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Colonic intussusception caused by a sigmoidal lipoma: A case report

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ABSTRACT

INTRODUCTION: Intussusception is a relatively common condition seen in children. In comparison, adult intussusception is rare and is often secondary to inflammatory diseases, benign or malignant tumors and motility disorders. Being a benign cause, lipomas appear as a particularly rare gastrointestinal tumor.

PRESENTATION OF CASE: We present a case of colo-colonic intussusception secondary to a sigmoidal lipoma, in a 40-year-old man. We describe the different aspects of diagnosis and management of this rare complication.

DISCUSSION: Adult intussusception is the cause of symptomatic bowel obstruction in 1% of cases and its colo-colonic occurrence represents 17% of all intestinal intussusceptions. The case that we describe is particularly unique because apart from being an example of intussusception in adults, it occurred in the sigmoid colon and was not associated with a malignant lesion. The treatment of intussusception in adults is surgical resection because of the high incidence of underlying malignancy. Colonoscopy is a modality which allows direct visualization of the lipoma. However, intraluminal reduction via colonoscopy is not recommended.

CONCLUSION: Colo-colonic intussusception is a very rare complication of lipoma. It is determined that the treatment is surgical due to the risk of malignancy.

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1. Introduction

Intestinal intussusception in adults is rare, accounting for approximately 1% of all bowel obstructions. The majority of cases occur in the ileocolic valve or the small bowel. Colo-colonic intussusception accounts for 17% of cases. The main causes include benign or malignant tumors, inflammatory diseases, adhesions and other mechanical conditions impairing peristalsis leading to motility disorders [1]. The majority of colonic intussusceptions are due to malignant lesions essentially adenocarcinomas and lymphoma [2]. As a benign cause, lipomas appear as a particularly rare gastrointestinal intraluminal tumor [3]. They are usually asymptomatic, and they are often discovered by chance during routine procedures [1]. However, with a large sized tumor different symptoms such as anemia, abdominal pain, constipation, diarrhea, bleeding or intussusception can appear [3]. We present a rare case of sigmoidal lipoma causing a colo-colonic intussusception. This work has been reported in line with the SCARE criteria [4].

2. Presentation of case

A 40-year-old man was admitted for abdominal pain in the left iliac fossa that had been evolving for 15 days with no other associated signs. He had no previous abdominal surgeries or prior comorbidities in his medical history. The initial examination found a firm, mobile mass of about 5 cm in the left iliac fossa. Abdominal tomography (CT) showed an aspect of sigmoidal endoluminal lipoma of approximately 6 cm of diameter, complicated by colo-colonic intussusception without signs of occlusion (Fig. 1). The patient was submitted to a colonoscopy, for a better assessment of the lesion. The Colonoscopy showed a submucosal mass compatible with a lipomatous mass on left colon filling the entire colonic lumen but permitting the transposition of the colonoscope (Fig. 2). Biopsy was performed and histopathologic examination of the specimens revealed some mucous material and autolyzed tissue, and definite diagnosis could not be made. The patient underwent a segmental colonic resection by laparotomy taking off the mass which was pedunculated (Fig. 3). Anatomopathological examination of the surgical specimen confirmed the lipomatous nature of the colonic mass and the absence of signs of malignancy. Three days after surgery, the patient was asymptomatic and he was discharged.

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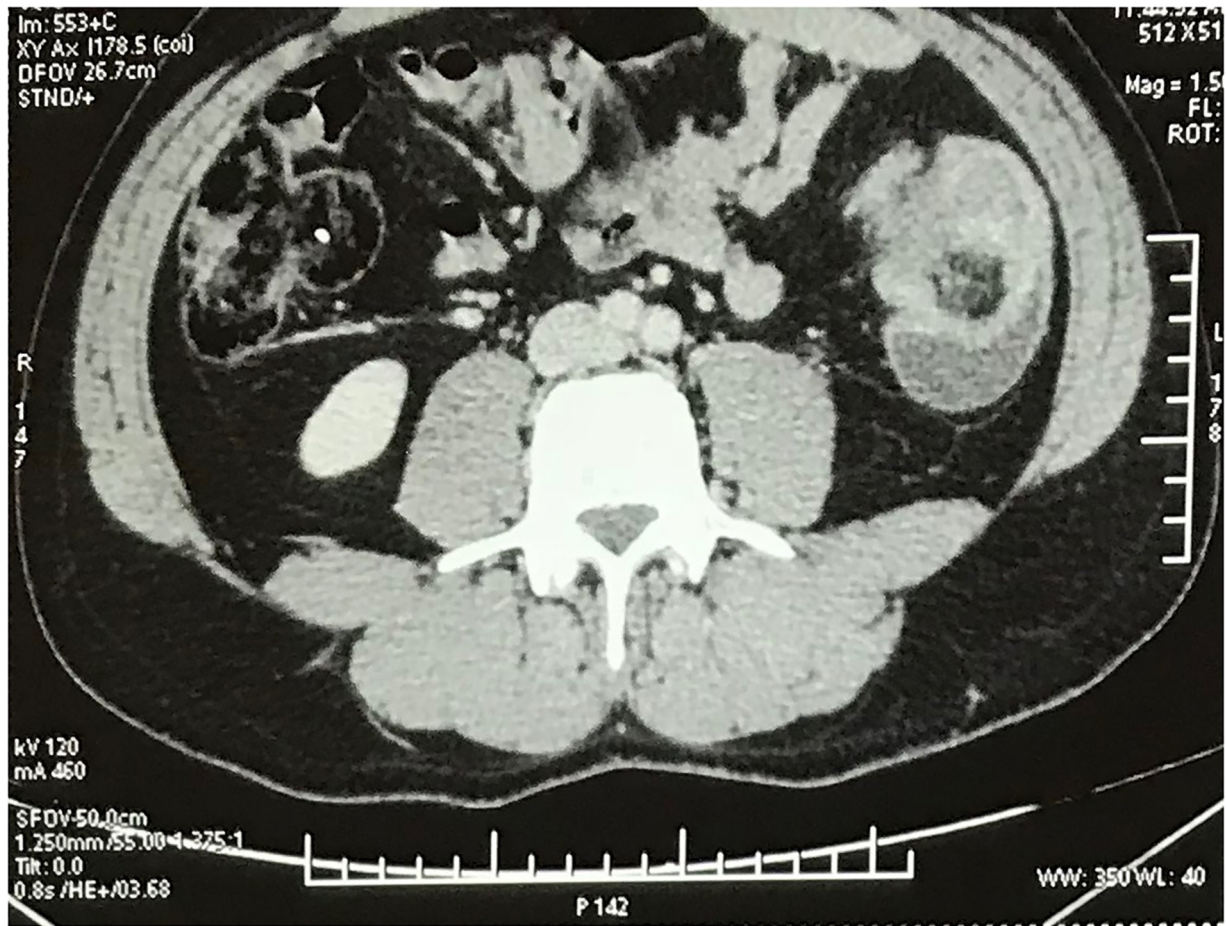


Fig. 1.

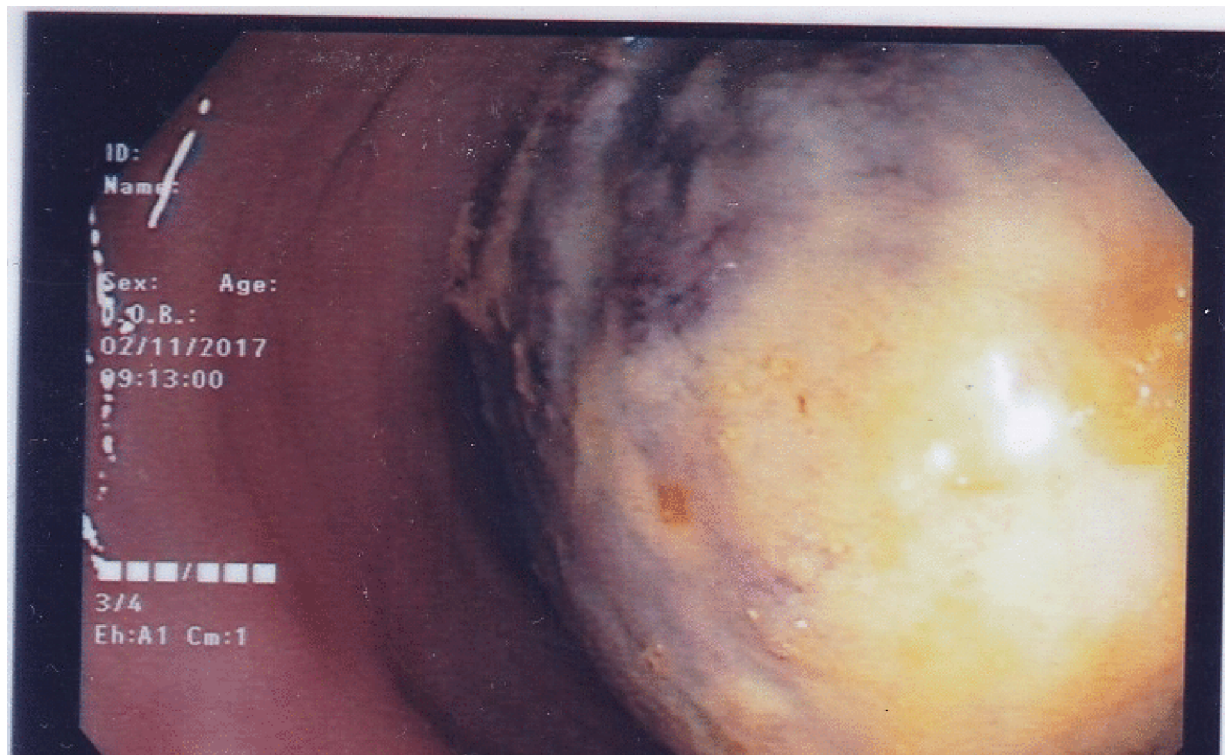


Fig. 2.



Fig. 3.

3. Discussion

Although the majority of cases of intussusception occur in children, intussusception in adults represents only 5% of all cases [5]. It is the cause of adult symptomatic bowel obstruction in 1% of cases [1]. Intussusception occurs more frequently in the small bowel than in the large bowel, representing 70–80% of cases. The incidence of intussusception is low in adults, particularly in the descending colon, due to the anatomical attachment of the descending colon to the retroperitoneum [5]. In fact, colo-colonic occurrence represents 17% of all intestinal intussusceptions in adults [1].

Two thirds of adult colo-colonic intussusceptions are secondary to a primary colonic cancer. The remaining third are secondary to Peutz-Jehjer polyps, adenomas, endometriosis, previous anastomosis and lipomas [6]. The occurrence of large lipomatous masses as cause of intussusception and semi-obstructive symptoms remains rare [7]. Colonic lipomas are infrequent benign adipose tumors with an incidence ranging from 0.2% to 4.4% around the world [3]. They are the third most prevalent benign tumor of the large bowel, after hyperplastic and adenomatous polyps [8]. They are more common in women with a peak incidence between 50 and 60 years of age. The most common sites of incidence are the caecum and ascending colon [2]. More precisely, lipoma of the colon is predominantly localized in the ascending colon (61% of cases), followed by the descending colon (20.1%), the transverse colon (15.5%) and the rectum (3.4%) [3].

Lipomas are typically asymptomatic and are discovered incidentally during colonoscopy, surgery or autopsy [8]. However, lipomas larger than 5 cm are considered giant and are symptomatic in 75% of cases. Symptoms are usually abdominal pain, bleeding, colonic

obstruction and intussusceptions. In these patients, the chronic symptomatology is frequently seen due to slow tumoral growth, with progressive worsening of abdominal pain, evolving to partial or complete obstruction. Therefore, authors describe that lipomas larger than 2 cm should be removed due to colonic intussusception risk [1].

Preoperative diagnosis can be difficult requiring a differential diagnosis with a malignant lesion. There are different imaging modalities for the preoperative diagnosis of colonic lipomas. Barium enema is not specific and the lesion can be mistaken for any other type of colonic neoplasms. Computed tomography (CT) scan is considered to be the study of choice for colonic lipomas because the mass typically presents a characteristic fatty densitometric value. This test visualizes a spherical or ovoid mass and homogeneous internal lesions with an absorption density of -40 to -120 Hounsfield Units. CT scan is particularly useful for the detection of lipomas larger than 2 cm. Magnetic resonance imaging (MRI) has been recently used successfully, but further evaluation is still necessary. Colonoscopy is a modality which allows direct visualization of the lipoma; a benign tumor is seen as a yellow, smooth mass with pedunculated or sessile base [3]. In our case, the Colonoscopy showed a submucosal mass compatible with a lipoma, but, the patient underwent surgical resection given the high risk of malignancy.

In adults, intussusception is managed less conservatively than in children. In fact, most children can be treated with either air, water or saline enemas [9]. But adult Intussusception occurring in the large bowel is more likely to have a malignant etiology representing up to 66% of the cases. Therefore, 70–90% of adult cases of intussusception require definitive treatment and surgical resec-

tion is frequently the treatment of choice [5]. For the same reasons, intraluminal reduction via colonoscopy is not advocated [2]. Surgical treatment includes resection, colectomy with local excision, limited colon resection, segmental resection, hemicolectomy, or subtotal colectomy. The choice of any of the above mentioned surgical interventions mainly depends on the lipoma size, on its location, and on the presence or absence of disease complications [3].

4. Conclusion

Intussusception typically occurs in infants and children and it represents 5% of cases in adults. Colo-colic Intussusception is a very rare complication of lipoma. Colonoscopy contributes to the diagnosis given that it provides direct visualization and permits biopsy. It is determined that the treatment is surgical due to the high risk of malignancy. In this case, the patient's clinical condition combined with CT scan and colonoscopy, provided an accurate diagnosis, allowing the best surgical choice.

Conflicts of interest

No conflicts of interest.

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Ethical approval

Study is exempt from ethnical approval in our institution.

Consent

We have obtained the consent from the patient to publish this case.

Author contributions

Elhem ben jazia: study concept.
Soumaya M'rabet, Mohamed Salah Jarrar: writing the paper.
Fahmi Hamila, Rached Letaief: data collection.

Imen Akkari, Atef Ben Abdelkader, Badreddine Sriha: data analysis.

All authors read and approved the final manuscript.

Registration of research studies

NA.

Guarantor

Soumaya M'rabet.

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