

Case Report

A case of telescoping of bowel during sailing

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ABSTRACT

Intussusceptions as an entity is more common in children than adults in whom it is almost always secondary to some associated pathology. Moreover, the presentation is subacute or chronic in nature and all classical features of intussusceptions are rarely present together that makes the diagnosis more challenging. Here we presented a case of ileo-ileal intussusception in an adult male. Obligation of early diagnosis, initial management is unique in such cases. It also focuses on importance of availability of the imaging facilities in management of acute abdomen so as to assist in timely diagnosis as well as the definitive management of intussusceptions.

Keywords: Intussusceptions, Ileoileal, Meckels diverticulum

INTRODUCTION

Intussusception is defined as telescoping of one bowel segment into another with or without vascular compromise. Intussusception in adults is a rare disorder that represents only 1% of intestinal obstructions and nearly 5% of all intussusception cases.¹ While in children it is more of idiopathic in nature, in adults it is almost always secondary to some pathology like Meckel's diverticulum, benign tumour, malignancy, etc. upto 60% of colonic intussusceptions are associated with the malignant pathology.²

The clinical presentation of adult intussusception varies considerably. The presenting symptoms are nonspecific and the majority of cases in adults have been reported as chronic, consistent with partial obstruction. The likely pathophysiology believed is that any lesion or event which alters the normal peristaltic activity of the bowel can trigger intussusception most commonly at locations of confluence of freely mobile and retroperitoneal/ relatively fixed bowel segments. In adults, 90% cases will show a

lead point. Longer the intussusception segment, more are chances of bowel ischaemia and complete obstruction.

The optimal management strategy for adult intussusception remains controversial and requires consideration of: (a) the frequency of symptoms and the need for surgical treatment; (2) the occurrence of malignant disease; (3) the anatomic location and extent of intussusception; and (4) any evidence of bowel ischemia.³

We reported one such case where the individual was sailing on board a ship and had to be air lifted for definitive care.

CASE REPORT

A 23 years sailor, who was on board a ship for two days, was alright till he acutely presented with multiple episodes of vomiting, right lower abdomen pain. He had an episode of self-limiting abdominal pain one month back which was not investigated. There was no dysuria, fever, loose motions, trauma, or any associated complaints. On board the physician suspected him to be having features of

appendicitis and asked for an air evac. On arrival to the hospital he was afebrile, having tachycardia, right iliac fossa tenderness, without features of peritonism or any palpable mass.

Complete evaluation at the shore based tertiary care hospital was carried out. With initial conservative management with analgesics, IV fluids and antibiotics, he became apparently pain-free however continued to have vomiting and developed high grade fever. The laboratory parameters were within normal limits and imaging was ordered to screen the abdomen. The non-contrast CT was able to hit the bulls eye by picking up the loop in loop appearance of small bowel near distal ileum. There was no free fluid, no abnormal swellings and a normal appearing appendix. With this input the surgical team took the decision to go in for an exploratory laparotomy.

Intra-operatively the intussusception was at the level of mid ileum at around 80 cm from IC junction (Figure 1). Manual reduction of the intussusceptions was done and surprisingly discovered an invaginated true diverticulum arising from anti-mesenteric border of small bowel with large 4×3 cm firm mass at the tip with small bowel mucosa at the stalk (Figure 2). So, the lead point was a Meckels diverticulum (Figure 2) which was causing an incomplete obstruction to the lumen of ileum.

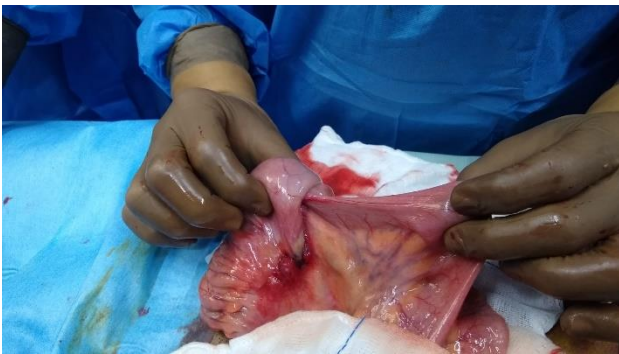


Figure 1: Depicting the loop of ileum invaginated into the distal one: the intussusceptions.



Figure 2: The resected specimen of Meckel's diverticulum with segment of ileum on either side of its base.

The proximal bowel was unremarkable during the bowel walk. Once the intussusception was reduced, the wide based diverticulum and unhealthy looking bowel segment was resected and a side to side anastomosis was done. The abdomen was closed in single layer. Post-operative recovery was uneventful, oral intake was resumed on 3rd day and normal diet by 6th day.

Histology of the bulbous tip of diverticulum showed remnants of vitellointestinal duct. There was no evidence of any malignancy.

DISCUSSION

Intussusceptions are itself a rare entity in adults. More than 90% of adult intussusception patients have distinct causes that are related to the small or large intestine and small bowel is single most common site for intussusception at all age.^{4,6} In adults, most commonly found causes are Meckel's diverticulum, diverticulosis, small bowel tumour, surgically created stoma, and neoplasm of which mostly are benign. Other rarer clinical conditions like anorexia nervosa, malabsorption syndromes, increased flaccidity of the bowel wall and supra-therapeutic anticoagulation therapy (due to submucosal hemorrhages) facilitates invagination.^{1,6}

Partial intestinal obstruction is the commonest clinical feature in adults.

Meckel's diverticulum, a true diverticulum presents mostly with inflammation and mimics appendicitis. It rarely invaginates to cause intussusception as happened in our case. In absence of sure shot clinical features computer aided tomography remains the investigation of choice, though ultrasonography can also pick up certain indirect evidences as reported in literature.⁷

Certain named specific signs like 'target', 'bull's-eye', or sausage-shaped lesions as a concentric hyperdense double ring, bowel within bowel sign are well known. Contrast enhancement would add to the information however does not alter the management much.

In adults, it is important to diagnose the organic intussusception lesion to help guide treatment decisions. Enema or colonoscopy examinations can reveal and reduce the intussusception as well as facilitate qualitative diagnosis of the organic lesion.⁵

The definitive management is largely surgical in nature. Indication, in sub-acute and chronic instances is to prevent further complications. The approach is conventionally open method however with advancement in laparoscopy that can also be done if expertise is available. A wide base diverticulum with unhealthy looking bowel would mandate an en bloc resection and reconstruction of bowel and has been the preferred option in the reported literature.

This report was by far first of it to report intussusceptions on a sailor onboard a ship. It seems like that any relation of sea travel to occurrence and progression to an intussusception is mere co incidence, however more such reports in future could suggest a correlation if any.

CONCLUSION

Unlike children, adult intussusception is mostly secondary to some structural pathology in bowel. Clinical presentation is obscure and sub-acute with previous history of similar symptoms in past. CT scan is highly sensitive and specific which helps in early diagnosis, etiology and associated complications. Despite being uncommon, the morbidity of bowel resection and etiological factors make this entity significant.

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REFERENCES

1. Gomes A, Sousa M, Pignatelli N, Nunes V. Adult intussusception: a single-center 10-year experience. Eur Surg. 2013;45(5):239-44.
2. Akçay MN, Polat M, Cadirci M, Gencer B. Tumor-induced ileo-ileal invagination in adults. Am Surg. 1994;60(12):980-1.
3. Honjo H, Mike M, Kusanagi H, Kano N. Adult intussusception: a retrospective review. World J Surg. 2015;39(1):134-8.
4. Yalamarathi S, Smith RC. Adult intussusception: case reports and review of literature. Postgrad Med J. 2005;81(953):174-7.
5. Omori H, Asahi H, Inoue Y, Irinoda T, Takahashi M, Saito K. Intussusception in adults: a 21-year experience in the university-affiliated emergency center and indication for nonoperative reduction. Dig Surg. 2003;20(5):433-9.
6. Gupta S, Kaushik R, Sharma R, Attri AK. Adult intussusception. Indian J Gastroenterol. 2005;24(2):82.
7. Lu T, Chng YM. Adult intussusception. Perm J. 2015;19(1):79-81.

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