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Mechanical bowel obstruction due to colonic hemangioma: Report of a case

Kolon hemanjiomuna bağlı mekanik barsak obstrüksiyonu: Bir olgu sunumu

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Colon hemangiomas are rare benign vascular lesions which are usually seen in teenagers. The frequent presentation is repetitive painless rectal bleeding. Colonic hemangiomas are occasionally found in the rectosigmoid area. A 62-year-old male patient was admitted to the hospital with the complaints of mechanical bowel obstruction. The radiological imaging techniques revealed a transverse colon tumor. Consequently, the patient was operated, and transverse colectomy and end-to-end anastomosis were performed. No postoperative complications occurred. The pathologic examination revealed cavernous hemangioma of the transverse colon. This report describes a very rare case of bowel obstruction due to colonic hemangioma.

Key words: Mechanical bowel obstruction, colonic hemangioma, rectal bleeding

Kolon hemanjiomları genellikle gençlerde olan ve ender görülen iyi huylu vasküler lezyonlardır. Başvuru yakınması sıklıkla tekrarlayan ağrısız rektal kanamalardır. Kolonik hemanjiomlar sıklıkla rektosigmoid alanda yerleşirler. 62 yaşında bir erkek hasta hastanemize mekanik barsak obstrüksiyonu yakınmaları ile başvurdu. Radyolojik görüntüleme yöntemleri ile transvers kolonda tumor olabileceği sonucuna varıldı. Bunun sonucunda hasta opere edildi ve transvers kolektomi ve uçuca anastomoz gerçekleştirildi. Cerrahi girişim sonrası postoperatif komplikasyon görülmedi. Kitlenin patolojik incelemesi neticesinde transers kolonun kavernöz hemanjiomu saptandı. Bu vaka takdiminin amacı, kolorektal yerleşimli hemanjiomların klinik prezentasyonunun sadece rektal kanama olmayıp mekanik barsak obstrüksiyonu olabileceğini vurgulamaktır.

Anahtar kelimeler: Mekanik barsak obstrüksiyonu, kolon hemanjiomu, rektal kanama

INTRODUCTION

Cavernous hemangiomas are defined as a special type of vascular change in the gastrointestinal tract and are considered as progressive intestinal hamartomas on the border between malformations and tumors (1, 2, 3). They are rare, benign vascular lesions that are usually seen in teenagers. Occasionally, the location of hemangioma in the colon is the rectosigmoid area. The frequent presentation is repetitive painless rectal bleeding, and most of the patients usually have anemia. Herein, we report a case who was admitted to the emergency department with symptoms of abdominal pain, nausea, vomiting and constipation which were present for five days. The patient was operated on the diagnosis of mechanical bowel obstruction.

CASE REPORT

A 62-year-old male patient was admitted to the hospital with the complaints of occasional abdominal pain, nausea, vomiting, and constipation present for five days. Minimal abdominal distension and bowel hyperactivity were found on physical examination. The complete blood count and biochemistry parameters were within normal limits. Plain abdominal X-ray revealed air-fluid levels. The abdominal computerized tomography (CT) scan revealed a 4 cm soft tissue mass in the colonic lumen localized at the transverse colon near the splenic flexure (Figure 1). The double-contrast colon radiograph revealed a mass localized in the transverse colon near the left colonic flexure. The patient was scheduled for an operation with the diagnosis of partial mechanical bowel obstruction.

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Figure 1. Abdominal computerized tomography of the patient demonstrating the hemangioma on the left side near the arrow

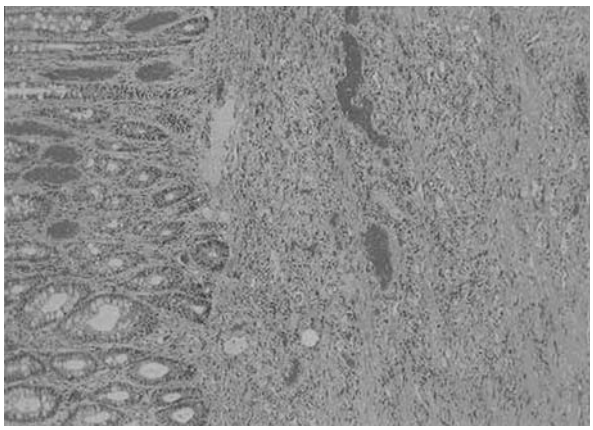

Figure 3. Lesion with small capillary-sized vessels (hematoxylin & eosin X100)

At laparotomy, a 5 cm mass, 10 cm proximal to the splenic flexure was observed. Therefore, transverse colon resection and end-to-end anastomosis were performed. No complications occurred after surgery. The patient was discharged on the eighth postoperative day.

When the large bowel was cut along the antimesenteric side, a submucosal polypoid mass measuring 4x4x3 cm was observed. Overlying mucosa was intact. The cut surface of the unencapsulated submucosal lesion was yellow-tan in color (Figure 2). It had a fine lobular appearance with small plum-colored spots at the peripheric zones. Lipomatous areas were noted between so-called lobules.

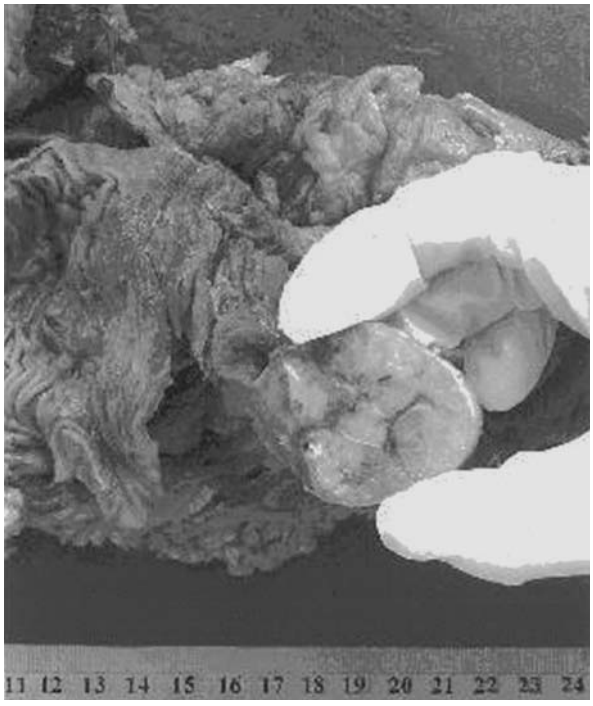

Figure 2. Gross features of the yellow-tan colored submucosal lesion. Overlying mucosa was intact

Microscopic examination revealed an unencapsulated submucosal intramuscular lesion which was composed of proliferating small capillary sized vessels (Figure 3). Neither cavernous formation nor vascular ectasia was observed. The vessels were lined by flattened endothelium. Fatty tissue presenting fatty necrosis and acute inflammatory reaction in small areas could be seen especially in the central areas.

DISCUSSION

Cavernous hemangiomas are defined as a special type of vascular change in the gastrointestinal tract and are considered as progressive intestinal hamartomas on the border between malformations and tumors (1, 2, 3). The cavernous hemangioma of the colon was first described by Phillips in 1839 (4). Since then, only about 100 cases of cavernous rectal hemangiomas have been reported in the literature (4). Cavernous hemangioma in the transverse colon is an extremely rare condition, and only a few cases have been reported (5).

Cavernous hemangiomas are benign vascular malformations of the gastrointestinal tract. Kaijser (9) described benign vascular malformations of the colon in 1936 as phlebectasias, cavernous hemangioma, capillary hemangioma (Hemangioma simplex), polypous cavernous hemangioma or diffuse infiltrating cavernous hemangioma. The

incidence of vascular malformations of the gastrointestinal tract is reported as 0.06% in the literature (7). Some authors report the incidence of gastrointestinal angiomas as 0.3% (8), accounting for 3-4% of all benign intestinal tumors (8, 9).

Repetitive painless rectal bleeding is the common clinical presentation of hemangiomas. Phlebolite is a pathognomonic finding which might be observed in 26-50% of the patients' abdominal radiographs. Colonoscopy might reveal a blue nodular lesion in the colon wall and dilated veins may be seen. Biopsy should not be performed because of the high bleeding risk. The abdominal CT may reveal thickened colonic wall and pelvic phlebolites. Colon hemangioma might be seen as bright heterogeneous signal intensity in the magnetic resonance (MR) of the abdomen in T2 imaging. MR imaging of the abdomen may provide advantages in the diagnosis of the hemangioma because of the demonstration of blood flow and detailed multiplanar anatomic imaging.

In our case the clinical presentation included the complaints of occasional abdominal pain, nausea, vomiting and constipation. Physical examination revealed minimal abdominal distension and bowel hyperactivity. The abdominal X-ray showed air-fluid levels. The abdominal CT revealed a 4 cm soft tissue mass in the colonic lumen localized at the transverse colon near the splenic flexure (Figure 1). Colonoscopy was not performed due to equipment malfunction. At laparotomy, a 5 cm mass, 10 cm proximal to the splenic flexure was observed. Therefore, transverse colon resection and end-to-end anastomosis were performed. No complications occurred after surgery. The patient was discharged on the eighth postoperative day.

Complete resection of the hemangioma is the only curative method. Sclerotherapy, cryosurgery, and ablation of the lesion via angiography are palliative methods for the treatment of these lesions.

In conclusion, colon hemangiomas must be considered in the differential diagnosis of patients who have repetitive painless low gastrointestinal bleeding. However, presentation may be without bleeding with signs of mechanical obstruction, as described in this case report.

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