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An Unusual Colonic Lesion Associated with Chronic Gastrointestinal Bleeding

Eine ungewöhnliche Läsion im Kolon in Zusammenhang mit chronischer gastrointestinaler Blutung

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Schlüsselwörter
- gastrointestinale Blutung
- polypöses kavernöses Hämagion
- gutartige Darmpolypen

Key words
- colonic bleeding
- polypoid cavernous hemangioma
- benign colonic polyps

Zusammenfassung
Eine 71-jährige Frau wurde uns zur endoskopischen Untersuchung bei leichtgradiger Anämie mit einem Hb-Wert von 10,7 g/dL (normal ≥ 12 g/dL) zugewiesen. Die Untersuchung des oberen Gastrointestinaltrakts erbrachte keinen pathologischen Befund. Die Koloskopie zeigte im Bereich des linksseitigen Colon transversum einen schmalen, ca. 6 cm langen Polypen mit vereinzelten Erosionen der Oberfläche. Die histologische Untersuchung des resezierten Polypen zeigte das seltene Vorliegen eines polypösen, kavernösen Hämagions. Rezidivierende Blutungen aus dieser Läsion können die Ursache für die vorliegende Anämie bei der Patientin sein. Eine Übersicht der Literatur sowie Vorschläge zur endoskopischen Therapie werden aufgezeigt.

Abstract
A 71-year-old woman suffering from mild anemia with an hemoglobin level of 10.7 g/dL (normal ≥ 12 g/dL) was referred to our unit for further endoscopic evaluation. Upper gastrointestinal endoscopy revealed no abnormal findings. Colonoscopy detected a smoothly lined, thin and worm-like polyp measuring 6 cm in length with minor erosions on its surface. It was located in the left transverse colon. Microscopic examination of the resected specimen disclosed the very rare case of a colonic polyloid cavernous hemangioma. Recurrent latent bleeding from this lesion could be responsible for the observed mild anemia in this patient. A review of the literature and suggestions for endoscopic treatment are given.

Introduction
Anemia is a common cause triggering endoscopic evaluation of the upper and lower gastrointestinal tract. A latent bleeding source is often located in the upper intestine. Hemorrhoids, colitis, diverticulosis, a polyp and a carcinoma can be the reason for chronic or episodic losses of red blood cells from the large intestine. Vascular malformations like an angiodysplasia or hemangioma are benign lesions occasionally found in the colon causing recurrent bleeding episodes. We report the case of an exceptionally long polypoid cavernous hemangioma in the colon presumably responsible for chronic blood loss.

Case Report
A 71-year-old woman suffered from mild anemia with a hemoglobin level of 10.7 g/dL (normal ≥ 12 g/dL). She was referred to our department by her primary care physician for endoscopic evaluation. Laboratory values indicated an abnormal creatinine level (1.4 mg/dL; normal < 1.1 mg/dL). Upper gastrointestinal endoscopy did not show any abnormal findings. Therefore a colonoscopy was performed, which revealed severe diverticulosis of the sigmoid colon. In addition, a worm- or pencil-like polyp, with an unusual length of 6 cm and a diameter of 5 mm was located in the left transverse colon (Fig. 1). The surface of the polyp appeared rather smooth with minor erosions. The decision was made to remove the polyp by snare polypectomy. Before resection a metalclip was placed close to the base of the polyp as bleeding prophylaxis. After resection the specimen turned from red into blue liquid and was collected for histological examination (Fig. 2).

Microscopic examination of the resected polyp disclosed large areas of dilated vessels filled with red blood cells which were located next to gland ducts relating to normal mucosa of the colon. In conclusion a poly-
A polypoid cavernous hemangioma of the colon was the final diagnosis (Fig. 3).

The polyp described above can be the reason for chronic colonic bleeding and therefore anemia. No prior endoscopic examination had been performed in our patient. Accordingly we cannot estimate for how long this polypoid cavernous hemangioma had been located in the colon.

**Discussion**

Capillary hemangiomas consist of small capillaries lined by endothelial cells, while cavernous hemangiomas are composed of large, thin-walled spaces, lined by single or multiple layers of endothelial cells, filled with blood. Acute or chronic bleeding appears to be the most common complication of hemangiomas. In addition, intestinal obstruction and ulceration [6, 8–10] have been reported.

Endoscopic treatment is determined by size and location of the vascular malformation. In our case snare polypectomy with prior prophylactic clip application (clip applicator, Olympus) close to the base appeared to be safe and presumably helped to prevent bleeding from the resected base [1, 2]. In cases of a thicker lesion, looping techniques should be used for bleeding prophylaxis instead. Flat lesions can be treated by using argon plasma coagulation. Complete surgical resection appears to be the treatment of choice for very large or diffusely spreading lesions which cannot undergo endoscopic therapy.

A review of the literature revealed only very few reports concerning a polypoid cavernous hemangioma [3–6]. One case [3] showed a colonic polyp with cavernous hemangioma in a man, who underwent endoscopic examination due to abdominal pain. Another case [4] indicated a cavernous hemangioma which was mistaken as an inflammatory fibroid polyp in a patient with ulcerative colitis. In Japan a pedunculated polypoid cavernous hemangioma of the sigmoid colon was excised by snare polypectomy [5]. Quite similar to our own finding, Liang et al. [6] described a long (7 cm), purplish, polypoid mass in the sigmoid colon, which had been removed in two portions by means of snare electrosurgery. Histological examination revealed a polypoid cavernous hemangioma. In addition massive hematochezia resulted from another cavernous hemangioma that was successfully treated by endoscopic polypectomy [7]. Laparoscopic ileocecal resection was performed in another case [8] due to a large tumour involving the cecum and extending into the pericolic fat. Pathological examination revealed a large cavernous hemangioma.

Although a polypoid cavernous hemangioma may be a rare finding, it is important to consider this differential diagnoses when seeing a long polyp with a smooth surface. A colonic polypoid lipoma can have a similar appearance. This benign tumour appears as a well-delineated, soft, yellowish mass, and can be sessile or pedunculated [11]. In addition, the cushion sign can help to further characterize this submucosal lesion. We observed a huge...
Table 1  Benign polyps and polypoid lesions possibly found through colonoscopy.

<table>
<thead>
<tr>
<th>Location</th>
<th>Age-dependent prevalence</th>
<th>General characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>tubular adenoma</td>
<td>60 – 65 %</td>
<td>usually pedunculated with presence of polyp stalk and head, but may also be flat; red colour (darker than surrounding mucosa)</td>
</tr>
<tr>
<td>tubulovillous adenoma</td>
<td>15 – 25 %</td>
<td>may present sessile or pedunculated</td>
</tr>
<tr>
<td>villous adenoma</td>
<td>5 – 10 %</td>
<td>usually large and sessile with papillary villous projections, large base and no stalk</td>
</tr>
<tr>
<td>sessile lesions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hyperplastic polyp</td>
<td>most common colorectal polyp</td>
<td>small (&lt; 5 mm), sessile, usually on top of mucosal folds; multiple and same or lighter colour as surrounding mucosa</td>
</tr>
<tr>
<td>sessile serrated adenoma</td>
<td>3 %</td>
<td>usually sessile, flat or slightly raised; &gt; 5 mm and right-colon sided, often covered by a yellowish mucus</td>
</tr>
<tr>
<td>traditional serrated adenoma</td>
<td>1 %</td>
<td>usually polypoid growth, primarily in the left colon</td>
</tr>
<tr>
<td>lipoma</td>
<td>0.2–4.4 %</td>
<td>soft yellowish; usually submucosal; sessile or pedunculated appearance; „cushion sign“ by pressure with, e.g., biopsy forceps</td>
</tr>
<tr>
<td>inverted colonic diverticulum</td>
<td>rare condition</td>
<td>sessile, but may be pedunculated; mucosa appears normal and similar to the surrounding mucosa; the thin wall easily dimplies with light pressure, e.g., from the closed biopsy forceps</td>
</tr>
<tr>
<td>inflammatory polyps</td>
<td>patients with long-standing inflammatory bowel disease</td>
<td>pseudopolyps representing inflamed, regenerating mucosa surrounded by ulcereated tissue; may be sessile, pedunculated or may consist of long finger-like projection („filiform“)</td>
</tr>
<tr>
<td>Juvenile polyps</td>
<td>1 – 2 % in children</td>
<td>most frequent colorectal tumour in children; the majority is &gt; 1 cm; the section surface shows a cystic appearance</td>
</tr>
<tr>
<td>Peutz-Jeghers’ polyps</td>
<td>rare autosomal dominant disease (1:150 000)</td>
<td>singly or multiple in the Peutz-Jeghers’ syndrome; tend to be large and pedunculated</td>
</tr>
<tr>
<td>Lymphoid polyps</td>
<td>common in children, rarely described in adults (colorectal)</td>
<td>soft, superficial polyp covered by intact, smooth mucosa; occurring focal or diffuse where clusters of lymphoid follicles are present</td>
</tr>
<tr>
<td>Leiomyoma</td>
<td>rare condition; &lt; 3 % of all digestive tract leiomyoma</td>
<td>firm, white and well-delineated polypoid lesion; most are sessile intraluminal or intramural; may look like a usual adenoma</td>
</tr>
<tr>
<td>Lymphangioma</td>
<td>rare condition</td>
<td>rather bluish, translucent and tense with a lustrous surface; shape may change with peristalsis or compression; biopsy may result in an efflux of lymphatic fluid</td>
</tr>
</tbody>
</table>

Polypoid lipoma of the left colon with a length of about 9 cm which caused recurrent signs of colonic obstruction [unpublished data]. Lipomas usually have a larger diameter when compared to a cavernous hemangioma. An inverted colonic diverticulum is another differential diagnosis which can lead to colonic perforation upon snare polypectomy if it is misinterpreted as a solid polypoid lesion [12]. Like a polypoid cavernous hemangioma, it is a rare lesion with fewer than 20 cases of inverted colonic diverticula reported in the literature.

A polypoid adenoma usually can be easily differentiated from these lesions by its uneven surface and the presence of a polyp stalk and head. The identification may be more difficult when the lesion presents in an uncommon colour or form. Table 1 shows possible benign colonic lesions regarding the differential diagnoses colorectal polyp.

**Conclusion**

In summary, a colonic polypoid cavernous hemangioma is a rare lesion that can cause lower gastrointestinal bleeding. Endoscopic snare polypectomy can be easily performed after prior clipping or looping of the base to prevent treatment-induced bleeding.

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