

## CASE NOTE

# Left colon and liver hemangiomas

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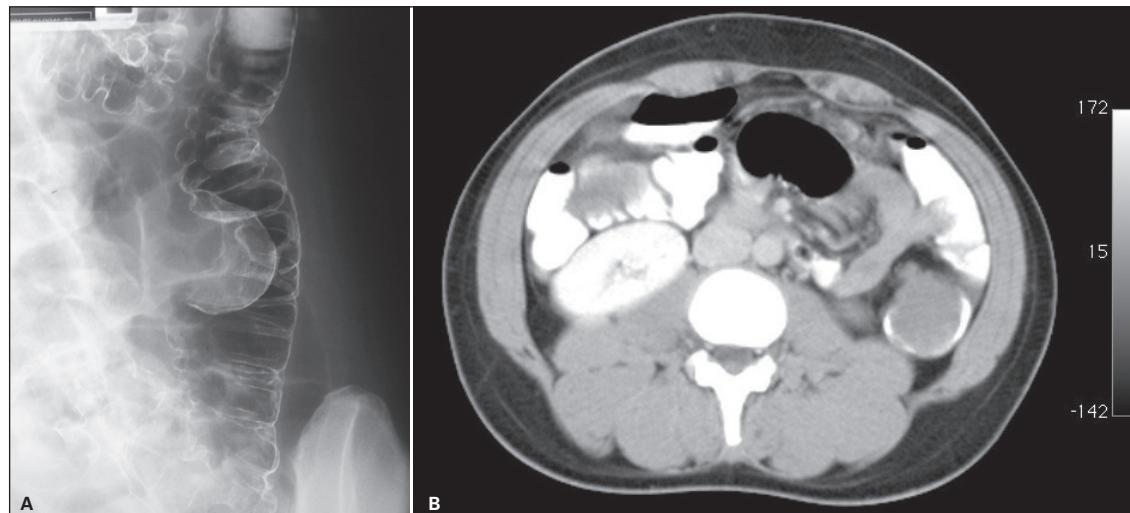
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**H**emangiomas are uncommon in the gastrointestinal tract, but cavernous hemangiomas are the most common type encountered.<sup>1</sup> Colonic cavernous hemangiomas most often involve the rectum and, when symptomatic, often present with evidence of gastrointestinal bleeding.<sup>1</sup> Abdominal solid organ involvement may be an incidental finding on radiologic investigations. Rarely, hemangiomas of the colon may form an exophytic mass, and patients present because of the mass effect. We recently had such a patient, who, in the course of her evaluation was also discovered to have multiple cystic lesions in her liver. This report reviews the association of colonic and liver cavernous hemangiomas with an emphasis on the management of the involved colon.

**CASE REPORT**

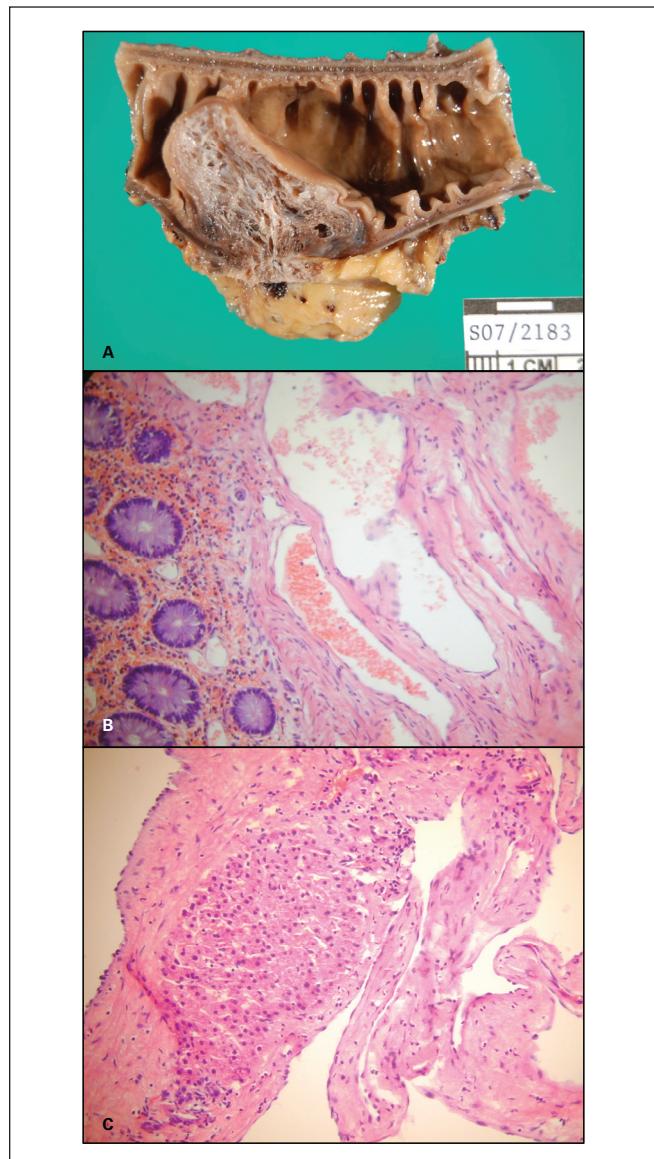
A 31-year-old woman presented to the surgical outpatient department with a 2-year history of abdominal pain and change in bowel habits. She reported a 4-year history of noticing blood and mucus from her rectum. Other noteworthy history included a right oophorectomy for a dermoid cyst 6 years earlier. She had a normal clinical examination. Investigations included barium enema followed by colonoscopy, which showed a partially obstructing submucosal descending colon mass (Fig. 1). Preoperative evaluation included an abdominal computed tomography (CT) scan, which showed the descending colon mass (Fig. 1) and well-defined hypodense lesions throughout her liver. She underwent laparotomy, left hemicolectomy with primary anastomosis and biopsy of the liver lesion. Her postoperative recovery was uneventful. Histology of the resected colon and the liver biopsy confirmed a diagnosis of cavernous hemangioma (Fig. 2).



**Fig. 1.** (A) Double contrast barium enema and (B) contrast computed tomography scan showing a polypoid mass projecting into the lumen of the descending colon.

## DISCUSSION

Colon hemangiomas are rare, benign vascular lesions, with patients usually presenting with repetitive painless bleeding from the rectum, but there is the potential for massive hemorrhage. Cavernous hemangiomatosis of the colon and liver, though rare, have been previously reported.<sup>2</sup> About 80% of colonic hemangiomas are found on histology to be of the cavernous subtype, with 70% occurring in the rectum.<sup>1</sup> Not



**Fig. 2.** (A) Resected segment of colon opened to reveal the polypoid multicystic mass protruding into the lumen. Altered blood is focally evident in the lumen and the lesion extends through the wall to involve the pericolic tissues. Histologic sections of the tumour from the (B) colon showing large dilated blood-filled vascular spaces with fibrous wall within the submucosa and ectatic capillaries in the overlying lamina propria and (C) the liver biopsy showing unremarkable liver parenchyma within the fibrous wall of the large dilated vascular spaces (hematoxylin and eosin stain, original magnification  $\times 560$ ).

surprisingly 60%–90% of patients present with bleeding from the rectum, but 17% will present with obstructive symptoms, as was the case with our patient. Cavernous hemangiomas have a tendency to run in families, and a high degree of clinical suspicion is needed to avoid unnecessary surgical procedures, which have been reported in up to 80% of patients, and delays in diagnosis of up to 19 years.<sup>1</sup> Various congenital abnormalities such as vertebral defects, imperforate anus, tracheoesophageal fistula, radial and renal dysplasia (VATER complex) and skin lesions have been reported. An established association with ovarian dermoid cysts has not been previously described and, to our knowledge, ours it the first report to raise the possibility of an association. Additional case reports are warranted, however, to establish such an association. Skin involvement in addition to multiple gastrointestinal organ involvement should raise suspicion of blue rubber bleb nevus syndrome.<sup>3</sup>

Investigations of the affected patients will be dictated by presenting symptoms. Obstructive large bowel symptoms warrant the use of barium enema or colonoscopy. Although angiography and scintigraphy may be useful, colonoscopy, CT colonography and magnetic resonance imaging are all more accurate methods for establishing the diagnosis, with colonoscopy considered to be the method of choice.<sup>4</sup> Compared with optical colonoscopy, CT colonography has the advantage of greater accuracy in determining wall thickening and extramural extension.<sup>1</sup>

Complete resection is the definitive therapy for symptomatic colonic hemangiomas. This usually means a segmental bowel resection at open or laparoscopic surgery, as most patients have diffuse infiltrative lesions. The presence of a polypoid mass of appropriate size may lend itself successfully to endoscopic polypectomy or endoscopic mucosal resection.<sup>5</sup> Localized flat lesions can be treated with endoscopic laser therapy or sclerotherapy with systemic steroid or interferon therapy with variable results.<sup>6</sup> Complete surgical resection results in a good prognosis for these benign lesions.

**Competing interests:** None declared.

## References

- Hsu RM, Horton KM, Fishman EK. Diffuse cavernous haemangiomatosis of the colon: findings on three-dimensional CT colonography. *AJR Am J Roentgenol* 2002;179:1042-4.
- Marinis A, Kairi E, Theodosopoulos T, et al. Right colon and liver hemangiomatosis: a case report and a review of the literature. *World J Gastroenterol* 2006;12:6405-7.
- Nakagawara G, Asano E, Kimura S, et al. Blue rubber bleb nevus syndrome: report of a case. *Dis Colon Rectum* 1977;20:421-7.
- Xiao Y, Qiu HZ, Zhou JL, et al. [Diagnosis and surgical treatment of colorectal cavernous hemangioma: a report of 4 cases and review of Chinese literature] [Article in Chinese]. *Zhonghua Wei Chang Wai Ke Za Zhi* 2008;11:312-6.
- Kimura S, Tanaka S, Kusunoki H, et al. Cavernous hemangioma of the ascending colon treated by endoscopic mucosal resection. *J Gastroenterol Hepatol* 2007;22:280-1.
- Deng ZH, Xu CD, Chen SN. Diagnosis and treatment of blue rubber bleb nevus syndrome in children. *World J Pediatr* 2008;4:70-3.