Bile peritonitis after placement of a metallic stent in endoscopic ultrasound-guided hepaticogastrostomy: A pitfall and the rescue technique

The complications of endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS) are different from those of endoscopic retrograde cholangiopancreatography (ERCP). Among these, bile peritonitis can be fatal, and insertion of a metallic stent is recommended to prevent this complication [1]. There have been a few reports about bile peritonitis after EUS-HGS [2, 3]. We report a rare case of bile peritonitis which occurred immediately after the placement of a metallic stent, and the rescue technique. A 58-year-old man with pancreatic head cancer was admitted to our hospital with obstructive jaundice and duodenal stricture. We performed simultaneous duodenal stent placement and EUS-HGS, without any complication during the procedure. A metal stent (EGIS biliary partially covered stent, 8 mm x 12 cm; S&G Biotech, Yongin-si, Korea) (Fig. 1) was successfully placed (Fig. 2a); however, abdominal pain and fever developed after the procedure. Abdominal computed tomography (CT) on the next day showed marked ascites due to bile peritonitis around the liver and spleen. We considered the possibility of bile juice leakage from the distal uncovered portion of the metal stent (Fig. 2b), and immediately performed both percutaneous and endoscopic treatments for bile peritonitis. Percutaneous drainage tubes were placed around the liver and spleen, and a guidewire and an ERCP catheter were inserted into the bile duct using a duodenoscope. Although no bile leakage was observed in the endoscopic image and the leakage point was obscure in the fluoroscopic image, we placed two additional metal stents, one in the antegrade route (ZEO Stent V, uncovered biliary stent; ZEON Medical, Tokyo, Japan) and one in the HGS route through the EGIS stent by using the stent-in-stent method (BileRush Advanced, covered biliary stent; Piolax Medical, Kanagawa, Japan) (Fig. 2c). The bile peritonitis resolved (Fig. 2d), and the percutaneous tubes were removed 7 days after the secondary procedure. In conclusion, we should consider the possibility of bile peritonitis after EUS-HGS, even with placement of a metal stent.

Endoscopy_UCTN_Code_CPL_1AL_2AD

Competing Interest

The authors declare that they have no conflict of interest.
Video 1 Bile peritonitis after placement of a metallic stent in endoscopic ultrasound-guided hepaticogastrostomy (EUS-HGS) was treated by both percutaneous and endoscopic approaches.

The authors

Akihisa Ohno1, Nao Fujimori1, Toshiya Abe2, Masafumi Nakamura2, Yoshihiro Ogawa3
1 Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan
2 Department of Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

Corresponding author

Nao Fujimori, MD, PhD
Department of Medicine and Bioregulatory Science, Graduate School of Medical Sciences, Kyushu University, 3-1-1 Maidashi Higashi-ku, Fukuoka City, Fukuoka, Japan
Fax: +81-92-6425287
fujimori.nao.239@m.kyushu-u.ac.jp

References


Bibliography

Endoscopy
DOI 10.1055/a-1937-9781
ISSN 0013-726X
published online 2022
© 2022. The Author(s).
This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial license, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (https://creativecommons.org/licenses/by-nc-nd/4.0/)
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

ENDOSCOPY E-VIDEOS
https://eref.thieme.de/e-videos

Endoscopy E-Videos is an open access online section, reporting on interesting cases and new techniques in gastroenterological endoscopy. All papers include a high quality video and all contributions are freely accessible online. Processing charges apply (currently EUR 375), discounts and waivers acc. to HINARI are available.

This section has its own submission website at https://mc.manuscriptcentral.com/e-videos