



## Case Report

### An Unusual Case of Intussusception

Authors

**Dr Gaurav Batra<sup>1</sup>, Dr Trupti Tonape<sup>2</sup>, Dr Ishant Rege<sup>3</sup>, Dr Iresh Shetty<sup>4</sup>,  
Dr Aditya Lad<sup>4</sup>, Dr Debabrata Gope<sup>5</sup>**

<sup>1</sup>Chief Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

<sup>2</sup>Professor, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [truptitonape@gmail.com](mailto:truptitonape@gmail.com), Mobile no. – 9822533630

<sup>3</sup>Chief Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [micks.ishant@gmail.com](mailto:micks.ishant@gmail.com), Mobile no.- 09881130004

<sup>4</sup>Senior Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [ireshshetty@gmail.com](mailto:ireshshetty@gmail.com), Mobile no.- 09741435746

<sup>5</sup>Senior Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [adityaplad@gmail.com](mailto:adityaplad@gmail.com), Mobile no.- 7030742828

<sup>6</sup>Junior Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [gutlai123@gmail.com](mailto:gutlai123@gmail.com), Mobile no.- 9970946045

Corresponding Author

**Dr Gaurav Batra**

Chief Resident, Department of General Surgery, Dr. D. Y. Patil Medical College, Hospital and Research Centre, Pimpri, Pune 411018

Email: [dr.gauravbatra@gmail.com](mailto:dr.gauravbatra@gmail.com), Mobile no.- 9960999360

#### ABSTRACT

*Intussusceptions are defined as the telescoping of one segment of the gastrointestinal tract into an adjacent distal segment. In the small bowel, intussusceptions are typically caused by benign processes, but can occasionally be caused by inflammatory fibroid polyps (IFPs), which often present as intussusception and bowel obstruction. IFPs are most often seen in the stomach, but they can also occur in any segment of the gastrointestinal tract, where they most frequently cause an intussusception in the ileum, rather than the jejunum. Preoperative diagnosis of inflammatory pseudotumour is often difficult, and confirmation can only be obtained by histological examination to differentiate them from malignancy. The treatment of inflammatory pseudotumour is surgical resection of the involved bowel.*

**Keywords:** *Intussusceptions, inflammatory fibroid polyps, surgical resection.*

## INTRODUCTION

Intussusceptions are defined as the telescoping of one segment of the gastrointestinal tract into an adjacent distal segment and are very rare in adults. <sup>(1)</sup>

Small bowel intussusceptions are typically caused by benign processes and radiological examinations and endoscopy can be used for their diagnosis. IFPs are most often seen in the stomach, but they can also occur in any segment of the gastrointestinal tract, where they most frequently cause an intussusception in the ileum, rather than the jejunum. <sup>(2)</sup>

One possible cause of an intussusception and bowel obstruction is inflammatory fibroid polyps (IFPs), which are rare, benign, tumorous lesions of the gastrointestinal tract.

In 1948, Vanek first described this type of polyp as a gastric submucosal granuloma with eosinophilic infiltration. <sup>(3)</sup>

The pathogenesis of IFPs is unclear, and the most effective treatment for intussusception caused by an IFP is an exploratory laparotomy and surgical resection of the pathological segment.

## CASE REPORT

A 48 year old female patient presented to Dr. D.Y. Patil Medical College, Hospital and Research Centre, Pune with colicky abdominal pain, vomiting and abdominal distention of two days duration. She had no bowel or bladder complaints, no fever or trauma and had no history of diabetes, hypertension, smoking, or alcohol consumption. The patient's abdomen was distended, with tenderness in the epigastrium, She had hyperperistaltic bowel sounds and per rectal examination was normal. The haematological and biochemical investigations were normal.

No specific finding were seen in her chest x-ray and some air-fluid levels were observed on the erect abdomen x-ray. Ultrasonography revealed 'bowel in bowel appearance' suggestive of small bowel intussusception. CT Scan confirmed small bowel intussusception with 30 \* 21 mm soft tissue mass in the wall of jejunum as the lead point.

Exploratory laparotomy was done. Jejunum-jejunal intussusception due to 3 \* 2 cm growth in wall of jejunum was seen around 40 cm from the duodenojejunal junction. The bowel was congested at the site of intussusception, and the rest of the bowel length was healthy. Resection of the lump and end to end anastomosis of jejunum was done. Subsequent histopathology showed inflammatory fibroid polyp. Post operative recovery was uneventful. She was followed up for two years and found to be in good health.



**Photo 1:** Excised specimen of inflammatory fibroid polyp

## DISCUSSION

Adult intussusceptions are very rare and account for only 5%–16% of all intussusceptions. <sup>(4)</sup>

In the small bowel, the majority of intussusceptions are caused by benign processes, including IFPs, hematomas, lipomas, leiomyomas, adenomas, Peutz-Jeghers syndrome, adhesions, Meckel's diverticulum, lymphoid hyperplasia, celiac disease, trauma, intestinal duplication, an appendiceal stump, Henoch-Schonlein purpura, and tuberculosis.

Inflammatory pseudotumour is a rare cause for intussusception. Many other terms have been used to refer to these lesions including inflammatory fibroid polyp, myofibroblastic tumour, Vanek's tumour and submucosal granuloma. <sup>(5)</sup>

Helwig and Ranier <sup>(6)</sup> proposed the term IFP in 1953, and it has gained acceptance since.

IFPs can be found in any age group, but peak incidence is between the sixth and seventh decades, and IFPs occur slightly more frequently in males. <sup>(7)</sup>

Inflammatory fibroid polyps are polypoid lesions of the gastrointestinal tract, composed of fibrous tissue and blood vessels forming characteristic patterns. Inflammatory infiltrates, usually with a high percentage of eosinophils, are also present.

They are typically found in the stomach, followed by the small and large intestine, and may rarely occur in the esophagus. Their occurrence in the jejunum is rare.

Many IFPs are identified incidentally during endoscopy or laparotomy. Clinical presentation varies by location and size. When they occur in the small bowel, they can cause abdominal pain, lower gastrointestinal bleeding, anemia, and rarely bowel obstruction due to intestinal intussusceptions.<sup>(8)</sup>

The pathogenesis of IFPs remains unclear. Histologically, IFPs are characterized by inflammatory infiltrates (predominantly eosinophils) and the localized proliferation of mononuclear spindle-shaped cells. Generally, IFPs are grey, sessile, or pedunculated polypoid lesions that arise from the submucosa into the lumen of the bowel, often with the ulceration of the overlying mucosa. IFPs typically measure 2–5 cm in diameter, although giant IFPs larger than 20 cm have been reported. Vanek<sup>(3)</sup> suggested allergic processes as possible factors because eosinophilia had been observed in many of the lesions. Neural hyperplasia, the formation of granulation tissues, irritants, trauma, and genetics, as well as bacterial, physical, and chemical stimulants, have also been suggested.

Jejunal inflammatory pseudotumour causing intussusception has been rarely reported.

The diagnosis is supported by immunohistochemistry where IFPs usually stain positive for CD34 and vimentin. Some IFPs may also stain positive for smooth muscle actin, calponin, CD35 and cyclin-D1.<sup>(9)</sup>

Preoperative diagnosis of inflammatory pseudotumour is often difficult, and confirmation can only be obtained by histological examination to differentiate them from malignancy. The

treatment of inflammatory pseudotumour is surgical resection of the involved bowel.<sup>(10)</sup>

Complete resection with uninvolved margins is considered to be sufficient treatment because IFPs do not have any potential for metastasis. Surgical excision is curative in symptomatic patients, and recurrences are more common in lesions more than 8cm size which are locally invasive.<sup>(11)</sup>

## CONCLUSION

Inflammatory fibroid polyps are uncommon lesions. When they occur at the jejunum, they are strongly associated with intussusceptions. They can be treated adequately by complete resection of diseased bowel.

## REFERENCES

1. Agha FP. Intussusception in adults. *AJR Am J Roentgenol* 1986; 146:527-31.
2. Akbulut S. Intussusception due to inflammatory fibroid polyp: a case report and comprehensive literature review. *World J Gastroenterol* 2012;18:5745-52.
3. Vanek J. Gastric submucosal granuloma with eosinophilic infiltration. *Am J Pathol* 1949;25:397-411.
4. Eisen LK, Cunningham JD, Aufses AH Jr. Intussusception in adults: institutional review. *J Am Coll Surg* 1999;188:390-5.
5. Talley NJ: Gut eosinophilia in food allergy and systemic and autoimmune diseases. *Gastroenterol Clin North Am* 2008;37:307-32.
6. Helwig EB, Ranier A. Inflammatory fibroid polyps of the stomach. *Surg Gynecol Obstet* 1953;96:335-67.
7. De la Plaza R, Picardo AL, Cuberes R, Jara A, Martinez-Penalver I, Villanueva MC, et al. Inflammatory fibroid polyps of the large intestine. *Dig Dis Sci* 1999;44:1810-6.
8. Rehman S, Gamie Z, Wilson TR, Coup A, Kaur G. Inflammatory fibroid polyp (Vanek's tumour), an unusual large polyp

of the jejunum: a case report. Cases Journal 2009; 2:7152

9. Pantanowitz L, Antonioli DA, Pinkus GS, Shahsafaei A, Odze RD. Inflammatory fibroid polyps of the gastrointestinal tract: evidence for a dendritic cell origin. Am J Surg Pathol 2004; 28: 107-114.
10. Zager JS, Shaw JP, Kaufman JP, DeNoto G. Three cases of small bowel intussusception in relation to a rare lesion: inflammatory fibrous polyps. Dig Surg. 2001;18(2):142-6.
11. Sanders BM, West KW, Gingalewski C, Engum S, Davis M, Grosfeld JL. Inflammatory pseudotumor of the alimentary tract: Clinical and Surgical experience. Journal of Pediatric Surgery 2001; 36: 169-73.