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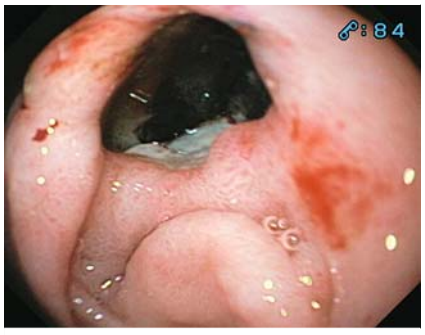
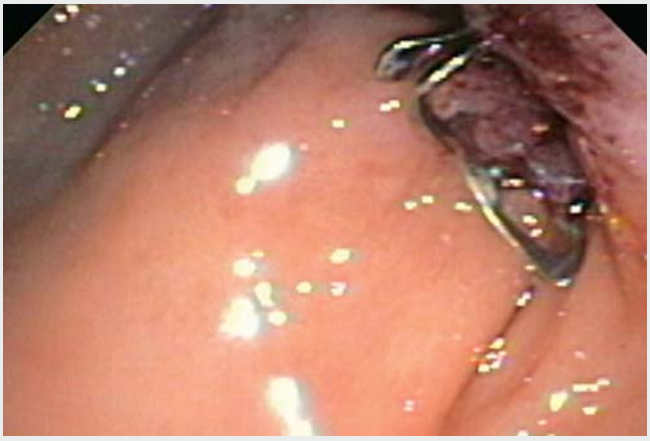
Use of a biliary guidewire to assist placement of two over-the-scope clips for deep ulcer bleeding while preventing duodenal closure



▶ **Fig. 1** A large and deep prepyloric ulcer with tightly adherent clot was present. The ulcer was compressing the pyloric channel.



Video 1 Final view of the deep prepyloric ulcer site after placement of second OTSC (12/6t).

A 58-year-old woman with history of coronary artery disease presented with hematochezia and melena. In addition to aspirin and atorvastatin she was taking ibuprofen for headaches. On presentation she was in hypovolemic shock. Her laboratory data was remarkable for a hemoglobin concentration of 5 g/dL and mild leukocytosis (13 000/µL). The remaining laboratory data was normal. After initial fluid resuscitation with intravenous saline and after receiving transfusion with 2 units of units of packed red blood cells, the patient underwent endoscopy. A large, deep prepyloric ulcer with a visible vessel compressing the pyloric channel was seen (▶ **Fig. 1**; ▶ **Video 1**). An over-the-scope clip (OTSC 11/6/t; Ovesco, Tübingen, Germany) was deployed. However, the OTSC only grasped part of the fibrotic ulcer. Therefore, a decision was made to place a second OTSC (12/6t). Because the ulcer was partly closing the duodenal entrance, a 0.035-inch biliary guidewire was advanced into the duodenum to (a) maintain visibility of the gastric outlet and (b) prevent closure of the duodenal bulb while the second OTSC was being applied (▶ **Video 1**). Application of the second OTSC was uneventful. Final inspection of the site revealed adequately placed clips and a patent duodenum. The patient had an uneventful recovery, her food intake was well tolerated, and she was discharged home in stable condition 48 hours later.

This case stands out for several reasons. First, we have shown that placing two OTSCs to close a large ulcer is feasible. Second, we present a safety technique using a biliary wire advanced into the duodenum. By having a guide to visualize the duodenum, wrongful closure of the lumen can be avoided. And, lastly, this case confirms the utility of OTSCs for complex bleeding ulcers. The OTSC has strong apposing forces and multiple studies have shown its efficacy to treat large ulcers and defects [1–3].

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Competing interests

Prof. Klaus Mönkemüller has received honoraria for lectures and as consultant for Ovesco, Tübingen, Germany; Dr. Alvaro Martínez-Alcalá was the recipient of the Boston Scientific Advanced Endoscopy Fellowship Award at the Basil I. Hirschowitz Endoscopic Center of Excellence, University of Alabama, Birmingham, USA.

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