A rescue approach using a neo papilla for choledocholithiasis in patient with benign duodenal stricture

In the management of biliary stones, transpapillary stone extraction during endoscopic retrograde cholangiopancreatography (ERCP) has been established as the standard treatment [1]. The procedure is occasionally difficult, especially in cases with benign stricture of the duodenum caused by groove pancreatitis [2]. Stone extraction under percutaneous transhepatic biliary drainage and surgery are conventionally performed as alternative methods after unsuccessful ERCP [3]. However, both methods are invasive and reduce patients’ quality of life. Here, we present a successful case of biliary stone extraction achieved via creation of a neo papilla (▶ Video 1).

A 78-year-old man underwent gastrojejunostomy for the duodenal stricture associated with groove pancreatitis and later developed obstructive jaundice due to biliary stone (▶ Fig. 1). An attempted ERCP failed due to an inaccessible papilla. A neo papilla was created at the duodenal bulb by endoscopic ultrasound-guided choledochoduodenostomy with plastic stent placement to decompress the bile duct (▶ Fig. 2). Biliary stone extraction was then attempted 1 month later via the neo papilla. The plastic stent was removed using a stent retriever (Soehendra Stent Retriever; Cook Medical, Bloomington, Indiana, USA) and a cholangiogram confirmed the existence of the stone. The neo papilla was dilated up to 8 mm using a balloon catheter (ZARA; Century Medical, Tokyo, Japan) (▶ Fig. 3). The stones were then crushed using a mechanical lithotripter (XEDEX Crusher Catheter; Zeon Medical, Tokyo, Japan), and stone fragments were successfully removed though the neo papilla (▶ Fig. 4, ▶ Fig. 5). A nasobiliary drainage tube was then placed in the bile duct to wash away the small residual stone fragments. No adverse events occurred for the patient. Extraction of biliary stones via a created neo papilla appears to be safe and achievable, because the matured fistula allowed the use of larger devices [4]. This technique may be a feasible alternative to rescue transpapillary stone extraction in patients with benign stricture of the duodenum.

Competing interests

None
The authors

Hideyuki Shiomi1, Arata Sakai1, Takashi Kobayashi1, Yuuki Shiomi1, Atsuhiro Masuda1, Jonard T. Co2, Yuzo Kodama1
1 Division of Gastroenterology, Department of Internal Medicine, Kobe University Graduate School of Medicine, 7-5-1 Kusunoki-cho, Chuo-ku, Kobe, Hyogo, 650-0017, Japan
2 Institute of Digestive and Liver Disease, St. Luke’s Medical Center – Global City Taguig City, Philippines

Corresponding author

Hideyuki Shiomi, MD, PhD
Division of Gastroenterology, Department of Internal Medicine, Kobe University Graduate School of Medicine, 7-5-1 Kusunoki-cho, Chuo-ku, Kobe, Hyogo, 650-0017, Japan
Fax: +81-78-3826309
hshiomi@med.kobe-u.ac.jp

References


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

Endoscopy E-Videos is a free 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.

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

DOI https://doi.org/10.1055/a-0919-4215
Published online: 2019
Endoscopy
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X