"DOUBLE VOLVULUS" OF SMALL INTESTINE: A RARE CAUSE OF MECHANICAL OBSTRUCTION IN CHRONIC INTESTINAL PSEUDO OBSTRUCTION

Nitin Vashistha1 (MS, FACS) Dinesh Singhal1 (MS, FACS, DNb Surgical Gastroenterology) Shanti Swaroop Dhar2 (MD, DM) Bharat Aggarwal3 (MD) Anurag Krishna4 (MS, Mch)

1Department of Surgical Gastroenterology, Max Super Speciality Hospital, Delhi, India; 2Department of Gastroenterology, Max Super Speciality Hospital, Delhi, India; 3Department of Radiology, Max Super Speciality Hospital, Delhi, India; 4Department of Pediatric Surgery, Max Super Speciality Hospital, Delhi, India

• Background: Chronic intestinal pseudo obstruction (CIPO) is a rare syndrome of intestinal dysmotility caused by disorder of enteric nerves or muscles. The characteristic feature is recurrent intestinal obstruction in absence of mechanical lesion. It usually progresses to debilitating intestinal failure with potentially life threatening complications.

• Case report: We managed 2 teenaged real brothers presenting with CIPO. The younger brother had multiple surgeries and died due to intestinal failure. The elder brother became symptomatic for the disease at the age of 15 years and had repeated hospitalizations for recurrent intestinal obstructions which were managed conservatively (Figure 1). At the age of 21 years he was readmitted with acute intestinal obstruction (AIO) & retention of urine. Following initial failed conservative management, abdominal computed tomography was performed which was suggestive of small intestine volvulus (Figure 2). At laparotomy there was volvulus at proximal ileum with 360 degrees rotation (Figure 3). On further exploration there was another volvulus in distal ileum with 3 turns of 360 degrees each (Figure 4). There was narrowing at terminal ileum approx 5 cm proximal to ileo-cecal junction. Derotation of both volvulus was performed. Postoperative recovery was slow but progressed to initiation of enteral feeding.

• Discussion: A majority of CIPO patients undergo a mean of 2.96 useless and potentially dangerous surgeries (Stanghellini 2005). Hence it is extremely important to make all efforts to avoid a non therapeutic laparotomy. The most important clue to diagnosis of CIPO is recurrent symptoms and signs of bowel obstruction with radiologically dilated bowel in the absence of demonstrable obstructing luminal lesion. A judicious use of abdominal computed tomography (CT) scan can be an invaluable adjunct for the purpose. Our patient was taken up for surgery only after a definitive diagnosis of small bowel volvulus was made. Few case reports have previously reported small bowel volvulus in the setting of CIPO (de Betue CT 2011). However to the best of our knowledge volvulus at two different locations causing obstruction (Double Volvulus) in one patient at the same time has not been reported to date.

• Conclusions: Initial management for CIPO patient presenting with AIO is essentially is conservative. Patients not responding to expectant management should be investigated with abdominal CT scan to rule out mechanical cause of AIO. Patients with mechanical AIO should be managed by appropriate surgery. All endeavors should be made to avoid non therapeutic laparotomy.

Figure 1. Barium meal follow through
Figure 2. Non contrast CT abdomen
Figure 3. Small bowel volvulus (360 degree turn)
Figure 4. Small bowel volvulus (3 x 360 degree turn)