# Malignant duodenocolic fistula successfully treated with self-expandable partially covered metal stent and endoscopic suturing





▶ Fig. 1 Malignant duodenocolic fistula in an 83-year-old man. Fluoroscopic contrast study showing the passage of contrast medium from duodenum to ascending colon.



► Fig.2 Endoscopic appearance of the duodenocolic fistula.



**Fig.3** Stent deployed and sutured to the gastric wall.



**Video 1** Single-session treatment of a malignant duodenocolic fistula with stent deployment and endoscopic suturing.

Duodenocolic fistula is a rare complication of right-sided colon cancer and its management can be challenging because of surgery-related morbidity, especially in fragile patients in a palliative care setting [1]. Endoscopic treatment with selfexpandable metal stents (SEMSs) is still a feasible and safe option in patients with poor performance status, but the risk of stent migration is not negligible [2].

We describe a case of an 83-year-old man affected by incurable colon cancer, who presented with weight loss, abdominal pain and diarrhea. Computed tomography (CT) and a subsequent fluoroscopic contrast study showed passage of contrast medium from the duodenum directly to the hepatic flexure of the colon (> Fig. 1). Upper endoscopy revealed a large infiltrating, non-stenosing lesion in the wall of the proximal duodenum, fistulizing with the ascending colon (> Fig. 2). We decided upon an endoscopic treatment: a through-the-scope clip was placed in the distal duodenum as a radiopaque marker, and a partially covered SEMS, 120mm in length, was deployed

( > Video 1). We then placed an overtube to safely introduce the suturing device (OverStitch; Apollo Endosurgery, Austin, Texas, US) attached to the tip of a double-channel endoscope (GIF-2TH180, Olympus, Tokyo, Japan), in order to fix the proximal side of the stent to the gastric wall ( > Fig. 3). The procedure was uncomplicated and the patient resumed a soft diet after 24 hours. After 3 days the patient was discharged, and a regular oral intake was maintained until he died 4 months later because of disease progression.

In patients with malignant fistula, a covered SEMS is mandatory in order to restore the integrity of gastrointestinal wall, but the migration rate is still high, ranging from 6.5% to 32.3% [3]. The risk of migration is even greater when a fistula develops without a significant stricture. Endoscopic suturing devices can thus represent a useful tool, reducing the risk of stent migration and related complications within a single-session procedure [4, 5].

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#### **Competing interests**

The authors declare that they have no conflict of interest.

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