

Colectomy to Successfully Stop Bleeding Due to Idiopathic Colonic Vascular Varices After Failure of Local Endoscopic Treatment and Radiological Embolization. A Case Report

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1. Abstract

Colic varicose veins, a specific type of ectopic varicose veins, and their incidence is low. At present, there is no uniform standard for the choice of treatment. The purpose of this article is to present a case of a 52-year-old man was admitted to the hospital for intermittent melena for 3 years. A colonoscopy was performed, and varicose colonic veins were found. Endoscopic sclerosis, titanium clip haemostasis and interventional embolization all failed. Finally, partial colectomy was performed.

2. Introduction

The incidence of colic varicose veins is only 0.07% [1]. Although the treatment options for colic varicose veins include endoscopic therapy, hemostatic clamp hemostasis, ligation therapy, sclerotherapy, tissue glue injection, argon ion laser coagulation, [2], placement of a transjugular intrahepatic portal shunt (TIPS), angiography embolization and surgery, there is no unified standard treatment.

3. Case Report

3.1. Chief Complaints

The patient presented for intermittent melena for 3 years.

3.2. History of Present Illness

Three years ago, the patient developed intermittent black stool without obvious inducement. A small volume of black stool was evacu-

ated once every 3-5 days

3.3. History of Past Illness

He had no specific past illness.

3.4. Personal and Family History

There was no history of alcohol. There was no family history of related diseases.

3.5. Physical Examination

His temperature was 36.2°C, pulse rate was 78 beats/min, and blood pressure was 125/80 mmHg. The patient had an anaemic appearance and pale conjunctiva, he did not have any yellowing of the mucous membranes of his skin and body, The liver and spleen were not palpable under the ribs.

3.6. Laboratory Examinations

His blood test results were as follows: white blood cell count: 4.92*10¹²/L, haemoglobin: 93 g/L, and platelet count: 356*10⁹/L. Hepatophil virus, non-hepatophil virus, autoimmune liver disease index, liver function, and coagulation function were all normal.

3.7. Imaging Examinations

Abdominal CT and gastroscopy showed no abnormalities. Colonoscopy showed tortuous varicose veins from the middle part of the transverse colon to the ascending colon, with no obvious red sign. The largest was approximately 0.6 cm in diameter (Figure 1).

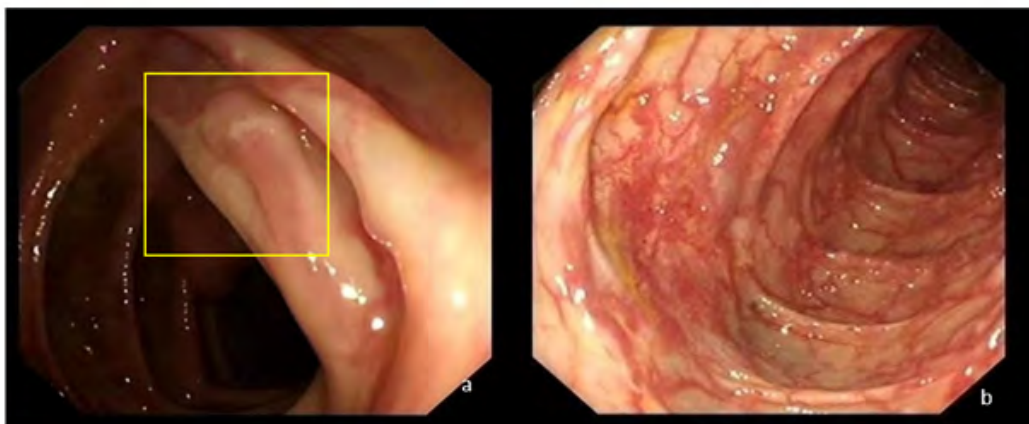


Figure 1: Preoperative colonoscopy. 1a: Tortuous varicose veins are seen from the ascending colon. 1b: Tortuous varicose veins are seen from the transverse colon.

3.8. Treatment

Lauromacrogol was injected into the varicose veins in the transverse colon and the ascending colon at 15 points, and 1 ml was injected into each point. Pulsatile bleeding was observed at some of the puncture points, and the active bleeding was stopped after the haemostatic clip was clipped (Figure 2). Three days after the end of treatment, blood was excreted, the volume was approximately 50 ml, and haemoglobin did not decrease significantly. Endoscopic examination was performed again: a small amount of blood was observed in the intestinal lumen, repeated flushing was performed, and no active bleeding was observed in the treatment site. There was local attachment of blood clots in the treatment sites, multiple injections were made into the surrounding submucosa, and multiple haemostatic clips were

clipped. No active bleeding was observed after irrigation. Six millilitres of lauromacrogol were injected (Figure 3). Approximately 7 hours after the second microscopic treatment, the patient defecated frank blood again, the volume was approximately 100 ml, the patient's haemoglobin decreased to approximately 11g/L, the patient's heart rate was approximately 112 beats/min, and the patient's blood pressure was 105/72 mmHg. The patient was considered to have active bleeding, high blood vessel pressure in the intestinal lumen, and endoscopic haemostasis failure. After consultation with the patient and his family, the patient was transferred to the superior hospital for further treatment. Angiography and interventional embolization were given urgently, but haemostasis was still unsuccessful. The patient developed progressive haemorrhagic shock and underwent an urgent resection of the diseased intestinal segment.

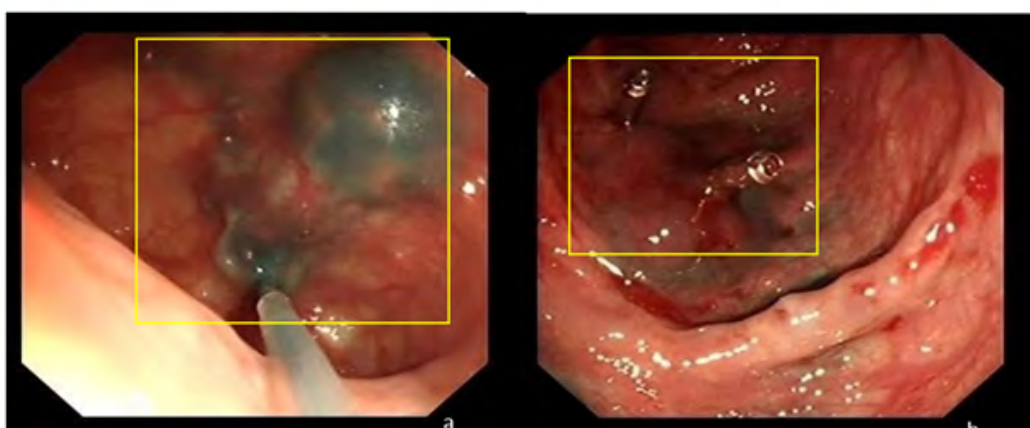


Figure 2: The first endoscopic treatment. 2a: Varicose veins were injected with lauromacrol, 2b: Varicose veins were closed with titanium clamps.

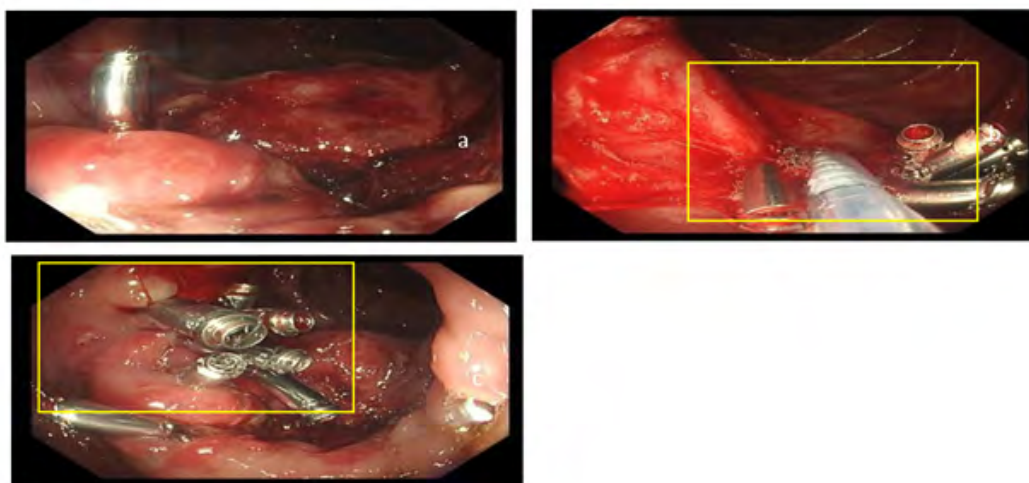


Figure 3: The second endoscopic treatment. 3a: A small amount of blood was observed in the first treatment site. 3b: Multiple lauromacrol injections were made into the surrounding submucosa. 3c: Multiple haemostatic clips were clipped.

3.9. Outcome and Follow-Up

The patient was cured and discharged without further bleeding

4. Discussion

4.1. Pathogenesis and Treatment of Ectopic Varicose Veins

The incidence of ectopic varicose veins is relatively low. The most common site is the duodenum, followed by the jejunum, ileum, colon and rectum [3]. The most common cause of it is portal hypertension, which is caused by liver cirrhosis; other causes are congestive heart failure, mesenteric vein thrombosis, pancreatitis with splenic vein thrombosis, adhesions, and rarely, mesenteric vein obstruction, congenital venous abnormalities, familial varicose veins, etc [4]. Upon relevant auxiliary examination, the patient had none of above lesions. It is considered that it may be related to congenital factors, and the final diagnosis of this disease requires pathological support. Ectopic varicose veins can cause fatal haemorrhage, with a mortality rate of up to 40% [3]. The treatment includes haemostatic clamp haemostasis, ligation therapy, injection of sclerotherapy, injection of tissue glue and argon laser coagulation, TIPS, angiographic embolization, and surgery. Some studies have pointed out that endoscopic haemostasis and vascular embolization often cannot prevent rebleeding, and relapse rates are as high as 80% within 6 months [5]. Surgical treatment occasionally provides long-term control in patients with specific bleeding. Mafalda Sousa [6] et al. reported a case of ascending colonic vein haemorrhage caused by alcoholic liver cirrhosis. The patient was given a 2 ml tissue glue injection, the active bleeding stopped, and nonselective β -blockers were given orally after discharge. Teresa Pinto-Pais[7] et al. reported a case of colonic varicose veins secondary to a mesenteric obstruction caused by pancreatic cancer, which still had intermittent bleeding after treatment with epinephrine injections and a haemostatic clamp but was successfully treated with further percutaneous transhepatic selective portal vein angiography and vascular stent placement. Rosalie C. Oey et al. [8] conducted

a multicentre retrospective study in which 53 patients with ectopic varicose veins caused by liver cirrhosis were treated with TIPS, and the median follow-up time was 14 months. The authors pointed out that there was a high risk of rebleeding after TIPS for duodenal vein flexor. However, TIPS can still be an effective option for other sites of ectopic varicose bleeding. Weiwei Li, MD [9] et al. reported a case of haemorrhagic shock caused by a sigmoid varicose vein rupture in a patient with hepatitis C cirrhosis. The patient was still bleeding after endoscopic titanium clip haemostasis and coil embolization, and then surgical resection was performed to save the patient's life. No rebleeding was observed during 3 months of follow-up.

4.2. Inadequacies and Lessons of this Treatment

Based on the above clinical reports, that the patient's colonic varicose veins are localized in intestinal segments, colon preservation methods are preferred for the patient. Endoscopic sclerotherapy and placement of a titanium clip failed to treat hemostasis, thus compromising the safety and threatening the life of the patient. The reasons may be related to the large diameter and wide variety of varicose veins in the patient, the fragility of the vessels, and the presence of high blood pressure. Although the patient later underwent angiography embolization in a better hospital, the effect was not good and fatal hemorrhagic shock occurred. Finally, the patient underwent surgical resection of the affected intestinal segment and was improved after treatment. Because the patient's clinical data was confidential, we failed to obtain the relevant data regarding the results of the patient's angiography, interventional embolization, operation and post-operative pathology from the superior hospital.

This patient had no life-threatening massive bleeding before being transferred to our hospital to receive treatment for long histories of black stool and anemia. After endoscopic treatment, fatal massive bleeding occurred, thus suggesting the following recommendations for the endoscopist: 1. If the patient does not have fatal varicose

bleeding or is asymptomatic, conservative treatment should be performed; 2. If the patient is considered to have idiopathic colic varicose veins and the risk of bleeding is high, direct resection of the diseased intestinal segment as a safe, effective and feasible method can be considered if additional cases are examined. At present, there is still no clear guideline recommendation for the treatment of ectopic varicose veins. In the future, it is necessary to determine the standard treatment plan carefully by examining additional cases and comparing the effectiveness and risks of treatment.

5. Conclusion

Surgical colectomy is an effective method after failure of endoscopic treatment of colonic varicose veins.

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