



## FIRST REPORTED CASE OF DUODENAL VARICES IN MAKKAH CITY, SAUDI ARABIA

### Medicine

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### ABSTRACT

Duodenal varices are a rare and serious manifestation of portal hypertension. Such cases are very rarely seen in the Makkah region of Saudi Arabia and very few other cases have been reported previously. It is essential to do an endoscopic examination of the complete duodenal mucosa to ascertain bleeding from duodenal varices. The available medical management includes vasopressin and endoscopic sclerotherapy, but has been shown to have a less favorable outcome and a high rebleeding rate. Suture ligation or resection has had similar results. Our management of the case with bleeding duodenal varices stimulated a review of this subject.

### KEYWORDS

#### INTRODUCTION

Varices are a common cause of upper gastrointestinal bleeding in liver cirrhosis patients. Quick and accurate diagnosis and treatment is required to manage the massive bleeding and a very high rate of rebleeding. Commonly, variceal bleeding occurs at the esophagus or stomach, but it can rarely involve the duodenum, jejunum, ileum, appendix, colon, rectum, and the biliary tract. Out of which, duodenal variceal bleeding has a high mortality of 40% and poor prognosis (1). The treatment of duodenal variceal bleeding consists of endoscopic sclerotherapy, endoscopic ligation, and transjugular intrahepatic portosystemic shunt (1).

The cause of duodenal varices can be classified into hepatic and extra hepatic. Endoscopic injection sclerotherapy and endoscopic variceal ligation are generally accepted primary therapies for esophageal variceal bleeding but there is no widely accepted treatment modality for duodenal varices (2). In our case we successfully treated the patient with band ligation and cyanoacrylate injection.

#### CASE REPORT:

We report a case of a 70-year-old Saudi male who was known to have chronic renal failure on hemodialysis. He was seen at Al Noor Specialist Hospital Emergency room with decompensated liver disease secondary to hepatitis C virus (HCV) with history of weakness and dizziness. He passed large amount of melena in the emergency room and developed hypotension. The blood pressure was 90/60 mmHg, pulse was 100 bpm. Oxygen saturation was 100% on room air.

The patient received resuscitation, vasoactive agent and intravenous proton pump inhibitor infusion, intravenous antibiotics, after which he was admitted to the ICU.

Upper GI endoscopy was done and showed esophageal varices, portal hypertensive gastropathy, and duodenal varices with active bleeding. Esophageal band ligation and duodenal variceal band ligation was performed. The patient was shifted back to the emergency room with stabilization of the vital signs, but still he was passing melena.

The repeat esophagogastroduodenoscopy showed oozing of the duodenal varices. Injection cyanoacrylate was injected with maintenance of hemostasis. The patient was then discharged on lifelong beta blockers.



Figure 1: Endoscopic images of duodenal varices.



Figure 2: Endoscopic image of duodenal varices with arrow showing active bleeding.

#### DISCUSSION:

The cases of advanced disease of the liver in the Kingdom of Saudi Arabia are on the rise. In a recent study it is estimated that in 2030 decompensated and compensated cirrhosis cases will be predicted at 1,300 and 15,400, respectively. Moreover, liver-related mortality may reach to 670 deaths. As a result the case of esophageal as well as duodenal varices may also increase respectively.

At present the occurrence of duodenal varices is very uncommon and

the last reported case was in 1999 in Dammam (4). Our case is also noteworthy because this is the first reported case in Makkah City Saudi Arabia. Moreover, bleeding due to duodenal varices is a rare but often fatal condition seen in portal hypertension (5).

Liver disease can progress to portal hypertension which in turn may result in the formation of portosystemic collaterals. The common site of these collaterals is the oesophagogastric junction, the abdominal wall and the rectum. In some cases ectopic varices that is the varices that occur outside the oesophagogastric region may be seen and are a rare cause of gastrointestinal bleeding. These ectopic varices have demonstrated a very high mortality of upto 40%. On an average up to 17% of the ectopic varices are seen in the duodenum but are not commonly seen to cause bleeding. (6)

In our case the patient was treated successfully with esophageal band ligation and duodenal variceal band ligation with secondary cyanoacrylate injection with maintenance of hemostasis. Other treatment options with interventional radiology include percutaneous transhepatic obliteration (PTO), transileocolic vein obliteration (TIO), balloon-occluded retrograde transvenous obliteration (B-RTO) and transjugular intrahepatic portosystemic shunt (TIPS) with varying benefits profile. The degree of rebleeding would indicate the need for surgery or radiotherapy. (7)

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