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Case Report

A Case of Rectal Dieulafoy's Ulcer and Successful Endoscopic Sclerotherapy

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A 54-year-old woman presented a massive hematochezia 7 days after sigmoidectomy. Repeated colonoscopy and angiography failed to locate the site of bleeding and Hartman's operation was performed. Rebleeding from the rectum on the day of operation occurred and pulsate arterial bleeding with minimal surrounding ulcer 1 cm above the pectinate line was observed. Screlotherapy with ethanol and electro coagulation was successfully performed to achieve permanent hemostasis. The importance of detailed rectal examination and an awareness of this clinical entity in life-threatening lower intestinal bleeding is discussed.

Key words: Dieulafoy's ulcer, rectum, endoscopic sclerotherapy

Dieulafoy's ulcer is an uncommon lesion associated with massive hemorrhage and is usually found in the stomach (1). The same lesion has also been reported in the large intestine (2-6). Localization of the source of bleeding is usually achieved by endoscopy, but diagnosis is sometimes very difficult, especially if the lesion is located in the large intestine. In this report, we describe our experience of massive hemorrhage from Dieulafoy's ulcer 1 cm above the pectinate line. Sclerotherapy using absolute alcohol and electro-coagulation were performed and complete hemostasis was achieved. This case emphasizes the importance of detailed observation of the rectum in case of exsanguinating hematochezia and of the importance of an awareness of this clinical entity.

Case Report

A 54-year-old woman visited our outpatient clinic complaining of lower abdominal pain. She had been on hemodialysis for 4 years due to chronic renal failure caused by chronic nephritis. Laparotomy revealed a perforation of the sigmoidal diverticulum into the mesenterium. Partial resection of the sigmoid colon was performed.

Postoperative course including scheduled hemodialysis was not eventful until 7th day after the operation, when the patient showed massive hematochezia amounting 1,000 ml. No enemas and suppositories were used throughout the pre- and postoperative periods. Colonoscopic examination was performed on the 9th day due to the recurrent bleeding but the bleeding lesion could not be located. The anastomotic site was clear. On the 11th day, the patient re-bled 1,000 ml. After the failure of the second attempt to locate the bleeding site colonoscopically, angiographic diagnosis was performed. Superior and inferior mesenteric angiography was carried out but no extravasation was revealed. Repeated bleeding amounting to 4,000 ml forced us to perform open laparotomy the next day. During the operation, careful observation of the entire colon and the small intestine failed to reveal any possible bleeding sites. Sigmoidectomy including the anastomotic site, which seemed to be the only possible

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bleeding site, was performed, and Hartman's operation was carried out.

On the day of operation, the patient re-bled 1,000 ml from the rectum. Emergency colonoscopy (rectoscopy) after extensive removal of clots was performed to reveal a protuberant vessel and pulsate bleeding at 1 cm above the anal verge (Figs. 1, 2). Three submucosal injections and one direct injection of 0.2 ml absolute ethanol were administrated (Fig. 3). Electro-coagulation using hot biopsy forceps was also performed on the exposed vessel (Fig. 4). Complete hemostasis was achieved and the patient has not shown recurrence of the bleeding 6 years after the endoscopic treatment.

Discussion

Since the first report of 3 cases of gastric lesion (1), many cases of Dieulafoy's ulcer have been described. Though it is rare, several reports have described this disease in the large intestine (2–6). The specific clinical finding is pulsate arterial bleeding with minimal surrounding ulcerative lesion. Where resected specimen is avail-

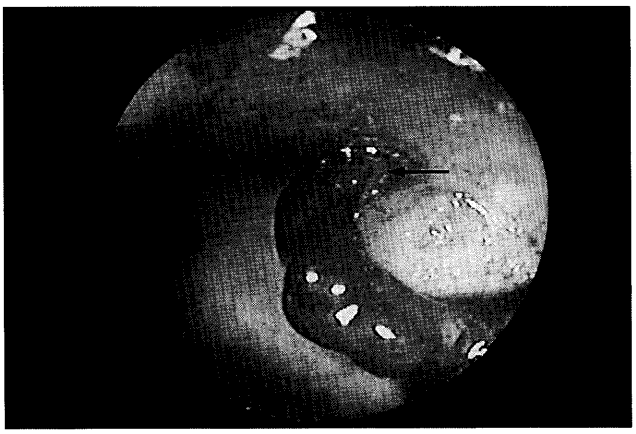

Fig. 1 Pretreatment figure. Pulsate arterial bleeding (arrow) was observed after extensive removal of clots. Note that the ulcer is not seen at the bleeding site.

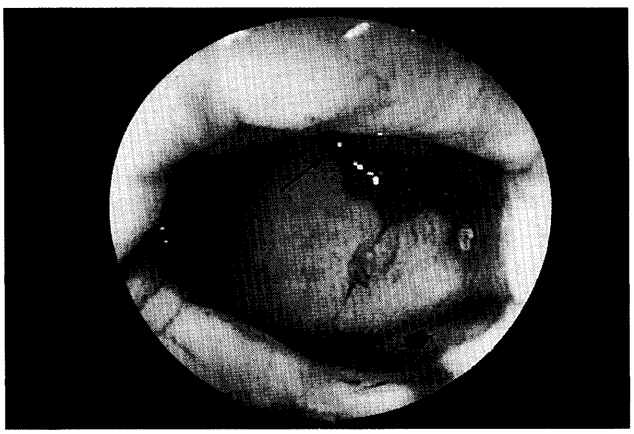

Fig. 2 Pretreatment figure. The site of bleeding (arrow) was located 1 cm above the pectinate line (bold arrow).

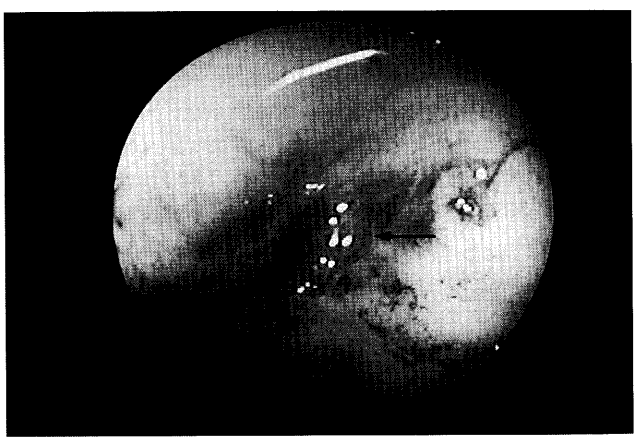

Fig. 3 Posttreatment figure. Multiple injections of absolute ethanol were performed and bleeding was controlled. Protuberant exposed vessel without surrounding ulcer was observed (arrow) at the site of bleeding.

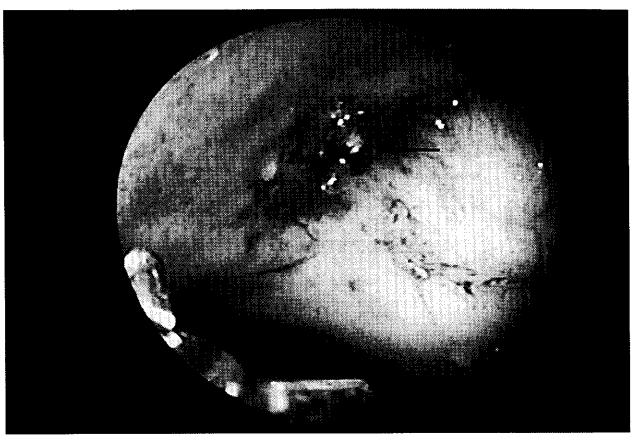

Fig. 4 Posttreatment figure. Electro-coagulation with hot biopsy forceps was performed after ethanol injections, and complete hemostasis was achieved Coagulated vessel is indicated by an arrow.

able and histological examination is performed, the submucosal abnormal artery was observed penetrating the muscle layer (2-6). Though a histologic diagnosis was not made in our case, specific endoscopic findings, such as pulsate hemorrhage and minimal surrounding ulcer, strongly suggest the diagnosis to be Dieulafoy's ulcer. Solitary rectal ulcer (7) and acute hemorrhagic rectal ulcer (8) should be included in the differential diagnosis, because these entities are often associated with distressed patients. Indeed, Dieulafoy's-like ulcer of rectum is sometimes included in hemorrhagic rectal ulcer (8). In the above studies, the clinical entity of acute hemorrhagic ulcers included many undefined rectal ulcers. Acute hemorrhagic ulcer and solitary rectal ulcer are usually diagnosed by the existence of apparent ulcers, which are usually circular and sometimes broad. In our case, arterial bleeding without apparent ulceration coincided with the reported criterion of Dieulafoy's ulcer and the diagnosis seemed to be adequate.

All the reported cases (2-6) involved many clots, while the ulcers themselves were very small. For these reasons, the endoscopic diagnosis is very difficult, especially without active bleeding. Judging from our experience, extensive removal of clots and retroflexed endoscopic observation are recommended in order to reveal the lesion. Angiography during active bleeding is one of the useful techniques to make arrive at a diagnosis and treatment. In our case, angiography did not reveal the lesion, but it could have been revealed by internal iliac arteriography.

In our case and others', extensive ethanol injection and coagulotherapy succeeded to in achieving hemostasis. Scrclotherapy should be attempted first, because it is less invasive to the patient. Repeated injection in case of rebleeding can be easily made thanks to the lesion's location. Surgical resection of the lesion should be performed if the first line hemostasis fails. Surgical resection, if performed adequately, it is very effective because the rebleeding rate is very low. The problem associated with the surgery is that it is very difficult to identify the bleeding point intraoperatively, as we experienced. To avoid unnecessary operation, preoperative localization of the bleeding spot is strongly recommended.

Adequate treatment is definitely needed in order to save patient's life because in almost all the cases (2-6) the amount of bleeding is very large. The lesion is easily overlooked. It is most important that the examiner keeps this disease in mind. Dieulafoy's ulcer of the rectum should be always included in a differential diagnosis of massive exanguinating hematochezia.

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