

## DEN Video Article

# Trans-delivery system injection method for deployment of a lumen-apposing metal stent in a walled-off necrosis occupied by massive necrotic tissue

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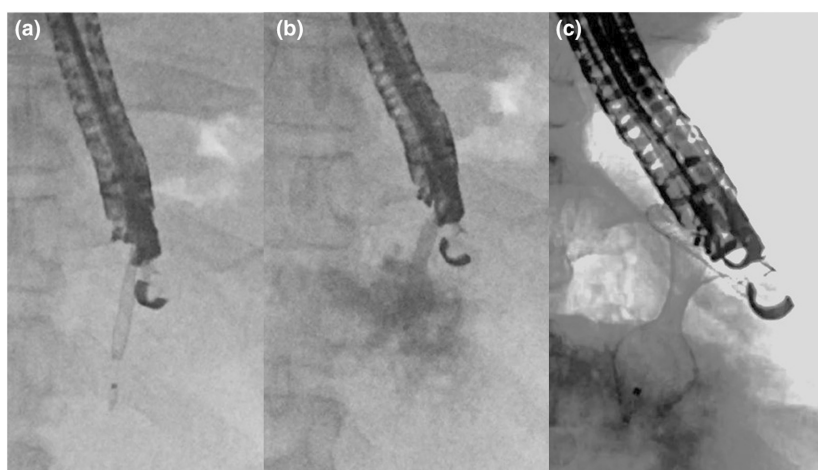
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## BRIEF EXPLANATION

ENDOSCOPIC ULTRASONOGRAPHY-GUIDED PERIPANCREATIC fluid drainage using a lumen-apposing metal stent (LAMS) is an effective treatment for walled-off necrosis (WON).<sup>1</sup> When the WON is occupied by massive necrotic tissue components, expansion of the distal flange is often insufficient. Weak anchoring of the distal flange may lead to migration, which can result in serious adverse events.<sup>2</sup> Various methods have been reported to address this problem.<sup>3,4</sup> The trans-delivery system injection method involves injecting fluid through the delivery lumen of the LAMS, creating enough space in the WON for LAMS deployment even after LAMS puncture. Endoscopic ultrasonography-guided peripancreatic fluid drainage with a LAMS was performed



**Figure 1** Half-diluted contrast agent injection was injected by attaching a 20G outer intravenous catheter (SURFLO; Terumo Corporation, Tokyo, Japan) to the delivery lumen of the lumen-apposing metal stent.



**Figure 2** Image of a walled-off necrosis (a) occupied by massive necrotic tissue components, resulting in insufficient expansion of the distal flange of the lumen-apposing metal stent (LAMS), (b) with a cavity enhanced by injection of half-diluted contrast agent through the delivery lumen of the LAMS, and (c) distal flange of the LAMS being deployed.

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on a 40-year-old man with acute pancreatitis-induced WON using a convex-type echoendoscope (EG-740UT; FUJIFILM, Tokyo, Japan). Initially, deployment of a 20 mm LAMS (Hot AXIOS; Boston Scientific, Marlborough, MA, USA) was attempted; however, the WON was occupied by massive necrotic tissue components, resulting in insufficient expansion of the distal flange. The back-and-forth method was attempted but was unsuccessful. Half-diluted contrast agent was injected by attaching a 20G outer intravenous catheter (SURFLO; Terumo Corporation, Tokyo, Japan) to the delivery lumen of the LAMS (Figs 1,2a,b). Thus, we successfully created enough space to deploy the LAMS (Fig. 2c; Video S1). Trans-delivery system injection of half-diluted contrast agent facilitated the creation of enough space for a LAMS flange expansion with no need for special devices. This method is effective when WON is occupied by massive necrotic tissue components. This method can be used during the LAMS deployment if the distal flange does not adequately expand.

### CONFLICT OF INTEREST

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### SUPPORTING INFORMATION

**A**DDITIONAL SUPPORTING INFORMATION may be found in the online version of this article at the publisher's web site.

**Video S1** The trans-delivery system injection method involves injecting half-diluted contrast agent through the delivery lumen of the lumen-apposing metal stent (LAMS), creating enough space in the walled-off necrosis for LAMS deployment even after LAMS puncture.