

Laparoscopy-Assisted Limited Resection Of Jejunum For A Large Symptomatic Polyp

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Citation

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Abstract

Benign tumors of the small bowel are rare clinical entities that often remain asymptomatic throughout life. Despite comprising 75% of the length and 90% of the surface area of the GI tract, the small bowel harbors relatively few primary neoplasms and fewer than 2% of GI malignancies. We present a 43-year old female with subacute intestinal obstruction and hematemesis. Investigations revealed 2 jejunal masses, almost totally occluding the lumen. She underwent laparoscopy-assisted segmental resection of the jejunum. Her postoperative period was uneventful. Surgical excision of small bowel tumors remains the recommended therapy. Exploratory laparotomy and now laparoscopy with excision of the lesion provides the safest and most direct method for lesion identification and treatment.

BACKGROUND

Benign tumors of the small bowel are rare clinical entities that often remain asymptomatic throughout life. The mean age of presentation reportedly is between the fifth and sixth decades of life. Despite comprising 75% of the length and 90% of the surface area of the gastrointestinal (GI) tract, the small bowel harbors relatively few primary neoplasms and fewer than 2% of GI malignancies.¹ Subtypes include hyperplastic polyps, adenomas, GI stromal tumors, lipomas, hemangiomas, and those associated with Peutz-Jeghers syndrome. The tumors may be found throughout the duodenum, jejunum, and ileum (in order of increasing frequency). They may be single, multiple, or widespread (polyposis syndrome). Three growth patterns have been identified - intraluminal, infiltrative, and serosal. Clinically, benign small bowel lesions are characterized by a lack of identifying symptoms. Despite their unobtrusive nature, benign small bowel tumors may manifest as secondary complications of their growth. They are bowel obstruction (30%); intussusception in adults (main cause); volvulus; GI bleeding (38%) and perforation.² Most patients exhibit no distinct physical findings upon examination. A palpable abdominal mass is present in larger tumors (>6 cm).

CASE REPORT

The patient was a 43-year old female who presented with features of subacute small bowel obstruction and one episode of blood-tinged vomiting. She was admitted and

resuscitated. Plain X-Ray of the abdomen confirmed the obstruction. CT scan was done and revealed a mass arising from the lumen of the small bowel, probably jejunum. Enteroscopy showed 2 well-defined masses in the lumen of the jejunum 4cm from the duodenojejunal flexure causing partial obstruction (figure 1). There was a small area of probable ulceration on the mass that could have been the cause of the blood in vomitus. Upper gastrointestinal tract was decompressed by nasogastric aspiration and stomach washes. Laparoscopic resection was planned after the abdominal distension subsided. Pneumoperitoneum was established with a Veress needle. A 5mm trocar was introduced in the umbilical incision; a 5mm (30°) telescope was introduced and the other two 5mm ports were inserted under vision – one in the right midclavicular line and the other in the left midclavicular line, below the level of the umbilicus. Serosa of the jejunum appeared to be normal. The mass was palpated with a grasper and the limit of resection was identified. Mesentery was mobilized using Harmonic scalpel (Ethicon, USA). The loop of jejunum to be resected was brought out by enlarging the 5mm umbilical incision. About 6cm of jejunum was resected and anastomosis was done using a (75mm cartridge) stapler by introducing the 2 limbs in the enterotomy openings (figure 2). The common opening was closed by another 75mm stapler (figure 3). The bowel was returned to the abdomen (figure 4). The incisions were closed. The patient had an uneventful postoperative period. She was discharged on the 5th postoperative day.

Histopathology revealed benign GIST.

Figure 1

Figure 1: Enteroscope view of jejunal tumors

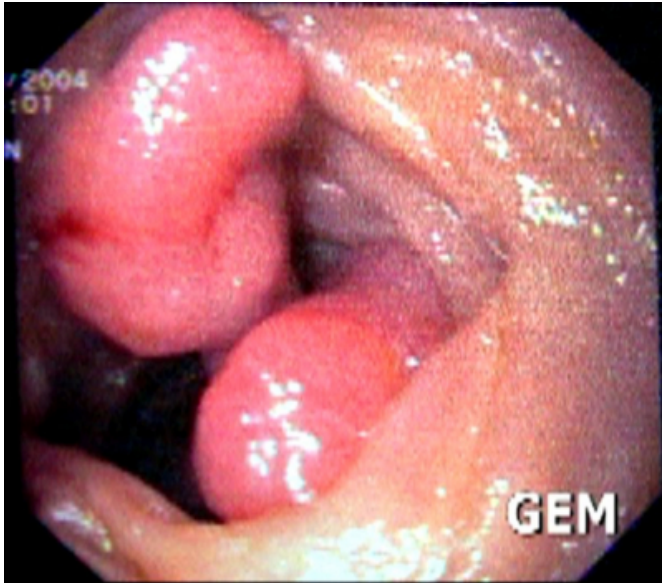


Figure 2

Figure 2: Anastomosis with stapler



Figure 3

Figure 3: Closure of common opening



Figure 4

Figure 4: Returning bowel to peritoneal cavity



DISCUSSION

There are many causes of intestinal obstruction, benign jejunal tumor being one of the rarer causes. Images from upper GI series may demonstrate the lesion in up to 29% of cases.³ CT scan can demonstrate up to 27% of benign small bowel tumors, especially of size > 2 cm.⁴ Upper GI endoscopy has been employed successfully for the detection of benign jejunal lesions in 12-30% of cases.² Stromal tumors and lipomas frequently cannot be removed via endoscopy because of their deep intramural location and the subsequent elevated risk of bowel perforation during attempted removal. Some authorities caution against endoscopic lesion biopsy because of increased risk of

shedding cells, which could lead to local recurrence. The newer modality of capsule endoscopy has been successfully used to detect small bowel lesions (leiomyomas, angiodysplasia, varices) that have previously remained undiagnosed by other methods.⁵ Gut stromal tumors are the most common symptomatic small bowel lesions. They have been found in all areas of the small bowel, including within the Meckel diverticulum. Surgical excision of small bowel tumors remains the recommended therapy. Traditionally, exploratory laparotomy with excision of the lesion provided the safest and most direct method for lesion identification and treatment. Recently, several reports of laparoscopic resections have been published in the literature and seem to be advantageous over laparotomy.⁶ Tumors discovered incidentally at laparotomy/laparoscopy should be removed to prevent future symptom development and secondary complications. Both segmental resection and enterotomy/polypectomy have been used for lesion removal. If the pathology cannot be established at the time of resection, full segmental resection with adequate margins is recommended. Current literature confirms an excellent prognosis for tumors resected prior to tumor perforation or onset of massive GI hemorrhage.⁶ Laparoscopy-assisted

jejunal resection is an effective method of treating symptomatic polyps; the enlarged port used for the anastomosis seems not to increase pain levels. Laparoscopy is also a diagnostic aid and spares the patient a laparotomy.

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