

Case Report

Faecolith leading to acute exacerbation of chronic appendicitis: case report and review of literature

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ABSTRACT

Acute appendicitis remains the most common acute condition often requiring surgical intervention. Obstruction of appendicular lumen by faecalith or lymphoid hyperplasia is the main cause of acute appendicitis. There is no possible way to prevent the development of acute appendicitis. The only way to reduce morbidity and mortality is by timely intervention and doing appendicectomy before perforation and gangrene of appendix occurs. We report a case of chronic appendicitis by a giant faecalith leading to chronic pain. This case is being reported is an example of how large an appendiceal faecalith can be.

Keywords: Acute appendicitis, Chronic appendicitis, Faecalith, Giant

INTRODUCTION

Acute appendicitis is one of the commonest surgical emergencies and affects about 7% of the world population. Appendicectomy performed worldwide accounts for about 1% of all surgical operations. The prevalence of faecalith in general population is 3% and appendicolith are seen in 10% of cases of acute appendicitis. The relationship between appendicolith and chronic appendicitis is well established, which is induced by partial obstructions in appendicular lumen that are resolved spontaneously. faecaliths are faecal matter mixed with mineral deposits formed within intestinal lumen. An appendicolith is term used for faecalith present within the appendix lumen and is an established cause of acute inflammation of appendix and intermittent chronic abdominal pain. Giant appendicoliths >2 cm are extremely uncommon and only sporadically reported.¹⁻² The largest appendicolith reported in medical journal is 35 mm in diameter in a patient with Crohns disease and stump appendicitis.³

CASE REPORT

An 18 year old female was admitted with history of on and off right lower abdominal pain which was colicky in nature for 2 yrs. She was having fever and vomiting from last 2 days. A detailed history of patient revealed an episode of acute appendicitis 2 yrs. back for which she was admitted and managed conservatively. Her physical examination revealed tachycardia with tenderness in right iliac fossa. Blood examination appeared normal except her TLC count was 14,000/mm³. Her ultrasonography was suggestive of inflamed appendix with faecalith. CECT abdomen with intravenous contrast showed no renal dilation and both ureters had normal appearance with no stones inside it. Appendix was 20 mm in diameter with a faecalith inside it of approx. size 2.1×1.5 cm. Patient was taken for open appendicectomy under spinal anaesthesia. Appendix was inflamed and densely adherent to omentum. An appendicectomy was performed which showed dilated mid portion of appendix (Figure 1). The excised specimen on cut open showed a

large Faecolith of 2.1 cm×1.5 cm (Figure 2). Post-operative period was uneventful and Patient was discharged on 3rd post-operative day. The histopathological examination report was suggestive of appendix of 21 mm in largest diameter with changes of chronic appendicitis with zones of acute appendicitis secondary to faecolith.



Figure 1: Dilated mid portion of appendix with faecalith inside it.



Figure 2: Appendix cut open showing faecalith.

DISCUSSION

The first description of appendicitis with perityphilitis suppuration was reported by Fitz in 1886. Another article by Wangensteen and Bowers published in 1937 is considered milestone, in which theory of obstructive pathology was suggested as causative factor for acute appendicitis.

Although the etiology of appendicitis is controversial, in most of the patients it is thought to be provoked by obstruction of the appendiceal lumen by faecalith impaction, lymphoid hyperplasia, inspissated barium from previous contrast studies, vegetable or fruit seeds and tumors. Main etiology for appendicitis is obstruction due to faecalith in adults and lymphoid hyperplasia in children. Relationship between appendicolith and chronic appendicitis is also well established, partial obstruction of appendicular lumen which resolves spontaneously is the main cause for it.⁴ Presence of faecalith may lead to obstruction and at times perforation of appendix.⁵ Other etiological factors suggested are low dietary fiber leading to hard and dry feces as compared to those with high fiber. Incidence of faecalith prevalence and incidence of acute appendicitis is more in western countries than developing nations. Several studies have reported appendicolith as cause for appendicitis in 20-40% of cases. This usually occurs in male patient under 35 years of age, who have a retrocecal appendix.^{2,5-6}

Commonly, an appendicolith measures less than 1 cm in diameter and are called giant appendicoliths when they are more than 2 cm in measurement and are extremely rare.⁷

The presence of appendicolith may lead to diagnostic confusion and it should be differentiated from other conditions for calcification in right iliac fossa like renal lithiasis, ureteral lithiasis, vesical calculus, gallstone ileus, phlebolith, ovarian tumors, lithopedion, calcified lymph nodes, foreign bodies and radiological artifact.^{8,9}

Management of appendicolith leading appendicitis is always surgical. Treatment is simple appendectomy by open or laparoscopic method. A timely intervention is must to prevent gangrene and perforation of appendix. Perforation of appendicitis may lead to dislodgment of faecalith from appendiceal lumen into peritoneal cavity leading to hepatic, abdominal, pelvic or retroperitoneal abscess. It is therefore important to perform a thorough examination of peritoneal cavity in cases of perforated appendix.¹⁰

CONCLUSION

Surgeons are frequently faced with single or multiple faecalith of varying sizes in appendix lumen. Calcified faecalith with in the appendix may be visible on plain X ray especially giant ones are radiologically more evident. Calcified faecalith in appendix must be differentiated

from other causes of right iliac fossa calcification. Treating surgeons should be aware of dislodgment of faecalith after the perforation of appendix and should make sure that faecalith is removed at the time of surgery to reduce risk of abscess formation.

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