A novel triple stenting in the treatment of post-choledochojejunostomy reflux cholangitis

Reflux cholangitis is a known complication following choledochojejunostomy [1]. It is believed that this disease can develop owing to afferent loop syndrome without choledochojejuno-anastomotic stenosis [2, 3]. Treating the condition by placing the Duckbill-type antireflux self-expandable metal stent (D-ARMS; Kawasaki Laboratories, Tokyo, Japan) at the anastomosis has been reported previously [4]. However, the stenting of three D-ARMSs to each bile duct has never been reported. We report the case of a patient with a large anastomosis and post-choledochojejunostomy reflux cholangitis (PCRC), treated using placement of three D-ARMSs (▶ Video 1).

A 70-year-old woman had undergone pylorus-preserving pancreaticoduodenectomy owing to a history of intraductal papillary neoplasm. Subsequently, she experienced fever and abdominal pain every 10 days, following which PCRC was diagnosed. Fourteen years later, she underwent adhesiolysis; however, her condition did not improve and she was referred to our hospital. Hepatobiliary scintigraphy using 99mTc-N-pyridoxyl-5-methyltryptophan showed high tracer uptake in the afferent and blind loops, at the anastomosis site, and in the intrahepatic bile duct (▶ Fig. 1a). The condition was diagnosed as PCRC, and stenting with D-ARMSs was planned. Endoscopy (CF-H260AI; Olympus Medical Systems, Tokyo, Japan) revealed that the anastomosis was extremely dilated >20 mm (▶ Fig. 2a, b). Hence, stenting with three D-ARMSs was planned. Moreover, long stents protruding into the intestinal tract were essential to prevent bile congestion in the afferent loop. We inserted guidewires into each bile duct branch, namely the left bile duct, right anterior branch, and right posterior branch, and deployed three D-ARMS (10 mm × 8 cm) using the side-by-side stenting method consecutively (▶ Fig. 3a–h). We fixed each stent to the jejunum mucosa using clips. After the procedure, the patient’s abdominal pain and fever subsided completely. Post-procedure hepatobiliary scintigraphy confirmed improvement of the condition (▶ Fig. 1b). During follow-up to date (9 months), there has been no recurrence of symptoms.

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E-Videos

Video 1 Stenting of the three Duckbill-type antireflux self-expandable metal stents for treating dilated choledochojejuno anastomosis.

Fig. 1 Hepatobiliary scintigraphy showing bile flow: a before stent placement; b after stent placement.
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