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Ileo Ileal Intussusception: A Rare Presentation with Multiple Intraluminal Lipoma at Distal Ileum

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Abstract: ***Introduction: Intestinal Intussusception is a relatively common cause of bowel obstruction in children, however, it is a rare clinical entity in adults. When seen in adults it is often caused by some underlying lead point. Case Report: We present a case report of 28 year old male with complain of diffuse abdominal pain and vomiting. CECT Abdomen and Pelvis was suggestive of ileoileal Intussusception with subacute Intestinal Obstruction likely due to multiple intraluminal lipomas. . Patient underwent laparotomy Ileo Ileal Intussusception with multiple intraluminal lipoma for which ileoileal resection and anastomosis done. Discussion: Intestinal Intussusception is relatively frequent in children and is a rare clinical condition in adults at a ration of 20: 1.4 Sixty to sixty - five percent of the cases of intussusception in the large intestine have malignant etiology. Thus, lipoma as the main cause of ileo - ileal intussusception in adults is an uncommon cause. Conclusion: Patients with chronic abdominal symptoms and semi - obstruction caused by intussusception are rarely diagnosed before surgery unless there is a high index of suspicion. Colonoscopy contributes to diagnosis given that it provides direct visualization and biopsy.***

Keywords: Intussusception, Obstruction, Intraluminal lipoma, Resection and anastomosis

1. Introduction

Intussusception is the invagination of a segment of the intestine into the lumen of another immediately adjacent segment. This is usually in a proximal - to - distal fashion. Adult intussusception is relatively rare, constituting less than 5 percent of intussusception cases.1 There is a demonstrable cause in the majority of cases, which maybe an intraluminal neoplasm. A number of studies point to a 70 to 90 percent existence of an underlying gut pathological cause. These are mainly polyps and colonic malignancies. In contrast, childhood intussusception is a leading cause of intestinal obstruction.

The pathophysiologic mechanism is due to peristaltic movement of a 'lead point' forming the apex of an intussusceptum (invagination). In turn among adults, the commonest 'lead points' are colonic malignant tumors in up to 60 percent of cases. Benign tumors constitute the majority of the rest of the cases. Lipomas (benign, non - epithelial tumors) are the second most frequently occurring benign tumors of the large bowel (0.2 to 26 percent) [2], the commonest being adenomas. Colonic lipomas are largely asymptomatic. Many are found incidentally at colonoscopy.

2. Case Report

The patient is a 28 - year - old male without any significant medical history and no surgical history who presented to the emergency department at a tertiary care hospital in Jodhpur City with a two - day history of worsening diffuse abdominal pain non radiating to any site, not relieving on medication associated with nausea and multiple episodes of non - bloody, non - bilious vomiting associated with obstipation. He was afebrile and hemodynamically stable (T: 36.8 ºC, HR: 82, blood pressure, BP: 116/68, RR: 18, O_2 saturation: 99% on room air) upon arrival to the emergency room. On physical examination, he had distended abdomen without rigidity, guarding or tenderness. His digital rectal exam revealed an empty rectal vault. His laboratory findings were significant for a white cell count of 11.91 µL and serum lactate of 2.7 mmol/L. The rest of his metabolic panel was unremarkable. A CT abdomen and pelvis with IV contrast revealed a ileo - ileal bowel intussusception within the umbilical region with markedly edematous and dilated bowel compatible with obstruction. The lead point was suspected to be a small bowel lipoma

Radiographic investigations

X ray FPA	Dilated small bowel loops with multiple air - fluid levels
USG whole abdomen	Echogenic mass with target sign seen in ileum (Figure 3)
CECT abdomen pelvis	Ileo - Ileal Intussuception with SAIO likely due to multiple intraluminal lipoma at distal ileum (Figure 4)

Figure 1

Figure 2

A nasogastric tube was placed. He was given IV fluids and supportive care. He then underwent an emergency laparotomy through classical midline vertical incision where he had a small bowel intussuception 60 cm proximal to Ileo - Caecal junction where around 9 cm of small bowel was involved forming a mass of 7x5cm, resection of the intussuscepted bowel loop and a primary anastomosis of the proximal and distal bowel fragments was done. The resected bowel loop measured 18 x 5 cm (Figure 2) with attached mesentery measuring 18 x 5 cm. Its serosal line was pink to gray with a smooth texture. Pathology further examined the specimen and upon opening, one segment of the bowel was telescoped in the dilated segment and measured 14 cm in length (Figure 1). The lead point of the intussusception had mucosal thickening and multiple areas of erosion and appeared yellow, soft, and lobulated upon opening it. These findings were consistent with congestion of the small bowel as well as a submucosal lipoma. Patient started orally on POD - 5. Post operative period uneventful drain was removed on day 5. Patient discharged on POD - 9 with taking orally and passing flatus motion on dischange.

Figure 3

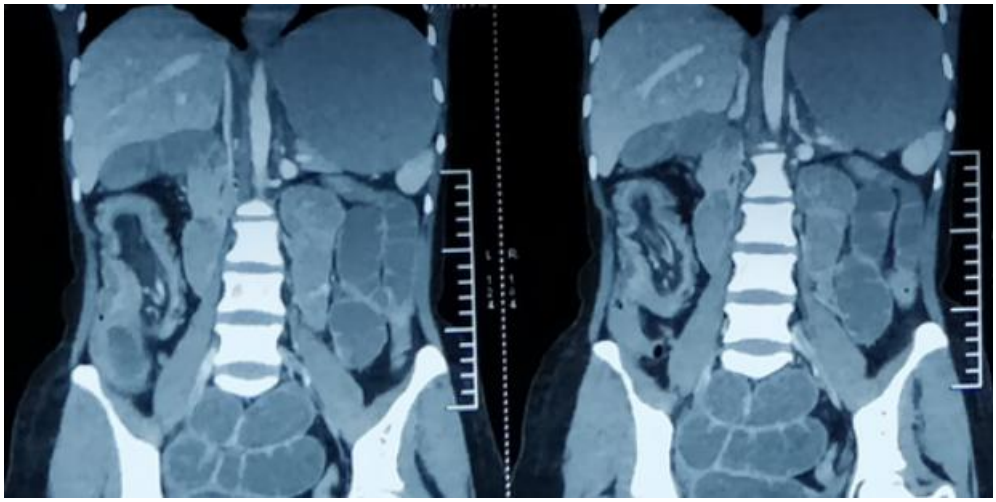

Figure 4

Histopathological Report - Section from multiple polypoid nodules shows proliferation of mature adipose tissue in the submucosal region. There is thinning of mucosa with inflammatory changes. Muscle layer and serosa are normal. Features are suggestive of multiple lipoma of intestine. Both the resected ends are histologically unremarkable.

3. Discussion

Classification of intussusceptions is based on location. The commonly used classification divides intussusception into four categories: ileoileal, ileocolic, ileocecal, and colocolic.3 Patient usually present with abodmen pain, vomiting and abdominal lump. Intussusception is commonly a disease affecting young children up to 4 years, with ileocolic being the most common variant. Adult intussusception accounts for only 5% - 10% of all reported cases. The classical triad of abdominal pain, palpable mass, and bleeding per rectum (red currant jelly stools) is rarely seen in adults, leading to frequent misdiagnosis. The findings are usually diagnostic, with a typical appearance of bowel - within - bowel configuration with or without contained fat and mesenteric vessels. This appears as a “target” or a “doughnut” mass in images vertical to the longitudinal axis of the lesion or as a “sausage - shaped” mass parallel to its longitudinal axis.4 Diagnosis of intestinal lipomas can be made by a variety of modalities. Non - invasive methods include barium studies and most importantly CT scan.

When bowel is damaged showing necrosis, perforation which has been described in this case bowel resection and anastomosis have to be performed. Laparoscopic approach is a valuable diagnostic and therapeutic tool, with a number of reports being published. [5] The procedure followed is the same as for open techniques. or left - sided colon, Azar et al[3] recommend colostomy or Hartmann's procedure with anastomosis as a second stage surgery.

4. Conclusion

Intussusception in adult is an uncommon condition invariably associated with an underlying cause which needs surgical intervention to arrive at a definitive diagnosis. Small bowel lipoma can cause intussusception presenting as obstruction. Ultrasound and CECT are very important adjuncts in preoperative diagnosis of intussusception. Early surgical intervention is the mainstay of definitive diagnosis and treatment.

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