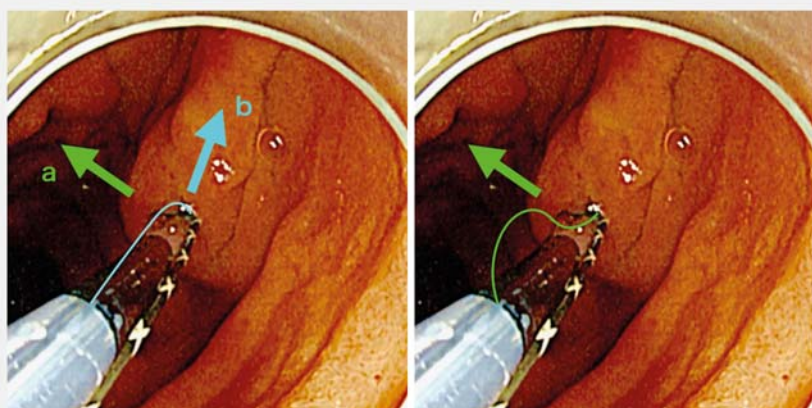
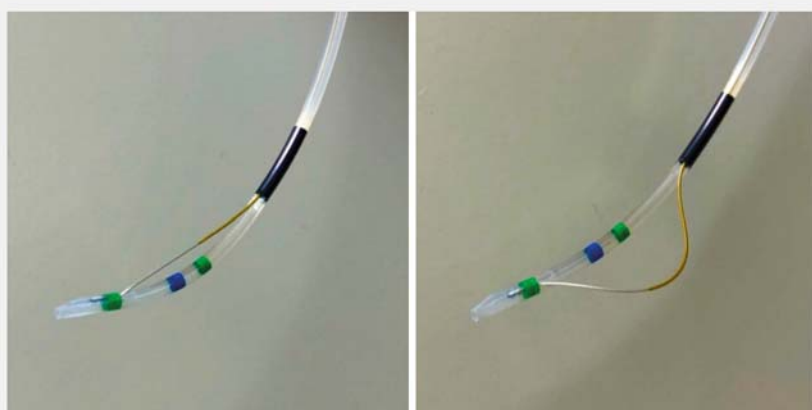


## Novel sphincterotomy device that orientates blade along the axis of the bile duct in patients with Roux-en-Y anastomosis



► **Fig. 1** Orientation for endoscopic sphincterotomy in patients with Roux-en-Y anastomosis. Left panel: with the conventional sphincterotomy approach, the direction of the blade (arrow b) does not correspond with the correct incision direction (arrow a; axis of the bile duct). Right panel: a blade oriented in the appropriate incision direction (arrow) is desirable in these patients.



► **Fig. 2** The Correctome (Boston Scientific, Marlborough, Massachusetts, USA) is a new sphincterotomy device that allows optimal orientation of the blade. Left panel: the blade can be stretched for the conventional sphincterotomy approach. Right panel: the blade can be loosened in the opposite direction.



► **Fig. 3** The Correctome (Boston Scientific, Marlborough, Massachusetts, USA) was intubated into the papilla over the guidewire, and the blade was loosened to achieve wide bowing. The direction of the blade was turned towards the bile duct axis without any adjustment.

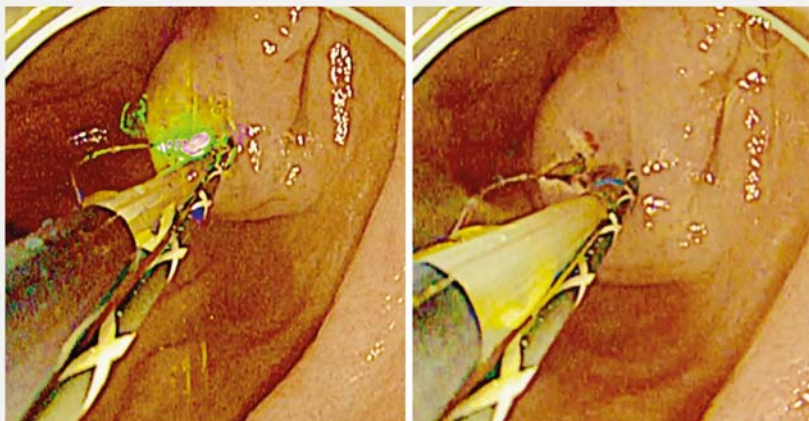
Endoscopic papillary large balloon dilation (EPLBD) following endoscopic sphincterotomy (EST) is an effective and safe treatment for common bile duct (CBD) stones in patients with Roux-en-Y anastomosis [1, 2]. However, performing EST using the conventional sphincterot-

omy approach in these patients is considered difficult because it has to be done in the opposite direction [3, 4]. The direction of the blade does not correspond with the correct incision direction (axis of the bile duct) in this situation. It is desirable, therefore, for the blade to be

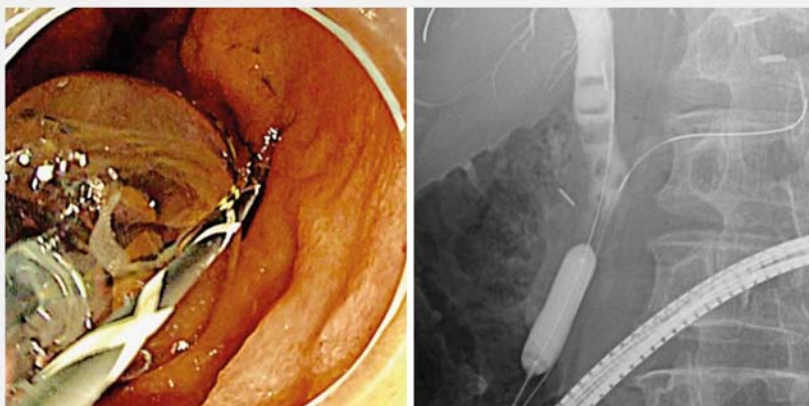
oriented in the appropriate incision direction in patients with Roux-en-Y anastomosis (► **Fig. 1**).

The Correctome (Boston Scientific, Marlborough, Massachusetts, USA) is a new sphincterotomy device that allows optimal orientation of the blade. The blade of the Correctome can be stretched for the conventional sphincterotomy approach. Furthermore, this blade can be loosened in the opposite direction, resulting in wide bowing (► **Fig. 2**).

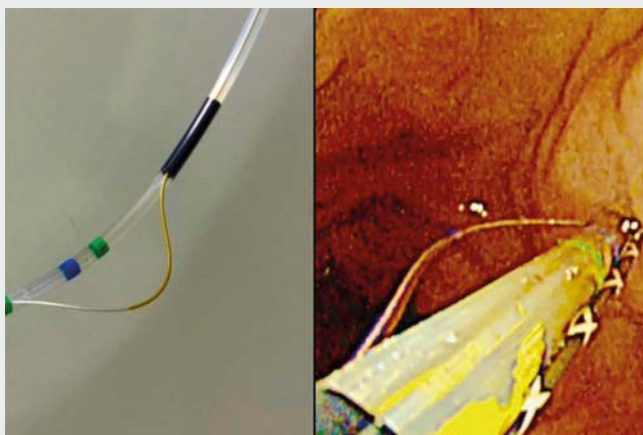
A 69-year-old man who had undergone total gastrectomy with Roux-en-Y anastomosis was admitted to our hospital for the treatment of CBD stones. A short-type single-balloon enteroscope (SIF-H290; Olympus Medical Systems, Tokyo, Japan) was inserted into the papilla, and selective biliary cannulation was successfully performed [5]. Next, the Correctome was intubated into the papilla over the guidewire, and the blade was loosened to achieve wide bowing. The direction of the blade was turned towards the bile duct axis without any adjustment (► **Fig. 3**). The opening to the ampulla was enlarged by cutting (► **Fig. 4**), and



► **Fig. 4** The opening to the ampulla was enlarged by cutting.



► **Fig. 5** After endoscopic sphincterotomy, endoscopic papillary large balloon dilation was performed. All stones were successfully removed. Left panel: endoscopic image. Right panel: fluoroscopic image.



► **Video 1** Novel sphincterotomy approach with blade that can be oriented along the axis of the bile duct in patients with Roux-en-Y anastomosis.



EPLBD was performed (► **Fig. 5**). All stones were successfully removed.

This novel sphincterotomy device that allows orientation of the blade along the axis of the bile duct is considered useful for EST, not only for patients with normal anatomy but also for patients with Roux-en-Y anastomosis (► **Video 1**).

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## Competing interests

None

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