

Cause of an acute abdomen never seen: Intraabdominal perforation of an umbilical pilonidal sinus abscess

Barış Mantoğlu, M.D.,¹ Güven Erdoğan, M.D.,² Alper Koçbıyık, M.D.³

¹Department of General Surgery, Sakarya Training and Research Hospital, Sakarya-Turkey

²Department of General Surgery, Afşin State Hospital, Kahramanmaraş-Turkey

³Department of Pathology, Health Sciences University Kanuni Sultan Süleyman Training and Research Hospital, İstanbul-Turkey

ABSTRACT

Pilonidal sinus is a well-known disease of the sacrococcygeal region, which is caused by hair shafts penetrating the epidermis. The granulomatous reaction is the characteristic of this chronic inflammatory disease. Umbilical pilonidal sinus is an acquired disease that may appear in many guises and mimic several umbilical conditions. Several risk factors for developing the disease have been described. Treatment is based on clinical experience rather than on evidence-based medicine. The umbilical pilonidal sinus, which is not treated medically or surgically, may cause regional or generalized infections. We suggest that our case which has never had symptoms before and has caused acute abdomen, will be considered in the diagnosis of acute abdomen.

Keywords: Acute abdomen; perforation; rare; umbilical pilonidal sinus.

INTRODUCTION

Pilonidal sinus is a well-known disease of the sacrococcygeal region, which is caused by hair shafts penetrating the epidermis. The granulomatous reaction is the characteristic of this chronic inflammatory disease, which forms a hair containing cavity and a blind-end tract. PS was first described by MAYO in 1833 as a hair containing cyst below the coccyx.^[1] An umbilical pilonidal sinus (UPS) is a rare entity compared to Sacrococcygeal pilonidal sinus and first reported by Patey and Williams^[2] in 1956. UPS presents with local symptoms, such as discharge, itching, and pain in the navel. Our case will make an additional contribution to the diagnosis of an acute abdomen. Herein, we report the first case of an intraabdominal perforation of umbilical pilonidal sinus abscess causes an acute abdomen.

CASE REPORT

A 37-year-old male patient was admitted to the emergency department with acute onset abdominal pain. Physical ex-

amination did not reveal any signs of previous operations. Bowel sounds were hypoactive rebound tenderness was not also detected in all quadrants. In laboratory findings, the white blood count (WBC) was 17000 mm³, and the C-reactive protein (CRP) level was 7.5 mg/dl. There were no abnormal signs on the plain radiogram; however, abdominal ultrasound imaging showed free fluid at the Morison's pouch. Since computed tomography scanning was not available due to malfunction, we decided to perform diagnostic laparoscopy in accordance with the patient's physical examination and laboratory results. Under general anesthesia, after an infra-umbilical 2 cm incision, the abdomen was entered by Hanson technique, and pneumoperitoneum achieved at 12 mm/Hg. An additional 10 mm trocar inserted under direct vision. At first sight, Morison's pouch filled out with purulent fluid, so we explored whole gastric serosa, including the posterior wall for a peptic ulcer perforation (PUP). There was no sign of PUP, so intestines explored but did not give any information about the source of peritonitis; therefore su-

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Address for correspondence: Barış Mantoğlu, M.D.

Sakarya Eğitim ve Araştırma Hastanesi, Genel Cerrahi Kliniği, Sakarya, Turkey

Tel: +90 264 - 888 40 00 E-mail: barismantoglu@gmail.com

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praumbilical median laparotomy was performed. Fortunately, when the incision line palpated, a mass was detected in the posterior part of the umbilicus (Fig. 1a, b). At that point, we found a 2*2 cm apses pouch which perforated from the posterior wall of the abscess throughout the abdominal cavity. The abscess pouch completely excised out within preserving the umbilicus (Fig. 2a, b). The abdominal cavity irrigated with saline, and a soft drain was placed in Morison's pouch. The drain was removed on the second postoperative day, and the patient was discharged on the third postoperative day without any complaints. The patient's consent was obtained for this study.

DISCUSSION

PS mostly occurs in the sacrococcygeal region.^[3,4] PS can rarely be encountered in the different parts of the body due to the accumulation of hair, such as the axilla, suprapubic region, amputation stump, soles of the feet, penile shaft, interdigital region, and umbilicus.^[3,5,6] Incidence of the UPS was reported as 0.6% by Goodall; on the other hand, some reports argued about higher incidences as shown, that it is more common in the general population than it has to be thought.^[6-8]

UPS frequently affects young, male, obese, hirsute patients with hyperhidrosis and those with poor personal hygiene. An inward navel is also an essential factor and strongly correlated with the disease,^[9] although pain, purulent, or bloody discharge from the umbilicus, are the most frequent signs of UPS. Typically, physical examination reveals a local mass with tenderness and hyperemia. Eryilmaz et al.^[9] found the abscess formation rate as 25%. In our case, there was no local pain, no tenderness, nor discharge at the umbilicus. Generalized abdominal pain and tenderness were the only major symptoms. PS disease is a limited disease that causes a local abscess, considering the places where it occurs. In addition to local infection, UPS disease may be the source of an intraabdominal infection and an abscess, as described in our case. Usually, umbilical hernia, Sister Mary Joseph nodule, pyogenic granuloma, endometriosis, urachal remnant, and epidermoid cysts should be included in the differential diagnosis.^[10,11] Abdominal imaging may be helpful through suspicious cases. Unfortunately, despite the use of abdominal ultrasonography (USG) in the diagnosis of our patient, there was no swelling or redness around the umbilicus. Thus, the umbilical region was not controlled by superficial USG. However, the disease was able to be diagnosed intraoperatively.

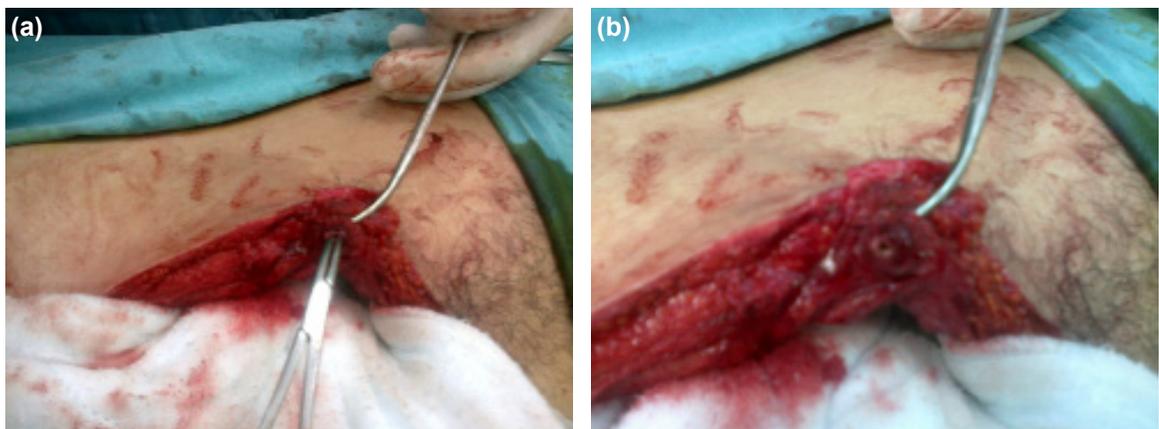


Figure 1. (a, b) Intraoperative view of UPS.

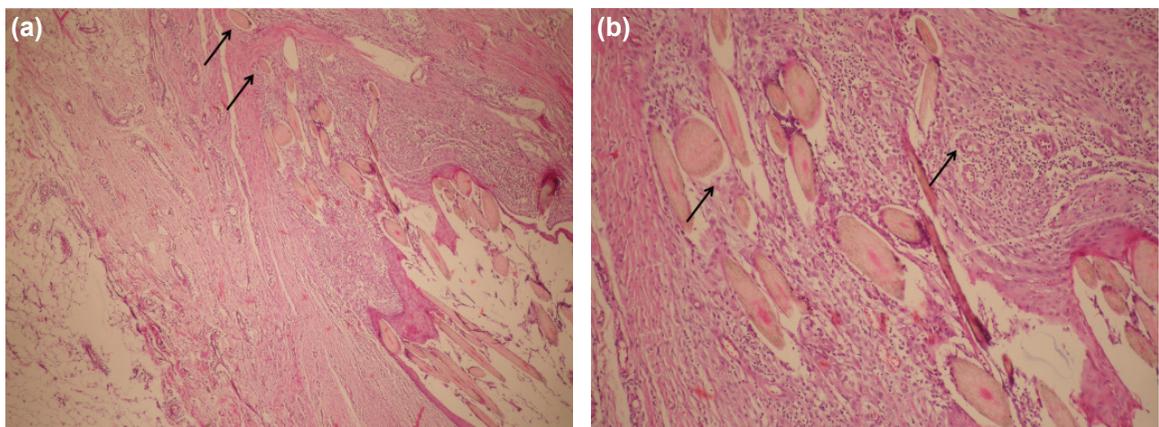


Figure 2. (a) At X4 magnification, the arrows indicate that a large number of hair sections form a sinus. (b) At X20 magnification, the arrows draw attention to the hairline sections and the inflammatory response around them.

Previous studies showed that conservative treatment, such as hair extraction and improved umbilical hygiene, is the first step therapy of the UPS.^[12,13] Besides a conservative approach, drainage of an abscess recommended if necessary. Surgical excision would be the definitive treatment for the patients for whom conservative management methods fail.^[14] Surgical excision can be performed within various techniques.^[14,15]

Although UPS has previously been described a local phenomenon in the literature, we have encountered a different and severe form of the disease. Therefore, UPS, as described in the above-described case, should also be kept in mind in the diagnosis of an acute abdomen. A written consent was obtained from the patient.

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

Peer-review: Internally peer-reviewed.

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OLGU SUNUMU - ÖZET

Akut batının hiç görülmemiş sebebi: Umbilikal pilonidal sinüs apsesinin batın içine perforasyonu

Dr. Barış Mantoğlu,¹ Dr. Güven Erdoğan,² Dr. Alper Koçbıyık³

¹Sakarya Eğitim ve Araştırma Hastanesi, Genel Cerrahi Kliniği, Sakarya

²Afşin Devlet Hastanesi Genel Cerrahi Kliniği, Kahramanmaraş

³Sağlık Bilimleri Üniversitesi Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi, Klinik Patoloji Kliniği, İstanbul

Pilonidal sinüs, epidermise nüfuz eden kıl gövdelerinin neden olduğu iyi bilinen bir sakrokoksigeal bölge hastalığıdır. Granülatöz reaksiyon, bu kronik enflamatuvar hastalığın özelliğidir. Umbilikal pilonidal sinüs, klinik olarak birçok şekilde ortaya çıkabilen ve bazı umbilikal bölgede meydana gelen hastalıkları taklit eden edinilmiş bir hastalıktır. Umbilikal pilonidal sinüs oluşumunda çeşitli risk faktörleri tanımlanmıştır. Umbilikal pilonidal sinüsün tedavisi kanıtı dayalı tıptan ziyade klinik deneyime dayanır. Tıbbi ya da cerrahi olarak tedavi edilmeyen umbilikal pilonidal sinüs bölgesel ya da generalize enfeksiyonlara neden olabilir. Daha önce hiçbir belirti vermeyen karın içi perforasyon gösteren umbilikal pilonidal sinüs apsesi olgumuzun, akut karın ön tanılarında bundan sonra göz önünde bulundurulacaktır.

Anahtar sözcükler: Akut batın; nadir; perforasyon; umbilikal pilonidal sinüs.

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