

Small diameter delivery system allows expandable metal biliary stent placement using a pediatric colonoscope in surgically altered anatomy

Endoscopic retrograde cholangiopancreatography (ERCP) is increasingly performed in patients with surgically altered anatomy [1]. Pediatric colonoscopes may be needed because of the increased flexibility but the small diameter working channel only allows placement of 7-Fr plastic stents. We report two cases of patients with surgically altered anatomy, in whom successful placement of a new self-expandable metal stent (SEMS) with a 6-Fr delivery system (Zilver, Cook Endoscopy, Winston-Salem, North Carolina, USA) allowed palliation of malignant biliary obstruction using a pediatric colonoscope.

A 79-year-old man with remote subtotal gastrectomy and Roux-en-Y reconstruction presented with obstructive jaundice due to unresectable pancreatic cancer. ERC was performed using a variable stiffness pediatric colonoscope (PCF-Q180AL, Olympus Corporation, Center Valley, Pennsylvania, USA) which was passed through an angulated afferent limb to the major papilla. Cholangiography showed a 3-cm distal bile duct stricture. A 10 mm × 6 cm long SEMS was deployed across the stricture and into the duodenum (● Fig. 1).

A 58-year-old man with recurrent pancreatic cancer after pancreaticoduodenectomy presented with acute cholangitis due to a hepaticojejunal anastomotic stricture. An adult colonoscope (CF-H180AL, Olympus) was passed into the afferent limb but could not be advanced to the biliary anastomosis because of severe fixation and angulation. A pediatric colonoscope (Olympus) was passed easily to the hepaticojejunal anastomosis. A guide wire was advanced into the right intrahepatic biliary tree and a 10 mm × 4 cm SEMS was deployed across the hepaticojejunal anastomosis. A second 10 mm × 6 cm SEMS was deployed through the interstices of the first stent and into left intrahepatic system (● Fig. 2).

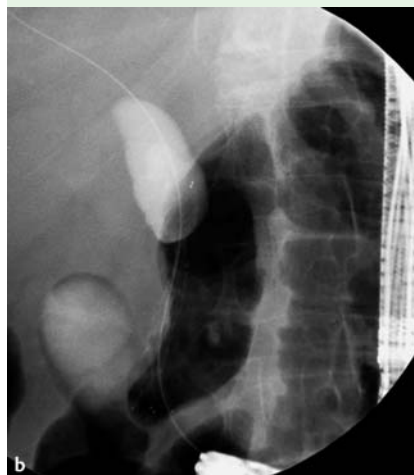
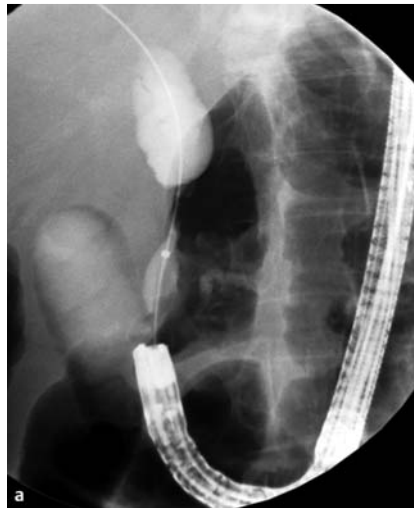


Fig. 1 SEMS placement in patient with an-trectomy and Roux-en-Y gastrojejunostomy. **a** Cholangiogram shows malignant distal bile duct stricture. **b** Successful deployment of stent across stricture.

SEMS with small diameter delivery systems have been used to facilitate bilateral, side-by-side biliary stents to palliate malignant hilar obstruction [2]. Our two cases illustrate an additional benefit that allows placement through small working channel colonoscopes in patients with surgically altered anatomy.



Fig. 2 Bilateral SEMS placement in patient with previous Whipple and presence of an occluded 10-Fr plastic stent placed 3 months previously. **a** Radiographic image after placement of right hepatic duct SEMS across hepaticojejunal stricture and injection of contrast into left system. **b** Successful deployment of second SEMS through initial SEMS and alongside occluded plastic stent.

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