

## Case Report



# Adult Intussusception Due to Inflammatory Fibroid Polyp - Vanek's Tumour

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### Abstract

Adult intussusception is a rare disease, found 5% of all cases of intussusceptions and almost 1%-5% of bowel obstruction. In adults, intussusception is typically due to a pathologic lead point within the bowel, which is malignant in over 50% of cases. Inflammatory fibroid polyp (also known as Vanek's tumour) is an uncommon, non-neoplastic proliferating lesion which can develop in various parts of the gastro-intestinal tract but most commonly in the gastric antrum and the ileum. Here we present a case of 35 years old lady with symptoms intermittent lower abdominal pain. USG of abdomen revealed as right adnexal complex cyst with thickened gut wall. She was underwent laparotomy and found ileo-ileal intussusception but no adnexal pathology. Segmental resection done where histopathology reported as loops of intussusception containing inflammatory fibroid polyp.

**Keywords:** Intussusception, Inflammatory fibroid polyp (IFP).

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### Introduction

Intussusception of the bowel means when a proximal segment of bowel (intussusceptum) telescopes or invaginate into the lumen of the adjacent distal segment (intussusciptens). This condition is frequent in children and presents with the classic triad of champing abdominal pain, bloody diarrhea and a palpable tender mass. However, bowel intussusception in adults is considered a rare condition. In contrast to intussusceptions in children, a demonstrable etiology is found in 70% to 90% of cases in the adult population.<sup>1</sup> 8 to 20% percent of cases are idiopathic, without a lead point lesion.<sup>2</sup> Secondary intussusception is caused by organic lesions; such as inflammatory bowel disease, postoperative adhesions, Meckel's diverticulum, benign and malignant lesions, metastatic neoplasms or even iatrogenically, due to the presence of intestinal tube or jejunostomy feeding tube.<sup>2</sup> In

most of the cases patients are suffer for recurrent sub acute intestinal obstruction and the pathology is rarely identified pre-operatively. There is always a diagnostic dilemma, in most of the cases diagnosis is confirm during exploratory laparotomy.

Inflammatory fibroid polyp (IFP) (also known as Vanek's tumour) is an uncommon cause of adult intussusception. This is a benign mesenchymal tumor which originate from the submucosa, most commonly in stomach and ilium. Although it can be found in colo-rectal region and esophagus. IFP account for 0.1% to 3.0% of all gastric polyps.<sup>3</sup>

The diagnostic criteria of IFP are CD34 + spindled stromal cells, inflammatory cells, and thin-walled vessels in a myxoid stroma.<sup>4</sup> This rare, benign, solitary polypoid or sessile lesion was first described by Czech pathologist Josef Vanek in 1949 as a "gastric submucosal granuloma with eosinophilia".<sup>5</sup>

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**Case report**

A 35 years old lady was admitted with the complaint of intermittent lower abdominal pain for 1 year, which was aggravated for last 7 days. The pain was associated with nausea and vomiting. She also complaint of amenorrhea for last 2 months. On examination mild tenderness over right lumber and umbilical region. Other examination revealed normal. Her pregnancy test was negative. USG of whole abdomen revealed a complex cyst (internal debris or almost solid looking) about 4.53 x 4.05 cm in size, at right adnexal region. Matted gut wall attached with right ovarian cyst. Her CA 125 level was 13.9 U/ml. Other investigations were normal.

On exploratory laparotomy, both adnexa found normal. An ileo-ileal intussusception was found at terminal ileum, 5 cm proximal to ileocecal valve. Parts of the intussusception was densely adhere to each other. No proximal polyp or nodular lead point was found. Then segmental resection of intussusception part and ileo-ileal end to end anastomosis was done. Proximal loop ileostomy was done 15 cm proximal to anastomosis. Histopathology report revealed inflammatory fibroid polyp inside part of intussusception. No granuloma or malignancy was found.

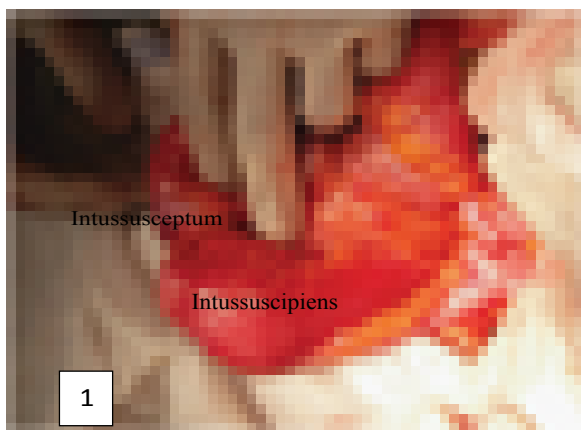


Figure-1

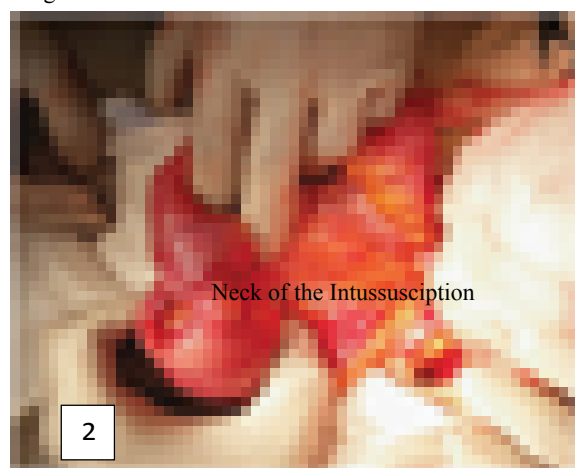


Figure-2

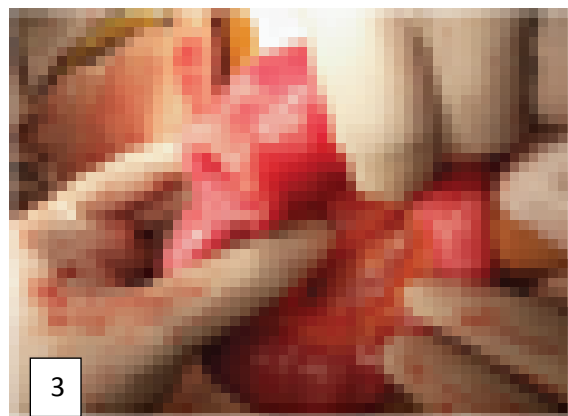


Figure-3

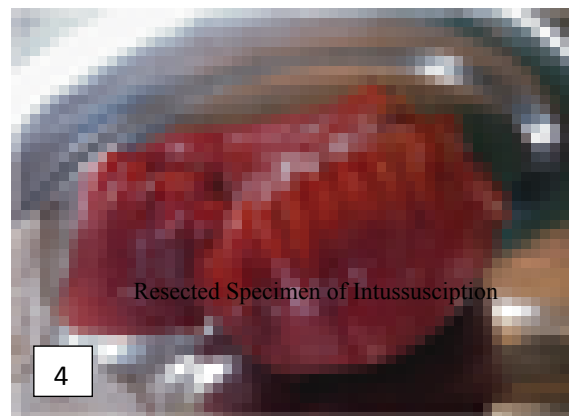


Figure-4

Figure 1,2,3 and 4 are the per-operative pictures of ileo-ileal variety of intussusception. Figure '1' shows the different parts of intussusception. Figure '2' shows the neck of the intussusception. Figure '3' shows no progress during push to release the invaginated part of small gut. Figure '4' shows the segmental resected part of small gut.

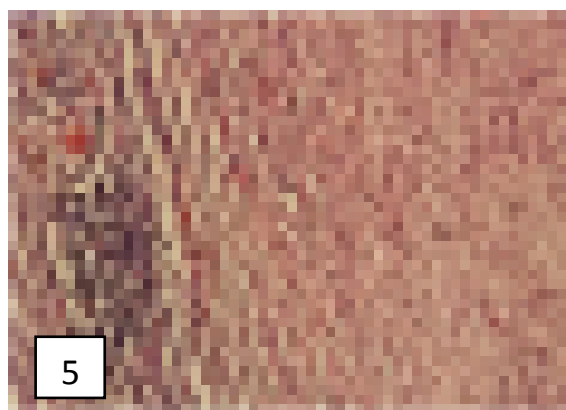


Figure-5

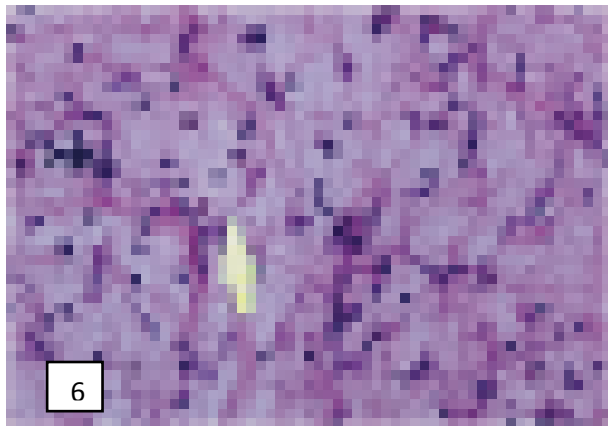


Figure-6

Figure '5' shows the section of nodule arises from the submucosa layer. Figure '6' shows the section containing fibroblast, inflammatory cells including many eosinophils.

## Discussion

Intussusception is a different entity in adults than in children. Adults present with a variety of symptoms that can be acute, intermittent, or chronic. Most often, these symptoms are consistent with bowel obstruction and are sub acute or chronic. Although investigation modality is modernize day to day. But still pre-operative diagnosis of intussusception is not satisfactory. CT scan is the ideal investigation for diagnosis. In 20% to 50% of cases of adult intussusception, the etiology is a malignancy.<sup>1,6,7</sup>

Clinically, ileoileal Intussusception presents either as acute pathology with signs and symptoms of abdominal obstruction or as a more chronic pattern with recurrent colicky abdominal pain. In our patient also had intermittent abdominal pain with nausea and vomiting which is similar to other studies. The diagnosis of intussusception in adults is difficult secondary to the varying presentations. The preoperative diagnosis of intussusception is infrequent in the adult population. The majority of patients are brought to the operating room with the preoperative diagnosis of bowel obstruction 50% cases of Azar T<sup>1</sup> and Berger DL and the surgeon discovers an intussusception intraoperatively. In our case also gone for diagnostic exploratory laparotomy for any right adnexal pathology and incidentally we found the intussusception. In our case the patient had amenorrhoea for 2 months with negative pregnancy test preoperatively and no evidence of pregnancy intraoperatively also. This amenorrhoea may be explain as a secondary cause due to hypothalamo-pituitary stressful condition. In 50-75% cases of adult small bowel Intussusceptions a benign underlying lesion can be found.<sup>8-10</sup> In our case we also found a benign pathology (Figure 1,2,3,4). Histopathological confirmed no malignancy (Figure 5 & 6)

Inflammatory Fibroid Polyp (IFP) is an uncommon, benign, sub-mucosal proliferating lesion of the gastro-intestinal tract lesion which is usually found incidentally.<sup>3</sup> In our case also the polyp arises from the submucosa.

IFP also called Vanek's tumour fall under the classification of submucosal connective tissue tumours; typically present in the 5th to 7th decade of life with male pre-dominance and can be found throughout the gastrointestinal (GI) tract, but most commonly in the gastric antrum 70% and ilium 20%.<sup>3,5</sup> Our patient is 35 years old female, which is dissimilar with other literatures. Histologically they arise from the sub mucosa and are characterized by vascular and fibroblast proliferation and an inflammatory response, dominated by eosinophils. Microscopically, Vanek's tumours can be mistaken for a variety of lesions, from granulation tissue to high grade sarcoma. In the differential diagnosis, it is important to include eosinophilic gastroenteritis, gastro-intestinal stromal tumour, inflammatory pseudo-tumour, haemangio-endothelioma and haemangiopericytoma.<sup>9,10</sup> Further immuno-histochemical analysis can demonstrate variable reactivity for Actin, CD34, Desmin, CD117 and S100.<sup>5,9</sup> Resection without reduction is advocated as the best treatment of adult intussusceptions.

## Conclusion

The aetiology and pathogenesis of inflammatory fibroid polyps remains largely unknown. Prominent H. pylori infection was demonstrated in some cases of gastric Vanek' stumour. It does not recur after surgical resection. In our case segmental resection of intussusception part of small intestine including IFP may give a complete cure from the disease.

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