

Case Report of Obstructive Jejunum-Jejunal Intussusception with Ischemia of Involved Bowel Segment

Dr Sanjay Kumar¹, Dr Mohan², Dr Anupam Jhobta³

¹Resident, Department of Radiodiagnosis, IGMC Shimla HP, India

²Resident, Department of Radiodiagnosis, IGMC Shimla HP, India

³Professor and HOD, Department of Radiodiagnosis, IGMC Shimla HP, India

Abstract: *Enteroenteric intussusceptions are common in children and relatively rare adult. They can be classified as duodeno-jejunal, jejuno-jejunal, or jejuno-ileal. Duodenojejunal intussusception is rare, because of anatomic fixation of a large portion of the duodenum.1 Most cases of small bowel intussusceptions are secondary to benign intra-or extraluminal lesions, such as inflammatory lesions, Meckel's diverticulum², postoperative adhesions, lipoma, and adenomatous polyps.3 Ninety percent cases of childhood intussusception is idiopathic, however 70–90% of adult cases have a demonstrable lead point, with a well-definable neoplastic abnormality being the etiology in 65% of cases.4⁵ we reporting a case of 12 years old male patient with complain of vomiting and pain abdomen for 1 month with non passage of stool for 3 days. X ray and CECT Abdomen was done in emergency and diagnosis of obstructive jejuno-jejunal intussusception with bowel ischemia was kept. Diagnosis was confirmed on surgery with jejunal polyp as the lead point.*

Keywords: Jejunal, Meckel's diverticulum, intussusception

1. Introduction

Intestinal invagination or intussusception is the leading cause of intestinal obstruction in children, but it is an uncommon process in adults, accounting for only 5% of all intussusceptions and 1% of all intestinal obstruction. Unlike childhood intussusception which is idiopathic in 90% of cases, 70–90% of adult cases have a demonstrable lead point, with a well-definable neoplastic abnormality being the etiology in 65% of cases.4⁵ Antegrade intussusception is typically caused by distal propulsion of a nodule, tumor, mass, or polyp.

Enteroenteric intussusceptions without a lead point tend to be nonobstructing and are usually smaller in transverse diameter and shorter in length than intussusception with a lead point. In some cases, the enteroenteric intussusception is due to increased peristalsis of the intestinal loops caused by distal obstruction, such as a stenosis caused by a neoplasm of the colon. Obstructing enteroenteric intussusceptions, often caused by a lead point, may present at CT with thickening and altered enhancement of the bowel wall and engorgement of mesenteric vessels

Before the use of Multi-Detector Computed Tomography (MDCT), the diagnosis was based on surgical findings in patients with obstructive symptoms.6 The advancements in CT technology, along with the progressive use of MDCT in the diagnosis of abdominal emergencies, have determined an increase in the detection of intestinal intussusceptions.7⁸

2. Case Report

A 12 years old male patient was presented to our emergency department with pain abdomen and vomiting for 1 month with non passage of stool for 3 days.

X ray AP view of abdomen was done initially and show few central prominent small bowel loops suggestive of small bowel obstruction.

CECT Abdomen was done in emergency and diagnosis of obstructive jejuno-jejunal intussusception with bowel ischemia was kept. Which was later confirmed on surgery with jejunal polyp as the lead point of intussusception.

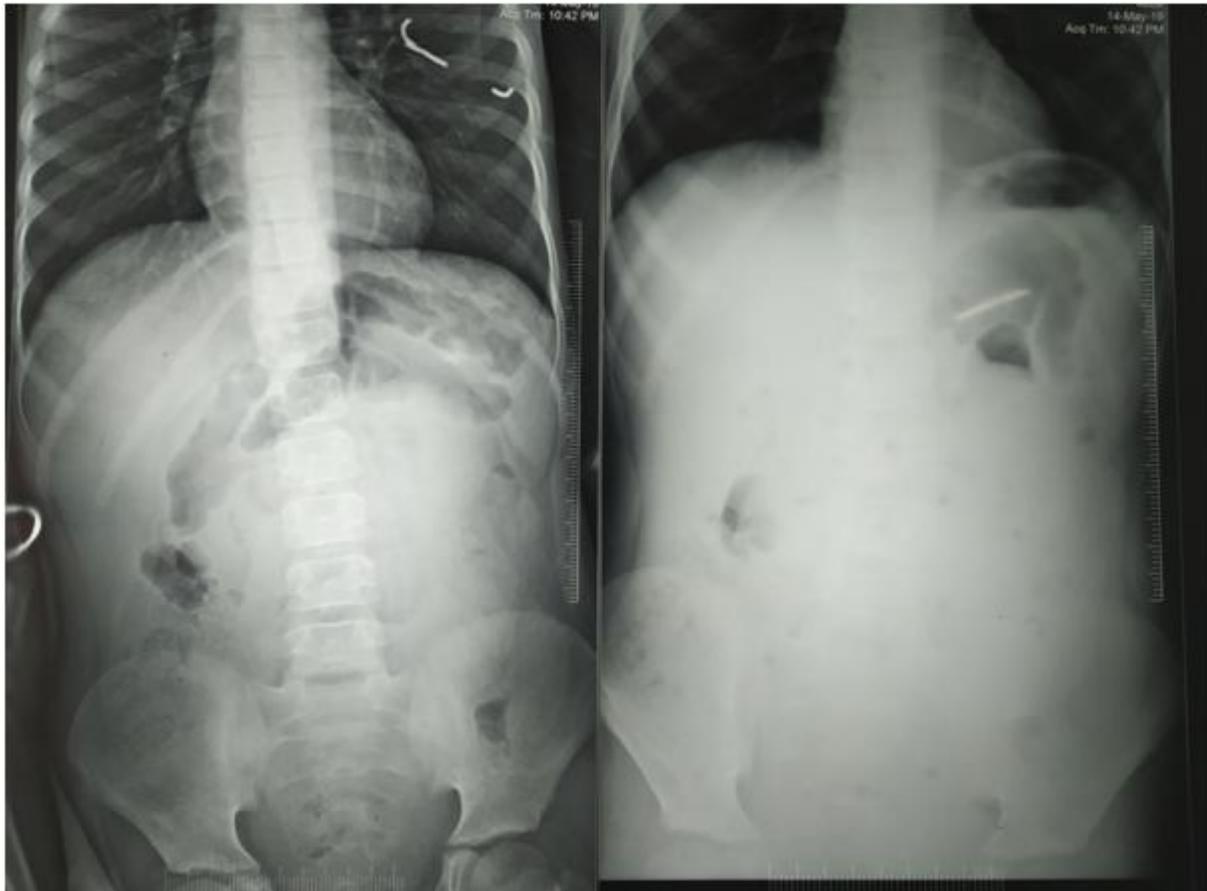


Figure 1: X ray Abdominal AP view show prominent bowel loops in central part of abdomen



Figure 2: CECT Abdominal axial image show telescoping of proximal small bowel with mesenteric fat and vessel into adjacent distal small bowel with non enhancing wall of dilated bowel.

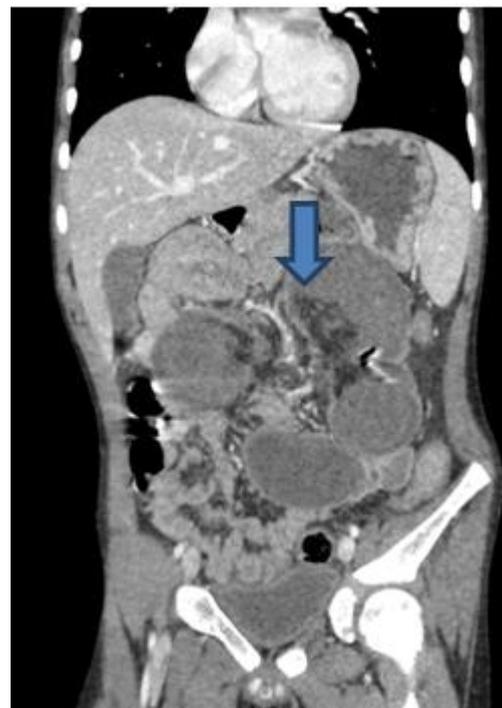


Figure 3: CECT Abdominal coronal image show telescoping of proximal small bowel with mesenteric fat and vessel into adjacent distal small bowel with engorgement of mesenteric vessels.

3. Discussion

Intussusception in adult is an uncommon clinical entity encountered by surgeons. The cause of majority of intussusception is believed to be any lesion in the bowel wall or irritant within the lumen alters normal peristaltic activity is able to initiate invagination. Most common location is junctions between freely moving segments and retroperitoneally or adhesionaly fixed segment.⁹

About 90% of occurrences in adults have a well-defined pathological lead point, which may be a benign such as benign neoplasms, inflammatory lesions, Meckel's diverticuli, appendix, and adhesions—or malignant lesion. In small intestine, malignant lesions (either primary or metastatic) account for 14–47% of cases, while malignant etiology is more prominent in large bowel representing up to 66% of the cases.⁵

Abdominal pain is the most common symptom followed by nausea, vomiting, and a palpable abdominal mass.^{4–5} Preoperative imaging may help in identifying the causative lesion. Plain abdominal X-rays are the first diagnostic tool; with barium studies (showing “stacked coin” or “coiled spring” in upper GI series and “cup-shaped defect” in barium enema), ultrasonography (showing “target and doughnut sign” on transverse view and the “pseudokidney sign” in longitudinal view), and colonoscopy are also useful tools for evaluating intussusception.^{10,11}

4. Conclusion

Significant advancements in MDCT scanners along with increasing use of MDCT in abdominal emergency imaging, the detection of enteroenteric intussusceptions by CT has increased. Intussusceptions are now being detected incidentally on MDCT in patients being scanned for unrelated reasons or in asymptomatic patients, often with transient intussusceptions and without an identifiable lead point.

The radiologist can readily make a correct diagnosis, detecting specific MDCT findings such as the bowel-within-bowel appearance. Some findings on CT may be helpful in guiding management and reducing the prevalence of unnecessary surgery.

The radiologist's aim is not only to recognize intussusception, but also to define its location, enteroenteric, colocolonic, or enterocolonic, to evaluate underlying pathology, and to identify complicated intussusceptions, associated with obstruction or ischemia, which represent indications for surgical exploration.

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