

Intermammary pilonidal sinus: A case report of a 23-year-old girl

İntermammarian pilonidal sinus: 23 yaşında bir kadında olgu sunumu

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Abstract

Pilonidal sinus is a chronic inflammatory disease of the skin and subcutaneous tissue, a cyst filled with a ball of hair, characterized by a discharging sinus and abscess. The disease is typically seen in the sacrococcygeal region. However, it can occur in other areas, such as the occiput, nose, neck, intermammary (sternal) area, axilla, finger (interdigital area), groin or external genital area. In this case report, an intermammary (sternal) pilonidal sinus, which is rarely seen, was presented along with the literature.

Keywords: Intermammary, Pilonidal sinus, Inflammation, Excision

Öz

Pilonidal sinüs cilt ve cilt altı dokusunun kronik inflamatuvar bir hastalığı olup, akıntılı bir sinüs ağzı ve apse ile karakterize, içi kıl yumağı dolu bir kisttir. Hastalık tipik olarak sakrokoksigeal bölgede görülür. Ancak nadiren saçlı deride, burunda, boyunda, intermammarian (sternal) alanda, aksillada, parmak arasında (interdijital bölge), kasıkta ve dış genital bölgede görülebilir. Çalışmamızda çok nadir olarak rastlanılan intermammarian (sternal) pilonidal sinüs olgusu, literatür eşliğinde sunuldu.

Anahtar kelimeler: İntermammarian, Pilonidal sinüs, İnflamasyon, Eksizyon

Introduction

Pilonidal sinus was first described by Mayo as a hair containing sinus in 1833 and as a hair containing wound by Anderson in 1847(1). It is a chronic infection of hairy skin in the skin fold, and the cleft where the anus opens between the two gluteal regions is the most common localization. It constitutes 15% of the perianal diseases with an incidence of 0.07% (2,3). Men are affected two to four times more often than women (4).

In contrast to the cases of pilonidal sinus occurring in most other body regions, cases of intermammary pilonidal sinus are rarer but occur more frequently in women. Here we present a 23-year-old female with an intermammary pilonidal sinus characterized by a painful sinus with purulent discharge.

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Informed Consent: The authors stated that the written consent was obtained from the patient presented with images in the study.

Hasta Onamı: Yazar çalışmada görüntüleri sunulan hastadan yazılı onam alındığını ifade etmiştir.

Conflict of Interest: No conflict of interest was declared by the authors.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Financial Disclosure: The authors declared that this study has received no financial support.

Finansal Destek: Yazarlar bu çalışma için finansal destek almadıklarını beyan etmişlerdir.

Published: 2/29/2020

Yayın Tarihi: 29.02.2020

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Case presentation

A 23-year-old female patient presented with a history of itchy and painful pilonidal sinus with purulent discharge in the intermammary region. On clinical examination, the patient showed a discharging pilonidal sinus with multiple pits. At the interview, she stated no personal history of additional disease or previous operations.

Ultrasonographic examination revealed an 11x26 mm cystic mass with dense particulate material in the subcutaneous adipose tissue in lower part of the sternum. In Doppler examination, an increase in vascularization was observed in the cystic mass wall and the surrounding soft tissues, consistent with subcutaneous abscess. In advanced examination with magnetic resonance imaging (MRI), a lesion measuring approximately 2 cm was detected. MRI of the mass revealed hyperintensity in T2A and hypointensity in T1A sequences (Figure 1a, 1b).

The sinus tract and cystic cavity were all excised (Figure 2) and the defect was closed primarily.

The diagnosis of pilonidal sinus was confirmed by histopathological examination (Figure 3).

The patient was discharged on the same day after the operation. Postoperatively, the patient had excellent cosmetic outcome.

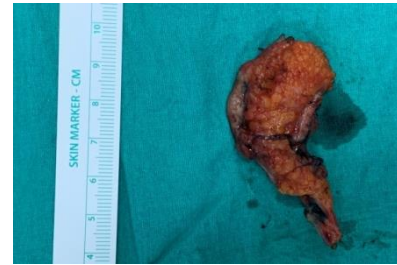


Figure 2: Material excised during the operation was measured with a sterile ruler (6x2,5 cm)

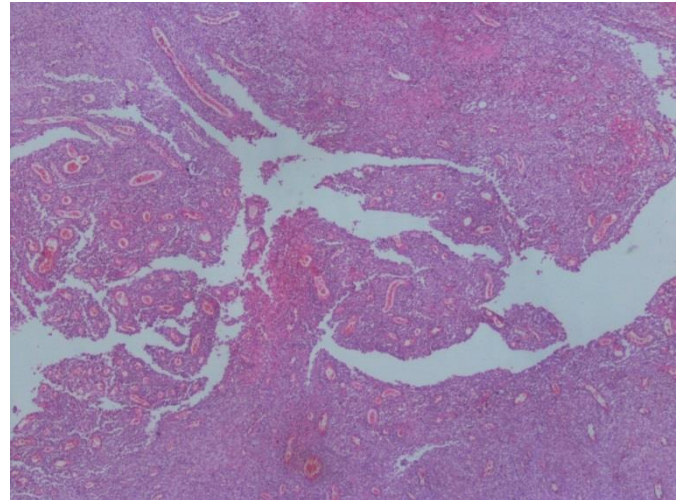


Figure 3: Inflammatory granulation tissue and mixed inflammatory cell infiltration around the tract (hematoxylin and eosin, magnification ×100)

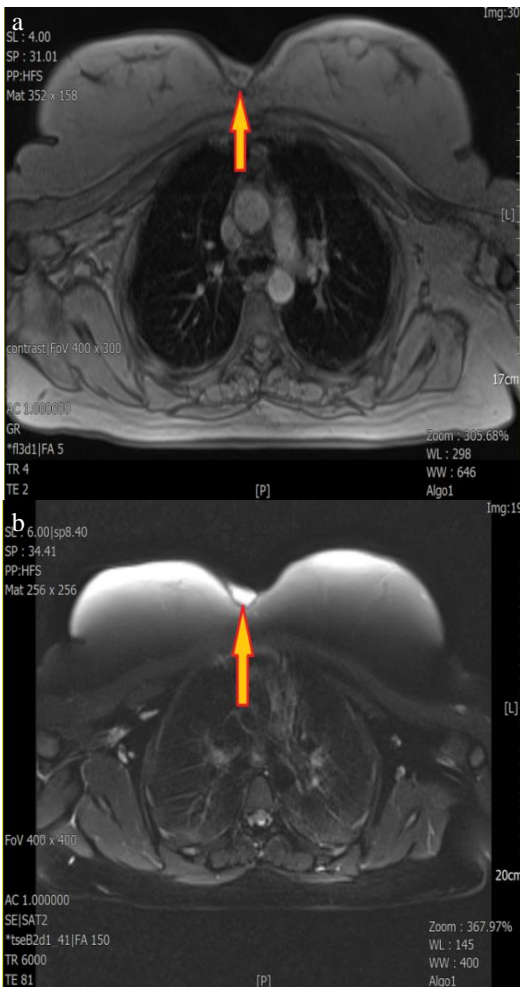


Figure 1a, 1b: 1. MRI scan in axial plane, T1 weighted. 2. MRI scan in axial plane, T2 weighted. MRI of the mass revealed hyperintensity in the T2A, and hypointensity in the T1A sequences

Discussion

There have been many theories about the development of pilonidal sinus. The idea that pilonidal sinus, which was previously thought to be congenital, is acquired is now widely accepted. Despite the complete removal of the sinus tract, the recurrence of the disease and the formation of the disease in the body parts where the local trauma is more intense, distances us from the theory that the disease is congenital. There are two most popular theories: 1) Hair is embedded beneath the dermis in areas where friction and pressure are too high, and the skin is too sensitive. 2) Excess bacteria and debris clog the mouth and hair follicles grow inwards. In another similar theory, the normal movement and tension in the dermis expands the hair follicles, which rupture and grow inside (5, 6).

Pilonidal sinus disease is usually observed within the 10-40 age range, and it is less frequent in children and adults older than 40 years (7). Our case was a 23-year-old female patient in accordance with the usual age range of the disease. There are many factors predisposing to pilonidal sinus: 1) A hairy body with an increased amount of daily spilled hair, 2) Spilled hair residing for a long time in the narrow and deep groove as a result of narrow and deep natal cleft (intergluteal cleft), 3) The skin remaining moist for a long time, 4) Having a crack, wound or scar tissue in the natal cleft, 5) Establishing local trauma based on sedentary lifestyle and prolonged sitting, 6) Poor hygiene, 7) Family history, 8) Obesity/overweight (8, 9, 10). However, in cases where none of these risk factors are present, pilonidal sinus disease may still occur. In our case, there were risk factors such as hairy body, moist skin and bad hygiene. The incidence of reported intermammary pilonidal sinus is very low. There are a few case reports and only one case series consisting of 12 patients reported by Shareef et al. (11).

In patients with pilonidal sinus disease, the clinical presentation may show a spectrum ranging from acute infection to chronic disease and may sometimes be asymptomatic. Patients with acute pilonidal disease present with pain, intermittent mucous, purulent or bloody discharge, fever and weakness in the case of abscesses. Patients with chronic pilonidal disease present with recurrent and persistent pain and discharge as in our case. The diagnosis is usually made by physical and imaging examinations. After diagnosis, the prognosis of pilonidal sinus is usually good. Cases of squamous cell carcinoma developed on chronic pilonidal disease are also rarely reported [12,13]. Pilonidal diseases may be difficult to differentiate from other similar or accompanying diseases, and require detailed physical examination. Folliculitis, hidradenitis suppurativa and some systemic diseases mimicking pilonidal diseases are distinguished from pilonidal diseases by their localization and lack of a sinus tract [14,15].

Histopathological examination of the sinus wall often includes foreign body giant cells, polymorphonuclear leukocytes and lymphocytes. Inflammation leads to the formation of secondary sinus mouths by progressing in the cephalic and lateral directions [7]. The pilonidal sinus cavity walls are not epithelized, therefore they are not true cysts, but secondary sinus tracts can be epithelized.

Antibiotic therapy is insufficient in the presence of pilonidal abscess and drainage is performed with appropriate incision. Antibiotic treatment can be used only in the presence of cellulite without abscess. According to the patient's discomfort or the severity of the symptoms, surgical decision is taken. Although there are various techniques used in pilonidal sinus surgery, primary closure is often performed and in case of wide excision, it can be left for secondary healing and various plastic surgery techniques can be used [16]. In our case, primary closure technique was used due to the absence of wide tissue excision and non-tensioned approach of the skin edges.

High recurrence rates are unavoidable especially after incomplete and incorrect surgical treatment, thus limiting the patient's daily life activities as well as causing discomfort to the patient and extending the time of return to work. In our case, the patient was discharged on the same day after the surgical excision. In the postoperative first week and first month follow-up, excellent results were obtained in terms of wound healing and cosmetics. Although excision and primary repair is the main surgical treatment, residual tissue should not be left behind to prevent recurrence of the disease.

Conclusions

Intermammary pilonidal sinus, although uncommon, may occur in intermammary area especially in young, obese, female patients with hairy bodies. Surgery is the most often used treatment method.

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The National Library of Medicine (NLM) citation style guide has been used in this paper.

Suggested citation: Patrias K. Citing medicine: the NLM style guide for authors, editors, and publishers [Internet]. 2nd ed. Wendling DL, technical editor. Bethesda (MD): National Library of Medicine (US); 2007-[updated 2015 Oct 2; cited Year Month Day]. Available from: <http://www.nlm.nih.gov/citingmedicine>