CASE REPORT

Rare cause of colonic intussusception in an adult

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SUMMARY

Colonic intussusception is an uncommon phenomenon in adults. Advanced imaging has facilitated the increase in awareness of this rare disease. When present, the lead point is most often secondary to a malignancy with primary adenocarcinoma being the most frequent cause. Current surgical management involves oncologic resections for this reason. This is a report of the third ever-reported case of colonic intussusception secondary to an angiolipoma and the first in the western hemisphere. We also demonstrate that these masses are amenable to minimally invasive resection for definitive management.

BACKGROUND

Here we report the third ever case of colonic intussusception secondary to an angiolipoma, and the first case of such intussusception in the western hemisphere. This diagnosis should be considered in patients with chronic abdominal pain and associated symptoms of unclear aetiology, especially when typical radiographic or endoscopic characteristics are found.

CASE PRESENTATION

A 41-year-old woman was referred to the Colorectal Surgery clinic with several months of progressive periumbilical and right lower quadrant abdominal pain. Her pain was sharp and spasmodic, lasting 1–2 hours before spontaneously abating, initially occurring about once weekly, but having progressed to nearly daily episodes of pain for the past 6 weeks, often accompanied by non-bloody diarrhoea. Her pain was often occurring a few hours after eating and subsequently the patient lost about 30 pounds over the course of several months from food fear. She otherwise denied haematochezia, melaena,

nausea, vomiting, early satiety, fevers, chills, night sweats or fatigue. Her medical, surgical and family histories were unremarkable.

On examination she was a well-appearing young woman with fullness and mild tenderness to deep palpation in the right hemiabdomen and epigastrium. A CT scan of the abdomen and pelvis with intravenous and oral contrast demonstrated ileocecal intussusception to the transverse colon with a large hypodense mass as the likely lead point (figure 1A and B). Her haemoglobin was 12.7 g/dL and carcinoembryonic antigen was <0.2 ng/mL. The remainder of her laboratory examination was unremarkable.

INVESTIGATIONS

A colonoscopy was performed and demonstrated a large homogeneous, pedunculated mass on a stalk within the proximal ascending colon (figure 2) that was non-obstructive. No other lesions were identified. No biopsies were taken as the size of the lesion necessitated a surgical resection.

DIFFERENTIAL DIAGNOSIS

1. Colonic angiolipoma
2. Colonic adenocarcinoma
3. Mucinous neoplasm of the colon
4. Colonic leiomyoma

TREATMENT

The patient underwent a robotic-assisted right haemicolectomy with final pathology demonstrating a 6.0×4.5×3.5 cm colonic angiolipoma on a 2.3×1.5 cm stalk without evidence of dysplasia or malignancy.

OUTCOME AND FOLLOW-UP

She was discharged on postoperative day 4 after an uneventful recovery. Outpatient follow-up demonstrated resolution of symptoms.

DISCUSSION

Angiolipomas were first distinguished from lipomas in 1960 by Howard and Helwig,¹ and may be further histologically classified along a spectrum from predominantly lipomatous to predominantly angiomatous. They are distinct from lipomas, which may also occur within the gastrointestinal tract but will not be further discussed here.² Angiolipomas occur predominantly about the trunk and extremities in young to middle-aged adults, and in distinction from simple lipomas they are more often associated with pain. Angiolipomas of the gastrointestinal tract are rare, though they have

Figure 1 Representative axial (A) and coronal (B) intravenous and oral contrasted CT scan images demonstrating a large low-density mass with intrinsic hyperdensities versus septations and associated colonic intussusception.

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Figure 2 Colonoscopic image demonstrating a well-circumscribed mass within the proximal ascending colon.

been described and reported to occur from the oesophagus to the rectum.³ Colonic angiolipomas are particularly rare, though when they occur, presentation most commonly includes lower gastrointestinal bleeding, followed by obstruction or pain.^{4 5} Histologically these lesions are typically confined to the submucosa and demonstrate benign proliferation of varying degrees of adipose tissue admixed with thin-walled vascular channels that may demonstrate hyaline plugging.⁶

The degree of associated symptoms, particularly obstruction, determines the urgent versus elective basis for resection after further workup. Imaging modalities employed most often include a CT scan, with or without additional ultrasound, barium enema and/or MRI at the discretion of the surgeon.⁷ Characteristic findings on CT scan include a low-density mass with a varying degree of intervening higher density vascularity and possible septations. Colonoscopic evaluation should also be undertaken in patients not requiring urgent surgery or otherwise at undue risk for perforation secondary to insufflation. Endoscopically, these lesions are typically large and pedunculated, extending from a stalk of varying size, with predominantly normal overlying mucosa and sporadic foci of ulceration.

Segmental resection is the definitive treatment for angiolipomas of the colon, although smaller lesions may be endoscopically removed without issue. If biopsies are indeterminate, surgical resection should be pursued. Prognosis is excellent in

pathologically proven cases of colonic angiolipoma after resection, with no reported recurrences to date.^{3–7}

Here we report the third ever case of colonic intussusception secondary to an angiolipoma, and the first case of such intussusception in the western hemisphere.^{4 5} This diagnosis should be considered in patients with chronic abdominal pain and associated symptoms of unclear aetiology, especially when typical radiographic or endoscopic characteristics are found.

Learning points

The most common presenting symptoms of colonic angiolipoma include lower gastrointestinal bleeding, varying degrees of obstruction and associated pain.

Typical CT and endoscopic features are helpful to distinguish colonic angiolipomas from other diagnoses preoperatively. Segmental resection is the treatment of choice for colonic angiolipomas too large for endoscopic resection, and this may be accomplished via minimally invasive robotic approaches without sacrificing surgical precision or outcomes.

Prognosis after segmental resection is excellent, without a reported recurrence to date in the literature.

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