

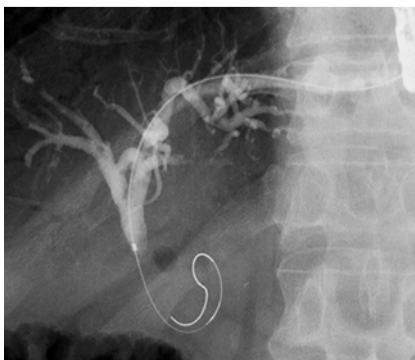
## Transluminal antegrade biopsy using a novel forceps biopsy device for hepaticojejunostomy stricture



► **Fig. 1** The novel forceps biopsy device (Histoguide, STERIS Endoscopy).



► **Fig. 2** Cholangiography revealed biliary obstruction at the hepaticojejunostomy site.



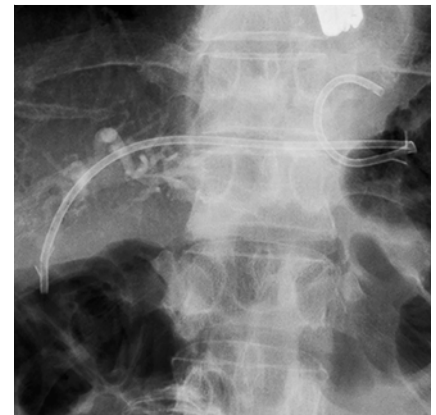
► **Fig. 3** The 0.025-inch guidewire was successfully inserted into the intestine across the stricture site.

The incidence of hepaticojejunostomy strictures may increase in the future with the expansion of the operative indications. Differentiating between a hepaticojejunostomy stricture and a recurrence of primary disease, such as bile duct cancer, is clinically important. A hepaticojejunostomy stricture is usually treated using an endoscopic approach, although technical success is not always achieved with this technique [1]. Hence, endoscopic ultrasound-guided biliary drainage (EUS-BD) has been developed as an alternative method [2–4]. However, obtaining histological evidence of a hepaticojejunostomy stricture is sometimes difficult because transluminal insertion of the biopsy forceps is sometimes challenging due to the acute angle between the left hepatic bile duct and the B3 liver segment. Recently, a forceps biopsy device that can be inserted over the guidewire became available in Japan (Histoguide; STERIS Endoscopy, Mentor, Ohio, USA) (► **Fig. 1**). We herein describe a successful diagnosis made by obtaining histological tissue of a hepaticojejunostomy stricture through EUS-guided hepaticogastrostomy (EUS-HPG) using the novel forceps biopsy device.

A 60-year-old man was admitted to our hospital owing to frequent cholangitis secondary to a hepaticojejunostomy stricture. EUS-HPG was first attempted using a fully covered self-expandable metal stent. After a fistula was created between the hepatic parenchyma and stomach wall, the stent was removed. Next, the endoscopic retrograde cholangiopancreatography (ERCP) catheter was inserted into the biliary tract through the EUS-HPG route, and contrast medium was injected. Cholangiography demonstrated biliary obstruction at the hepaticojejunostomy site (► **Fig. 2**). Following insertion of an ERCP catheter, a 0.025-inch guidewire was inserted into the intestine across the stricture site (► **Fig. 3**). Next, the forceps biopsy device was trans-



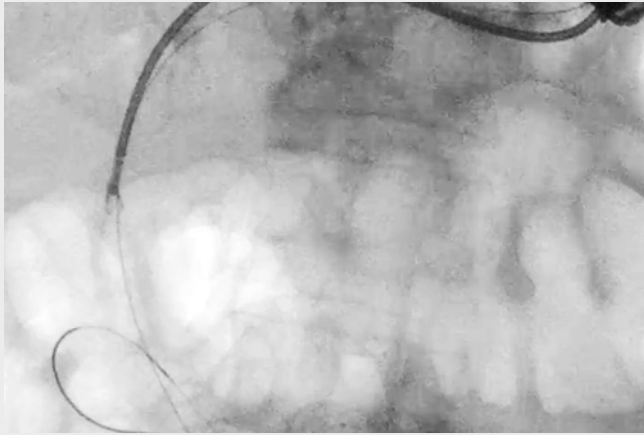
► **Fig. 4** Antegrade forceps biopsy was successfully performed.



► **Fig. 5** Plastic stent deployment was performed from the intrahepatic bile duct to the stomach.

luminally inserted over the guidewire, and an antegrade biopsy was successfully and uneventfully performed (► **Fig. 4**). Finally, a plastic stent was deployed from the intrahepatic bile duct to the stomach (► **Fig. 5**) (► **Video 1**). Histopathological evaluation of the biopsy specimen indicated a benign biliary stricture. Our case highlights the clinical feasibility of a transluminal biopsy of a hepaticojejunostomy stricture using the novel forceps biopsy device.

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**Video 1** Transluminal antegrade biopsy successfully performed using a novel forceps biopsy device for a hepaticojunostomy stricture.

## Bibliography

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## Competing interests

The authors declare that they have no conflict of interest.

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