

# A rare case of pilonidal sinus of the umbilicus

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## KEY WORDS

umbilicus ► pilonidal sinus

## ABSTRACT

Although most cases of pilonidal sinus are found in the sacrococcygeal region, umbilical presentations can occur as well. There are only a few reports of umbilical pilonidal sinus in the literature. We report a case of umbilical pilonidal sinus in a 26-year old man. Umbilectomy was carried out and the microscopic findings revealed umbilical pilonidal sinus. The present paper recapitulates the microscopic features and treatment of this rare disease.

## INTRODUCTION

Pilonidal sinus disease is a common problem of the sacrococcygeal region. However, it is also observed in the periumbilical area [1]. Male sex, young age, hairiness, deep navel and poor personal hygiene were found to be predisposing factors [2]. The predisposing factors are briefly discussed, however, the exact etiology of this disease remains unknown [3]. Possible mechanisms of formation are described. It is suggested that this possibility should be considered in cases of resistant or recurrent omphalitis [4]. Clinical as well as pathological patterns observed seem to support the hypothesis of a congenital etiopathogenesis [5]. Due to the risk of peritoneal extension of inflammation from this lesion, the umbilical pilonidal sinus should be treated more aggressively than its sacrococcygeal counterpart [1]. The importance of differential diagnosis of umbilical pilonidal sinus from other umbilical pathologies is also emphasized [2]. Treatment of umbilical pilonidal sinus is usually surgical [6].

## CASE REPORT

A 27-year-old man presented with umbilical pain, tenderness, swelling, discharge and bleeding. In fistulography in the midline, near the bladder, a cavity of 4x4 cm size and a fistula tract leading from the cavity to the umbilicus were shown. The opaque material, which was released from the orifice of the fistula at the umbilicus was seen through the fistula tract filling the cystic lesion and passing to the bladder. An infected pilonidal sinus was excised after an umbilical abscess failed to respond to antibiotic treatment.

## Histopathology

The biopsy specimen was fixed in 10% buffered formalin and embedded in paraffin. The sections were stained with hematoxylin and eosin (H&E) for routine histopathological diagnosis and revealed hairs penetrating areas of inflammation from within,

lodged in the dermis and eliciting a type of reaction to a foreign body (Fig. 1). The sinus was lined with granulation tissue.

## DISCUSSION

Pilonidal sinus disease is a common problem of sacrococcygeal region. However, it is also observed in the periumbilical area [2]. Pilonidal sinus disease of the umbilicus is caused by hair penetrating the skin, causing a foreign-body reaction and development of a sinus lined with granulation tissue. Patients may not be symptomatic initially, but most of them complain of pain, discharge or bleeding at the umbilicus when symptoms develop. With good lighting conditions and the help of an assistant to retract the skin of the umbilicus, hairs can be seen deep in the umbilicus and usually protrude from a small sinus. Additional diagnostic procedures are usually not necessary [6].

Pilonidal sinus of the umbilicus is rarely reported [7], fewer than 20 cases were reported before 1980 [6]. The disease is most often seen in young white males with dark, straight hair. Although congenital anomalies related to the closure of the neural canal can certainly occur in this area, it is now believed that the large majority of pilonidal sinuses have an acquired pathogenesis [8].

Although conditions such as umbilical hernia, epidermoid cyst, endometriosis, metastatic tumors and congenital abnormalities may be more usual causes of umbilical symptoms, surgeons should also inspect the umbilicus for the presence of pilonidal sinus disease. Simple extraction of hair from the sinus will relieve symptoms in most patients. Occasionally, incision and drainage of an abscess may be necessary [6].

Surgery should be performed in recurrent cases resistant to conservative treatment [2]. Sroujeh and Dawoud recommend umbilical excision and wound closure by secondary intention; the subsequent scar resembles a normal umbilicus [7].

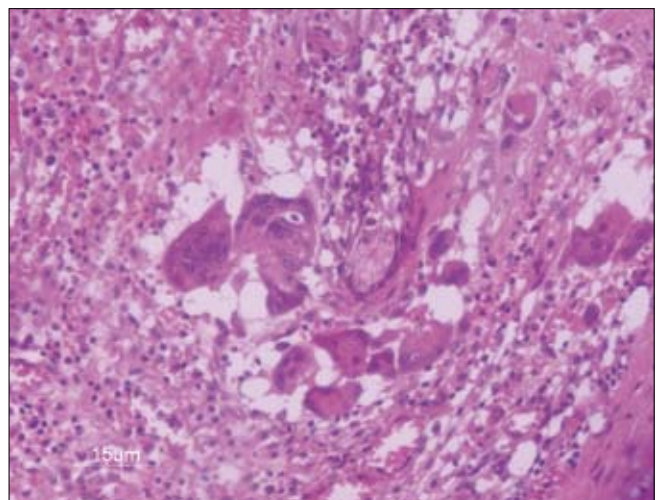


Fig. 1. The hair shaft penetrates into the dermis and elicits a foreign-body giant cell reaction (H&E, x400).

## CONCLUSIONS

In summary, we report a case of umbilical pilonidal sinus in a 26-year old man. Umbilectomy was performed and the microscopic findings revealed umbilical pilonidal sinus. The present paper recapitulates the microscopic features and treatment of this rare disease.

## REFERENCES

1. Barrett TL, Schoelch SB: *Umbilical pilonidal sinus*. *Cutis* 1998; 62: 83-84.
2. Eryilmaz R, Sahin M, Okan I et al: *Umbilical pilonidal sinus disease: predisposing factors and treatment*. *World J Surg* 2005; 29: 1158-1160.
3. Gupta S, Sikora S, Singh M, Sharma L: *Pilonidal disease of the umbilicus - a report of two cases*. *Jpn J Surg* 1990; 20: 590-592.
4. Colapinto ND: *Umbilical pilonidal sinus*. *Br J Surg* 1977; 64: 494-495.
5. Tocchi A, Liotta G, Agostini N, Maggiolini F: *The umbilical pilonidal cyst: a case report. Comments on its etiopathogenesis and treatment*. *G Chir* 1994; 15: 33-36.
6. McClenathan JH: *Umbilical pilonidal sinus*. *Can J Surg* 2000; 43: 225.
7. Sroujeh AS, Dawoud A: *Umbilical sepsis*. *Br J Surg* 1989; 76: 687-688.
8. Rosai J: *Ackerman's surgical pathology*. Mosby-Year Book, Inc, 1996.

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