



## A RARE CASE OF PILONIDAL UMBILICAL SINUS IN AN ADULT MANAGED CONSERVATIVELY.

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### ABSTRACT

Umbilical Pilonidal Sinus (UPS) is a rare differential diagnosis of umbilical disease. They usually present with a history of umbilical discharge that may or may not be associated with pain. Young active adolescent males with a dense hairy abdomen and deep naval are at risk of developing this disease. There are no proper guidelines for the management of this disease probably because of how rare it is. Treatment depends on the type of presentation. Here we present a case of a 42 year old healthy male who presented to the surgical outpatient department with complaints of umbilical discharge for 2 days not associated with any pain or fever. On examination, his abdomen was soft without sign of inflammation. A yellowish discharge was observed from the umbilicus upon applying pressure. A local ultrasound was performed which revealed a hypoechoic collection of 1.5cm x 1.3cm with echogenic content communicating with the surface via a sinus tract measuring 1.8cm x 0.5cm suggestive of an umbilical pilonidal sinus. This is a rare differential diagnosis among umbilical diseases and treatment guidelines have not been well established due to its rarity.

**KEYWORDS :** Umbilical pilonidal sinus, umbilical disease, discharge, general surgery, sinus.

### INTRODUCTION:

Umbilical Pilonidal Sinus (UPS) is a rare differential diagnosis of umbilical disease uncommonly encountered by general surgeons. When encountered, they usually present with a history of pain and umbilical discharge. Young active adolescent males with dense hairy abdomen and a deep naval are found to be at risk of developing this disease. There is no proper consensus on the guidelines for the management of this disease because of its rarity. Treatment depends on the type of presentation. Most often, the cases are managed by conservative treatment with hair extraction and advice to maintain personal hygiene. Surgery is indicated if there is failure of conservative management. Umbilectomy is the commonly done procedure, although sinus excision with reconstruction can be done and is found to have better cosmesis. The commonest cause of failure of conservative management is incomplete hair extraction from the sinus tract. Here we present a case of a 42 year old healthy male patient who presented to the surgical outpatient with complaints of umbilical discharge.

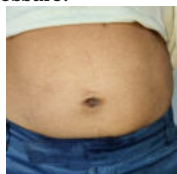
### CASE REPORT:

#### History:

A 42 year old male patient presented to the surgical outpatient with complaints of umbilical discharge for 2 days not associated with any pain or fever. He had no other significant history. Family and personal history were insignificant.

#### Examination and investigations:

The patient was vitally stable and his general condition was good. On local examination, his abdomen was soft and non tender without signs of guarding or rigidity and there was no acute inflammation around the umbilicus. A dirty yellowish discharge was seen coming from the umbilicus upon applying pressure.



On local inspection of patient



Pus discharge seen on applying pressure

Pilonidal sinus is a clinical diagnosis and seldom requires investigations. A careful examination of the sinus under good day light was done. A local ultrasound was performed which revealed a hypoechoic collection of 1.5cm x 1.3cm with echogenic content communicating with the surface via a sinus tract measuring 1.8cm x 0.5cm which led us to the final diagnosis of an umbilical pilonidal sinus.

### DISCUSSION:

Umbilical Pilonidal sinus is a rare disease of the umbilicus encountered by general in the surgical outpatient department. Although the diagnosis of Umbilical Pilonidal sinus is not very difficult, it is frequently overlooked in routine clinical practice because of lack of careful examination and the rarity of this disease. The importance of this disease lies in its recurring symptoms and the possibility of spread of infection into the peritoneal cavity.

The spectrum of pilonidal disease includes pilonidal sinus, pilonidal cyst and pilonidal abscess. It is a chronic inflammatory disease that is characterized by a granulomatous reaction to fragments of broken hair shaft which enters the dermis through a stretched hair follicle [1]. This condition was first described by Herbert Mayo in 1833 as a hair containing cyst in the sacrococcygeal region [1][2][3]. Umbilical Pilonidal sinus is a rare disease and only few 100 cases have been mentioned in the literature. Its incidence is around 0.6% of all cases of pilonidal disease [4]. The first case of UPS was reported by Patey and Williams in 1956 [5][6].

The exact pathogenesis of the disease is still unknown and was originally thought to be of congenital origin. The acquired theory gained importance as a result of the Second World War, when a high incidence of this disease was found among jeep drivers [3]. Evidence which supports the acquired theory is the occurrence of this disease in the interdigital web space of barbers and sheep shavers [1].

Patey and Scarff, in 1940-1950, first described hair movement from the surrounding skin under frictional movement into the skin as the initial step in the aetiopathogenesis of this disease [6]. In pilonidal sinus of umbilicus, the broken hair is seen to

enter the skin to the deepest part of the umbilicus and this causes a foreign body reaction and there is subsequent development of discharging sinus [1].

The contributory risk factors for the development of umbilical pilonidal sinus include male gender, obesity, hairy body, tight clothing, deep naval and poor personal hygiene [4]. In our patient, presence of poor personal hygiene was the predisposing factors.

Umbilical pain was found to be the most common presenting symptom followed by bloody discharge, purulent discharge, and umbilical mass [7].

The differential diagnosis of umbilical pathology which can mimic pilonidal disease include umbilical hernia, pyogenic granuloma, endometriosis, epidermoid cyst, metastatic tumors, urachus and other commonly encountered congenital anomalies of umbilicus [1].

#### **Treatment And Prevention:**

There is no proper consensus or guidelines for the management of this disease because of its rare occurrence. The treatment depends on the type of presentation. In case of an acute inflamed abscess, incision and drainage is the treatment of choice [1]. For asymptomatic patients, as seen in our patient, treatment is usually not required except for maintaining a good personal hygiene and a complete course of antibiotics and painkillers as required. For recurrent discharging sinus, conservative management which include simple hair extraction from the sinus tract, depilation of hair around the umbilicus, maintaining good personal hygiene and avoiding tight clothing, is the first line of management [8,9,10]. Incomplete hair extraction is the most common cause for failure of conservative management. Proper instruction to the patients at the time of discharge is seen to further reduce the recurrence [8]. Surgery is indicated after repeated failure of conservative management [1,10]. Although umbilectomy has been advised to reduce recurrence, complete excision of sinus followed by reconstructive procedure are the other available surgical options [1].

#### **CONCLUSION:**

Umbilical pilonidal sinus should be suspected in all young active males with dense hairy abdominal skin and poor hygiene presenting with discharging umbilical sinus. Management of this condition depends on the presenting symptoms. Conservative management with extraction of the hairs from the sinus and personal hygiene should be the first line of treatment in all cases of symptomatic umbilical pilonidal sinus. Failure of conservative management is an indication for surgery.

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