SURGICAL TACTICS IN THE DIEULAFOY'S LESION OF RARE LOCATION

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ABSTRACT The given clinical example demonstrates the possibility of diagnosis and surgical treatment of Dieulafoy's lesion with rare location (cecum in this case) when endoscopic hemostasis cannot be adequately performed. The manifestation of the disease is caused by the use of dual antiplatelet therapy after installation of stents into coronary arteries for unstable angina.

Keywords: Dieulafoy's lesion, rare diseases in surgery, cecal resection

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Dieulafoy's lesion a profuse arterial bleeding, caused by rupture of an arterial aneurysm in the submucosal layer of the gastrointestinal tract. In most cases (up to 80%), the source of bleeding is located in the upper third of the gastric body along the lesser curvature. However, the literature describes cases when the source of bleeding was located in the esophagus, small and large intestine, and even the gallbladder [1-4].

Gallard described 2 deaths from bleeding from the "gastric aneurysm" in 1884 for th first time. In 1898, P.G. Dieulafoy published his famous work "Exulceratio simplex: Lessons 1-3" , where he summarized information on 10 cases of fatal gastric bleedings with a background of superficial erosions of the mucous membrane and an arrosion artery at the base [5].

Today, there are more than 144 causes of gastrointestinal bleeding. Dieulafoy's lesion described more than 100 years ago is responsible for no more than 1% of cases of acute bleeding from the upper parts of the gastrointestinal tract. According to W. Usbeck and G. Jager, in 839 patients with gastrointestinal bleeding, a rare cause of the disease was found in 72 cases, and in 8 patients Dieulafoy's lesion was diagnosed. This fact allows us to state that Dieulafoy's lesion is the most common of all rare causes of gastrointestinal bleeding. Now in the world and national literature there are data on more than 500 observations of patients with the Dieulafoy's lesion [6-9].

In the domestic literature, Dieulafoy's lesion was first described by D.A. Vasilenko and S.L. Minnick in 1955, when they performed autopsy. In general, the Russian-language sources describe more than 40 cases.

Theories of Dieulafoy's lesion etiology and pathogenesis are contradictory. The unusually twisted artery of the submucosal layer of the gastrointestinal tract is dramatically dilated without signs of vasculitis and atherosclerosis. Generally, an aneurysm can not be detected, even with a proper study. Neighboring veins and medium-sized vessels may also be altered and resemble the pattern of arteriovenous anomalies and angiodysplasia [10].

With the development of modern endoscopic techniques, endoscopic Doppler ultrasonography in particular, it is not difficult to diagnose Dieulafoy's lesion. Moreover, the mucous membrane is almost unchanged, it is as if elevated above the bleeding vessel leke a polyp of 0.2-0.5 cm in diameter [11, 12].

Clinically, the disease manifests itself as massive gastrointestinal hemorrhage. The severity of bleeding is associated with the location of large diameter arteries in the submucosal layer. Arteries of the submucosal layer are fixed to a certain extent by muscle fibers, which prevents their spasm during bleeding. That is why conservative treatment therapy is ineffective for Dieulafoy's lesion and leads to death. Endoscopic methods of hemostasis, in particular clipping with metal brackets, are successful in 96% of cases. Indication for surgical intervention is continued bleeding in the absence or inefficiency of endoscopic hemostasis or recurrence of bleeding after endoscopic hemostasis.

Here is an example of our own clinical observation of the successful treatment in a patient with Dieulafoy's lesion of rare location.

On April 4, 2017, a 61-year-old male patient S. was admitted to the Clinic of Faculty Therapy of I.I. Mechnikov NWSMU to the Department of Cardiology with unstable angina. The patient underwent balloon vasodilation with installation of two stents in the anterior interventricular branch of the left coronary artery and also received dual antiplatelet therapy (Clopidogrel and Trombo ASS). After that, he was discharged in a satisfactory condition for outpatient treatment.

On May 7, 2017, the patient noted weakness, dizziness and black liquid stool, and therefore was immidiately delivered to the Cardiology Department of I.I. Mechnikov NWSMU. During hospitalization the patient was examined and following procedures were performed: ultrasound examination of abdominal and pelvic organs — no pathological changes; fibroendogastroduodenoscopy — superficial gastritis, mucosal defects, no neoplasms; fibrocolonoscopy — telangiectasia of the cupola of cecum (measuring from 5 to 15 mm netlike formation of bright red color), diverticula of the left half of the large intestine, proctosigmoiditis. Symptomatic therapy with a positive was prescribed and appeared to be efective. The patient refused to undergo the recommended surgical treatment and was discharged in a satisfactory condition.

The repeated episode of intestinal bleeding was noted on May 30, 2017, the patientwas immidiately delivered to the Surgical Department No. 2 of I.I. Mechnikov NWSMU with the diagnosis: Telangiectasia of the cupola of cecum complicated by recurrent intestinal hemorrhage dated May 7, 2017 and May 29, 2017.

Upon admission, the following laboratory indicators attracted attention: HGB 66 g/L, RBC 2.45x10^{12}/L, HCT 0.197 L/L, other indicators within a reference range.

Considering the history, clinical picture, and also the obtained instrumental data, it was collegially decided to perform abdominal revision which would clarify the following extension of intervention. Preoperative preparation included blood transfusion, cardiotropic, antisecretory therapy, and replacement of oral antiplatelet therapy to injections of low molecular weight heparins.

After laparotomy and revision of the abdominal organs, intraoperative fibrocolonoscopy was performed: the fibrocolonoscope was introduced to the cecum level. In the cupola of cecum, netlike telangiectasias were defined as well as individual twisted arteries of bright red color up to 1.5 cm in diameter involvingvthe damper. Terminal sections of the ileum were not altered (Fig. 1, 2).

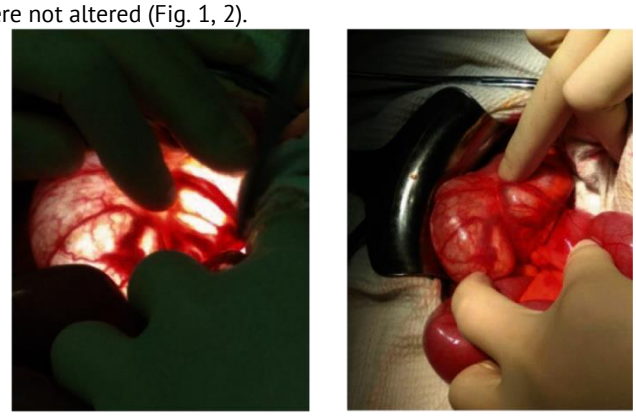

Fig. 1. The cupola of cecum (transillumination with an endoscope)

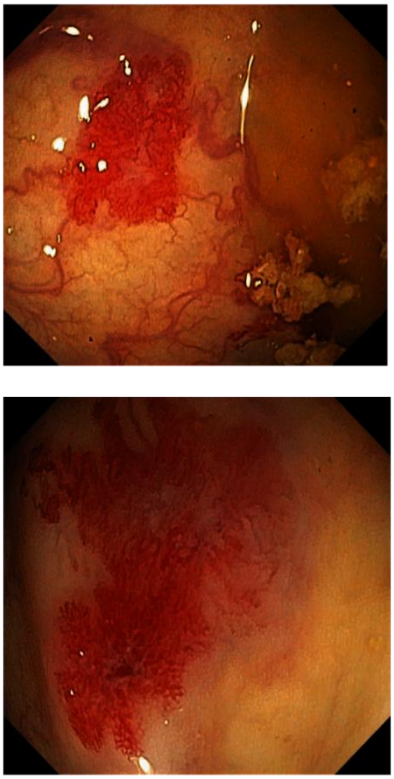

Fig. 2. The cecum (intraoperative fibrocolonoscopy)

Taking into account the obtained data, the resection of the ileocecal angle was performed with formation of "side-to-side" anastomosis between ileum and ascending colon by a manual double-row suture. The surgery was completed by drainage of the abdominal cavity.

Diagnosis after surgery: vascular malformation of the cecum.

The postoperative period was uneventful. The patient continued receiving antiplatelet therapy. The drain was removed on day 2. The laparotomic wound healed by primary intention. The patient was discharged on the day 10 in a satisfactory condition. Histological conclusion No. 2579 dated June 7, 2017: fragments of the wall of the large bowel with edema, mild lymphocytic infiltration, a large number of hemorrhages mainly in the superficial regions, a cluster of full-blooded medium-sized vessels with significantly enlarged lumens in the submucosa, some with sclerosed walls (vascular malformation), erythrocyte sludges in the lumens. Appendix of a typical structure.

The patient is under dynamic supervision of clinic's specialists. There had been no gastrointestinal bleeding. The condition is satisfactory..

The described clinical case of Dieulafoy's lesion in the cecum demonstrates diagnostic and tactical difficulties. The manifestation of the disease coincided with the onset of antiplatelet therapy, which most likely triggered the development of intestinal bleeding. The performed multidisciplinary approach allowed to determine the scope of the operative intervention properly, which ultimately affected not only the immediate but also the remote favorable outcome.

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