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RESEARCH ARTICLE

UNUSUAL PRESENTATION OF ACUTE APPENDICITIS WITH APPENDICOLITHS: A REPORT OF TWO CASES

¹Pawan Tiwari, ^{*2}Balvinder Singh, ³Ray, M.S., ⁴Akhil Kumar Kainth, ⁴Tushar Nagyan, ⁴Pratul Arora, ⁴Dev Yadav and ⁴Aditya

¹Prof. & HOD, Department of Surgery, SGT Medical College, Gurugram
²Senior Residents, Department of Surgery, SGT Medical College, Gurugram
³Prof. Department of Surgery, SGT Medical College, Gurugram
⁴Residents, Department of Surgery, SGT Medical College, Gurugram

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INTRODUCTION

Acute appendicitis is one of the common surgical emergencies worldwide affecting approximately 7% of the general population in a lifetime; and accounts for about 1% of all surgical operations. The obstruction of the lumen triggers inflammatory process in the appendix. Most common pathologies associated with lumen obstruction are lymphoid hyperplasia, fecalith, strictures and appendicular stasis and bacterial colonization in the appendix lumen resulting in appendicitis (Singh, 2008 and Singhal, 2016). The diagnosis is made clinically with classic history and examination findings, supported by laboratory investigations. The ultrasonography or CT Scan is used when there is diagnostic uncertainty or to exclude other associated pathologies. However, sometimes the clinical presentation is not with classical features and imaging does not confirm a diagnosis and can lead to diagnostic confusion. We present Such 2 cases with unusual presentation which proved to be acute appendicitis with appendicoliths.

Case 1: An 18 year old male patient was admitted to our surgical department with complaints of abdominal pain since one month.

***Corresponding author: Balvinder Singh**

Senior Residents, Department of Surgery, SGT Medical College, Gurugram

ABSTRACT

Although the acute appendicitis is usually a clinical diagnosis, atypical clinical presentations and radiological investigations can cause diagnostic confusion. Presence of appendicolith on imaging in presence of abdominal pain without urological pathology warrants diagnostic intervention to rule out associated appendicitis as appendicoliths are associated with complicated appendicitis

Duration of symptom was about one month but were aggravated from last few days. On physical examination there was muscular defence and rebound tenderness in lower abdominal, more prominent on right side. Laboratory investigations revealed WBC count of 8,400. Other laboratory tests were within normal limits. Abdominal x-ray examination revealed a radio opaque shadow in the right lower quadrant. Abdominal ultrasonography showed features suggestive of subacute appendicitis. CECT abdomen and pelvis ordered which reported features of appendicitis with inflamed cecum with minimal perilesional fat stranding. Patient was subjected to Diagnostic laparoscopic where intraoperative findings of multiple filmy adhesions between gut loops and abdominal wall and omentum were seen. Ileocecal region was inflamed with no obvious free fluid in peritoneal cavity. Diagnosis of ileocecal Koch's was made and open Diagnostic laparotomy was done in which a big appendicolith about 1 cm was revealed along with inflamed and oedematous appendix. Appendectomy was done. The post operative period was uneventful and patient was discharge satisfactorily (Figures below).

Case 2: A 17 year old male patient presented with complaints of abdominal pain since 3 days with history of Similar complaints in the past (two episodes over six month Period). There was mild tenderness and withdrawal tenderness in the right lower quadrant on physical examination. Rest of clinical

examination and baseline investigations including TLC (8400), urine analysis, hepatic and renal function tests were normal. Ultrasonography of the abdomen pelvis revealed right renal concretions. However, no appendicitis was documented on ultrasonography. Patient was treated as a renal colic for 3 days but patient continued to have pain. Diagnostic laboratory was done. Upon examination appendix was inflamed, retrocecal in position containing appendicolith (approximately 1 cm). Appendectomy was done. Patient recovered well in post operative period and was sent home on 3rd post of day.



Figures 1. Operative specimens and post-operative X-ray of removed specimen

DISCUSSION

Appendicoliths are more commonly in young and children, males more than females, in retrocecal appendix and low fibre diet (Nitecki, 1990 and Jones, 1985). An appendicolith is composed of firm faeces and some mineral deposits. Prevalence in general population is approximately 3% (Jones, 1985 and Kaya, 2011). Most of the patients with appendicolith are asymptomatic. However, they may be associated with the complicated appendicitis with serious complications (perforation, abscess formation, gangrenous changes) (Lin, 1996 and Vyas, 2008). They are found approximately in 10% of patients with appendix inflammation (Teke, 2008). Appendicolith obstruct the appendicular lumen. It destroys the mucosa with its local mass effect. Gangrene in the appendix is then inevitable (Kaya, 2011). The obstructive phenomena in

pathogenesis of acute appendicitis was described by Wangenstein and Dennis in 1934 (Wangenstein, 1939). Appendicolith varies in size Giant appendicoliths (size more than 2 cm) are extremely rare (Singhal, 2016 and Kaya, 2011). Appendicolith may cause intermittent abdominal pain. It may mimic stone disease of the genitourinary tract and it's difficult to differentiate acute appendicitis from urolithiasis. Ultrasonography and CT Scan may help in diagnosis of appendicoliths, especially when calcified. When they are detected in presence of abdominal pain, there is 90% probability of acute appendicitis and 50% higher risk of appendiceal perforation and abscess formation (Kaya, 2011 and Singh, 2013). So some authors advocate appendectomy in patients with appendicoliths (Teke, 2008 and Forbes, 1966). The significance of incidental finding of appendicolith in imaging without abdominal pain or CT scan findings of appendicitis is still debatable.

Conclusion

In conclusion, although acute appendicitis is usually a clinical diagnosis, atypical clinical presentation and radiological investigations can cause diagnostic confusion. Presence of appendicolith in imaging in presence of abdominal pain and no urological pathology warrants diagnostic laparoscopy to rule out appendicitis as appendicolith are associated with complicated appendicitis particularly when they are large.

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