

Splenic flexure colonic lipoma causing intussusception

Moustafa Moussally , Imad Mokalled, Faek Jamali and Mohamad J Khalife

Department of Surgery, American University of Beirut Medical Center, 1107 Beirut, Lebanon

Corresponding author: Mohamad J Khalife. Email: mk12@aub.edu.lb

Summary

Colonic lipomas are rare benign tumours that are usually asymptomatic. However, giant colonic lipomas tend to be symptomatic and can occasionally result in intussusception and intermittent colonic obstruction. As adult intussusception is an uncommon occurrence, the identification of the underlying aetiology is essential due to its high association with malignancy. Computed Tomography remains the tool of choice for the diagnosis of colonic lipomas. Surgical excision remains the mainstay treatment of giant symptomatic colonic lipomas. We hereby present the case of a 51-year-old male found to have a colonic lipoma causing recurrent intussusception. We discuss the approach, diagnostic tools and available treatment modalities for colonic lipomas. We also provide a brief literature review of intussusception in adults.

Keywords

lipoma, colon, intussusception

Background

We present a rare case of a colonic lipoma causing intussusception. Lipomas are slow growing benign adipose tissue tumours which may be present throughout all organs. One rare site of occurrence is the gastrointestinal tract, predominantly the colon.¹ The incidence of colonic lipomas ranges between 0.04% and 4.4%, the majority of which are asymptomatic.² Approximately one fourth of colonic lipomas are symptomatic, especially those with a size above 2 cm.^{3,4} Symptoms range from abdominal pain, constipation, lower gastrointestinal bleeding to intussusception.^{4,5}

Case presentation

A 51-year-old previously healthy male with no significant medical or surgical history presented with intermittent abdominal pain and repeated bloody stools. He also complained of abdominal distension. The patient denied any nausea, fever, chills or weight loss. The patient reported he has had similar symptoms four times within the past year. On physical examination, the patient was found to have a soft mildly distended abdomen without any organomegaly; bowel

sounds were present. Laboratory findings were as follows: Haemoglobin 14.5 g/dL, Hematocrit 43%, platelets 144,000/mm³, White count 5800/mm³. Creatinine and liver function panel were within normal range. Contrast enhanced Computed Tomography of the abdomen was done and revealed colo-colonic intussusception at the area of the distal transverse colon and splenic flexure caused by a 7 cm × 4 cm × 4.2 cm predominantly fatty lesion with strands of soft tissue suggestive of lipoma (Figure 1). A colonoscopy was also performed and showed an approximately 6 cm diameter smooth pedunculated polyp. The results of endoscopic biopsies taken revealed benign well circumscribed submucosal adipose tissue suggestive of lipoma. Due to the size of the lesion and the recurrence of symptoms, the decision was made to resect the lipoma. Intraoperatively, an open approach was used to access the peritoneal cavity. The colonic lesion was detected at distal transverse colon and splenic flexure. Partial colectomy was done including the lesion and small part of the mesentery followed by hand-sewn side-to-side isoperistaltic anastomosis. The postoperative course was uneventful. The microscopic review of the specimen revealed a submucosal pedunculated lipoma with surface ulceration (Figure 2).

Discussion

Colonic lipomas are rare entities first described by Bauer in 1757.⁶ They mostly arise in patients between the age of 50 and 60.⁵ Approximately two thirds of colonic lipomas are located in the cecum and ascending colon.² Variable sizes of colonic lipomas have been described in the literature ranging between 2 mm and 30 cm.² Lipomas are benign in nature and generally asymptomatic. They do not require any surgical intervention and can be managed conservatively. However, lipomas whose size exceeds 4 cm are considered giant and are likely to be symptomatic.² Intussusception is a well-recognised symptom of giant colonic lipomas.⁵

Intussusception is predominantly a disease of children. The majority of cases of intussusception in children are idiopathic, whereas in adults approximately

Figure 1. Contrast enhanced CT scan, axial view showing intussuscepting colonic lipoma measuring 7 cm × 4 cm × 4.2 cm.

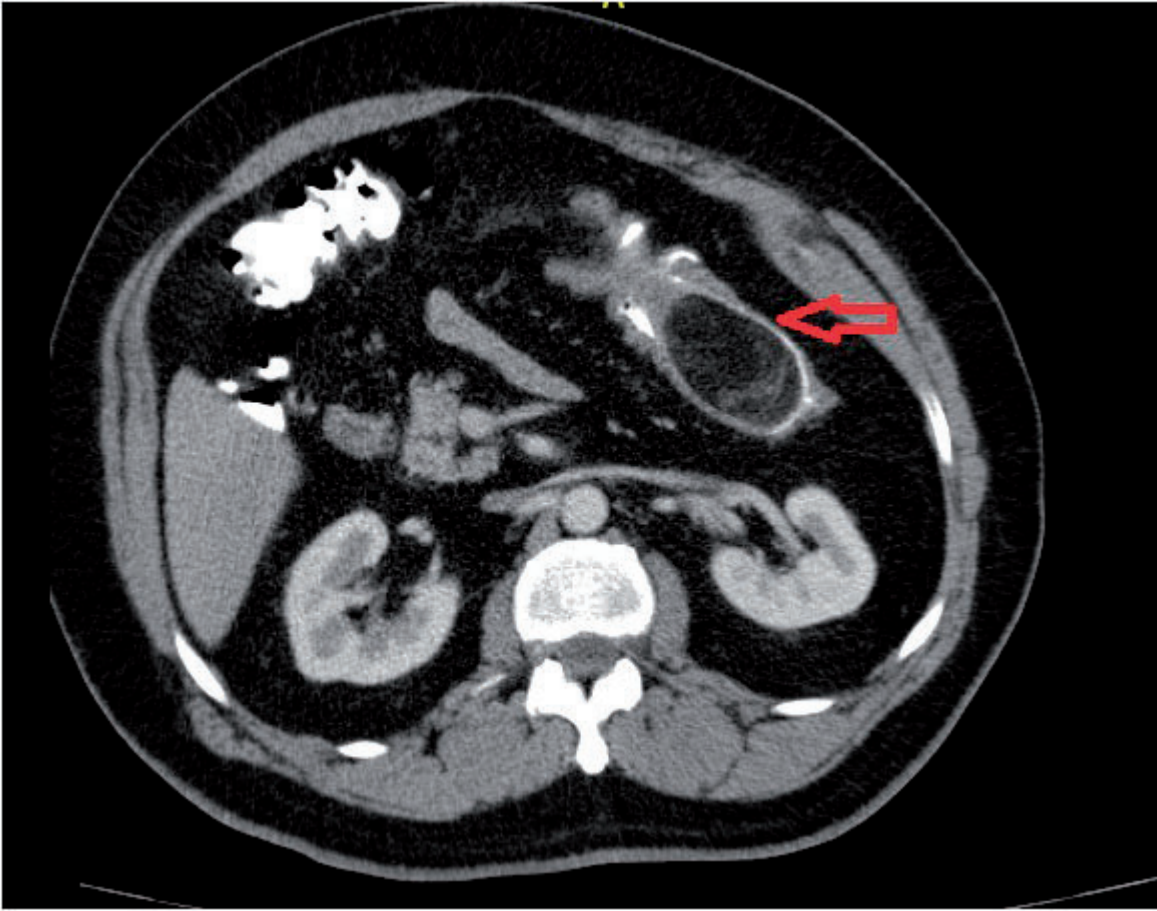


Figure 2. Photographic image showing colonic segment measuring 9 cm × 8.5 cm × 8 cm with a 6 cm × 5 cm × 3 cm pedunculated polyp on the mucosal surface.



90% of cases have identifiable aetiologies.⁷ Around 60–70% of adult intussusception cases are caused by carcinomas. In another series, 43% of colonic intussusceptions were due to malignant tumours.⁸ In the paediatric age group, intussusception presents as a triad of abdominal pain, palpable abdominal mass and bloody stool. Our patient's major complaint was intermittent abdominal pain associated with bloody stools. Whilst he did report occasional bloating, no sign of a palpable abdominal mass was present on examination. In a retrospective review of 41 cases of adult intussusception, only 9.8% of cases presented with that triad.⁹ In a series done by Balik et al., all patients who were found to have intussusception had abdominal pain and obstructive symptoms at time of presentation. However, only 11.1% of the cases had a palpable abdominal mass on physical exam.⁷ This renders the diagnosis of intussuscepting lipomas in the preoperative period quite difficult.

Computed Tomography remains the tool of choice for the diagnosis of intussusception as it allows the

clear identification of the intussuscepting tissue as well as the lead point.^{9,10} However, determining the aetiology of the intussusception on Computed Tomography remains a challenge.⁷ Colonic lipomas appear as well demarcated ovoid shaped lesions.^{2,3} However, magnetic resonance imaging is more sensitive in detecting lipomas.² Colonoscopy is a suitable intervention to identify the aetiology of intussusception.² Moreover, colonoscopy could aid in avoiding unnecessary surgery.⁹

For symptomatic submucosal lipomas less than 2 cm in size, endoscopic removal using electrocautery is a valid option. On the other hand, surgery, whether laparoscopic or open, remains the treatment of choice for colonic lipomas not amenable to endoscopic resection.⁷ Since the majority of adult intussusception cases have identifiable pathological lesions, surgical excision is mandatory. Due to the size of the lipoma in our patient, surgical resection was opted. Moreover, identifying the cause of intussusception, whether benign or malignant, prior to surgery is instrumental. The diagnosis will guide in determining the extent of resection needed.⁸ However, there is no consensus whether intussusception should be reduced prior to resection. Several authors recommend against reduction using barium in the adult population.⁷ The risk of intraluminal seeding and venous dissemination poses possible downsides to reduction. In addition, reduction might lead to increased risk of perforation during manipulation as well as higher risk of anastomotic complications.⁹ In the case of our patient, the decision was made to proceed to surgery without reduction. Generally, patients tend to have uneventful recoveries. In addition, recurrence rate post excision of lipomas is low.² Our patient had a smooth postoperative course without any complications.

In conclusion, colonic lipomas are rare benign entities that can occasionally result in intussusception in adults. As adult intussusception is an uncommon occurrence, the identification of the underlying aetiology is a must due to its high association with malignancy. The mainstay treatment of large symptomatic colonic lipomas remains surgical excision.

Declarations

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Guarantor: MJK

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ORCID iD: Moustafa Moussally  <https://orcid.org/0000-0002-3999-5725>

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