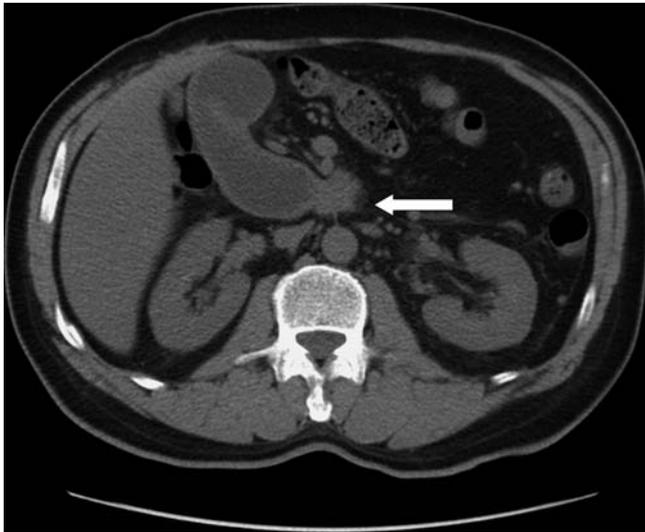
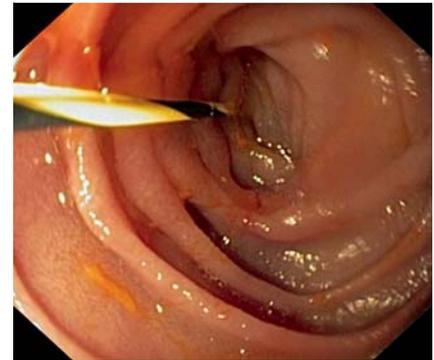


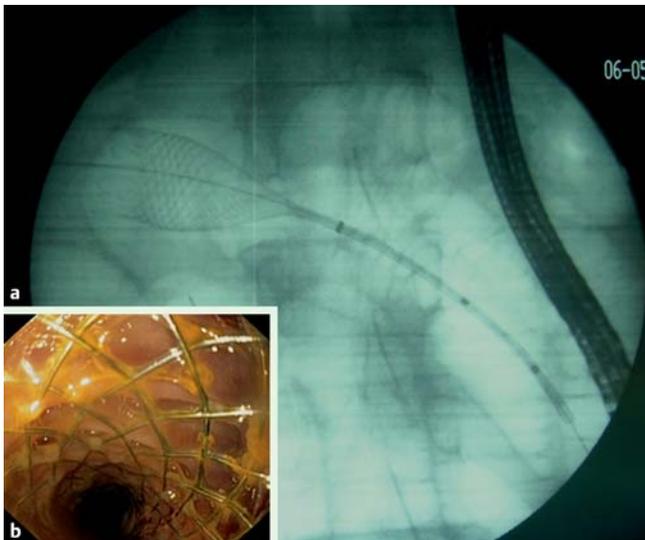
## Endoscopic treatment of acute ascending cholangitis in a patient with Roux-en-Y limb obstruction after a Whipple operation



**Fig. 1** Computed tomography (CT) scan showed marked dilatation of the Roux-en-Y limb with a soft tissue mass, which was a suspected recurrent pancreatic carcinoma (white arrow).



**Fig. 2** The endoscopic view revealed the obstructive point, past which the guidewire could be passed into the proximal part.



**Fig. 3** Self-expandable metallic stent deployed under **a** fluoroscopic and **b** endoscopic controls.

A 60-year-old man was diagnosed with pancreatic head adenocarcinoma. He underwent pancreaticoduodenectomy (Whipple procedure). Four months later he developed obstructive jaundice, high fever, and chills. His total bilirubin level was 2.0 mg/dL (range 0.3–1.2 mg/dL) and alkaline phosphatase was 270 U/L (range 39–117 U/L). Computed tomography (CT) of the abdomen showed marked dilatation of the afferent limb and a suspected recurrent tumor in the pancreatic area (Fig. 1).

The patient underwent an emergency endoscopy and a guidewire could be passed beyond the obstruction into the proximal part of the afferent limb (Fig. 2). Endoscopic placement of a self-expandable metallic stent (enteral stent, 80 mm; Boston Scientific, Massachusetts, USA) was performed using a therapeutic gastroscop (1TGIF; Olympus Corp., Tokyo, Japan) (Fig. 3). After the procedure, the patient's bilirubin normalized and the fever resolved. Plain film of the abdomen revealed a good deployment of the stent (Fig. 4).

The patient was discharged 1 week later. He received adjunctive radiotherapy and at the 6-month follow-up remained asymptomatic.

Afferent loop obstruction is a rare complication after the Whipple procedure. In the rare case of complete obstruction, there is a high risk of developing necrosis and perforation. This condition requires immediate intervention. Percutaneous transhepatic drainage [1,2] and surgical drainage [3,4] are alternative management strategies with very high risk in some patients. Endoscopic metallic stent placement [5] is a treatment of choice to avoid an unnecessary and high risk operation. Long-term follow-up data are required to establish its clinical efficacy.

**Competing interests:** None

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**Fig. 4** One day later, plain film of the abdomen demonstrated the metallic stent was placed in a good position.

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