University Journal of Surgery and Surgical Specialities

ISSN 2455-2860 **2021, Vol. 7(1)**

A rare case of Appendicular Band Syndrome

Krishna Mohan B
Department of General Surgery, Madras Medical College and Government General Hospital

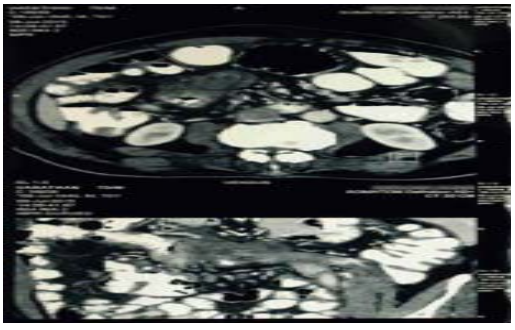
Abstract : Appendicular band syndrome is an exceedingly rare surgical emergency that may lead to intestinal obstruction and strangulation. The gut entrapped by the constricting appendicular band may lead to obstruction or strangulation of entrapped bowel. We report a case of 70-year -old male patient who came with right-sided abdominal pain and distention. At exploration an inflamed appendix had perforated and formed a small confined abscess cavity which was adherent to the jejunal mesentry, forming a band and entrapping the terminal ileum and leading to acute intestinal obstruction. Appendicectomy was done and the entrapped distal ileum was viable with good peristalsis, other bowel and solid organs were found to be normal.

Keyword : Appendicular band syndrome, intestinal obstruction

Case report

A 70-year-old male patient presented in July 2015 with complaints of right-sided abdominal pain and distention for two weeks. History of constipation for two weeks. History of mild distention of right side of abdomen for 1 week. No history of nausea or vomiting, fever, loss of weight or appetite. No other significant history. On examination patient had persistent tachycardia and other vitals were stable. On local examination patient had abdominal distention, more in the right iliac fossa and hypogastrium. Tenderness and guarding were present in the right iliac fossa and bowel sounds were absent. No other significant finding in examination. A clinical diagnosis of acute intestinal obstruction was made and we proceeded on to investigating the patient. Complete hemogram showed elevated leukocyte count, other routine investigations like liver function test, renal function test, chest x-ray and ECG were within normal limits. Plain X-ray of abdomen(erect) showed multiple air fluid levels suggestive of intestinal obstruction. Ultrasound abdomen, oral contrast enhanced CT scan of abdomen(taken in outside hospital) and IV contrast enhanced CT scan of abdomen showed multiple dilated small bowel loops with transition point at distal ileum, which was suggestive of acute intestinal obstruction.

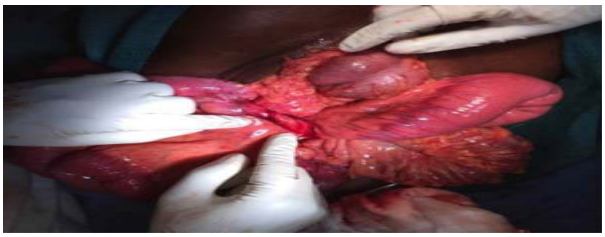
X-ray abdomen(erect) showing multiple air fluid levels Contrast



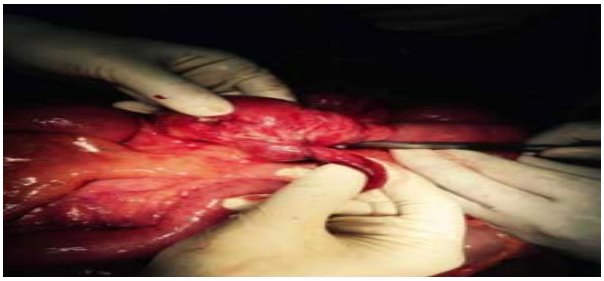
Contrast enhanced CT scan of abdomen showing intestinal obstruction

In view of acute intestinal obstruction patient was taken up for emergency laparotomy. At exploration distended small bowel loops were seen, appendix was inflamed and the tip of the appendix had perforated and formed a small confined abscess cavity which was adherent to the jejunal mesentry ,thus creating an appendicular band compressing on the entrapped distal ileum and mesentry. After releasing band and appendicectomy, the entrapped distal ileum was viable and healthy, all other solid

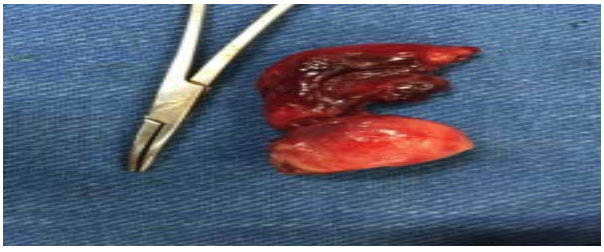
organs and bowel were normal. Post-operative course was uneventful. Histopathology of the specimen was consistent with acute appendicitis, no signs of malignancy. Patient is on regular follow up.



Per-operative picture showing the appendicular band



Per-operative picture showing the appendicular band adherent to jejunal mesentry



Picture of appendicectomy specimen

Discussion

Small bowel obstruction as a complication of acute appendicitis may be adynamic or mechanical3. Paralytic ileus caused by appendicular inflammation is the most common cause of intestinal obstruction in acute appendicitis, occurring in 1-5% of cases of appendicitis. Mechanical obstruction due to an inflamed appendix is a very rare entity6. It can be associated with or without strangulation3. Appendicular band syndrome is an extremely rare surgical emergency, which may lead to bowel necrosis if not promptly treated. It is otherwise called as appendicular knot or appendicular tie syndrome. Only about 11 cases are reported so far6. Preoperatively it is very difficult to diagnose, it is always made at the time of appendicectomy or laparotomy4. Acute inflammation of the appendix is probably the inciting event of this band formation. The appendix itself may be acutely inflamed, perforated especially at the tip or it may be completely gangrenous. A portion of the small bowel usually herniates through the band or ring forming a closed loop obstruction with or without strangulation. In view of the mobility and variable position of the tip of the appendix, it is possible that the tip of the appendix may get adhered to adjacent structures during the phase of inflammation giving rise to the pathology. This entrapment not only results in intestinal obstruction and strangulation of the entrapped bowel but it can also result in ischemia of appendix itself due to compression (1,6). In our case the tip of the appendix was adherent to the jejunal mesentery and forming a band in which the distal ileum was entrapped, thus leading to mechanical small bowel obstruction. Due to timely intervention gangrene of entrapped distal ileum was prevented.

References

1. Menon T, Martin RJ, Cameron D, Rao S. Appendiceal tie syndrome. Australas Radiol. 2007; 51:B133-6.

2. Sarkis P. Perforated appendicitis in a neonate presenting with intestinal obstruction. J Neonat Surg. 2013; 2:24.

3. Assenza M, Ricci G, Bartolucci P, Modini C. Mechanical small bowel obstruction due to an inflamed appendix wrapping around the last loop of ileum. G Chir. 2005;26:261-6.

4. Yang AD, Lee CH. Appendico-ileal knotting resulting in closed-loop obstruction in a child. Pediatr Radiol. 2002;32:879-81.

5. Bose SM, Talwar BL. Appendicitis causing acute intestinal obstruction with strangulation. Aust NZ J Surg. 1973;43:56-7.

6. Chintamani Khanna J. Appendicular knot - An exceptionally rare "Two in One Case" of acute abdomen. Saudi J Gastroenterol. 2011;17:368.