Original Resear	Volume - 10 Issue - 11 November - 2020 PRINT ISSN No. 2249 - 555X DOI : 10.36106/ijar Radio Diagnosis IEJUNOJEJUNAL INTUSSUSCEPTION INDUCED BY INTESTINAL LIPOMA IN AN ADULT
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(ABSTRACT) Intussusception is a condition in which a proximal bowel segment invaginates into distal segment. Intussusception in adults is rarely observed. Around 5% of all intussusceptions occur in adults, comprising 1% of all howel obstructions [1]	

Intussusception causes, presentation and treatment in adults differs from those seen in children. The clinical picture of intussusception is subtle in adults and thus the diagnosis is uncertain. We report a 56-year-old Indian woman who visited our emergency department with complaints of upper abdominal pain, vomiting, loss of appetite and weight for 6 months. Computed tomography demonstrated Jejunojejunal intussusception caused by lipoma, and laparotomy small bowel segmental mass resection was performed. Computed tomography plays a significant role in their diagnosis and in determining the suitable treatment.

KEYWORDS : Adult intussusception, Jejunojejunal, lipoma, computed tomography.

INTRODUCTION

Intussusception of the bowel is defined as invagination of proximal bowel segment (intussusceptum) into an adjacent distal segment (intussuscipiens), thereby causing obstruction of bowel [2,3]. It is rare in adults with an incidence of 2 -3 cases/1,000,000 population/year [4,5]. Adult patients present with nonspecific symptoms and signs thus complicating the differential diagnosis from other causes of abdominal pain. Tumors both benign and malignant, is the most common cause of intestinal intussusception in adults [6]. Intestinal lipomas accounts for two-thirds of all enteric intussusceptions. A case of 56-year-old woman patient who presented with intussusception due to intestinal lipoma is reported.

CASE REPORT:

A 56-year-old Indian woman was admitted to our emergency department with complaints of colicky type of upper abdominal pain, vomiting, loss of appetite and loss of weight for 6 months. She was nonsmoker and not an alcoholic. No significant past history. On physical examination tenderness noted in left hypochondrium and left lumbar region. Laboratory investigations were normal. Plain x ray of abdomen was done and did not show signs of perforation or obstruction. Ultrasound was performed which shows bowel within bowel appearance on longitudinal section, target sign / doughnut sign on axial section with bowel wall thickening of ~ 8 mm and a welldefined echogenic lesion measuring~ 2.9 x 2.1 cm in the left lumbar region. A contrast-enhanced computed tomography abdomen and pelvis scan was performed, which revealed long segment intussusception with characteristic bowel within bowel appearance involving the jejunal loops for a length of \sim 13 cm. A fat density lesion measuring ~3.0 x 2.5 cm noted in the distal end of intussusceptum most likely suggestive of lipoma. Normal enhancement of involved bowel loops and no evidence of obstruction seen. At laparotomy, jejunojejunal intussusception ~ 35cm distal to the ligament of Treitz was revealed. Intussusception was manually reduced and small bowel segmental mass resection was performed. The histopathology report confirmed submucosal lipoma in the jejunum. Postoperative period was uneventful and she was discharged on the sixth postoperative day.

DISCUSSION:

Intussusception is more prevalent in children, the most common cause of intestinal obstruction in childhood between 3 months and 6 years of age. Overall, the male to female ratio is about 3:1 [7]. It is rare in adults accounting for only 1% cases of all intestinal obstruction. Intussusceptions are categorized by position (enteroenteric, ileocecal, ileocolic or colocolic) and cause (benign, malignant, or idiopathic). Intussusception in an adult can be further categorized on the absence or presence of a lead point. Approximately 90 % of cases of adult intussusception are caused by organic pathology and only 10% are known to be idiopathic [7,8]. In adults, common causes are adhesions, neoplasms, chronic diarrhoea and motility disorders like irritable bowel syndrome, Hirschsprung's disease, etc.,[9]. Neoplasms (benign or malignant) accounts for 60 percent of all causes.

Enteric intussusception is the most prevalent type in adults occurring in 40 % of cases. Benign neoplasms such as lipoma, leiomyoma, neurofibroma or hemangioma and other causes such as lymphoid hyperplasia and adhesions are more often associated with small intestinal intussusception. On contrast, large intestinal intussusceptions are usually associated with malignant neoplasms while the remaining is composed of benign lesions such as lipoma and adenoma [7,10].

Gastrointestinal lipomas, the second most common benign tumour group, are slow-growing mesenchymal tumours produced by adipose connective tissue in the intestinal submucosa. It occurs as discrete, intramural, round or ovoid, smooth or lobulated, soft mass covered by intact mucosa but rarely they protrude subserosally. Usually asymptomatic, but can cause symptoms related to their size and sites [11]. The ileum is the most common location for small bowel lipoma. The peak incidence occurs in 5th to7th decade of life, with a slight female predominance. Lipomas are typically solitary and of varying in sizes from 1 to 30cm. Lipomas greater than 4cm can produce Adult intussusception is difficult to detect early and most patients have nonspecific signs and symptoms as well as a chronic, sub-acute or acute course. Adults rarely have the classic triad of intermittent abdominal pain, palpable tender mass and currant jelly stools seen in children. In adults nausea, vomiting, altered bowel habits, abdominal distension and gastrointestinal bleeding are more common.

Imaging studies helps the diagnostic process. Plain abdominal Xray are non-specific and Sometimes there can be a crescent of air outlining the walls of intussusceptum and intussuscipiens called "air meniscus sign". Barium studies demonstrate with the characteristic finding of the "coiled spring appearance" produced by accumulation of contrast between the intussuscipiens and intussusceptum and "claw sign" in which the contrast in the intussuscipiens is appear as a claw around the negative shadow of the intussusceptum [13].

Ultrasonography is usually the first modality to be done. On longitudinal imaging, intussusception can be diagnosed mimicking the appearance of a kidney (pseudo-kidney or sandwich sign). On axial section bowel within bowel appearance is seen (Targetsign/Doughnut-sign). Lipoma appears as well-defined echogenic lesion. Sometimes mesenteric fat may be confused with lipoma which can be differentiated by the traversing mesenteric vessels.

Computed tomography is the imaging modality of choice for diagnosing intussusception with high sensitivity and specificity [14]. It appears as sausage shaped mass on coronal sections and target shaped mass on axial sections. Often there is a crescent-like, eccentric mesenteric fat surrounding the intussusceptum. On CECT, a rim of contrast may encircle the intussusceptum, reflecting coating of the opposing bowel walls of the intussuscipiens and intussusceptum. CT is helpful in finding the lead point. CT can show indirect signs of bowel obstruction, bowel ischemia such as ascites and fluid or gas collection in the intestinal wall. The treatment of adult intussusception includes limited segmental resection and primary restoration of the gastrointestinal tract continuity. Sometimes colonoscopic reduction can be also helpful.

CONCLUSION:

Intussusception is an uncommon condition with neoplasms (benign and malignant) being the common cause in adults. Small intestinal lipomas are unusual benign tumours with no malignant potential, most often incidentally encountered since they are generally asymptomatic. Computed tomography (CT) scan is considered imaging method of choice and is helpful in revealing the underlying lesion. Limited bowel resection is considered as ideal treatment for small intestinal lipoma.

Figure 1



Figure 1 (a & B): (a) Longitudinal Section Shows Characteristic Bowel Within Bowel Appearance (white Arrow) With Well-defined Intraluminal Echogenic Lesion Adjacent To It (black Arrow). (b) Transverse Section Shows Classic Target-sign/doughnut-sign (white Arrow).

Figure 2



FIGURE 2 (A-D): (A) Axial & (B) Coronal section shows long segment intussusception with characteristic bowel within bowel appearance involving the jejunal loops for a length of ~13 cm (white arrows). (C) Coronal & (D) Sagittal section shows a well circumscribed fat density lesion measuring $\sim 3.0 \text{ x} 2.5 \text{ cm}$ noted in the distal end of intussusceptum (white arrows).

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