Lotus sign: The lumen-apposing metal stent that failed to bloom

Endoscopic ultrasound-guided gastroenterostomy (EUS-GE) with the use of a lumen-apposing metal stent (LAMS) has emerged as a promising modality for the treatment of a malignant gastric outlet obstruction (MGOO) [1]. The design of single-step delivery systems of LAMSs can significantly reduce the risk of adverse events. However, the process of stent deployment is the crucial step in determining the success of EUS-GE. This report describes the case of a patient who underwent EUS-GE with the deployment of the proximal flange of the LAMS failing to open.

A 54-year-old man with advanced pancreatic adenocarcinoma presented with vomiting due to MGOO. After admission, EUS-GE with the wireless simplified technique [2] was performed using a 20-mm LAMS (Hot AXIOS stent; Boston Scientific, Marlborough, Massachusetts, USA). The distal flange of the LAMS deployed successfully. However, on deployment of the proximal portion, the most proximal end of the LAMS failed to open, resulting in a lotus-shaped flange in the stomach (▶ Fig. 1, ▶ Video 1). Despite gentle manipulation of the internal sheath and allowing some time for the flange to expand, it still failed to bloom. A 20-mm extraction balloon catheter was passed through the narrow opening of the proximal end of LAMS and inflated carefully to dilate the flange (▶ Fig. 2). The proximal flange of LAMS satisfactorily opened after repeated balloon inflation (▶ Fig. 3).

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extraction balloon catheter was passed through the narrow opening of the proximal end and inflated carefully to dilate the flange (Fig. 2, Fig. 3). A follow-up abdominal X-ray the next day revealed the stable position of the LAMS and the patient progressed uneventfully from a liquid to a regular diet. Caution should be taken in the event of a rare incomplete blooming of a LAMS flange, which indicates that the lumen-apposing force may be reduced and stent migration can occur. Early recognition and intervention may prevent stent misdeployment [3].

Conflict of Interest
The authors declare that they have no conflict of interest.

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