

## A RARE CASE OF GIANT APPENDICOLITH CAUSING ACUTE APPENDICITIS

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**ABSTRACT**

Acute appendicitis is one of the commonest surgical emergencies worldwide. There is considerable variation in prevalence of appendicolith with appendicitis. Most of the patients with appendicolith are asymptomatic and they are not pathognomic for acute appendicitis. However, appendicolith show increased association with perforation and abscess formation. Appendicolith are quite common, being present in 3% of general population and in nearly 10% cases of appendicitis. However, giant appendicolith measuring over 2 centimeters (cms) are extremely rare. Computed Tomography (CT) has increased their pre- operative diagnosis considerably. We present a young male diagnosed pre-operatively on Non-Contrast Computed Tomography (NCCT) to have a giant appendicolith with appendicitis. On open surgery he had a 2.2 cm stone and underwent appendectomy. The case is presented for the unique size of the appendicolith along with review of literature.

**KEYWORDS :****INTRODUCTION**

Acute appendicitis, one of the commonest surgical emergencies, affects nearly 7% of the world's population and accounts for about 1% of all surgical operations. Faecoliths formed by mineral deposits layered with fecal debris and lodged in the appendix are called appendicolith. The prevalence of faecolith in the general population is 3%, and appendicolith are seen in 10% cases of acute appendicitis. However, giant appendicolith (>2 cm) are extremely uncommon.

**CASE REPORT**

A 19-year-old male presented to us with pain in the right side of abdomen for 3 day. No history of fever , no history of vomiting. His vital signs, general physical examination were normal. Abdominal examination revealed tenderness in right iliac fossa, no rebound tenderness, no mass palpable. Urinalysis was normal, and abdominal ultrasound raised a suspicion of acute appendicitis with appendicolith . Non-contrast computed tomography (NCCT) abdomen revealed a a large appendicolith of 2.2 × 2.0 cm<sup>2</sup> size at the base of appendix with surrounding inflammatory fat stranding. His routine investigations were essentially normal. He underwent open appendectomy by gridiron incision . A appendix was found hidden in flimsy adhesions posterior to the terminal ileum. The appendix found to be dilated with palpable appendicolith at the base of appendix(fig.1). Minimal inflammation was present. The mesoappendix was cut and ligated and the appendix was cut at the base between ligatures . The specimen cut opened which reveals appendicolith of size 2.2\* 2.0 cm (fig .2). The patient had an uneventful recovery. Histopathology came as acute appendicitis.



Fig. 1. Huge dilated appendix with broad base.

Fig 2. Cut opened specimen



Fig.3: Appendicolith

**DISCUSSION**

Acute appendicitis was first reported by Fitz in 1886, and Wangenstein and Bowers proposed the theory of an obstructive component as a causative factor in 1937. Other proposed etiologies include lymphoid hyperplasia, constipation, trauma, diet, genetic predilection, hypersensitivity and mucosal ulceration. Appendicoliths are usually seen in children and young adults. They are more common in males and in the retrocaecal appendix. A low-fiber diet increases the risk of faecolith formation.

Appendicolith on plain abdominal x-ray is a reliable sign of appendicitis (70%). However, computed tomography (CT) is more sensitive, detecting even non- calcified faecolith. On CT, appendicolith appear as laminated bodies with gas in center or homogenous opacity. When symptomatic, they carry 90% probability of acute appendicitis and 50% higher risk of perforation and abscess formation. Some authors have found good correlation (65-100%) between faecolith on CT and appendicitis, while others have not.

In a retrospective review by Lowe et al., an appendicolith detected on CT had a sensitivity of 65%, specificity of 86%, and positive predictive value of 74% for the diagnosis of appendicitis.

Despite appendicolith being common, a giant appendicolith

(>2 cm) is extremely rare and only sporadically reported. Our case is one of the largest appendicolith reported.

#### REFERENCES

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