

Case Report

Ileocolic intussusception-a rare cause of acute intestinal obstruction in adults

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Received: 06 May 2023

Accepted: 08 June 2023

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ABSTRACT

The primary report of intussusception was made in 1674 by Barbette of Amsterdam. It increases the patient's risk of intestinal obstruction, parietal ischemia, perforation, and peritonitis. Small intestinal submucosal lipomas are an uncommon kind of gastrointestinal tumour. It is a silent disease that occasionally causes gastrointestinal haemorrhage, intussusception, and bowel obstruction. Surgery is frequently required to confirm the diagnosis and rule out an underlying malignancy. We present a case of submucosal lipoma causing enteric obstruction in a young female.

Keywords: Surgery, Gastrointestinal, Intussusception, Ileocolic, Lipoma

INTRODUCTION

The term intussusception refers to the invagination of one segment of the gastrointestinal tract into the lumen of an adjacent segment.¹ Adult intussusception is quite uncommon, occurring in less than 1 in 1300 abdominal procedures.² Children are affected more than adults in a ratio of 20 to 1.² Intussusception represents 1% of small bowel obstruction in adults, with the most common lead point being a tumour.² Adult intussusception is difficult to diagnose and calls for a high level of clinical suspicion. The difficulties arise from the fact that abdominal pain is typically a generic symptom in addition to being one of the emergency department's most frequently assessed complaints. Adult intussusception can be difficult to diagnose since it can mimic many different conditions.³ If improperly identified, it may result in serious consequences and poor patient outcomes.

CASE REPORT

An 18-year-old female presented to the emergency department with a 2-day history of lower abdominal pain and a 1-day history of five episodes of non-bilious vomiting with obstipation. The patient was tachycardic and tachypnoeic with normal blood pressure readings. On

examination, lower abdominal distension was present with diffuse tenderness and absent bowel sounds. An abdominal X-ray was ordered, which showed multiple air fluid levels with dilatation of the jejunal loops, suggesting the possibility of an acute intestinal obstruction. With no further imaging delaying the treatment, the patient was planned for an explorative laparotomy after explaining to the attenders the perioperative risks involved. The routine blood investigations were normal except for the lactic acidosis in the blood gas.

Intra-operatively, the terminal ileal loops, approximately 120cm long, was seen telescoping into the caecum with a pathological lead point, a pedunculated polyp present around 100 cm from the ileocolic junction. The proximal small bowel was severely distended, dark, and oedematous with poor peristalsis, suggesting early ischemic changes. Gentle milking of the invaginated bowel loops was performed. The decision was then made to resect the ileal loops with the lead point and perform an end-to-end handsewn ileo-ileal anastomose. The patient unfortunately had multiple small polyps felt along the length of the small bowel, not acting as lead points. They were not excised as massive resection could land the patient in a short gut syndrome.

The histopathological examination of the polyp was consistent with a submucosal lipoma. Post-operatively, the patient had an uneventful course and was discharged. She was advised to follow up and plan for an upper and lower gastro-intestinal tract evaluation.



Figure 1: Ileocolic intussusception.



Figure 2: Reduction of the invaginated bowel loops.

DISCUSSION

Adult intussusception is a rare disorder in comparison to its paediatric equivalent. It is found in only 0.08% of abdominal surgeries.⁴ In contrast to the paediatric frame, the clinical introduction of adult intussusception is generally variable and nonspecific. The clinical trial of abdominal pain, rectal bleeding, and abdominal mass is rarely encountered.⁵ Due to its rare occurrence and confusing clinical picture, the diagnosis of intussusception in adults is a real challenge and can be missed without imaging. In our case, as the patient was unstable with x-ray findings of intestinal obstruction, further imaging was avoided.

Currently, the most effective image is a CT scan of the abdomen to identify intussusception, with diagnostic accuracy between 58 and 100%.⁶ In adults, the exact mechanism of intestinal intussusception is not known. Secondary intussusception, as in this case, is thought to begin with a pathological lesion in the intestinal wall or a stimulus in the lumen that alters normal peristaltic

activity and acts as a lead point that can initiate invasion from one intestinal segment into another.⁷ Schematically, intussusception can be an "internal prolapse" of the proximal bowel and its mesentery within the lumen of the adjacent distal bowel with overzealous or impaired peristalsis.⁷ Intussusception is often categorised into four groups: ileoileal, ileocolic, ileocecal, and colocolic.⁸ The protrusion of the terminal ileum into the colon is known as the ileocolic variation. Usually, the ileum is the site of the lesion. However, there is no known aetiology in 8% to 20% of cases.⁸

Mostly gastrointestinal lipomas are benign tumours of mesenchymal origin. Up to 5% of cases of gastrointestinal lipomas have been documented. The colon (65-75%) is where they occur most frequently, although they can also be detected in the small intestine (20-25%) and very infrequently in the oesophagus and stomach (less than 5%).⁹ Submucosal lipomas have non-specific symptoms that are also seen in other gastrointestinal diseases. Lipomas of the colon are mainly submucosal, pedunculated, and infrequently subserosal. Given the prevalence of underlying pathological abnormalities, surgery is still the go-to treatment option for the majority of patients.

The location of the intussusception, the preoperative diagnosis, and the state of the intestine at the time of laparotomy determine the type of procedure to be done. The question of trying to reduce the intussusception endoscopically before surgery is still up for debate. The intussusception should be reduced before resection, according to early studies.⁸ Despite the lack of conclusive data, it is believed that this has the drawback of increasing the likelihood that malignant cells will spread during the procedure. The benefits of minimising intussusception, on the other hand, are that it may be feasible to maintain significant intestinal lengths and so prevent the development of short bowel syndrome, especially when the small bowel is damaged.⁸ In our case, the patient had a few lipomas involving the entire gastro-intestinal tract. Usually, asymptomatic lipomas do not require any care.

Surgical intervention is typically needed for symptomatic lipomas. Endoscopic procedures, including endoscopic mucosal resection (EMR), the unroofing method, endoscopic mucosal resection after pre-cutting (EMR-P), and mucosal dissection (EMD), can be used to remove a localised, tiny, single lipoma quickly and securely.¹⁰ According to Onkendi et al intestinal intussusceptions without obstructive symptoms or a discernible lead point are likely self-limiting and can be treated nonoperatively.¹¹ In skilled hands, laparoscopic surgery for adult intussusceptions is currently possible and safe.¹² This method provides all the benefits of minimally invasive surgery, including the potential for both diagnostic and therapeutic purposes. But this is not always possible in remote hospitals, especially in emergency scenarios.

CONCLUSION

Multiple submucosal lipomas of the small bowel are quite uncommon. Large lipomas typically produce symptoms. The preferred investigation is a CT scan with contrast enhancement. Asymptomatic, incidentally encountered polyps should be followed up with upper and lower gastrointestinal tract endoscopies to monitor the growth and rule out any malignant pathology.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Monteiro GV, Paul S. Ileocolic intussusception-a rare cause of acute intestinal obstruction in adults. *Int J Res Med Sci* 2023;11:xxx-xx.