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Case Report

PILONIDAL SINUS OF UMBILICUS – A RARE ENTITY

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ABSTRACT - Pilonidal sinus generally occurs in the sacrococcygeal region but has also been reported in other locations in which an anatomical cleft facilitates an accumulation of hair. Pilonidal sinus of the umbilicus is quite rare accounting for only 0.6% of the cases. In a patient presenting with discharging sinus at umbilicus, a possibility of pilonidal sinus must also be considered in the differential diagnoses at this site amongst others.

KEYWORDS- Umbilical sinus, Pilonidal sinus

Introduction

Pilonidal sinus most commonly occurs in the sacrococcygeal area, but a number of uncommon sites have also been reported, such as the interdigital cleft, axilla, perineum, suprapubic region, anterior chest wall, amputation stump, periauricular area, eyelids, nasal bridge and umbilicus. An umbilical pilonidal sinus is the rarest variant accounting for only up to 0.6% of cases.^[1] The predisposing factors mentioned in medical literature include young age, male gender, hirsutism, a deep navel, and poor personal hygiene.^[2]

Case-Report

A 16 year old male presented to the outpatient department of surgery with complaints of pain and pus discharge from the umbilical region since ten months. He had been visiting a local practitioner for the dressings and medication but

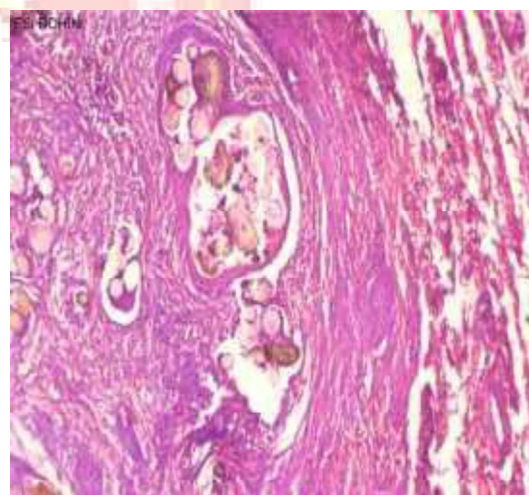


Figure 1: Stratified squamous epithelial lining with underlying subepithelial tissue showing a tract lined by chronic inflammatory infiltrate and containing keratin and hair shafts (H&E; 100X)

the discharge persisted. Physical examination revealed a thin built hirsute male with an umbilical sinus. The sinus showed unhealthy granulation tissue and flakes of pus. The surrounding skin was normal.

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A sinus tract excision was done with an elliptical skin around it and the specimen were sent for histopathological examination. On gross examination, a skin covered soft tissue piece measuring 3.5x2x2 cm was received. On serial sectioning, a sinus tract measuring 0.5 cm in length was identified. Microscopic examination revealed stratified squamous epithelial lining with subepithelial tissue showing a tract lined by chronic inflammatory cell infiltrate and foreign body giant cells and containing keratin debris and hair shafts. Thus, a diagnosis of pilonidal sinus of the umbilicus was made.

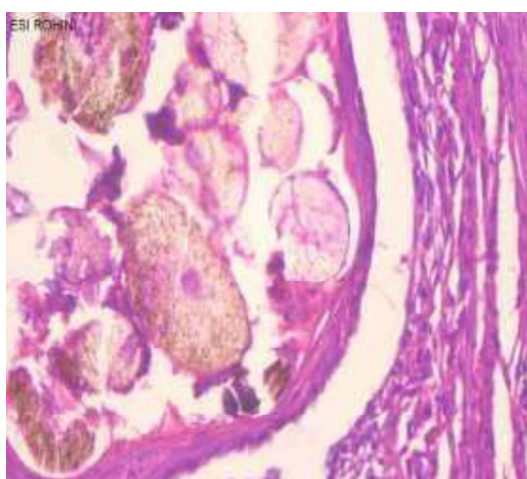


Figure -2 High power view of hair shaft and keratin debris (H & E; 400X)

Discussion

Pilonidal sinus disease is a common surgical disorder. In 1833, Herbert Mayo first coined the term, pilonidal. The word, pilonidal, means nest of hair and includes the etymological roots (Latin) of pilus (a hair) and nidus (nest).^[3] The disease generally occurs in the sacrococcygeal region but has also been reported in other locations in which Conservative treatment in the form of hair

extraction on an outpatient basis, improved umbilical hygiene, apart from instructions on preventive measures can be used as first-line therapy for the management of an umbilical pilonidal sinus. Incomplete extraction of the hair from the sinuses is the main cause of failure with conservative treatment.^[5]

An anatomical cleft facilitates an accumulation of hair, including the axilla, between the breasts, the perineum, and the penile shaft, or in spaces between the fingers (in particular, in the case of barbers). A negative pressure is created during body movement, leading to penetration of the hair shafts into the skin with a resultant foreign body reaction and development of a sinus lined by granulation tissue.

The first case of an umbilical pilonidal sinus was reported in 1956 by Patey and Williams.^[4] Patients may not be symptomatic initially, but most complain of pain, discharge or bleeding at the umbilicus when symptoms do develop. The usual clinical features result from inflammation of the sinus. Patients may even present with an acute abscess.

The differential diagnoses of a pilonidal sinus include umbilical hernia, endometriosis, metastatic tumor and a congenital abnormality.^[2]

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