

## Case Report

# A Rare Case of Adult Jejunojejunal Intussusception - A Case for Resection

Senthil Kumar P<sup>1</sup> and Subramaniam SRV<sup>2\*</sup><sup>1</sup>Department of Surgical Gastroenterology, Senior Consultant, Chennai National Hospital, India<sup>2</sup>Department of Surgical Gastroenterology, Junior Consultant, Chennai National Hospital, India**\*Corresponding author:** Sugi R V Subramaniam, Department of Surgical Gastroenterology, Junior Consultant, Chennai National Hospital, India**Received:** October 01, 2018; **Accepted:** October 23, 2018; **Published:** October 30, 2018**Abstract**

Intussusception, a common cause of abdominal pain in pediatric population is a rare phenomenon in adults. Telescoping of bowel usually involves ileocecal region and almost always occurs with a lead point in adults. Transient intussusceptions, a very rare entity has also been reported and been managed conservatively. However adult intussusceptions usually have a lead point which can be malignant. We report a case of a forty year old female who presented with intussusceptions secondary to a jejunal sub mucosal lipoma. Given the frequency of malignancy as lead point in adult intussusceptions and less aggressive surgical nature of small bowel segmental resection, she was managed successfully with resection and anastomosis. We discuss the clinical presentation, imaging modalities and treatment options of adult small bowel intussusceptions with a review of literature.

**Keywords:** Adult intussusceptions; Jejunojejunal intussusceptions; Submucosal lipoma

## Introduction

Intussusception of small bowel in adults is an extremely rare cause of intestinal obstruction which accounts for less than 5% of cases. In almost all cases of small bowel intussusceptions there will be an underlying lead point such as lymphoma, GIST, metastases or even a sub mucosal lipoma. Transient intussusception without any underlying lead point is a rare clinical entity which can cause abdominal pain in adults, associated with crohn's disease, cystic fibrosis, and endocrinological disorders. The clinical presentation in adults is more often chronic or intermittent and include abdominal pain, mass, obstructive symptoms or gastrointestinal bleeding. Late diagnosis, sometimes even missed diagnosis is common due to non specific and subtle nature of symptoms [1].

## Case History

40 year old female patient presented with complaints of upper abdominal pain on and off for past 6 months. She did have constipation and vomiting occasionally. Apart from these, she did not have any specific complaints. She had no comorbid illness nor any previous abdominal surgeries. Her general examination was normal. Fullness was noted in her upper abdomen on inspection. On palpation a 10\*8 cm smooth surfaced firm mass was noted occupying epigastric and right hypochondrial regions, which was moving with respiration. A computed tomography of the abdomen was taken which revealed a intussusception of the jejunum with upstream dilatation of proximal jejunum (Figure 1). She was taken up for elective laparotomy and intraoperatively she was found to have an intussusception of jejunum, which when reduced revealed a 4\*4 cms sized submucosal mass suggestive of lipoma as the lead point (Figure 2A,2B). Hence resection and anastomosis of the segment containing intussusceptum and intussusceptum along with lead point was done with adequate margins. Histopathology of the lead point was consistent with submucosal lipoma. The patient is on follow up

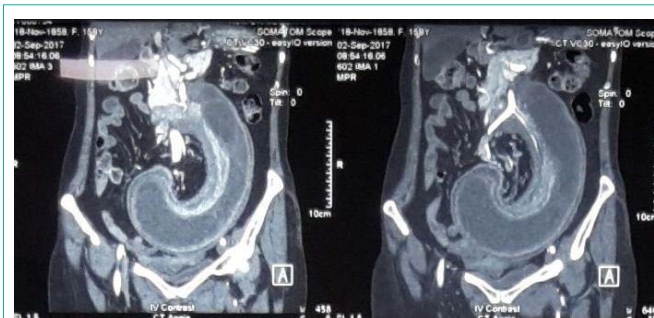
and is free of any symptoms.

## Discussion

Adult intussusception is a rare phenomenon and its symptoms tend to be more chronic or intermittent which includes vague abdominal pain, nausea and vomiting, abdominal distension with partial intestinal obstruction or a palpable abdominal mass at physical examination. Intussusception is rarely considered clinically in the differential diagnosis of adult patients with vague abdominal complaints and therefore it is difficult to diagnose preoperatively [2]. The clinical importance of intussusception in adults is that it is usually due to an underlying pathology.

The most common recognised site is the ileocolic region [3]. Although rare, intussusception is a recognised presenting feature of small bowel neoplasms most commonly GIST and lymphoma (Table 1). Tumors of the small intestine comprise of 1.7-6.5% of all gastrointestinal neoplasms. They are mostly benign and are uncommonly seen in clinical practice [4]. Most small bowel GISTs are clinically silent till they grow large, bleed, rupture and cause mechanical obstruction or act as a lead point for intussusception. They may be detected incidentally on imaging, endoscopy or at surgery. Intussusception and obstruction are uncommon presentation of these lesions because of their tendency to grow in an extra luminal fashion [5].

While most cases of transient intussusception are idiopathic, and it is believed that in malabsorption syndromes in adults with celiac and Crohn's disease [6], the natural peristalsis of bowel is disrupted due to dilated flaccid loops which undergo hyper secretion. The ultimate outcome being telescoping of the bowel walls to produce intussusceptions [7]. Metabolic derangements such as hyperglycemia, metabolic acidosis, and hyperkalemia have also been reported to cause intestinal dysmotility and intussusception [8]. Whether correction of metabolic derangements results in spontaneous reduction is still



**Figure 1:** Computed tomography of the abdomen – coronal section view of the abdomen which revealed an intussusception of the jejunum with upstream dilatation of proximal jejunum.



**Figure 2(a) & 2(b):** Intraoperative picture showing intussusception of jejunum, which when reduced revealed a 4\*4 cms sized submucosal mass suggestive of lipoma as the lead point.

unclear due to paucity reports. Few reports of self-resolving cases of intussusception in a cystic fibrosis and Human Immunodeficiency Virus (HIV) patients exist in literature [9].

Ultrasonography is a very appropriate initial imaging investigation useful in the diagnosis of intussusceptions. It is more readily available and generalized technique than CT scan of abdomen; however CT scan with oral and intravenous contrast has been shown to be the most accurate diagnostic tool for the evaluation of suspected intussusceptions [8]. Therefore diagnosis is usually made on CT or during exploratory laparoscopy/laparotomy [10]. Alternatively, small bowel enteroscopy or capsule endoscopy can be used if not obstructed to screen for luminal lesions that may lead to intussusception. However, caution should be taken when interpreting these results as luminal lesions can be mistaken for other diseases.

In cases where intussusception is associated with a pathologic entity and signs of bowel obstruction or GI bleeding, exploratory laparotomy should be performed. In case of small bowel intussusceptions due to non neoplastic causes, a benign clinical course can be expected, where the use of explorative surgery has

**Table 1:** Causes of small bowel intussusceptions.

1. Small bowel neoplasms – GIST, Lymphoma, metastases, lipoma
2. Celiac disease
3. Crohn's disease
4. Metabolic – hyperglycemia, hyperkalemia, metabolic acidosis
5. Rare causes - Cystic fibrosis, HIV etc.
6. Spontaneous

been a topic of debate. Even then diagnostic laparoscopy followed by reduction of intussusception has become an acceptable treatment strategy. It has been observed that in cases of intussusception where the length of involvement is less than 3.5cm, it tends to be transient and self-resolving [11]. In these cases, intussusception resolves without any specific treatment [12]. Therefore, surgical resection, with adequate margins in case of suspected malignancy and bowel gangrene/perforation, and conservative management in case of small segment transient intussusceptions are considered as the definitive treatment options in adult intussusceptions [10]. However, once diagnosed adult intussusceptions are better resected considering the possibility of underlying malignancy.

## Conclusion

Adult intussusceptions, that too of small bowel are extremely rare conditions. Though conservative management of intussusceptions has been advocated in certain cases, it is usually advisable to consider extensive imaging work up followed by surgical exploration. In adult intussusceptions, most cases will have a lead point which has more chances of being malignant given the less extensive nature of small bowel segmental resection and anastomosis.

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