# Lumen-apposing metal stent gastrojejunostomy for biliary drainage of an obstructive biliodigestive anastomosis



A 68-year-old woman with pancreatic adenocarcinoma was referred to our department with jaundice and poor general condition. Surgical exploration 2 years previously had revealed an unresectable pancreatic head tumor and a biliodigestive anastomosis had been created. At presentation, the patient was receiving third-line chemotherapy and had locally advanced disease and peritoneal carcinomatosis. A computed tomography scan showed progressive disease, with obstruction of the biliodigestive anastomosis and consequent dilatation.

As the established endoscopic and surgical interventions were limited, the patient underwent transgastric endoscopic ultrasound-guided placement of a lumen-apposing metal stent (LAMS) into the afferent jejunal loop (> Fig. 1 a). The correct positioning of the needle in the biliodigestive anastomosis was verified with contrast-enhanced radiography (**Fig. 1 b**). Thereafter, the LAMS was implanted under fluoroscopic guidance. Because of the duodenal obstruction, two plastic pigtail stents (10 Fr, 11-cm long) were placed through the LAMS to avoid obstruction and to secure the access before an uncovered self-expandable metal stent (SEMS) was positioned in the pars decendens duodeni (> Fig. 2a). Neither stent interfered with the other and they were successfully located beside each other in the antrum (► Fig. 2; ► Video 1).

After the intervention, the patient's cholestatic parameters decreased substantially and, following her discharge, chemotherapy was initially readministered in the outpatient setting. However, 2 months later, the patient's general condition deteriorated and, after receiving best-supportive care, she died 2 months later.

This case report demonstrates an alternative route for biliary drainage in palliative patients with cholestasis caused by ste-



Fig. 1 Appearance before the procedure showing: a on endoscopic ultrasonography, the biliodigestive anastomosis (BDA), dilated common bile duct (CBD), and afferent loop;
b on fluoroscopy, the distribution of the contrast agent within the dilated BDA and CBD caused by a malignant stenosis of the afferent loop.



▶ Fig. 2 Final position of the stents on: a gastroscopic image showing the duodenal and biliodigestive anastomosis (BDA) self-expandable metal stents (SEMSs) and the two plastic pigtail stents (\*) that were passed through the lumen-apposing metal stent to secure the access and outflow in case there was pressure from the duodenal SEMS; b fluoroscopic overview.

nosis of a malignant biliodigestive anastomosis.

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### **Competing interests**

The authors declare that they have no conflict of interest.

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**Video 1** Lumen-apposing metal stent gastrojejunostomy is performed for biliary drainage of an obstructive biliodigestive anastomosis.

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## Bibliography

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