

Case Report

Recurrent Pilonidal Sinus Cyst on Penis

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Pilonidal sinus, including one or more sinus canals and hairs, is a disease with a chronic course showing acute attacks which is often encountered in the general population, usually affecting young adults, at a rate in males twice that of females. Pilonidal sinus on the penis is so rare that very few cases have been reported in literature. A 20-year-old male presented to the urology outpatient clinic with the complaint of a suppurative lesion with discharge on the skin of the penis which had been ongoing for approximately three months. Clinical examination revealed an indurated, erythematous, ulcerative lesion, 3 cm x 2 cm in size, in the middle of the ventral aspect of the penile shaft. We present the first case in literature of recurrent pilonidal sinus related to *Actinomyces israelii*, located on the penis.

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Introduction

Pilonidal sinus, including one or more sinus canals and hairs, is a disease with a chronic course showing acute attacks which is often encountered in the general population, usually affecting young adults, at a rate in males twice that of females.^{1,2} It was first described by Mayo in 1833.³ Although various theories have been suggested related to the etiology, the theory that it is an acquired disease is more widely accepted.⁴ Although the sacrococcygeal area is most commonly involved, it may also be observed in the scalp, ear, brow, cervical subcutaneous region, axilla, interdigital clefts, anterior chest wall, nipple, umbilicus, suprapubic region, perineum, clitoris, anal canal, sole of the foot, and on amputation stumps.⁵ However, pilonidal sinus on the penis is so rare that very few cases have been reported in literature.⁶

In this paper, we present the first case in literature of recurrent pilonidal sinus related to *Actinomyces israelii*, located on the penis, and an evaluation is made in the light of literature.

Case Report

A 20-year-old male presented to the urology outpatient clinic with the complaint of a suppurative lesion with discharge on the skin of the penis which had been ongoing for approximately 3 months. The patient's medical revealed that 6 months ago, he had undergone for a lesion

in the same area which had been reported as pilonidal sinus on histological assessment. Clinical examination revealed an indurated, erythematous, ulcerative lesion, 3 cm x 2 cm in size, in the middle of the ventral aspect of the penile shaft (Figure 1A). The patient was circumcised. Inguinal lymph nodes could not be palpated.

Microbiological assessment was made first on a sample taken from the suppurating lesion. The culture and antibiogram microbiological assessment revealed no specific microorganism in the aerobic culture, whereas in the anaerobic culture, the presence of *A. israelii* was shown. According to the result of the antibiogram, crystallized penicillin G treatment of 1000000 IU/d was administered for 10 days, then surgical excision of the lesion and primary repair were undertaken. There was no relationship of the ulcerated lesion with the Buck's fascia or urethra. The patient was informed that it was necessary to continue treatment for 6 months with 2 x 1 g oral amoxicillin-clavulanate and to attend follow-up examinations. The patient was discharged on postoperative day 3. The histology of the excised material was evaluated as granulation tissue partially covered with squamous epithelium containing normal skin flora and Gr(+) coccus (*A. israelii*) and as sinus material containing hairs within related foreign body giant cells (Figure 1B).

On the postoperative seventh day, the sutures were removed without any complications. The patient made a

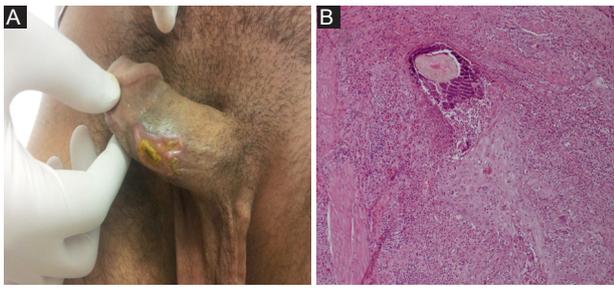


Figure 1. (A) Picture of Penile Pilonidal Sinus; (B) Microscopic Images of Penile Pilonidal Sinus.

good recovery and has had no symptoms since excision.

Discussion

Pilonidal sinus usually involves the sacrococcygeal area and is widely seen in young adults. Factors in the etiology include young age, a hirsute body structure, sedentary occupations, family history of pilonidal sinus, poor personal hygiene, wearing tight clothes and a high body mass index.⁷ When left untreated for a long time, in addition to social and psychological problems, malignant degeneration may also be seen very occasionally.⁸

Although pilonidal sinus is frequently seen in the general population, only 15 cases with penis localization have been reported in the relevant literature.⁹ The first case of penile pilonidal sinus was reported by Bervar et al in 1968.¹⁰ It has been determined that penile pilonidal sinus often occurs in uncircumcised males and is related to phimosis.¹¹ An analysis of reported cases has shown that it affects uncircumcised males between 21 and 59 years of age and is usually located between the coronal sulcus and prepuce, mostly dorsally (60%) or ventrally (33%).⁹ It has also been reported that penile pilonidal sinus often occurs together with recurrent infection attacks and could be related to *Actinomyces*.¹¹ In the current case, the pilonidal sinus was in the rarely seen localization of the midline and ventral penis, the patient was circumcised, it was associated with *A. israelii* and differs from previously reported cases as the first case in literature of recurrent penile pilonidal sinus.

Actinomycosis throughout the world is seen more in countries of low socio-economic level where importance is not given to oral hygiene. Actinomycosis is a chronic, progressive, infectious disease characterized by abscesses, fistula and sulfur granules. It has been reported that it could be related to penile pilonidal sinus.¹¹ The current patient has confirmed this relationship.

In the differential diagnosis of penile pilonidal sinus, benign lesions such as retention cysts, fibroma, pyrogenic granuloma and lymphangitis should be evaluated in addition to tumors of malignant character such as Kaposi's sarcoma and squamous cell sarcoma.⁶

Diagnosis of penile pilonidal sinus is generally made from postoperative histopathological findings rather than from preoperative findings.¹²

Although there are several surgical methods for treatment of pilonidal sinus, these are more valid for pilonidal sinus with sacrococcygeal location. Furthermore, despite several known surgical methods, recurrence rates are high in treatment of pilonidal sinus.¹³ The current case is the first case in the literature of recurrent penile pilonidal sinus. In an examination of urology literature, it can be seen that the usual treatment for pilonidal sinus is simple excision with primary closure or healing by granulation tissue and sinus tract excision. In the current case, surgical excision and primary repair were applied. During a 3-year follow-up period, no recurrence was observed in the current patient.

In conclusion, although penile pilonidal sinus is a rare disease, it must be considered in the differential diagnosis of patients who present with a lesion located on the penis. It should also be borne in mind that it could occur together with *Actinomyces*. To prevent recurrence and not to cause any systemic disease, surgical excision of the pilonidal sinus together with long-term antibiotic treatment should be applied.

Authors' Contribution

HE: Research concept and design, Writing the article. EA: Collection and/or assembly of data. MED and UU: Literature research. AS: Final approval of article.

Conflict of Interest Disclosures

The authors have no conflicts of interest.

Ethical Statement

Written informed consent was obtained from the patient's relative who participated in this case.

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