

Clip and snare lifting technique to assist cannulation of a papilla hidden behind a mucosal fold

Endoscopic retrograde cholangiopancreatography (ERCP) is a technically complex endoscopic procedure with significant rates of severe complications (0.8%) and mortality (0.02%) [1]. Complication rates increase in those patients where cannulation is difficult, defined as a situation in which the operator using a standard technique fails to achieve cannulation within 5 minutes, makes five unsuccessful attempts, or two passages of the guidewire into the pancreas [2,3]. Features that are known to be associated with difficult, time-consuming, or impossible cannulations are failure to identify the papilla within the diverticulum, a floppy papilla on the edge of diverticula, and a papilla that is hidden by a mucosal fold (▶ Fig. 1 a) [4]. The latter situation

can be particularly challenging and has few possible solutions [5].

We hereby describe the first two patients in which we used an endoclip and a snare to lift the mucosal fold and allow access to a hidden papilla. The first patient was a 70-year-old woman with a bile leak after hemihepatectomy. She had a flat papilla, underneath a floppy mucosal fold, that could not be cannulated. The second patient was a 55-year-old woman with a post-cholecystectomy bile leak. She had a papilla that was hidden behind a fold and had undergone two ERCPs and a precut sphincterotomy because of unsuccessful bile duct cannulation.

In both patients an endoclip (Resolution Clip; Boston Scientific Corporation, Natick, Massachusetts, USA) was placed on

the fold. The duodenoscope was withdrawn and was then re-introduced with a biopsy forceps inside the working channel that was used to grasp a polypectomy snare (Sensation Short Throw, 13 mm; Boston Scientific) so that this was introduced beside the scope. The snare loop was then tightened slightly around the shaft of the endoclip (▶ Fig. 1 b) and the wire was pulled up through the mouth (▶ Fig. 1 c), which slightly altered the alignment of the papillary region, so allowing the opening of the papilla to be visualized (▶ Fig. 1 d) and successfully cannulated.

These are the first successful cases of clip and snare-assisted cannulation, a way of accessing the bile duct in otherwise apparently impossible conditions, by either pulling or pushing (▶ Fig. 2) a snared clip that had been previously positioned on the mucosal fold that was hiding the papilla.

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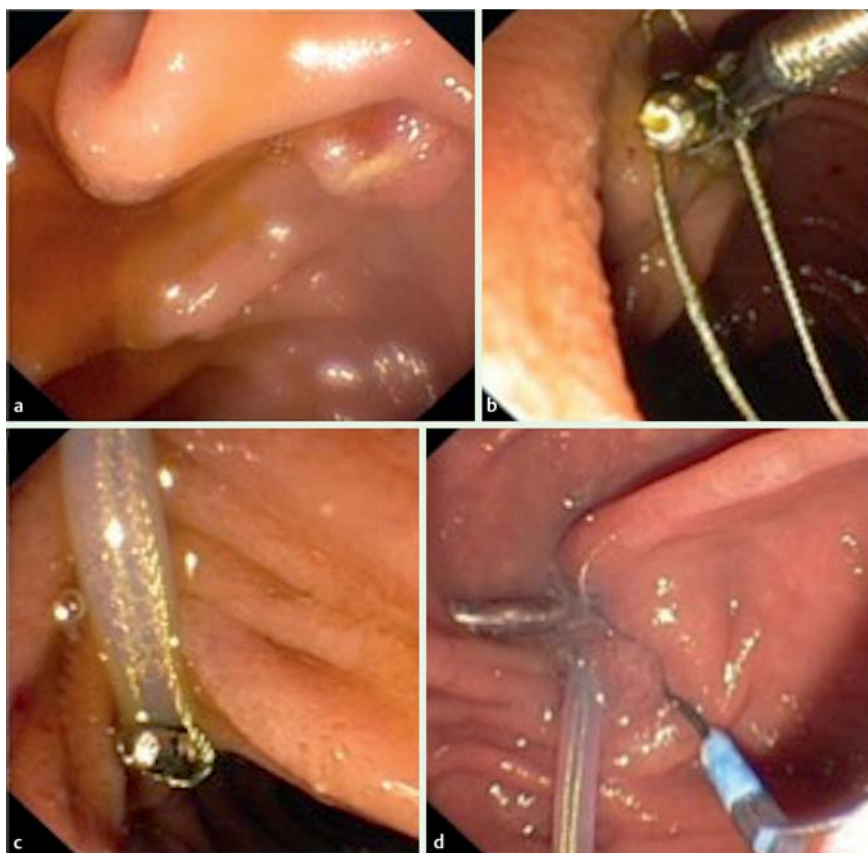


Fig. 1 Endoscopic views showing: **a** the mucosal fold with the papilla hidden behind it; **b, c** the snare being tightened around the previously positioned endoscopic clip, and being pulled back; **d** the papilla, which is successfully visualized after use of a push-and-pull technique, subsequently allowing the common bile duct to be cannulated.

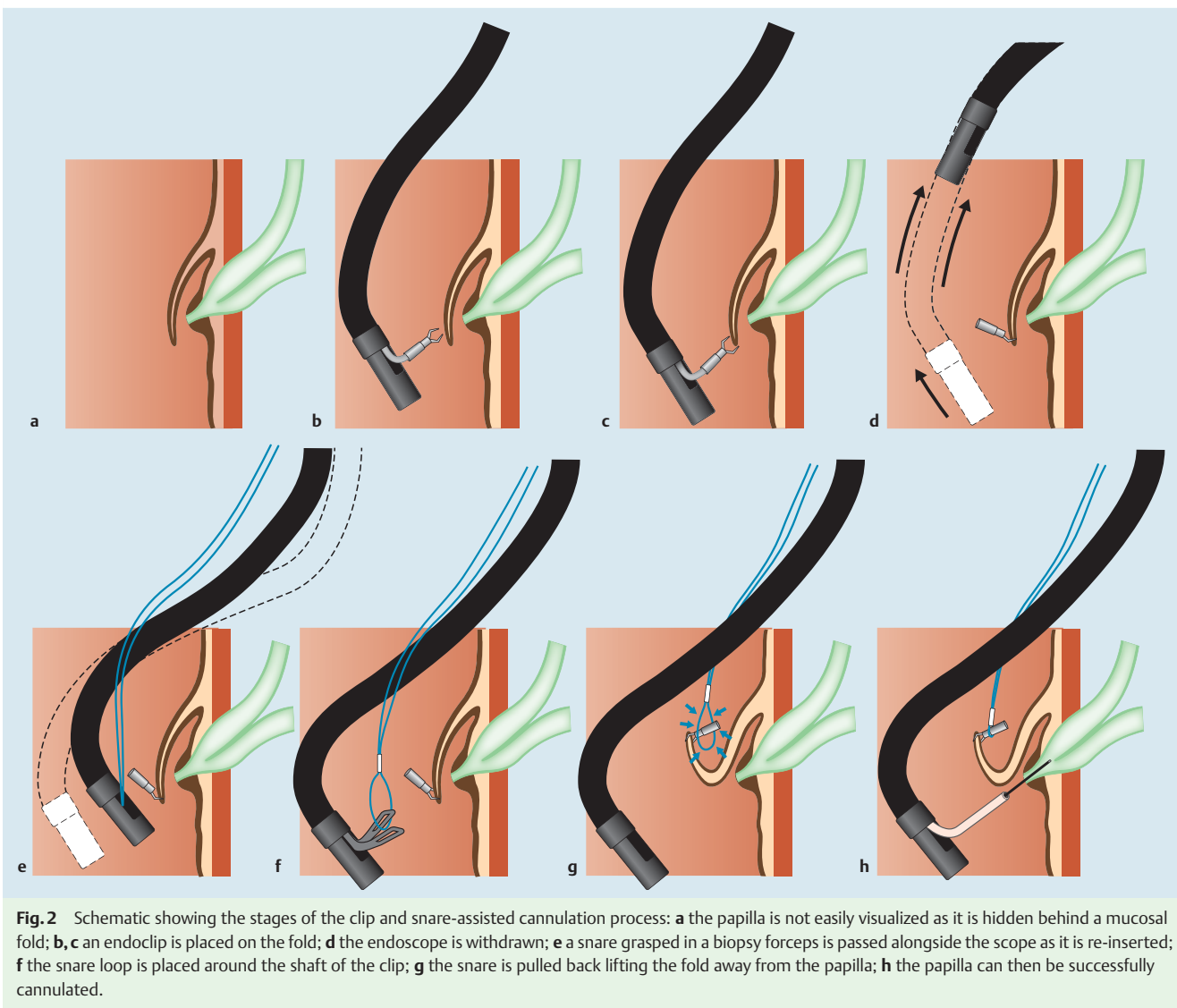


Fig. 2 Schematic showing the stages of the clip and snare-assisted cannulation process: **a** the papilla is not easily visualized as it is hidden behind a mucosal fold; **b, c** an endoclip is placed on the fold; **d** the endoscope is withdrawn; **e** a snare grasped in a biopsy forceps is passed alongside the scope as it is re-inserted; **f** the snare loop is placed around the shaft of the clip; **g** the snare is pulled back lifting the fold away from the papilla; **h** the papilla can then be successfully cannulated.

Competing interests: None

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