Int J Clin Exp Med 2017;10(10):14972-14975
www.ijcem.com /ISSN:1940-5901/IJCEM0061429

Case Report

Colonic angiolipoma: a case report and review of literature

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Received July 13, 2017; Accepted October 12, 2017; Epub October 15, 2017; Published October 30, 2017

Abstract: Angiolipoma is a common benign tumor that usually occurs in the subcutaneous tissue and extremely rare in the colon. Here we report a case of a 75-year-old woman who presented with a 5-day history of hematochezia. Colonoscopy revealed a 4.5 cm × 3.0 cm submucosal polypoid mass that resembled a malignant neoplasm in the right colon close to ileocecal valve. The mass had an irregular and ulcerated surface and a broad base. Contrast-enhanced computed tomography (CT) revealed a 4.2 cm × 3.0 cm mixed low and isodense mass with fatty attenuation and slight enhancement at the right colon located near the hepatic flexure. This patient underwent a laparoscopy-assisted ileocolostomy. Histopathological examination of the resected specimen revealed an angiolipoma of ascending colon and thus, a conclusive diagnosis was achieved. Surgical resection should be considered as a treatment option for large angiolipoma of the colon. The patient was followed up for 2 years following the surgery; she has no symptoms or signs of recurrence.

Keywords: Angiolipoma, colon, laparoscopy

Introduction

Angiolipoma is a common benign soft-tissue tumor that usually occurs as subcutaneous nodules and is rarely found in the gastrointestinal tract including the colon. It is composed of adipose tissues and prominent blood vessels [1-3]. Preoperative diagnosis of angiolipoma is difficult. The final diagnosis of angiolipoma depends on histopathological evaluation. Here, we describe a very rare case of angiolipoma of the ascending colon and review the literature.

Case presentation

A 75-year-old woman was admitted to our hospital complaining of a 5-day history of hematochezia, in the absence of abdominal pain, abdominal distension, bowel habit change or body weight loss. The physical examination revealed abdominal obesity, no palpable mass and hyperactive bowel sounds. During her hospitalization, routine laboratory parameters including carcinoembryonic antigen, were found to be within normal ranges. To identify the cause of the hematochezia, colonoscopy was performed, which revealed a 4.5 cm × 3.0 cm submucosal polypoid mass that resembled a malignant neoplasm in the right colon close to ileocecal valve (**Figure 1**). This mass had an irregular and ulcerated surface and a broad base. The rest of the colon and rectum appeared normal. A biopsy of the mass revealed hyperplastic polyp with no atypical cells. Contrast-enhanced computed tomography (CT) (**Figure 2**) revealed a 4.2 cm × 3.0 cm mixed low and isodense mass with fatty attenuation and slight enhancement at the right colon located near the hepatic flexure. Due to the large size of the mass and the potential high risk of hemorrhage, and difficult to resect by endoscopic surgery, we selected surgical resection for this patient. A mass was found intraoperatively in the right colon and laparoscopy-assisted colectomy was successfully performed. Intra-operative pathohistological diagnosis revealed no evidence of malignancy based on frozen section. Due to the benign characteristics of angiolipoma, ileocolonic anastomosis was subsequently performed and the final pathologic diagnosis was angiolipoma of ascending colon. Macroscopic obser-

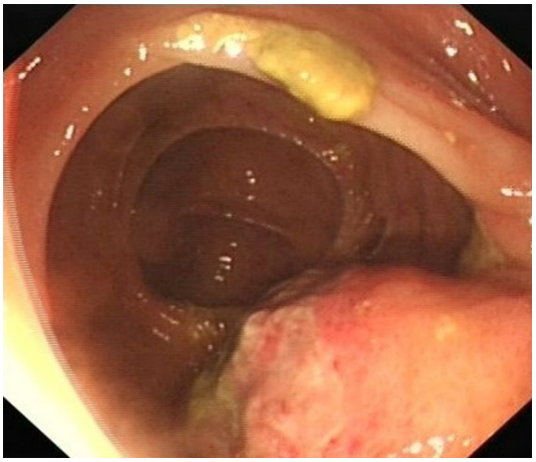

Figure 1. The colonoscopy revealed a submucosal polypoid mass that resembled a malignant neoplasm in the right colon close to ileocecal valve.

vation of the resected specimen revealed a 4.5 cm × 3.0 cm × 3.0 cm sessile mass, including yellow, solid areas and an ulcerated surface at the top (**Figure 3**). Histopathological examination revealed the mass had arisen in the submucosa. The mass was made up of mature fatty tissue, clearly different from lipomas because of proliferative blood vessels (**Figure 4**). The post-operative course was uneventful. The patient was followed up for 2 years following the surgery; she has no symptoms or signs of recurrence.

Discussion

Angiolipoma was initially reported in 1912 by Bowen [4]. In 1960 Howard [5] described the clinical and pathological characteristics of angiolipoma, which were distinguished from those of lipomas. Angiolipoma usually presents as encapsulated tumor in the subcutis that most frequently occur in the limbs and trunk of young adults [6]. Histologically, it is composed of variable amounts of mature adipose tissue and prominent blood vessels with fibrin thrombi [1-3], without smooth muscle cells [7, 8]. Angiolipoma can be classified as predominantly lipomatous or angiomatous by the proportion of adipose and vascular tissue composition.

It is extremely rare found in the gastrointestinal tract and almost all occur as a solitary lesion. So far, there have been only few reported cases of angiolipoma of the colon [6, 7, 9-14]. Most gastrointestinal angiolipoma are asymptomatic or have vague clinical manifestation. With increasing size of the tumor, some patients may present with abdominal pain [12], intestinal obstruction, spontaneous hemorrhage [7] or intussusception [11]. Angiolipoma is difficult to diagnose preoperatively due to their lack of specific clinical presentations and imaging findings as well as the difficulty of endoscopic biopsy [15, 16]. The final diagnosis of gastrointestinal angiolipoma is usually confirmed by surgical pathology.

So far, the management for angiolipoma of the colon change depends on the type of lesion. Endoscopic polypectomy is acceptable for small pedunculated polyps and not applicable to a broad implantation base due to increased risk of perforation or bleeding [13]. For large sessile lesion, surgical resection is the first-choice treatment [17]. Intraoperative frozen section may provide an accurate diagnosis to guide surgical resection. Because angiolipoma is benign tumor, colonic resection should be kept to a minimum [12, 13]. In this case, we remove the colonic angiolipoma with a small segmental resection using a laparoscopic technique because of the difficulty to ablate under endoscopy [18]. The prognosis of angiolipoma is excellent in cases that are removed completely, but when the tumor is inadequately resected, the recurrence rate is high [19, 20]. The patient was followed up for 2 years with a good life prognosis after surgical treatment.

Acknowledgements

This study was supported by grants from Medical and Health Technology Planning Project of Zhejiang Province (2017KY622), Zhejiang Provincial Natural Science Foundation of China (LY17F020012) and Technology Planning Projects of Wenzhou Science & Technology Bureau (Y20130383, Y20150251, ZG2017019).

Disclosure of conflict of interest

None.

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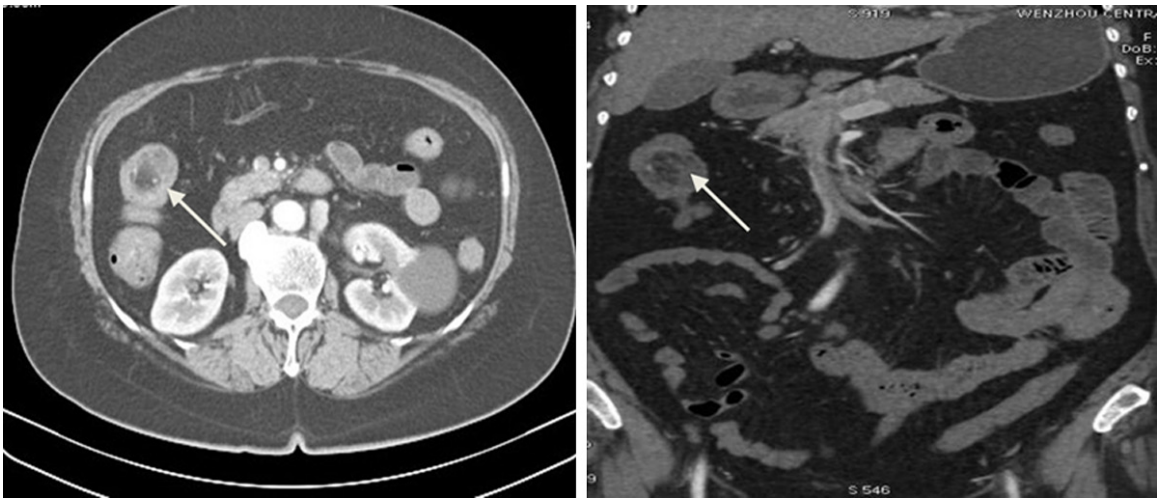

Figure 2. Contrast-enhanced CT showed a 4.2 cm × 3.0 cm mixed low and isodense mass with fatty attenuation and slight enhancement at the right colon located near the hepatic flexure (arrow).

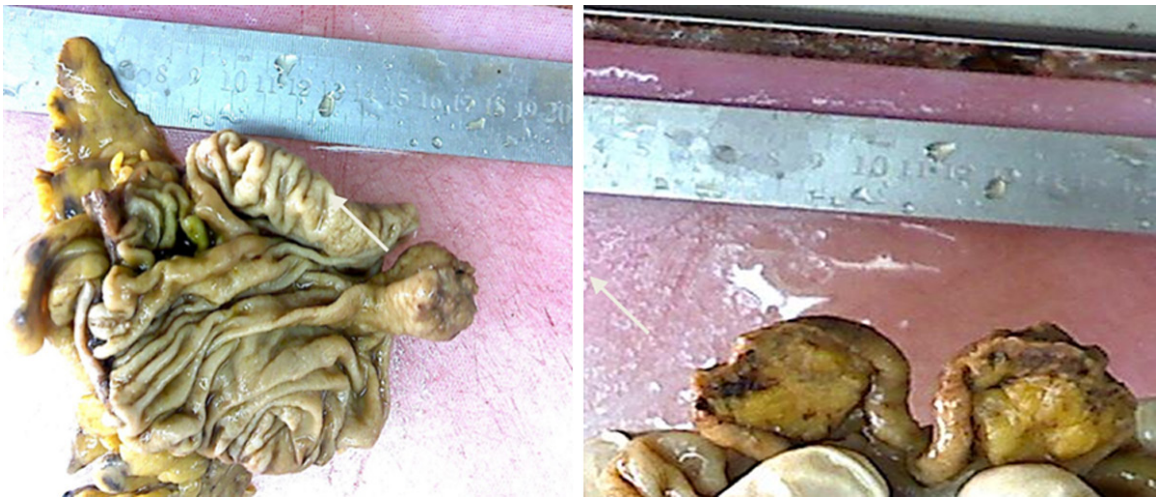

Figure 3. Macroscopic observation of the resected specimen showed a 4.5 cm × 3 cm × 3 cm sessile mass, including yellow, solid areas and an ulcerated surface at the top.

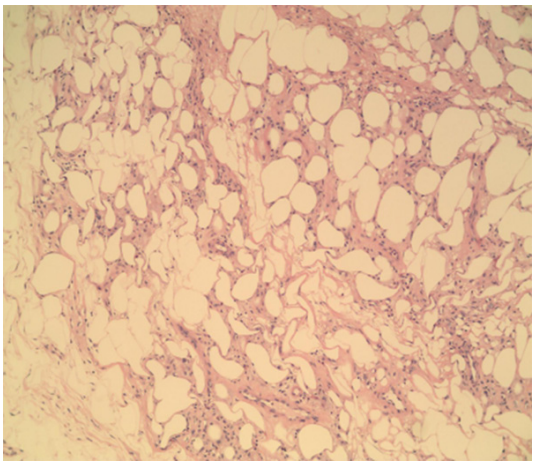

Figure 4. Histopathological examination revealed the mass made up of mature fatty tissue and proliferative blood vessels (hematoxylin-eosin stain, original magnification × 100).

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