Resolution of a large infradiaphragmatic leak with endoscopic vacuum therapy after total gastrectomy

Anastomotic insufficiency with leakage is a life-threatening complication after radical gastrectomy. Surgical reintervention may be associated with high rates of recurrence and increased morbidity [1]. Placement of a fully covered self-expandable metal stent is commonly performed as a first line conservative treatment. However, success rates after endoscopic stenting range between 63% and 91% [2]. Endoscopic vacuum therapy is a novel technique that allows continuous drainage of the leak, control of infection, and secondary wound healing process, and has shown high clinical success rates [3–5]. A 35-year-old man who underwent total gastrectomy and termino-lateral esophagojejunal anastomosis for gastric cancer at an outside hospital presented with an anastomotic leakage 5 days after surgery. Re-operation was unsuccessful. On postoperative Day 10, the patient was referred to our center with septic shock. The computed tomography (CT) scan confirmed the persistence of an anastomotic leak (▶Fig. 1). An upper endoscopy showed a wall defect at the level of the anastomosis, which affected 30% of the circumference and gave access to a 10 cm (depth) × 5 cm (diameter) cavity with necrotic debris.

An Eso-SPONGE (B. Braun, Melsungen, Germany) was placed with endoscopic guidance inside the cavity and connected to a vacuum with a negative pressure of 100 mmHg (▶Video 1). The sponge was replaced 2–3 times per week (▶Fig. 2). The septic shock quickly resolved with antibiotic therapy, and after 36 days of endoscopic treatment and 12 sponge replacements, the remaining wound cavity was <2 cm (depth) × 1 cm (diameter) and the endoscopic therapy was discontinued. An upper endoscopy 10 days later (▶Fig. 3), and a CT scan and a barium swallow confirmed absence of leakage (▶Fig. 4, ▶Fig. 5). The patient was discharged 2 days later with good tolerance to an oral diet, and continued to do well at 3 months’ follow-up.

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Competing interests

Drs. Sendino, Momblan, and de Lacy are speakers for B. Braun Company.
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