Successful treatment of superior mesenteric artery syndrome by endoscopic ultrasound-guided gastrojejunostomy

An 88-year-old man with a history of extensive cardiovascular co-morbidities was admitted to our tertiary center following prolonged vomiting, anorexia, and upper abdominal pain. He had lost 10 kilograms over the course of 4 months as a result. An abdominal computed tomography (CT) scan was performed to rule out neoplasia. Surprisingly, the scan revealed extensive gastroduodenal distention and a high-grade stenosis at D3 caused by direct extrinsic compression by the superior mesenteric artery and vein (Fig. 1, arrow). Furthermore, a significantly reduced aortomesenteric angle was identified (9.1°, normal: 25°–60°) (Fig. 2); these findings are compatible with superior mesenteric artery syndrome [1]. Nasojejunal tube decompression and parenteral feeding were commenced, resulting in only temporary relief of symptoms. Unfortunately, endoscopic placement of a nasojejunal catheter also failed. Only very recently has endoscopic ultrasound (EUS)-guided gastroenterostomy also been evaluated in the context of a benign gastric outlet obstruction [2, 3]. Because our patient was deemed unfit to undergo surgery, this technique was proposed to the patient and his family, who consented to the procedure. Under endoscopic and fluoroscopic guidance, a 0.035-inch guidewire was advanced through the extrinsic stenosis of D3 (Fig. 3) and subsequently exchanged for a nasojejunal catheter. Water was infused into the jejunum (Video 1), dilating the latter and facilitating visualization on EUS (Fig. 4). Lastly, a 20 × 10-mm lumen-apposing metal stent was deployed connecting the lower gastric wall with the jejunal lumen, where the nasojejunal catheter is still in place. An old dislocated double-pigtail stent can be seen in D2; it was used approximately a decade ago for successful drainage of a pancreatic pseudocyst. No extraction was attempted owing to the limited clinical implications and risk of dislocating the nasojejunal catheter.
(LAMS) with an electrocautery-enhanced delivery system (Hot AXIOS; Boston Scientific, Marlborough, Massachusetts, USA) was deployed through the gastric wall into the dilated jejunum (Fig. 5), creating a gastrojejunostomy. No complications occurred and the patient was started on clear liquids the same evening. During the following days, intake increased progressively and the patient was discharged on day 7.

This video case illustrates the diverse indications for which this minimally invasive technique can be used and confirms previous work that even patients with benign disease can benefit from EUS-guided gastrojejunostomy.

Competing interests

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References

