A 61-year-old man underwent distal gastric resection with gastroduodenal anastomosis (Billroth I operation) because of perforated peptic ulcer and septic peritonitis. In addition, ischemic right colon was resected and ileostomy was performed. Anastomotic insufficiency was detected 2 days after the operation by duodenal secretions in the operative drainage tube. In two repeat laparotomies, operative closure of the leak could not be achieved. On postoperative Day 12, endoscopy showed a semicircular anastomotic leak (▶Fig. 1). The drain could be seen through the defect from the inside. Endoscopic negative pressure therapy (ENPT) was initiated immediately.

We used two new types of drainage devices: open-pore polyurethane foam drainage (OPD) and open-pore film drainage (OFD) (▶Fig. 2) [1–4]. For construction, the distal ends of two drainage tubes were connected using a suture. The connecting segment was wrapped with open-pore polyurethane foam or coated with a strip of thin double-layered open-pore drainage film (Suprasorb CNP Drainagefolie; Lohmann & Rauscher, Neuwied, Germany) (▶Video 1). This open-pore element was placed using a pull-through technique for endoscopic negative pressure therapy with new types of open-pore drains.
pull-through technique (▶ Video 1) along the preformed fistula channel in the anastomotic defect, with one half lying inside the cavity and the other half inside the intestinal lumen (▶ Fig. 3). The correct position was controlled endoscopically. The cutaneous end of the tube was blocked with a knot, and the proximal end was led out through the nose and connected to an electronic vacuum device (Vac, −125 mmHg), and the cutaneous end of the tube was blocked (B). D, duodenum; S, stomach; F, cutaneous fistula opening.

Dr. Loske is a consultant for Lohmann & Rauscher GmbH & Co.KG.

Competing interests

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