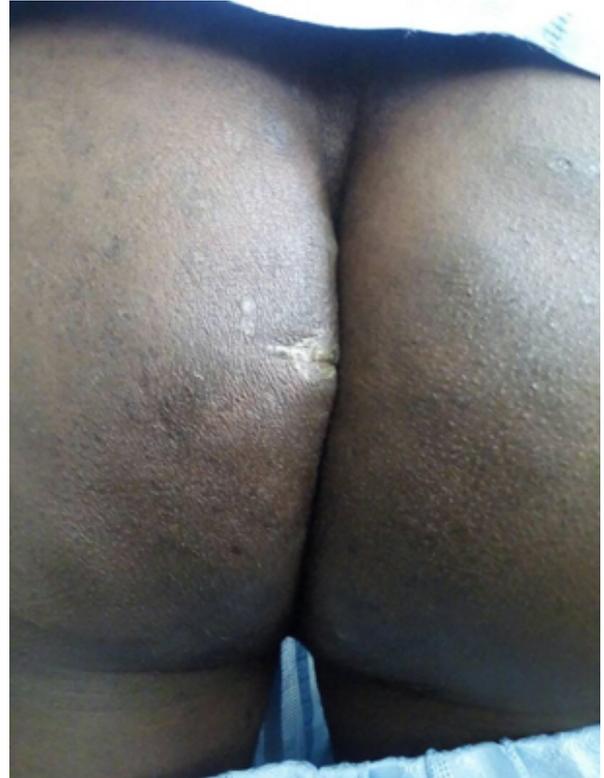


Figure 3. Post operative picture with the wound fully healed

longed sitting, excessive body hair/coarse hairs, poor body hygiene and excessive sweating have been proposed as risk factors.<sup>3</sup>

The incidence is about 26/100,000 in the Caucasian population and it is said to be commoner in Caucasians than Africans.<sup>4</sup> However the incidence in Nigeria is not known. The available literature has sparse information regarding the occurrence of pilonidal disease in our environment. It is often missed and may result in delayed and inappropriate treatment as was found in this patient who had presented to several practitioners in the private and public hospitals with different diagnosis made and valuable time spent off work. He had also spent significant amount of scarce resources on antibiotics.

The varied surgical techniques proposed for the eradication of pilonidal disease are evidences of the lack of a completely satisfactory method of management of this surgical problem.<sup>5</sup> The treatment option of incision and drainage when combined with curettage of the sinus cavity is usually associated with a low rate of re-occurrence.

Garg et al.<sup>6</sup> in a systemic review and meta-analysis of laying open (deroofting) and curettage of Pilonidal Sinus Disease noted that extensive procedures like wide excision and healing by secondary intention or wide excision and closure by flap, Z-plasty, Karydakias flap, Bascom flap and Limberg flap increase risk of tissue loss and wound related problems and recurrence rate not necessarily reduced. The work reviewed 13 studies with 1,445 patients who had deroofting and curettage. The recurrence rate was 4.47%, complications of 1.44%, operating time of 34.59 minutes, 8.4 days for return to work. They concluded that the procedure has distinct ad-

vantages and can conveniently be done under local anaesthesia and as day case.

In another meta-analysis of common procedures in PSD treatment by Stauffer et al.<sup>7</sup>, it was reported that recurrence after primary open treatment in 1,713 patients from 32 randomized controlled trials (RCTs) was 1.0% (95% CI 0.5 – 1.6%) at 12 months, 3.2% (95% CI 2.2 – 4.2%) at 24 months and 16.5% (95% CI 11.9 – 21.2%) at 60 months. Recurrence in primary midline closures (not using advancement or rotation flap techniques) pertaining to 4,626 PSD patients which were extracted from 51 RCTs was 2.1% (95% CI 1.7–2.6%) at 12 months, 7.0% (95% CI 6.0–8.0%) at 24 months, and 21.9% (95% CI 18.5–25.3%) at 60 months. Recurrence in primary asymmetric closure PSD treatment pertaining to 119 patients were extracted from 2 RCTs was 7.3% (95% CI 0.0–19.9%) observed in patients at 12 months.

Al-Khamis et al.<sup>8</sup> in comparing healing by primary and secondary intention after surgical treatment for pilonidal sinus observed that overall recurrence was a relatively rare outcome with only 7.0% (117/1666) of events occurring across all studies, with 5.3% (44/828) occurring after open healing compared to 8.7% (73/838) after closed (all) techniques. Open healing was associated with a significantly lower recurrence rate than primary surgical closure (all techniques), with open technique reducing the risk of recurrence by 35% when compared with closed technique. There were no statistically significant differences in infection rates between open

wound healing and primary wound closure, regardless of suture line position. This is contrary to the general surgical consensus that open healing is more likely to result in fewer postoperative infections.

Though the disease was described as a ‘Nest of Hair’ by Mayo<sup>1</sup>, hairs are not found in all the sinuses. Hairs are said to be found in only about half of the patients.<sup>9</sup> No hair was found in the sinus of the patient presented.

## Conclusions

Pilonidal sinus disease may not be as uncommon in our clime as previously thought. The challenge could be that of underdiagnoses and non-documentation of cases. The significant discomfort and loss of valuable work period associated with the condition makes it imperative for prompt diagnosis and appropriate treatment to relieve symptoms and prevent recurrence. Though more common in younger age group, it is not impossible to see it in much older patients. A high index of suspicion should be entertained based on the characteristic location and typical presentation of the condition.

## Competing interests

All authors declare that they have no competing interests related to this work.

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