To-and-fro balloon technique for deployment of a lumen-apposing metal stent in highly solid walled-off necrosis of the pancreas

Lumen-apposing metal stents (LAMs) have revolutionized endoscopic treatment of walled-off necrosis (WON) by allowing for effective drainage and subsequent endoscopic necrosectomy [1, 2]. However, it may be technically challenging to deploy a LAMS for a WON with little fluid content [3], which potentially inhibits insertion of the delivery and expansion of the distal stent flange [4].

A 38-year-old woman was referred to our department for endoscopic management of an infected WON due to biliary pancreatitis (Fig. 1). Although endoscopic ultrasound (EUS)-guided drainage was performed in the previous hospital, the infection did not subside owing to incomplete drainage; therefore, we decided to place a LAMS with a cautery-enhanced delivery system (HOT AXIOS; Boston Scientific Japan, Tokyo, Japan). EUS revealed a WON with few fluid components (Fig. 2a), and we decided to perform a wire-guided placement of the LAMS. We punctured the WON with a 19-gauge needle (EZshot3; Olympus Medical, Tokyo, Japan) via the transgastric approach and inserted the stent delivery over a 0.025-inch guidewire (VisiGlide2; Olympus). Owing to the limited space due to the highly solid cavity, the delivery could not be advanced (Fig. 2b). Therefore, we withdrew the delivery and inserted an 8-mm balloon dilator (REN; Kaneka Medical, Tokyo, Japan) into the WON cavity. We attempted to open up enough space for the LAMS by moving the dilated balloon to and fro (Fig. 3a). We successfully deployed the LAMS with adequate expansion of the flanges (Fig. 3b). On the second day of the procedure, radiograph delineated full expansion of the flanges. After subsequent sessions of endoscopic necrosectomy via the LAMS, complete resolution of the WON was achieved.

The to-and-fro balloon technique presented here (Video 1) would further expand the indications of the LAMS for a symptomatic WON.

Endoscopy_UCTN_Code_TTT_1AS_2AG

Competing interests

Dr. Nakai declares research funding from Boston Scientific Japan, Century Medical, FujiFilm, Gadelius Medical, Hitachi Medical, Kaneka, and Medico’s Hirata. This work was not supported by any of those companies.
Dr. Fujishiro received lecture honoraria from Olympus Co., and Fujifilm Co. and research grant from Olympus Co, and Fujifilm Co. outside the submitted work. The other authors declare no conflicts of interest related to this article.

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Endoscopy
DOI 10.1055/a-1795-6925
ISSN 0013-726X
published online 2022
© 2022, Thieme. All rights reserved.
Georg Thieme Verlag KG, Rüdigerstraße 14, 70469 Stuttgart, Germany

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