

Case Report

Umbolith with umbilical abscess and omphalitis: a rare case

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ABSTRACT

Umbolith is a relatively rare entity under normal circumstances, especially in the urban scenario. Usually seen in obese individuals with a deep and retracted umbilicus due to constant accumulation of sebum/keratin leading to stone formation. It's usually covert until complicated by secondary infection (abscess) or ulceration. Sinus was laid open and healthy granulation was seen within 1st week. Pus culture sensitivity suggestive of heavy staph growth and antibiotics were given accordingly. Appendicitis was treated conservatively.

Keywords: Omphalitis, Umbolith, Umbellical abscess

INTRODUCTION

Omphalolith is an uncommonly encountered benign umbilical lesion. It has multiple synonyms and signifies a calcular lesion occurring in both genders with deep umbilicus and poor personal hygiene. In a deeply retracted umbilicus especially in an obese person accumulation of sebum and keratin may lead to the formation of a calculus known as Omphalolith.¹ Authors present one such patient with calculus in the umbilicus masquerading as chronic infection with appendicitis.

CASE REPORT

A 40-year male with discharging sinus at the umbilicus for 7 days was visited the outpatient department. He was associated with throbbing pain, on and off fever with chills for 10 days. No complications such as nausea, vomiting, and fecal, bloody, urine discharge from sinus were observed. Examination of umbilicus ulcer showed an active purulent discharge with excoriation, local rise in

temperature, and tenderness, with a 2×2 cm palpable mass below the umbilicus. Ultrasonography suggestive of terminal ileitis, 7 ml collection 3 cm below umbilicus and 4.2 cm sinus tract from collection to umbilicus with changes suggestive of acute appendicitis (7.4 mm). CECT of abdomen and pelvis suggestive of rectus sheath defect (10 mm) with adjacent fat stranding and local bowel thickening and mildly inflamed appendix (7 mm) (Figure 1). Sinus tract excision with incision and drainage of the abscess was done to reveal 10cc pus and multiple soft calculi (Figure 2). Sinus was laid open and healthy granulation was seen within 1st week. Pus culture sensitivity suggestive of heavy staph growth and antibiotics were given accordingly. Appendicitis was treated conservatively. The patient got discharged on postoperative day 7 with advice of daily dressing on an outpatient department basis.

Histopathology report of the calculus material showed sebum with keratin material with multiple stratified corneocytes, thus confirming the diagnosis of umbolith. Follow up was done for a month which had shown with

healthy granulation tissue and healing by secondary intention.

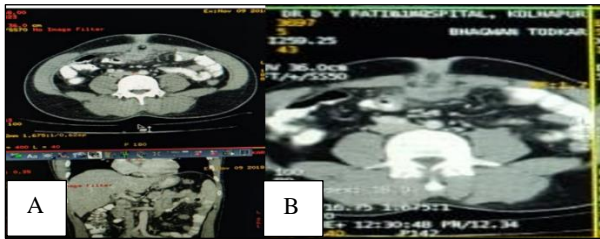


Figure 1: (A and B) CECT abdomen and pelvis showing umbolith.

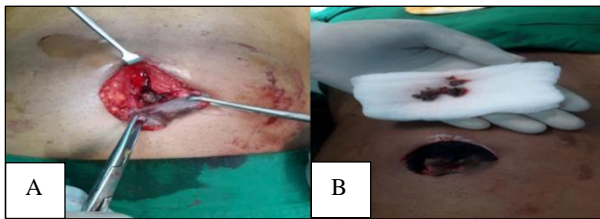


Figure 2: (A and B) Umbolith.

DISCUSSION

Omphalolith with calcular lesion of the umbilicus is rare. The term is derived from Greek ('omphalos' meaning navel; 'lithos' meaning stone). At birth, the umbilical cord consists of two arteries and a vein, the rudimentary urachus (allantois) and the vitelline (omphalo-mesenteric) duct enveloped in Wharton's jelly.² It is also known as omphalokeratolith, umbilical bolus, inspissated umbilical bolus, navel stone, umbilical concretion, and umbolith.¹ The condition occurs in people with the deep, invaginated umbilicus. Retention of Corneocytes (differentiated keratinocytes in stratum corneum) within the deep recess of the umbilicus for a long duration, compressed with sebum leads to the formation of a hard and compact bolus, which is a kind of a pseudocomedone with firm attachment at the base of umbilicus. The presence of melanin and oxidized lipids in mass tend to attain blackish to brown color, similar to the skin color of the patient.³ Studies showed a relation between the development of omphalolith and poor umbilical hygiene. There is no race or gender predilection.⁴ Occasional cases have been reported in association with seborrheic keratosis.⁵ Omphaloliths are generally asymptomatic and may present clinically only when complicated by infection or inflammation or infection resulting in symptoms like relapsing discharge, redness or pain.⁴ There are reports of rare cases presenting as peritonitis due to the rupture of umbilical abscess secondary to omphalolith.³ Occasionally pyogenic granulomas may appear and grow rapidly bringing the patient to clinician.⁶ The differential diagnosis includes umbilical cholesteatoma, dermatofibroma, keloid, malignant

melanoma, umbilical endometriosis and Sister Mary Joseph nodule (metastasis).⁷

The diagnosis is generally arrived at based on history and clinical examination though occasionally imaging like transabdominal ultrasonogram, MRI and CT scan may be needed in early symptomatic or doubtful cases.^{2,4} Rarely, the diagnosis may be arrived at, only after surgical exploration of umbilicus.³

CONCLUSION

Laying open of umbolith with an abscess is an effective operative intervention for complicated umbolith with rapid resolution suggested by follow up after 1 month. Umbolith should be treated as early as possible before it gets complicated. As the treatment of complicated umbolith carries significant morbidity of laid open tract.

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