

# Successful Treatment of a Bleeding Duodenal Varix by Endoscopic Band Ligation

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**Fig 1.** Varix in the superior part of the duodenum. On the tip of the varix a small ulcer is visible, indicating recent bleeding.



**Fig 2.** Gastroscopy six days after band ligation of the duodenal varix revealing a small flat ulcer covered with necrotic material.

Bleeding from duodenal varices is a rare complication of portal hypertension. Most patients with duodenal varices have extrahepatic portal hypertension [1]. Due to the limited number of cases, different treatment modalities for duodenal varices have not been compared in randomized controlled trials and most of our current knowledge is obtained from case reports and small case series. So far, endoscopic therapy (sclerotherapy, band ligation, mini-loop ligation), radiological techniques (percutaneous transcatheter embolisation, TIPS-implantation) and surgical procedures have been used [2]. Compared to other treatment options endoscopic band ligation is a relatively non-invasive therapy. However, till now, only a small number of case reports regarding the use of this technique in the duodenum have been published [3-5].

A 78-year old woman was admitted to hospital because of hematemesis and melena. Two years previously, a neuroendocrine carcinoma of the head of the pancreas had been diagnosed and treatment with lanreotide (60 mg s.c. once a month) had been started. The patient's history further included insulin dependent diabetes mellitus, arterial hypertension and ischemic stroke.

On admission the patient had severe anemia (hemoglobin 7.7 g/dl). After hemodynamic stabilization, gastroscopy was performed, which revealed esophageal varices with a diameter of >0.5 cm without signs of bleeding, a considerable amount of blood in the stomach and duodenum and a single varix in the superior part of the duodenum. A small ulcer was visible on this varix, indicating recent bleeding (Fig. 1). Band ligation

of the duodenal varix was successfully performed. In addition, the patient received terlipressin and antibiotics.

Abdominal MRI revealed tumor progression: the tumor in the head of the pancreas had increased to a diameter 9 x 5 cm, causing thrombosis of the portal vein. In addition, one liver metastasis (diameter 4 cm), peritoneal carcinosis and ascites were detected.

Six days after endoscopic treatment, a second gastroscopy was performed. At this time the duodenal varix was hardly visible anymore and at the site where the band ligation had been performed there was a small flat ulcer covered with necrotic material (Fig. 2). During two months follow-up there were no further episodes of gastrointestinal bleeding.

This case brings further evidence that bleeding from duodenal varices caused by portal hypertension can be treated successfully by endoscopic band ligation.

## References

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