Candy-like sign during endoscopic ultrasound-guided choledochoduodenostomy as an indication of the long distance between the bile duct and duodenal wall

Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) using a covered self-expandable metallic stent (SEMS) is an established alternative drainage technique for patients in whom endoscopic retrograde cholangiopancreatography has failed [1,2]. This report describes the case of a patient who underwent successful EUS-CDS with a partially covered SEMS placed far from the duodenal wall. A 66-year-old man with locally advanced pancreatic head cancer was admitted to our hospital. He had undergone percutaneous transhepatic biliary drainage (PTBD) at another hospital 1 week earlier because of failed selective bile duct cannulation. He experienced right flank pain after PTBD. As the patient wanted the PTBD tube removed, we opted to perform EUS-CDS rather than antegrade stenting. After puncture of the common bile duct from the first part of the duodenum using a 19-gauge needle (Echo Tip Ultra; Cook Japan, Tokyo, Japan), a 0.025-inch guidewire (VisiGlide; Olympus Medical Systems Corp., Tokyo, Japan) was inserted into the intrahepatic bile duct. Fistula dilation was then performed using a 6-Fr wire-guided diathermic dilator (Cystogastro-Set; Endo-Flex Gmbh, Voerde, Germany) with a blended cut mode. Insertion of a partially covered SEMS (WallFlex, 10 × 60mm; Boston Scientific Japan, Tokyo, Japan) was then attempted through the fistula. The EUS-CDS procedure was performed quickly; however, the SEMS revealed a candy-like sign in the form of a large gap between the bile duct and duodenal wall, and this sign warrants caution as it indicates distal migration and bile leakage (Fig. 1 and Fig. 2; Video 1).

We therefore attempted additional stenting using a fully covered SEMS (Bonastent, 10 × 60mm; Standard Sci Tech, Seoul, Korea), but this stent could not be passed through the first partially covered stent. Balloon dilation (Hurricane RX Biliary Bal...
loon Dilation Catheter; Boston Scientific Japan) of the first partially covered SEMS was performed (Video 1). Finally, a second fully covered SEMS was placed across the fistula through the first partially covered stent without any complication (Video 1). We were successful in saving this patient using placement of an additional fully covered SEMS. Caution should be taken in the event of the rare and dangerous candy-like sign, which indicates a long distance between the bile duct and duodenum, during EUS-CDS with covered SEMS placement.

Endoscopy_UCTN_Code_CPL_1AL_2AD

Competing interests: None

Hiroshi Kawakami, Masaki Kuwatani, Kazumichi Kawakubo, Taiki Kudo, Yoko Abe, Kimitoshi Kubo, Yoshimasa Kubota, Naoya Sakamoto

Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine, Sapporo, Japan

References

Video 1

Endoscopic rescue technique for gap formation of the partially covered self-expandable metallic stent (SEMS), which was dilated using a balloon catheter followed by placement of a fully covered SEMS.

Bibliography
© Georg Thieme Verlag KG Stuttgart · New York
issn 0013-726X

Corresponding author
Hiroshi Kawakami, MD, PhD
Department of Gastroenterology and Hepatology, Hokkaido University Graduate School of Medicine
Kita 15, Nishi 7
Kita-ku
Sapporo 060-8638
Japan
Fax: +81-11-7067867
hiropon@med.hokudai.ac.jp