Ileocolic Intussusception Caused by a Giant Ulcerating Lipoma of Bauhin's Valve: an Unusual Cause of Intestinal Obstruction in the Adult

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Abstract We report a case of intestinal obstruction in a 73-year-old woman caused by ileocolic intussusception. The underlying cause was a giant submucosal ulcerating lipoma ($6 \times 3.3 \times 3.8$ cm) extending from the superior mucosal lip of Bauhin's valve. Abdominal ultrasonography showed a pathognomonic target-like mass appearing as multiple concentric rings. CT scan confirmed the diagnosis. Because of apparent obstruction, a laparotomy with right hemicolectomy and ileocolic anastomosis was performed. Lipomas most frequently occur in the cecum and ascending colon where they represent the most common submucosal mesenchymal tumor. They typically occur in elderly women with an incidence that varies from 0.15 to 0.56 %. Pain, rectal bleeding, and obstruction are typical symptoms. When faced with an intussusception in children, reduction with air per rectum can be performed. In adults, however, malignant cell spreading and seeding is of big concern. Since approximately 20–50 % of all underlying causes are malignant, explorative surgery is favored in adults.

Keywords Ileocolic · Intussusception · Lipoma · Obstruction · Bauhin

Introduction

A 73-year-old woman with intermittent colicky abdominal pain since 10 days was administered to the emergency room. Other than a hemorrhoidectomy and skin naevus removal both 5 years ago, she had never been operated on. On clinical examination, only a slightly distended abdomen and mild tenderness in the right hemi-abdomen was noted. Anamnesis

revealed obstipation. Laboratory findings showed elevated inflammatory parameters. The patient underwent conventional radiography of the abdomen (CR), abdominal ultrasound, and computed tomography (CT). CR showed no direct abnormalities. On ultrasound, a target-like mass appearing as multiple concentric rings (Fig. 1) was seen. An intussusception was confirmed on abdominal CT scan together with the existence of a nodular homogenous hypodense structure at the cecum. No other abnormalities were described. The patient was admitted to our department and was planned for surgery. On day 3, an elective laparotomy was performed. During exploration, a giant mass featuring an ileocolic invagination of approximately 11.3 cm was seen. After further examination, a right hemicolectomy en bloc with an end-to-end ileocolic anastomosis was performed. Histopathological examination revealed the presence of a giant ulcerated submucosal lipoma ($6 \times 3.3 \times 3.8$ cm) extending from the superior mucosal lip of Bauhin's valve (Fig. 2). No other tissue abnormalities were noted. The postoperative course was uneventful and the patient was discharged from the hospital 6 days after the surgical resection.

Discussion

In adults, intussusception is a rare condition which can present itself as an obstruction with concomitant symptoms like marked abdominal distension, intermittent colicky pain, passage of blood per rectum, a palpable abdominal mass and even feculent vomiting due to obstruction [1, 2]. Although an underlying organic lesion is not mandatory in children, it should always be suspected in adults. Careful inspection is required since it may result in mesenterial ischemia, necrosis, and gangrene of the intussusceptum with perforation and fatal peritonitis.

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Fig. 1 Ultrasonography findings of ileocolic intussusception showing a target-like mass appearing as multiple concentric rings

The diagnosis can be made by ultrasound, which is easy to perform, more reproducible, and less invasive than other methods. An abdominal mass with a “donut” or “target”-like image on ultrasound is almost pathognomonic for the presence of an intussusception. Abdominal CT scanning is considered to represent the “gold standard”. It has a diagnostic sensitivity of 58–100 % and a specificity of 57–71 % [3]. In the case of a malignant tumor, concomitant lesions can also be identified. Lipomas are seen as a soft echogenic mass on ultrasound and appear as a homogenous mass on CT.

Fig. 2 Ulcerated submucosal lipoma (6×3.3×3.8 cm) extending from the superior mucosal lip of Bauhin's valve

In children, reduction with air per rectum can be performed because the underlying cause is benign in 90 % of all cases [4]. In adults, malignant cell dissemination and intravenous or intraluminal seeding is of big concern and thus should be avoided [5]. Since approximately 20–50 % of all underlying causes are malignant, explorative surgery is favored [6].

Histopathological examination revealed the presence of a giant submucosal lipoma composed of benign-appearing adipocytes. In the cecum and ascending colon, lipomas represent the most common submucosal mesenchymal tumor. They mostly occur in elderly women with an overall incidence that varies from 0.15 to 0.56 % [7]. Lipomas larger than 2 cm can result in symptoms as rectal bleeding, pain and obstruction. In rare cases, a lipomatous hypertrophy of the ileocecal valve can also result in recurrent intussusception and intestinal obstruction.

Conclusion

Careful examination of an intussusception is always required. In children, it is usually a benign pathology and conservative methods are justifiable. In adults, however, underlying malignant triggers should always be excluded. Although most tumors are benign, removal of any intraluminal tumor should be performed because of possible future symptoms and malignancy. Histopathological examination is therefore of vital importance.

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