Endoscopic ultrasound-guided retrograde pancreatic stent placement for the treatment of stenotic jejunopancreatic anastomosis after a Whipple procedure

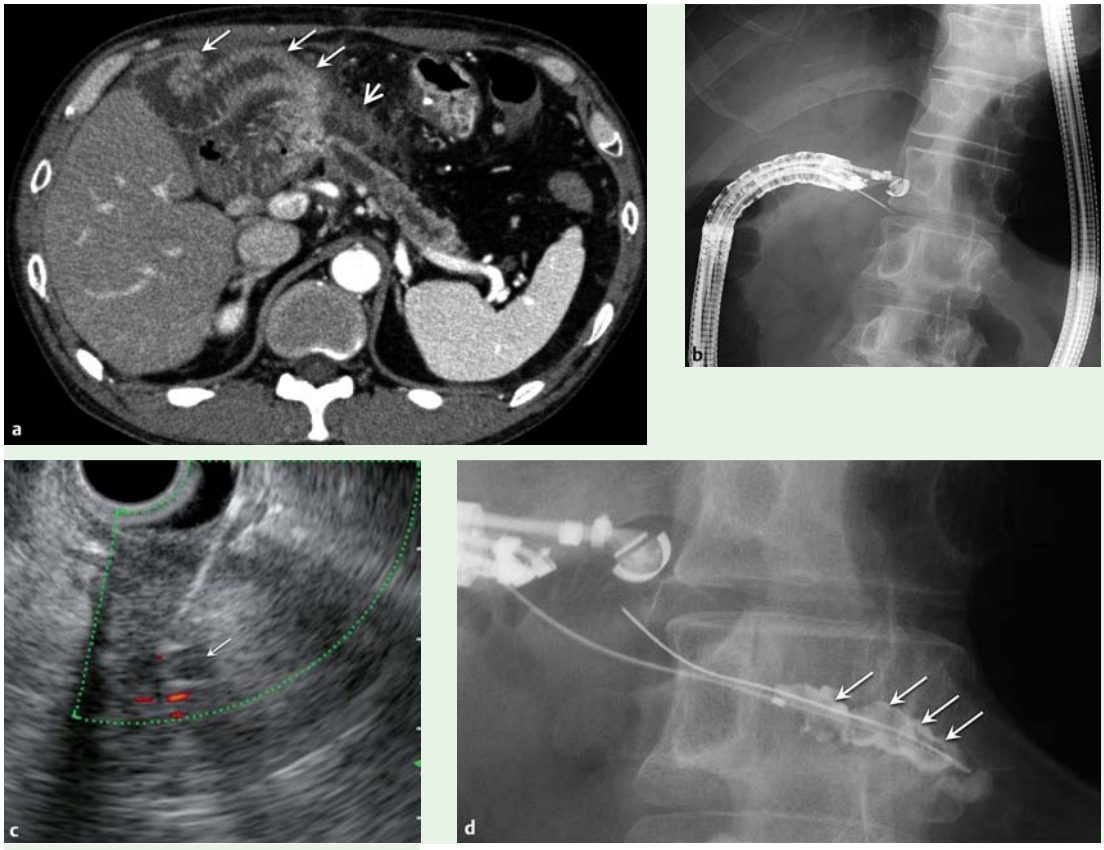
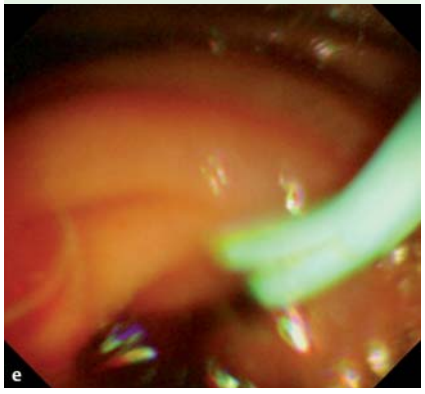


Fig. 1 **a – e** Images of the pancreatitis and the initial procedure: **a** computed tomography (CT) showing a dilated main pancreatic duct (MPD), fluid collection at the anastomosis (arrowhead), and a thickened jejunal wall (arrows); **b** scope placed at the anastomosis; **c** color Doppler image showing the needle striking into the duct (arrow); **d** plaques visible in the MPD (arrows); **e** a pancreatic stent placed through the jejunum.



Endoscopic ultrasound (EUS)-guided [1, 2] or percutaneous [3] rendezvous methods have been used for the treatment of stenosis at the jejunopancreatic anastomosis following pancreatoduodenectomy. However, the use of EUS-guided retrograde pancreatic duct stenting has not been reported, even though it may be preferable from the point of view of complications.

A 50-year-old man, who had been suffering from repetitive pancreatitis for 1 year due to stenosis at the jejunopancreatic anastomosis after pancreatoduodenectomy (▶ **Fig. 1 a**), underwent EUS-guided retrograde pancreatic duct stenting. Prior to the procedure, despite careful searching with a forward-viewing scope, the orifice of the pancreatic duct could not be detected due to severe luminal inflammation. A convex-type EUS scope (GF-UCT240; Olympus, Tokyo, Japan) was advanced to the anastomotic site (▶ **Fig. 1 b**) and, using color Doppler, the puncture line was adjusted to avoid blood vessels. A 19-gauge needle (SonoTip Pro Control; Medi-globe, Achenmühle, Germany) was inserted into the main pancreatic duct (▶ **Fig. 1 c**), and advancement of a guide wire (VisiGlide, 0.025-inch; Olympus) fully into the duct was confirmed using contrast medium (▶ **Fig. 1 d**). Dilation was unsuccessful with a bougie catheter (Soehendra, 4 – 7 Fr; Cook Medical, Winston-Salem, North Carolina, USA), but was easily completed using a diathermic sheath (Cysto-Gastro Set, 6 Fr; Endo-Flex, Voerde, Germany) [4]. A plastic stent (Geenen, 5 Fr; Cook Medical) was placed (▶ **Fig. 1 e**) and the patient's symptoms disappeared immediately.

Two months later, as scheduled, the stent was upsized to a 7 Fr with balloon dilation (Quantum TTC, 6 mm; Cook Medical) (▶ **Fig. 2 a**). No complications occurred during these procedures and the patient was subsequently healthy (▶ **Fig. 2 b**).

Compared with the rendezvous method, the retrograde procedure presented here is a one-step, one-scope method that is

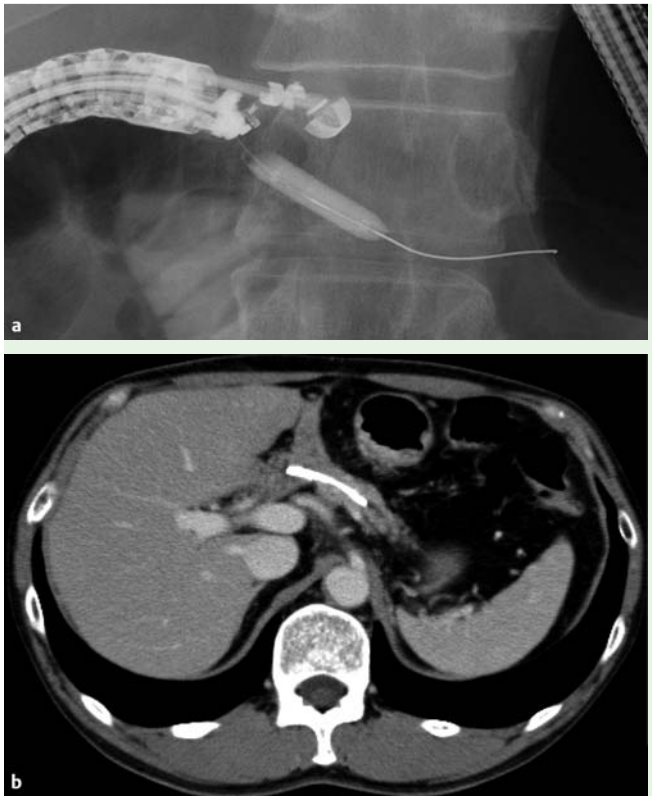


Fig. 2 **a, b** The second procedure and following CT: **a** balloon dilation of the stenotic jejunopancreatic anastomosis for upsizing of the stent; **b** CT view showing healing of the jejunal and peripancreatic inflammation and the pancreatic stent in place in the nondilated MPD.

not performed through the abdominal cavity; hence, it carries a lower risk of pancreatic juice leakage and other complications [5]. This method is worthwhile when attempting to rescue a stenotic pancreatojejunostomy after a Whipple resection.

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Hiroyuki Matsubayashi[1], Yoshihiro Kishida[1], Kunihiro Shinjo[1], Kenichiro Imai[1], Kinichi Hotta[1], Masaki Tanaka[1], Naomi Kakushima[1], Kohei Takizawa[1], Takashi Mizuno[2], Yukiyasu Okamura[2], Hiroyuki Ono[1]

[1] Division of Endoscopy, Shizuoka Cancer Center, Suntogun, Shizuoka, Japan
[2] Department of Hepatopancreaticobiliary Surgery, Shizuoka Cancer Center, Suntogun, Shizuoka, Japan

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Bibliography

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Corresponding author

Hiroyuki Matsubayashi, MD, PhD
Division of Endoscopy
1007 Shimonagakubo
Nagaizumi, Suntogun
Shizuoka
411-8777
Japan
Fax: +81-55-9895692
h.matsubayashi@scchr.jp