# A new endoscopic therapy for an intraluminal diverticulum of the duodenum



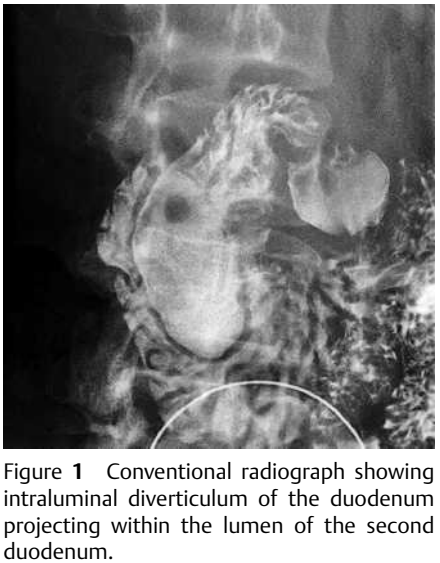

Figure **1** Conventional radiograph showing intraluminal diverticulum of the duodenum projecting within the lumen of the second duodenum.

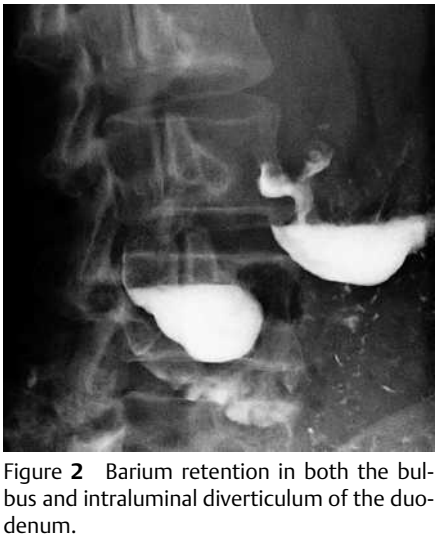

Figure **2** Barium retention in both the bulbus and intraluminal diverticulum of the duodenum.

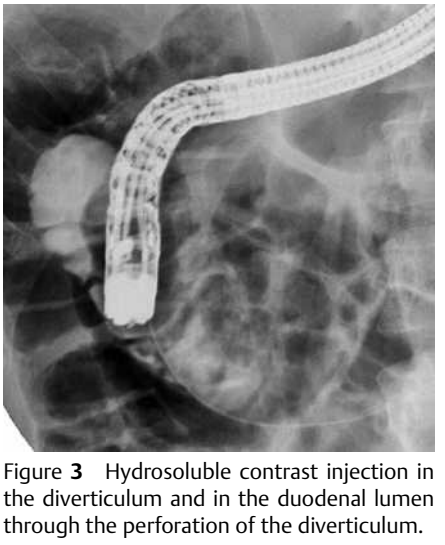

Figure **3** Hydrosoluble contrast injection in the diverticulum and in the duodenal lumen through the perforation of the diverticulum.

We report the case of a 33-year-old woman with dyspeptic symptoms and 5 kg weight loss in 5 months.

During upper gastrointestinal endoscopy at another institution, access to the second part of the duodenum had not been possible for reasons that were unclear. At our hospital, a barium follow through revealed a sac-like contrast-containing structure within the duodenal lumen, suggestive of an intraluminal diverticulum of the duodenum (IDD) (Figure **1** and **2**). Repeat endoscopy confirmed that the second portion of the duodenum could only be reached through a tiny passage at the level of the genu superius, laterally to the diverticular orifice.

After obtaining consent and with the aid of a therapeutic endoscope, we punctured the bottom of the diverticulum with a needle knife papillotome. A 0.035-inch guide wire was introduced in the hole, and hydrosoluble contrast material was injected above and below the puncture site to confirm the exact localization of the IDD (Figure **3**). Consequently the puncture site was enlarged using a 7-Fr cystogastrotome, allowing the introduction of an insulated-tip needle knife to incise the diverticular wall longitudinally,

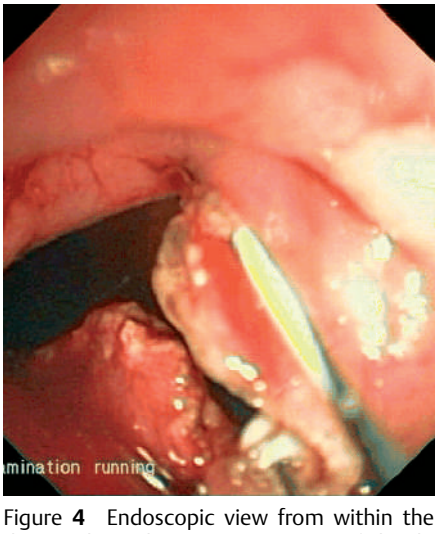


Figure **4** Endoscopic view from within the diverticulum, showing progression of the diverticulotomy using the insulated-tip knife; note the presence of the guide wire in the incision orifice.

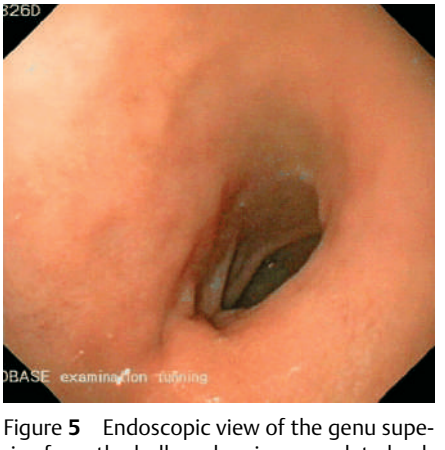


Figure **5** Endoscopic view of the genu superius from the bulbus showing complete healing of the mucosa and patency of the duodenum.

up to the diverticular mouth at the genu superius (Figure **4** and video sequences). Endoscopic control with side-viewing scope identified both the papilla and the presumed location of the intramural part of the common bile duct laterally to the section. No immediate or delayed complication occurred. A control endoscopy was performed 1 month later showing complete healing and easy passage to the second duodenum (Figure **5**). Clinical evaluation, 8 months postprocedure revealed continued absence of the dyspeptic symptoms, and no additional weight loss.

**Videos 1 – 3**

Sequence **1** Inspection of the intraluminal diverticulum of the duodenum. Sequence **2** Perforation of the diverticular sac using a needle-knife papillotome. Sequence **3** Progressive incision of the diverticular septum with the insulated-tip knife.

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IDD is a rare developmental anomaly found in adulthood [1–3]. The main symptoms are related to partial or intermittent obstruction. The most common complications include bleeding, acute or recurrent pancreatitis, cholangitis, and intussusception [3,4]. Several techniques of endoscopic management of IDD have been described [4,5]. The present procedure allows avoidance of trauma to the papilla, the common bile duct, or the opposite duodenal wall.

Endoscopy_UCTN_Code_TTT_1AO_2AN

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## References

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