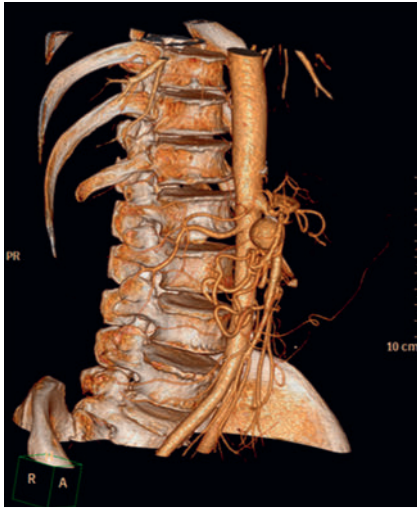
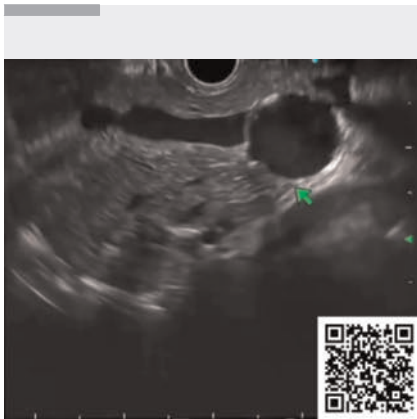


Endoscopic ultrasound-guided coil and glue treatment for gastroduodenal artery pseudoaneurysm

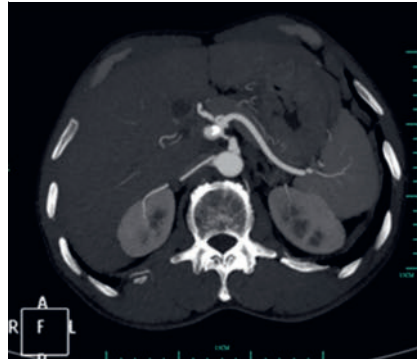


► **Fig. 1** Gastroduodenal artery pseudoaneurysm (GDAP) shown by gastric vascular CT angiography (CTA).

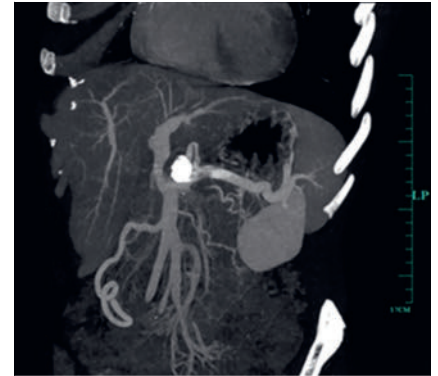


► **Video 1** Endoscopic ultrasound-guided coil and glue treatment for a gastroduodenal artery pseudoaneurysm.

Gastroduodenal artery pseudoaneurysm (GDAP) is usually treated by transcatheter arterial embolization (TAE) [1]. However, when the pseudoaneurysm combines with an abnormal course of the artery, TAE may fail. Herein, we report a case in which endoscopic ultrasound-guided coil and glue injection (EUS-CGI) was useful for treatment of a GDAP.



► **Fig. 2** Gastric artery CTA after the first endoscopic ultrasound (EUS) intervention.



► **Fig. 3** Gastric artery CTA after the EUS second intervention showed the GDAP to be completely embolized.

A 58-year-old man with a GDAP underwent TAE prior to presentation to our hospital. The TAE failed due to the variant course of a communicating artery (► **Fig. 1**). An ultrasound endoscope was introduced, and a 22-gauge puncture needle (EchoTip, Ultra Endoscopic Ultrasound Needle; Cook Medical, Bloomington, Indiana, USA) was selected to penetrate the GDAP. A preloaded 0.018-inch fibered interlock detachable coil (F-IDC; 2D 12mm, 30cm; Boston Scientific, Marlborough, Massachusetts, USA) and two 0.18-inch pushable coils (2D 12mm, 5cm; Boston Science, Marlborough, Massachusetts, USA) were slowly pushed out of the needle tip into the entrance of the GDAP. Thereafter, 2ml saline followed by 0.5ml glue and 2ml saline was injected rapidly. Subsequent color Doppler imaging showed that the blood flow had disappeared (► **Video 1**).

Gastric arterial CT angiography (CTA) was performed for follow-up and revealed the GDPA to be partially filled with contrast (► **Fig. 2**). The patient was therefore readmitted. Under EUS, the GDAP showed a hyperechoic mass with posterior acoustic shadow. Flows could be seen in the residual cavity, and pulsed wave Doppler imaging showed arterial blood flow, indicating recanalization.

The residual cavity was punctured with a 22-gauge needle. Two 0.18-inch pushable coils were slowly placed. Thereafter, 2ml saline followed by 0.5ml glue and 2ml saline was injected rapidly. Doppler imaging after the intervention showed the flow to have disappeared (► **Video 1**). Gastric arterial CTA was performed 2 days later and showed no obvious contrast filling (► **Fig. 3**). EUS-CGI as a treatment for GDAP makes use of the natural lumen of the digestive tract. It is not only a safe and effective treatment for GDAP, but also is repeatable, accurate, and avoids radiation exposure.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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Reference

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