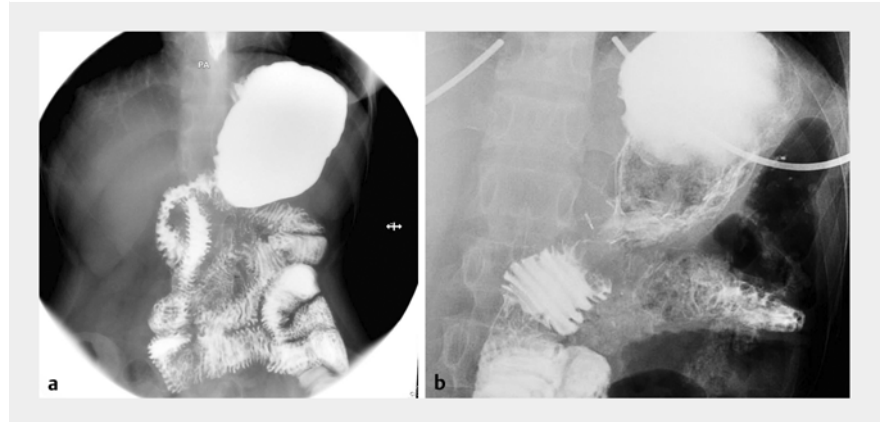


Endoscopic suturing for refractory bilious reflux after gastroduodenostomy and gastrojejunostomy

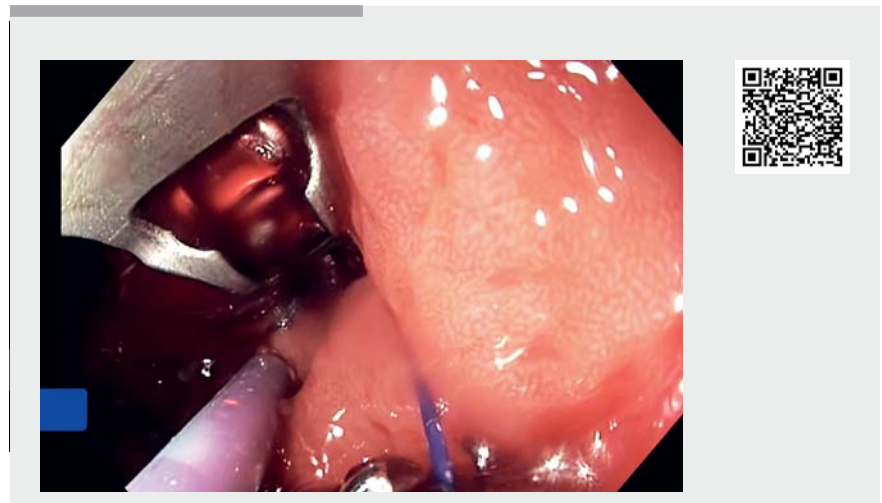
A 35-year-old woman who had undergone previous multiple abdominal surgeries, including Billroth I gastrectomy with gastrojejunostomy and gastroduodenostomy, presented with a 6-month history of regurgitation and bilious vomiting. These symptoms were refractory to proton pump inhibitors, prokinetics, and lifestyle modification. Contrast study (► **Fig. 1 a**) revealed a patent gastrojejunostomy with flow of contrast into the duodenal loop and no distal obstruction. Endoscopy revealed significant bilious secretions in the stomach with a patent gastrojejunostomy and gastroduodenostomy.

To close the gastroduodenostomy stoma, we first applied argon plasma coagulation to the margins to promote subsequent cicatrization. We then approximated the margins of the wall defect by placing two layers of sutures using the Overstitch Endoscopic Suturing System (Apollo Endosurgery, Austin, Texas, USA) as shown in ► **Video 1**. A post-procedure contrast study showed no contrast flow across the gastroduodenostomy stoma (► **Fig. 1 b**).

The management of high volume bilious reflux is challenging in cases refractory to lifestyle modification and medications [1]. Gastroduodenostomy increases the risk of bilious reflux, dumping syndrome, and malabsorption. The management of gastroduodenostomy-related refractory bile reflux consists of surgical therapies such as dismantling the gastroduodenostomy and creation of a jejuno-jejunos-tomy. In this case, we used an endoscopic suturing device to close the stoma to alleviate the symptoms related to bilious reflux. A large multicenter experience with endoscopic suturing for gastrointestinal defects showed 97.5% technical success and 78.9% achieved long term clinical success [2]. Although clinical success for anastomotic leak closure was only 27%, it was 93% for perforation and 80% for fistula [2]. The long term



► **Fig. 1** Barium contrast studies. **a** Preprocedure, showing gastroduodenostomy and gastrojejunostomy. **b** Post-procedure, showing no flow across the gastroduodenostomy.



► **Video 1** Endoscopic suturing of gastroduodenostomy.



success can be achieved with endoscopic suturing, thereby circumventing the need for surgery [3, 4].

Endoscopy_UCTN_Code_CPL_1AN_2AG

Competing interests

None

The authors

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DOI <https://doi.org/10.1055/a-1063-6251>
Published online: 9.12.2019
Endoscopy 2020; 52: E185–E186
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Stuttgart · New York
ISSN 0013-726X

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