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Overtube-assisted ERCP in a patient with a dilated atonic stomach

Competing interests: None

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Fig. 1 Image during endoscopic retrograde cholangiopancreatography (ERCP) showing the overtube, with its length reaching approximately the median portion of the corpus, and the duodenoscope, which has been successfully passed through the pylorus without looping in the stomach.

Endoscopic retrograde cholangiopancreatography (ERCP) is usually difficult and sometimes impossible in patients with altered anatomy, whether due to gastrointestinal surgery or for other reasons. Various techniques have been used to facilitate ERCP in patients with anatomy that makes the procedure difficult [1–5]. There is no information in the literature regarding the use of an overtube during the ERCP procedure, although these are already used for various indications during upper gastrointestinal endoscopy. We hereby present details of a successful overtube-assisted ERCP in a patient in whom it was impossible to pass the endoscope beyond the pylorus because of excessive looping of the duodenoscope in a dilated atonic stomach.

A 73-year-old man was referred because of epigastric pain and jaundice. He underwent transabdominal ultrasonography, which revealed dilated intrahepatic bile ducts and hyperechogenic areas consistent with stones in the common bile duct. It was planned that he would undergo therapeutic ERCP and two different experienced duodenoscopists attempted to pass a duodenoscope (Olympus TJF-260V; Tokyo, Japan; outer diameter at distal end; 13.5 mm) on two different days; however,

the duodenoscope looped back on itself and the pylorus could not be reached because of the patient's markedly dilated stomach.

We therefore decided to attempt access using a duodenoscope with an overtube (Guardus gastric overtube; US Endoscopy, Mentor, Ohio, USA; length 50 cm, external diameter 19.5 mm, internal diameter 16.7 mm). The use of the overtube, with its length reaching approximately the median portion of the corpus, prevented the duodenoscope looping so that it could be easily passed beyond the pylorus (Fig. 1). It was then possible to selectively cannulate the common bile duct and perform an endoscopic sphincterotomy, enabling the stones to be removed with an extraction balloon.

An overtube is a device that can be used to extract foreign bodies and tissues or with flexible endoscopes in endoscopic procedures that require intubation with more than one endoscope. We here report on the use and success of overtube-assisted ERCP, which is important because this procedure has not been reported previously in the literature. In conclusion, we believe this is an easily performed technique that can facilitate the ERCP procedure in patients similar to the one described.

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