

Jejunal Lipoma Causing Intussusception in an Adult

Martin Grbavac¹, Branko Bakula¹, Ivan Romic², Ante Bogut³ and Mirko Bakula⁴

¹Department of Surgery, University Hospital Sveti Duh, Zagreb, Croatia

²Department of Surgery, University Hospital Centre Zagreb, Zagreb, Croatia

³Department of Surgery, University Hospital Mostar, Bosnia and Herzegovina

⁴Department of Urology, University Hospital Centre Zagreb, Zagreb, Croatia

ABSTRACT

First described by Barbette in 1674, intestinal intussusception represents a telescoping of proximal bowel segment into the lumen of the adjacent aboral segment. Adult intussusception comprises only about 5% of all intussusceptions. We present a case of 28-year male patient who complained of colicky, intermittent epigastric pain for the last one month. Imaging detected specific signs of intussusception. Laparotomy revealed enteric intussusception of the jejunum caused by an intraluminal tumour, confirmed to be a benign lipoma on histology. Small bowel obstruction caused by jejunal lipoma in adults is a rare clinical entity and must be kept in mind when evaluating adult patients with abdominal pain.

Key Words: *Intussusception, Lipoma, Ileus, Jejunum.*

How to cite this article: Grbavac M, Bakula B, Romic I, Bogut A, Bakula M. Jejunal Lipoma Causing Intussusception in an Adult. *J Coll Physicians Surg Pak* 2022; **32(JCPSPCR)**:CR108-CR110.

INTRODUCTION

First described by Barbette in 1674, intestinal intussusception represents a telescoping of the proximal bowel segment into the lumen of the adjacent aboral segment.¹ Three main categories of intussusception are described in the literature: enteric, ileocolic, and colonic.^{2,3} Intussusception is predominantly seen in children and is one of the most common causes of bowel obstruction in this population.⁴ Adult intussusception is very rarely seen. It comprises about 5% of all intussusceptions with incidence of 1-3 per million in a year.^{5,6} Unlike children, intussusception in adults is caused in most cases by an underlying tumour. Colonic intussusceptions in adults are induced by malignancy as the lead point in 60% of cases, while only 30% of small bowel intussusceptions are caused by malignant tumours.⁷⁻⁹

Benign causes of small bowel intussusception are predominantly diverticular disease (Meckel's) and polyps of various origins. Lipomas are rarely encountered and comprise only 1% of all gastrointestinal tumours. In most cases, these are located in the colon, followed by the small bowel and stomach.¹⁰ Most gastrointestinal lipomas are asymptomatic and symptomatic ones may present with abdominal pain, gastrointestinal bleeding, and bowel obstruction.^{2,3,10}

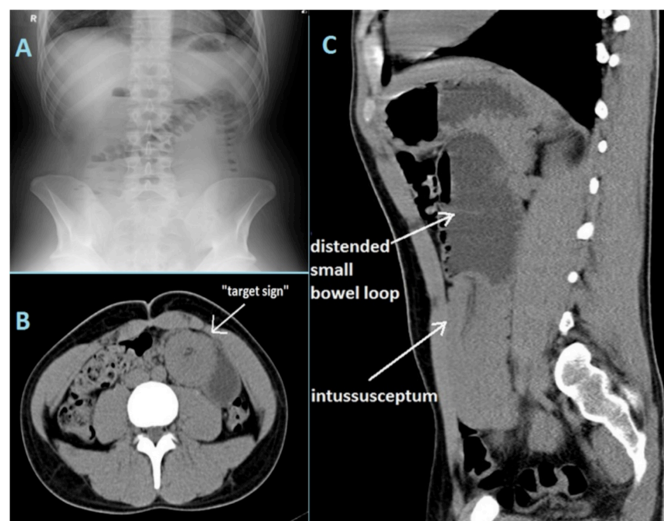


Figure 1: (A) Abdominal X-ray showing few small intestinal air-fluid levels. (B) CT scan showing typical "target sign". (C) Sagittal plane of CT scan showing intussusception.

CASE REPORT

A 28-year male presented to the emergency department with colicky, intermittent epigastric pain for the last one month. The pain was moderate, and for the last three days, it was associated with nausea and occasional vomiting which occurred more intensively 1-2 hours after meals. There was no history of blood or mucus in stools. His vital signs were within normal limits. There was tenderness in periumbilical region and abdominal distension with no signs of peritonism. Bowel sounds were audible and digitorectal examination was normal. Laboratory tests were within the normal range. Plain X-ray abdomen showed a few air-fluid levels in the small intestine and gas in the left colon (Figure 1A). Multi-slice computed tomography (MSCT)

Correspondence to: Dr. Ivan Romic, Department of Surgery, University Hospital Centre Zagreb, Zagreb, Croatia

E-mail: i.romic@gmail.com

Received: November 21, 2020; Revised: January 06, 2021;

Accepted: April 16, 2021

DOI: <https://doi.org/10.29271/jcpsp.2022.JCPSPCR.CR108>

of the abdomen revealed “target sign” at level of small intestine, a radiological sign specific for intussusception (Figures 1 B and C). Peroral contrast was not used as the patient was nauseous at the time of diagnostic work-up. Due to MSCT findings and persistence of pain, exploratory laparotomy was performed. During exploration jejuno-jejunal intussusception was found with intussusceptum length of 20 cm (Figure 2A). Reduction of intussusceptum was done and there was no sign of bowel ischemia of the involved bowel segment. In addition, 50 cm of jejunum proximal to the intussusception was dilated to 4.5 cm with thickened wall, but it was completely vital and active peristalsis was visible. An intraluminal tumour was found to be the cause of intussusception (Figure 2B). Small intestine segment with tumour was resected and intestinal continuity was established creating a hand-sewn side-to-side enteroenteral anastomosis due to bowel diameter discrepancy. Resected bowel was opened and a dark-yellowish, pedunculated, soft, round tumour approximately 3 cm in size at the anti-mesenteric intestinal border was seen (Figure 2 C and D). Histopathology confirmed a benign lipoma. The postoperative course and recovery were uneventful, and the patient was discharged on the 4th postoperative day.

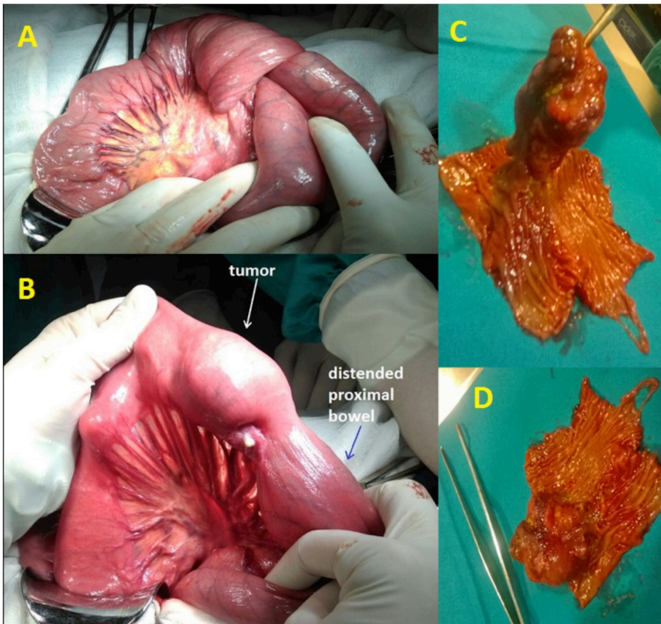


Figure 2: A: Intraoperative finding of intussusception. B: View of the jejunal tumour after reduction. C and D: Intraluminal finding of pedunculated tumour.

DISCUSSION

Small bowel obstruction caused by jejunal lipoma in adults is uncommon.¹ Non-specific clinical features and the rareness of disease in adults make diagnosis difficult. Unlike the acute presentation in childhood, adult type has mostly subacute or chronic course with only 20% of cases presenting with acute, complete bowel obstruction.² The diagnostic process is challenging because symptoms are nonspecific, similar to other subacute or chronic gastrointestinal disorders and may include colicky abdominal pain, nausea, vomiting, abdominal disten-

tion, and gastrointestinal tract bleeding. Diagnosis is often made at the time of laparotomy and only 32-50% of cases are diagnosed preoperatively. Abdominal radiographs may show signs of intestinal obstruction, but the most sensitive study to diagnose intussusceptions in adults is abdominal CT with diagnostic accuracy of about 85%.^{9,11}

Adult intussusceptions are caused mostly by intraluminal lesions (only about 10% of adult intussusceptions are idiopathic) acting as lead points and surgical procedure is the mainstay of treatment.¹² Surgical management consists of segmental bowel resection and primary restoration of the bowel continuity. Given the possibility of the malignant nature of the lesions, oncological surgical principles should be followed including appropriate surgical margins and lymphadenectomy. Whether the intussusception should be reduced or not prior to resection remains controversial. However, most surgeons agree that reduction should not be done if there are signs of bowel gangrene, significant inflammation or when malignancy is being suspected (fear of tumour seeding).^{7,11,12}

Intussusception caused by intraluminal tumours is a rare condition but must be kept in mind when dealing with adult patients who have non-specific, chronic, and colicky pain. CT scan must be performed early to confirm the diagnosis and prevent irreversible bowel changes.

PATIENT'S CONSENT:

The patient provided written consent for publication.

COMPETING INTEREST:

The authors declared no competing interest.

AUTHORS' CONTRIBUTION:

BB, MG, IR, DS, MB: All the authors contributed to the design, drafting, and critical revision of the manuscript.

REFERENCES

- Azar T, Berger DL. Adult intussusception. *Ann Surg* 1997; **226(2)**:134-8. doi: 10.1097/0000658-199708000-00003.
- Crespo García Del Castillo V, Morandeira Rivas AJ, Riquelme Gaona J, Moreno Sanz C. Ileocolic intussusception in adults. *Cir Esp* 2019; **97(6)**:343. doi: 10.1016/j.ciresp.2018.10.006.
- Zhou KZ, Mautone M, Naidoo P. A rare cause of adult ileocolic intussusception: Ileal leiomyoma. *BJR Case Rep* 2018; **4(4)**:20170094. doi: 10.1259/bjcr.20170094.
- Al-Radaideh AM, Omari HZ, Bani-Hani KE. Adult intussusception: A 14-year retrospective study of clinical assessment and computed tomography diagnosis. *Acta Gastroenterol Belg* 2018; **81(3)**:367-72.
- Ghaderi H, Jafarian A, Aminian A, Mirjafari Daryasari SA. Clinical presentations, diagnosis and treatment of adult intussusception, a 20 years survey. *Int J Surg* 2010; **8(4)**:318-20. doi: 10.1016/j.ijisu.2010.02.013.
- Panahi SE, Mehanna D. Adult intussusception involving colonic lipoma: A case study. *ANZ J Surg* 2019; **89(6)**:E272-E3. doi: 10.1111/ans.14340

7. Samuelson H, Giannotti G, Guralnick A. Jejunal lymphangioma causing intussusception in an adult: An unusual case with review of the literature. *Ann Med Surg (Lond)* 2018; **34**:39-42. doi: 10.1016/j.amsu.2018.08.020.
8. Su T, He L, Zhou T, Wu M, Guo Y, Wang Q, *et al.* Most adult Intussusceptions are caused by tumours: A single-centre analysis. *Cancer Manag Res* 2020; **12**:10011-5. doi: 10.2147/CMAR.S268921.
9. Barussaud M, Regenet N, Briennon X, de Kerviler B, Pessaux P, Kohneh-Sharhi N, *et al.* Clinical spectrum and surgical approach of adult intussusceptions: A multicentric study. *Int J Colorectal Dis* 2006; **21(8)**:834-9. doi: 10.1007/s00384-005-0789-3.
10. Kim JW, Lee BH, Park SG, Kim BC, Lee S, Lee SJ. Factors predicting malignancy in adult intussusception: An experience in university-affiliated hospitals. *Asian J Surg* 2018; **41(1)**:92-7. doi: 10.1016/j.asjsur.2016.11.010.
11. Mouaqit O, Hasnai H, Chbani L, Benjelloun B, El B+ouhaddouti H, Majdoub K, *et al.* Adult intussusceptions caused by a lipoma in the jejunum: report of a case and review of the literature. *World J Emerg Surg* 2012; **7(1)**:28. doi: 10.1186/1749-7922-7-28.
12. Manouras A, Lagoudianakis EE, Dardamanis D, *et al.* Lipoma induced jejunojejunal intussusception. *World J Gastroenterol* 2007; **13(26)**:3641-4. doi: 10.3748/wjg.v13.i26.3641.

•••••