Case report

CAVERNOUS HEMANGIOMA WITH LOCALIZATION IN THE SMALL INTESTINE - A RARE REASON FOR ACUTE BLEEDING

Hemangiomas of the gastrointestinal tract are rare, accounting for only 0.05% of all intestinal tumors. The most common clinical presentation is gastrointestinal bleeding which is usually occult and the topic remains unclear. We present a 75-year-old female with symptoms of acute gastrointestinal bleeding manifested in collapses, melaena and anemia. Enteroscopy found a polyloid formation with central ulcerative defect located at the proximal jejunum. A local excision of the formation with subsequent suture of the small intestine was performed. The postoperative period was uneventful and she discharged home with stable hemodynamic and hematologic parameters.

Keywords: Gastrointestinal bleeding, small intestine, hemangioma


Introduction

Small intestine is the longest part of gastrointestinal tract presenting 75% of its total length and it is rare localization for tumors accounting for 3-6% of all neoplasms and malignant processes are 1-3% (Kopálová, Rejchrt, Bureš, Tachecí, 2013; Miao, Wang, and Tang, 2010; Cheung, and Choi, 2011; Pennazio, Rondonotti, and Franchis, 2008). The most common clinical presentation is gastrointestinal bleeding which is usually occult and the topic remains unclear. Patients are treated for a long time for iron-deficiency anemia without exact diagnosis.

We present a case report of a female patient with bleeding from solitary hemangioma - a cavernous type, localized in the proximal part of the jejunum.

Case report

A 75-year-old female presented with longstanding complaints of weakness, dizziness, abdominal discomfort without pain and manifested presentation of melaena. Multiple gastro- and colonoscopies were performed without verified bleeding source. Laboratory tests revealed moderate anemia with iron deficiency treated with iron-medicines. The symptoms were aggravated during the last 3 years with 14 episodes of acute gastrointestinal bleeding manifested in collapses, melaena and anemia. The patient was hospitalized many times in other hospitals and underwent gastro- and colonoscopies and CT but without verifying the source of bleeding. At 19.11.2013 the patient was admitted in Department of Surgery, University Hospital “St. Joanna” with a new incident of acute hemorrhage presented with melaena. A few days ago the patient underwent blood transfusions in another hospital because of post-hemorrhagic anemia - Hb 55 g/l, Hct 0.23, RBC 1.75 T/l. There the gastroscopy revealed regurgitation of blood from the horizontal part of the duodenum without clear source of bleeding. At the time of the hospitalization in our clinic laboratory tests showed Hb 109, Hct 0.38, RBC 4.1 T/l. Their values decreased to Hb 80 g/l, Hct 0.29, RBC 3.0 T/l. Hemodynamic parameters were unstable - Ps 110, RR 90/65, diuresis 500 ml/24h. Treatment started with application of PPI, haemostatic agents, i.v. infusions, transfusions of plasma, plasma expanders and
FIGURE 1. POLYPOID FORMATION

FIGURE 2. POLYPOID FORMATION WITH CENTRAL ULCERATIVE DEFECT

FIGURE 3. CAVERNOUS HEMANGIOMA
Human Albumin 20%. After the conservative therapy a relative stabilization of hemodynamic and hematological parameters and the general condition was achieved. The intestinal passage became physiological. The control gastro- and colonoscopy did not reveal a source of bleeding. Enteroclysis and CT-enteroclysis were performed without result. Given the clinical presentation it was considered that bleeding was originated from the small intestine. The partial enteroscopy found a polyloid formation on a broad base with diameter of 1.5 cm and a central ulcerative defect and slightly purple surface located at the proximal jejunum - about 10 cm from the Ligament of Treizi without active bleeding at the time of the study. At 24.11.2013 the patient underwent surgery. The described tumor was found intraoperatively (Figure 1).

The serosa over the tumor was thickened and whitish. Single, visible dilated blood vessels, mainly venous originating from mesenterium, were found ongoing at the formation. After enterotomy a total enteroscopy was carried out and revealed the same findings (Figure 2).

A local excision of the formation with subsequent suture of the small intestine was performed. The express histological examination showed a cavernous hemangioma (Figure 3).

The postoperative period was uneventful and she discharged home with stable hemodynamic and hematologic parameters - Hb 112 g/l, Hct 0.36, RBC 4.4 T/l.

Discussion

Bleeding from gastrointestinal tract can originate from each part of it. When hemorrhage is from upper (stomach, duodenum) or lower (bowel) part of GIT clinical presentation is clear and easy to be diagnosed. Bleeding from the small intestine remains diagnostic challenge. Such a hemorrhage is usually occult and patients are often treated for iron-deficiency anemia.

Bleeding from the small intestine can be result from vascular malformation, angiodysplasia, ulcers, tumors (malignant or benign) and Meckel's diverticulum. These diseases are characterized by nonspecific clinical presentation - abdominal pain and discomfort, diarrhea, sometimes melaena, weight loss, small intestine obstructions (Kopálova et al., 2013). An association with protein losing enteropathy and mucocutaneous pigmentation is typical for cases with malignant small intestinal tumors (Morgan, Mylankal, Barghouti, Dixon, 2000).

The primary neoplasms of small intestine are relatively rare and difficult for diagnosis. The main diagnostic methods are conventional enteroclysis, CT- and MRI-enteroclysis. Gastroduodenoscopy and colonoscopy can be used for visualization only of small part of proximal jejunum, respectively distal ileum and biopsy and/or polypectomy can be performed during the study. The rest parts of the small intestine remain a diagnostic problem. Significant progress in the diagnosis is the introduction of capsule and balloon endoscopy (Kopálová et al., 2013). Angiography is also an important diagnostic and therapeutic method especially in the presence of severe bleeding, as it can be selective in the area of bleeding with visualization of the lesion and its location on extramural viewpoint (Livengood and Fenoglio, 2002).

In difficult diagnostic cases, the method of choice remains intraoperative enteroscopy (Kopálová et al., 2013).

In the small intestine more than 40 different types of benign and malignant tumors can be observed. The most common benign formations are adenomas, hamartomas, leiomyomas, lipomas and fibromas (Kopálová et al., 2013). Malignant lesions represent about ½ of all tumors of the small intestine. The lowest frequency of neoplastic processes in the gastrointestinal tract is typical for the small intestine, but also they are among those tumors with the poorest prognosis. Most common are adenocarcinomas (0-28%), lymphomas (14-30%), carcinoids (60%) and GIST (50%) (Anzidei, Napoli, Zini, Kirchin, Catalano, Passariello, 2011).
Hemangiomas are benign hereditary vascular tumors which are thought to be hamartomas. They can be located in all organs and systems but mostly in the skin, liver and spine (Huber, Samie, Kychenko, Theilmann, 2012). Hemangiomas can be divided to cavernous and capillary. The occult bleeding is typical for capillary hemangiomas whereas cavernous ones cause profuse, relapsing hemorrhage manifested by melena (Huber et al., 2012).

Hemangiomas of the gastrointestinal tract are rare, accounting for only 0.05% of all intestinal tumors (Morgan et al., 2000). They are equally distributed throughout the jejunum and ileum (River, Silverstein, Tope, 1956). They have a tendency towards multiplicity. Hemangiomas are often related to some systemic hereditary diseases such as blue rubber bleb nevus syndrome, Maffucci’s syndrome, Klippel-Trenaunay-Weber syndrome (Mako, 1996; Golitz, 1980).

The treatment of the solitary lesions is surgical - local resection of the tumor. In cases with multiple localization and benign histology endoscopic excision and/or argon plasma coagulation is preferred as a method of the first choice (Anzinger, Gospos, Pitzl, Koletzko, Heldwein, Schmitt, 2006).

**References**


