



Case Report

Stent Placement in the Hepatic Artery with Anatomical Variant for Treatment of A Massive Ulcer Bleeding

Van Dijk B MD^{1*}, de Vos tot Nederveen Cappel WH MD PhD¹, van Hasselt BAAM MD², van Westreenen HL MD PhD³, Nieuwenhuijs VB MD PhD³

¹Gastroenterology and Hepatology at Isala Hospital, Zwolle, The Netherlands

²Interventional radiology at Isala Hospital, Zwolle, The Netherlands

³Abdominal surgery at Isala Hospital, Zwolle, The Netherlands

***Corresponding Author:** Van Dijk B, Gastroenterology and Hepatology at Isala Hospital, Zwolle, The Netherlands

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Abstract

A 54-year-old man, presented with melaena after a recent bowel perforation resulting in sigmoid resection. The gastroduodenoscopy showed a large clot and active bleeding in the postpyloric duodenum without the opportunity of obtaining endoscopic hemostasis. A diagnostic angiography was attempted, but no blush was seen. The next day

radiologic coiling took place. Unfortunately long term hemostasis was not achieved. A second gastroscopy was performed and a postpyloric ulcer with a large pulsating blood vessel was seen. Hemostasis was attempted by both endoscopic clipping and radiological coiling of the target vessels. An angiography with coiling was attempted. It was technically impossible to coil all the vessels due to an

anatomic variation. In order to prevent to sacrifice the hepatic artery by coiling the entire hepatic artery, we successfully tried a unique approach to place a radiologic covered stent in the common hepatic artery to cover the origin of the gastroduodenal artery.

Keywords: Hemorrhage; Vascular malformations; Artery; Gastrointestinal; Arterial intervention; Radioembolization; Stenting; Stent graft

1. Case Report

A 54-year-old man, presented with melaena after a recent scrotal hernia correction complicated by bowel perforation resulting in sigmoid resection. The gastroduodenoscopy showed a large clot and active bleeding in the postpyloric duodenum without the opportunity of obtaining endoscopic hemostasis.

A CT-angiography was performed and demonstrated a blush into the duodenum. A diagnostic angiography was attempted, but no blush was seen. The next day, the patient was hypotensive and radiologic coiling took place. Unfortunately long term hemostasis was not achieved; fluid resuscitation and blood transfusions were needed to stabilize the patient. A second gastroscopy was performed and a

postpyloric ulcer with a large pulsating blood vessel was seen. Endoscopic treatment with adrenaline and the goldprobe was performed, which provoked recurrent bleeding. Hemostasis was attempted by both endoscopic clipping and radiological coiling of the target vessels.

An angiography with coiling was attempted. It was technically impossible to coil all the vessels due to an anatomic variation (shown in figure 1). The short origin of the gastroduodenal artery arose from the common hepatic artery which was displaced to the superior mesenteric artery. In order to prevent to sacrifice the hepatic artery by coiling the entire hepatic artery, we successfully tried a unique approach to place a radiologic covered stent (Gore Viabahn 8 × 50 mm, shown in Figure 2) in the common hepatic artery to cover the origin of the gastroduodenal artery. Eight weeks later an outpatient gastroscopy showed a healed ulcer.

Stenting is not the initial therapy, but should be considered if endoscopic treatment or coiling cannot arrest the bleeding and surgery is detrimental.

References

None.



Figure 1: 3D reconstruction of the anatomical variation of the vascular supply.

1 Truncus coelicus; 2 Superior mesenteric artery; 3 Common hepatic artery; 4 Right renal artery



Figure 2: Hemostasis achieved with the Covered stent (Gore Viabahn, 8 × 50 mm).



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