

Endoscopic placement of a large-bore covered self-expandable metallic stent for cholangitis caused by mucus from a pancreatic mucinous neoplasm

A 76-year-old woman, in whom an intraductal papillary mucinous neoplasm (IPMN) of the pancreas head had been diagnosed 28 months earlier, was admitted for the treatment of cholangitis; however, she refused surgical treatment. Upon progression, she had experienced recurrent cholangitis for 16 months caused by mucus within the bile duct, which was coming from an IPMN-linked fistula (● Fig. 1). To preserve bile flow, 10-mm-diameter covered self-expandable metallic stents were placed endoscopically. However, the procedure had to be repeated five times in 8 months because the stents migrated distally or were clogged by mucus despite preventative measures, such as placement above the papilla of Vater, simultaneous placement of a covered self-expandable metallic stent and a double pigtail stent to prevent migration, partial stent-in-stent placement to connect the hilar biliary duct and the duodenum, and side-by-side placement of two covered self-expandable metallic stents to occlude the fistula completely.

By the time of the sixth episode of cholangitis, large-bore covered self-expandable metallic stents, 20 mm in diameter and 80 mm in length (ComVi duodenal stent;

Taewoong Medical, Seoul, South Korea), had become commercially available in Japan. In a previous endoscopic procedure, mucus from another fistula, between the duodenal bulb and the IPMN, had been noted (● Fig. 2); thus there was an alternative route for pancreatic outflow. Therefore, we attempted to control the cholangitis by blocking the fistula between the bile duct and the IPMN; a large-bore covered self-expandable metallic stent was successfully placed across the papilla (● Fig. 3). After the procedure, pancreatitis was not noted, and the duration of stent patency was more than 6 months, as a result of the blocking effect of the covered membrane (● Fig. 4).

Generally, a long period of stent patency is not obtained following endoscopic treatment in such cases [1–4]. However, large-bore covered self-expandable metallic stents may improve patency, although their use is limited to cases in which fistulas produce pancreatic outflow.

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Competing interests: None

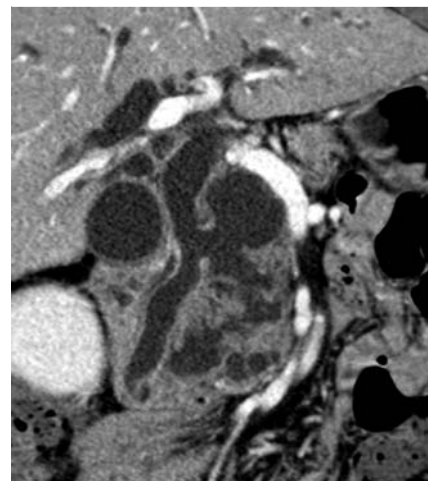


Fig. 1 Coronal contrast-enhanced computed tomographic scan reveals an intraductal papillary mucinous neoplasm in the pancreas head penetrating the bile duct and a fistula with a large diameter.

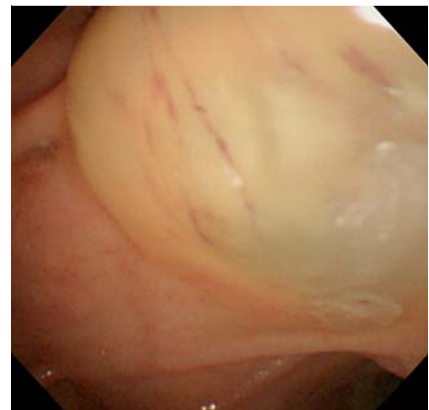


Fig. 2 Duodenoscopy during prior stent placement shows a large amount of mucus outflow from another fistula, between the duodenal bulb and the intraductal papillary mucinous neoplasm.

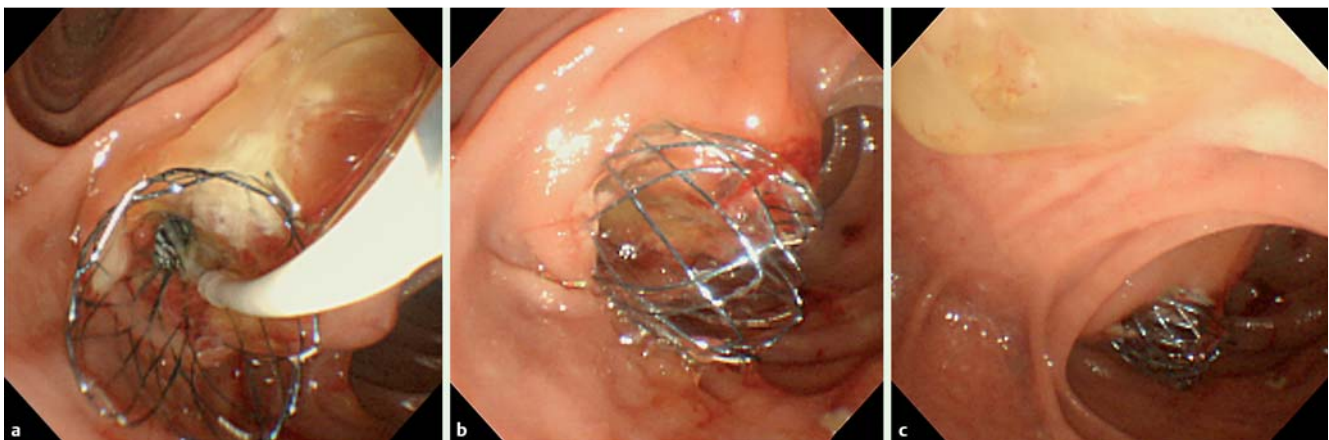


Fig. 3 Transpapillary placement of a large-bore covered self-expandable metallic stent. **a** A large amount of mucus is squeezed out by expansion of stent. **b** The stent is placed across the papilla with approximately 10 mm of its distal end exposed to the duodenal lumen. **c** Another fistula is located about 3 cm proximal to the main papilla.



Fig. 4 Coronal contrast-enhanced computed tomographic scan 6 months after placement of a large-bore covered self-expandable metallic stent shows the flow of mucus into the bile duct to be completely blocked; mucus was not observed within the large-bore covered self-expandable metallic stent, even though the stent was pushed inwards at the location of the fistula.

Naotaka Hayasaka^{1,2}, Tsuyoshi Hayashi¹, Michihiro Ono¹, Hirotoishi Ishiwatari¹, Naoki Uemura¹, Toshinori Okuda², Junji Kato¹

¹ Departments of Medical Oncology and Hematology, Sapporo Medical University School of Medicine, Sapporo, Japan

² Departments of Hematology and Oncology, Oji General Hospital, Tomakomai, Japan

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Bibliography

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Corresponding author

Tsuyoshi Hayashi

Departments of Medical Oncology and Hematology
 Sapporo Medical University School of Medicine
 South-1, West-16, Chuo-ku
 Sapporo, Hokkaido 060-8543
 Japan
 Fax: +81-11-612-7987
 thayashi69@sapmed.ac.jp