Simultaneous duodenal stenting and endoscopic ultrasound-guided hepaticogastrostomy using a forward-oblique view echoendoscope

A 65-year old man with advanced pancreatic cancer with a combination of malignant biliary obstruction and gastric outlet obstruction was referred to our hospital. Given the presence of peripancreatic cancerous lesions, the endoscopic placement of a duodenal stent and endoscopic ultrasound (EUS)-guided hepaticogastrostomy (HGS) were performed simultaneously, using a single convex-array echoendoscope with a forward-oblique view (EG-580T; Fujifilm, Tokyo, Japan; Fig. 1). A partially covered metal duodenal stent (Niti-S COM VI; Taewoong Medical, Gimpo, Korea) was placed under fluoroscopic and endoscopic guidance (Fig. 2, Video 1). This was followed, without scope exchange, by EUS-HGS: a long partially covered metal stent (modified GIOBOR, Taewoong Medical) was successfully placed from the B3 intrahepatic duct to the stomach under EUS, endoscopic, and fluoroscopic guidance (Fig. 3, Video 2). The total procedure time was 38 minutes. Combined malignant biliary obstruction and gastric outlet obstruction are not rare in advanced pancreatic cancer and EUS-guided biliary drainage, especially...
EUS-HGS [2], is increasingly reported because of its better patency than transpapillary biliary drainage [3]. Conventionally, enteric stents are placed using a forward-viewing endoscope and EUS-guided biliary drainage by an oblique-viewing echoendoscope. A single-session dual-stent placement using two endoscopes has been described [4].

This new echoendoscope with a forward-oblique view has a 3.8-mm operating channel, and has a 40° forward viewing direction with 140° field of view compared to the 55° viewing direction and 100° field of view in the conventional oblique-viewing echoendoscope [5]. This enables the direct visualization of both the enteric stricture and the enteric stent deployment, and also helps hepaticogastrostomy with EUS-guided biliary drainage stent deployment with endoscopic guidance. Thus a single echoendoscope can be used to place a duodenal stent and an EUS-guided biliary drainage stent.

In conclusion, the simultaneous placement of a duodenal stent and EUS-HGS is feasible using the new forward-oblique view echoendoscope, facilitating shorter procedure time without the need for scope exchange.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing interests

Hiroyuke Isayama and Yousuke Nakai have financial relationships with Fujifilm Corp. in the form of research support and/or honoraria.

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