

Anterior chest wall pilonidal sinus: Disease at a rare site

Niaz Soomro¹, Hira Pervez²

Abstract

Pilonidal sinus is defined as an infected tract in the skin, commonly containing a tuft of hair. The most common locations are buttocks, axillae, groin, etc., but it can also develop at rare locations. We present the case of a 24-year-old, hirsute male with recurrent infected discharging sinus on the anterior chest wall, at a tertiary care hospital in Karachi. The patient had earlier undergone incision and drainage multiple times before he finally came to us. On evaluation and exploration a sinus tract containing a tuft of hair was excised from the anterior chest wall. A pilonidal sinus can develop in any area containing hair under friction. Hence, it should be included under the differential diagnosis of any long-standing sinus over a hairy area.

Keywords: chest wall sinus, anterior chest wall, pilonidal sinus.

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Introduction

Pilonidal sinus (PS) comes from the Latin word "pilos" meaning hair and "nidus" meaning nest.¹ Its incidence in the general population is 26/100,000, while it affects mostly working males between the ages 15-30 years.² Male gender, young age, hairiness, deep navel and poor personal hygiene were found to be the predisposing factors. Pilonidal sinus occurs mainly in the sacrococcygeal area. However, it may also occasionally occur in other areas such as axilla, groin, interdigital web, umbilicus, nose, suprapubic area, clitoris, prepuce, penis, or occiput.³ Anterior chest wall pilonidal sinus is an extremely rare condition with no reported cases in literature. We present a rare case of anterior chest wall pilonidal sinus with an unusually large area of induration.

Case Report

A 24-year-old male presented to the out-patient of thoracic surgery department at Ojha Institute of Chest Disease, Karachi, in November 2016, with a chronic discharging sinus. The patient had undergone incision and InD's twice, with primary diagnosis of infected sebaceous cyst/abscess at various hospitals. He reported to us due to recurrence

¹Department of Thoracic Surgery, Dow International Medical Center, Karachi, Pakistan; ²Department of Genetics, Aga Khan University Hospital, Karachi, Pakistan.

Correspondence: Niaz Soomro. e-mail: soomroniaz@yahoo.com

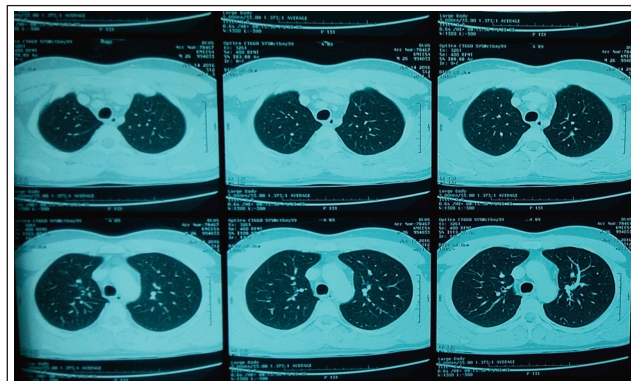


Figure-1: CT scan of the showing no communication of the sinus with the intra-thoracic organs.



Figure-2: Excised sinus tract with tuft of hair.

with a chronic discharging sinus at the left anterior chest wall, for one and a half months. There was no history of Tuberculosis (TB) in the patient as well as in close contacts. Physical examination showed a hairy chest with a scar over the left side of the upper anterior chest; a single opening of 0.5 x 0.5 cm to the left, 1.5 cm lateral to the sternum and 2 cm below the clavicle, expressing a thin yellow discharge. The rest of the physical examination was under normal limits. The patient was investigated with a sonogram suggesting a closed cavity with no intra-thoracic communication. CT scan was performed to exclude empyema necessitans, osteomyelitis and costochondritis (Figure-1). Pus was investigated for culture and sensitivity and TB workup which was negative. The patient was prepared for an excision of sinus. Intra-operatively when the probe was introduced in the external cavity to open the tract, a tuft of hair was found deep in the sinus with an oblique route (Figure-2). The hair was removed, cavity was cleaned, sinus tract was excised after debridement and the wound was closed with primary interrupted sutures. The excised tissue was sent for histopathology which

suggested chronic inflammation. The patient was followed up in the OPD postoperatively for a year without any recurrence.

Discussion

The name pilonidal sinus means a nidus of hair¹ It usually occurs due to friction, trauma, massage, shaving, infection, and maceration.² The term was coined by Hodges and the initial description was given by Mayo in 1833.⁴ The disease manifests itself among males aged 15-30 years, and is rarely seen above 45 years of age, with an incidence of 0.07%.³ Pilonidal sinuses predominantly occur in sacrococcygeal regions in young adult males.⁴ Many other locations can be the site of a developing PS. The presence of PS at unusual locations can lead to delayed diagnosis and recovery in a patient. Other regions that can be affected include the nose, umbilicus, ear, axilla, and the toe and finger web spaces. A few of these rare sites as found in the literature are discussed below. A case of nasal PS has also been reported that mimicked a nasal dermoid cyst.² An epidural abscess was previously reported that presented similar to a recurrent PS.⁵ A rare manifestation of a pre-auricular PS is also found in the literature³ One of the rarest locations of PS is on the penile skin, which is reported in a 20-year old male with a three-month history of a suppurative discharging lesion.⁴ Umbilical pilonidal sinus is also a rare disease compared to sacrococcygeal pilonidal sinus, with incidence being 0.6%⁶ and two such cases of umbilical PN have been found in the literature.⁷ It is also stated that 85% of the patients with umbilical PN sinus disease are between the ages of 10-30 years.⁸ Two rare cases of nasal bridge PS disease are also reported earlier.⁹ Likewise, with concurrent search no case similar to that of ours has been found in the literature. Due to the rarity of the case, the surgical procedure was opted with great effort. We performed a lay open procedure with primary closure. A meta-analysis was conducted to ascertain repair methods of draining a PS. Comparison was made between lay open vs primary closure vs Limberg and Karidaki's Flap. The analysis showed that mean time to return to work was significantly lower for the primary closure group than for the other groups. It also suggested that, there was no significant difference between the relapse and primary patients in terms of postoperative complications.¹⁰ According to another study, it is suggested that primary closure be opted for smaller PN sinus disease, where approximation of the skin edges are possible without any tension.⁹

Conclusion

Our case describes a rare finding of a chest wall pilonidal sinus. As seen in our patient, there is a high chance of misdiagnosis and an increased morbidity risk. The patient presented with a misdiagnosed, recurrence of PS that requires a multi-disciplinary approach using proper investigative tools, while ruling out differentials on an apt physical examination. We observed a complete post-operative recovery in our patient, which highlights the importance of a detailed history, physical, use of proper but directed investigative tools and streamlined exploratory approach with proper surgical expertise.

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Conflict of Interest: None.

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