

# Unusual Location of Varices Presenting with Obscure Gastrointestinal Bleeding: A Case Report

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## ABSTRACT

Esophagogastric varices are a frequent complication of portal hypertension. Bleeding from ectopic varices of the ileum is not only life-threatening, but its accurate diagnosis is also difficult. We have presented the case of a 31-year-old man with massive hematochezia. He was a known case of non-cirrhotic portal hypertension since 15 years prior. Conventional examination that included angiography did not define the site of bleeding. Hence, the patient underwent an intraoperative enteroscopy. The varices were located at the distal part of the ileum. Segmental resection of the ileum was performed and the patient was discharged in good condition seven days later. Intraoperative enteroscopy could be considered in the diagnostic and therapeutic management of ectopic varices.

**Keywords:** Ileal varices; Portal hypertension; Intraoperative enteroscopy

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## INTRODUCTION

Esophagogastric varices are a frequent complication of portal hypertension, commonly located in the gastroesophageal junction. Ectopic varices are defined as a variceal vein out of the esophagus or stomach. Ectopic variceal bleeding is an uncommon life-threatening complication of portal hypertension and accounts for less than 5% of all variceal bleeding(1-3). Ileal varices, however, are far less frequent. Accurate diagnosis along with appropriate, urgent treatment is an integral component of managing ectopic variceal bleeding(4, 5). This report presents a case of ileal variceal bleeding in a patient with non-cirrhotic portal hypertension.

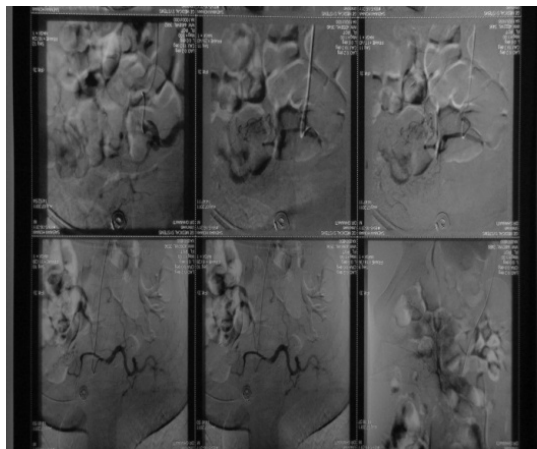
## CASE REPORT

A 31-year-old man was urgently admitted to the hospital with massive hematochezia. He was a known case of non-cirrhotic portal hypertension since 15 years previous. The patient had a history of multiple episodes of esophageal bleeding, which were ablated by variceal binding. He had a history of splenectomy seven years prior. Upon admission, he was conscious with a blood pressure of 85/50 mmHg and a pulse of 108. A physical examination revealed an anemic face and a slightly distended abdomen, but no evidence of ascites. Laboratory findings were as follows: hemoglobin (12 g/dl), platelet count 187000 per microliter, prothrombin time of 12 Seconds and INR of 1. All other laboratory findings were normal. The patient underwent both an upper endoscopy and colonoscopy, which showed no signs of bleeding.

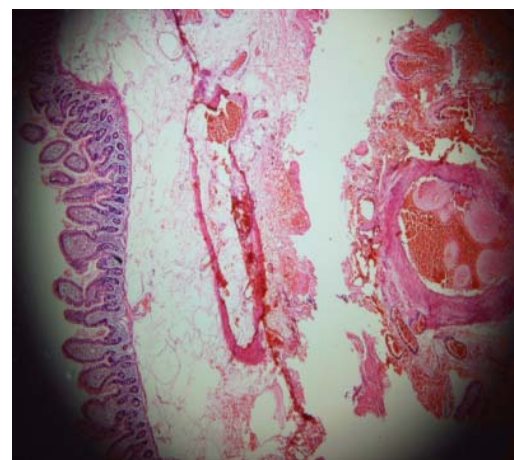
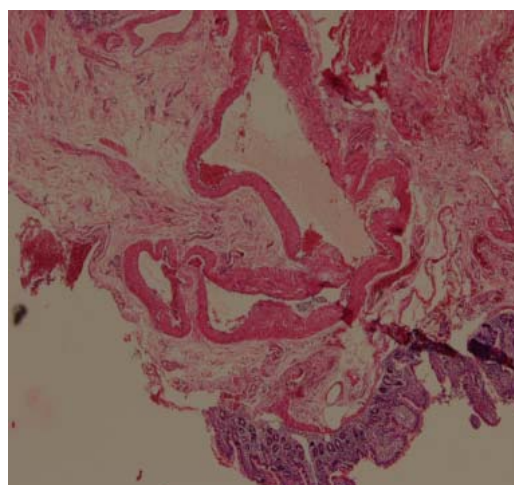
Next, an angiography was performed, which also revealed no definitive source for his bleeding (Figure 1). Due to a decline in his hemoglobin and his unstable situation, the patient was transferred to the Intensive Care Unit where six units of packed red blood cells were transfused. A second colonoscopy was performed which revealed a probable bleeding site at the terminal ileum. As a double balloon enteroscopy (DBE) was unavailable, we performed an intraoperative enteroscopy. In the first attempt, the scope was passed from the mid-part of the jejunum to the duodenum, but no definitive lesion was visualized. In the second attempt, the scope was passed from the jejunum into the ileum where varices were observed at the distal part of the ileum. Segmental resection of the ileum was performed, which yielded an ileum specimen of 25 cm. A histological study showed dilated sub-mucosal varices (Figure 2). There was no hematochezia noted after surgery and the patient was discharged from the hospital on the seventh post-operative day in good condition.

## DISCUSSION

We have reported a case of non-cirrhotic portal hypertension with ileal varices. Variceal bleeding accounts for 6% to 14% of gastrointestinal bleeding(6,7). Varices that occur at sites other than the esophageal area are described as ectopic varices, which account for less than 5% of all varix-related bleeding(3). They are usually related to portal hypertension(8). Diagnosis of ileal varices is quite difficult by a standard endoscope; mesenteric angiography oftentimes is not definitive. With the capsule endoscopy, it is possible to evaluate the



**Figure 1:** abdominal angiography for diagnostic and therapeutic purposes couldn't find the site of bleeding.



**Figure 2:** Dilated sub-mucosal varices in histologic exam.

entire small intestine, however with this procedure it is not possible to obtain biopsies, nor administer treatment. About 11% of patients with obscure gastrointestinal bleeding are not detected by capsule endoscopy(9,10). DBE could cover these limitations. Meanwhile, intraoperative enteroscopy has been used in the absence of other diagnostic and therapeutic procedures(11,12).

Ectopic varices are rare endoscopic findings in the small intestine; ileal varices are even rarer(12). Bleeding from these varices can be difficult to treat due to the difficulties in determining both the source of bleeding and therapeutic management(11-13).

The available studies for ectopic varices show that

the majority of patients were female, however our case was male, which was interesting(14). Delays in diagnosis and treatment of ectopic varices have led to a 40% mortality rate(2,3).

In this case there was no DBE available; therefore the patient underwent an intraoperative enteroscopy. We re-emphasize that in patients with portal hypertension and gastrointestinal bleeding, ectopic varices, in particular ileal varices, should be kept in mind. On the other hand, intraoperative enteroscopy can be still considered both a diagnostic and therapeutic procedure in patients with ongoing obscure bleeding.

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