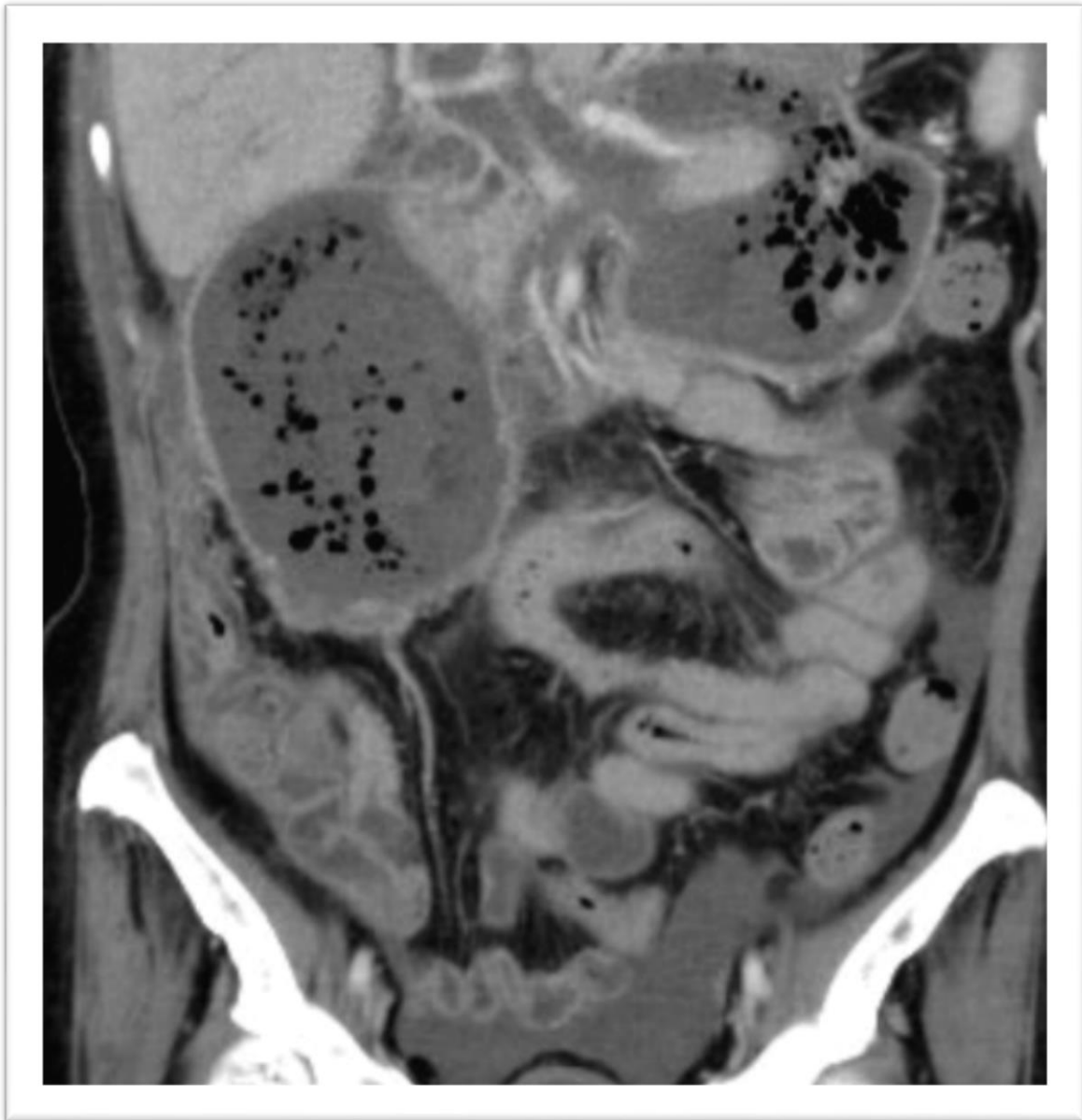


## 利用內視鏡超音波成功治療胰臟炎的併發症

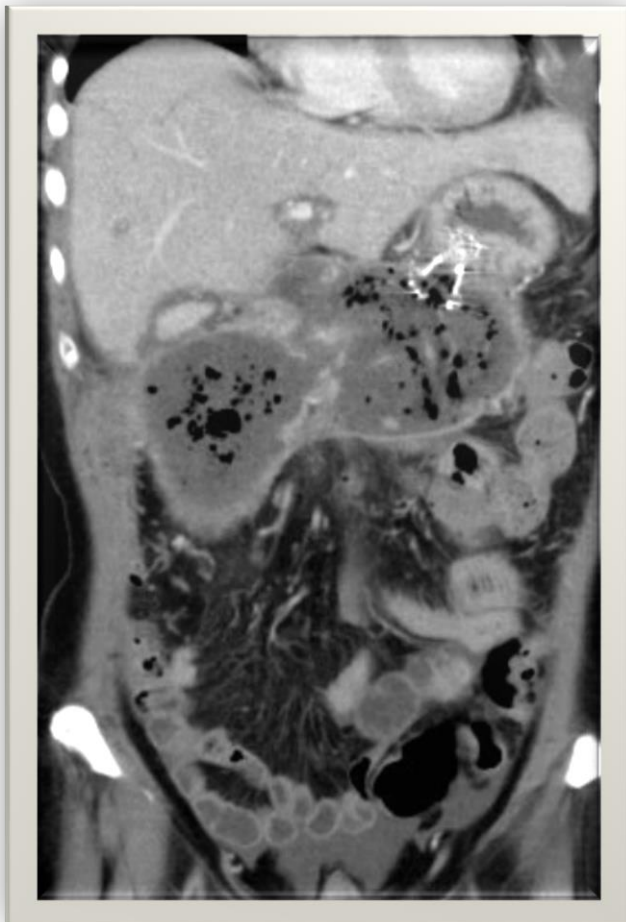
肝膽腸胃科主治醫師林榮鈞

一名 54 歲的女性罹患藥物誘發之急性胰臟炎，因其發炎程度嚴重，仍衍生出併發症及後遺症，即感染性有壁分隔之壞死。以往對於此類疾病，放射科醫師所執行的經皮引流之治療效果有限，原因是引流管的直徑不大，無法將壞死組織引流乾淨時，便會尋求外科醫師進行手術，然而，手術帶來的併發症與風險並不低，也常讓外科醫師及病人卻步。

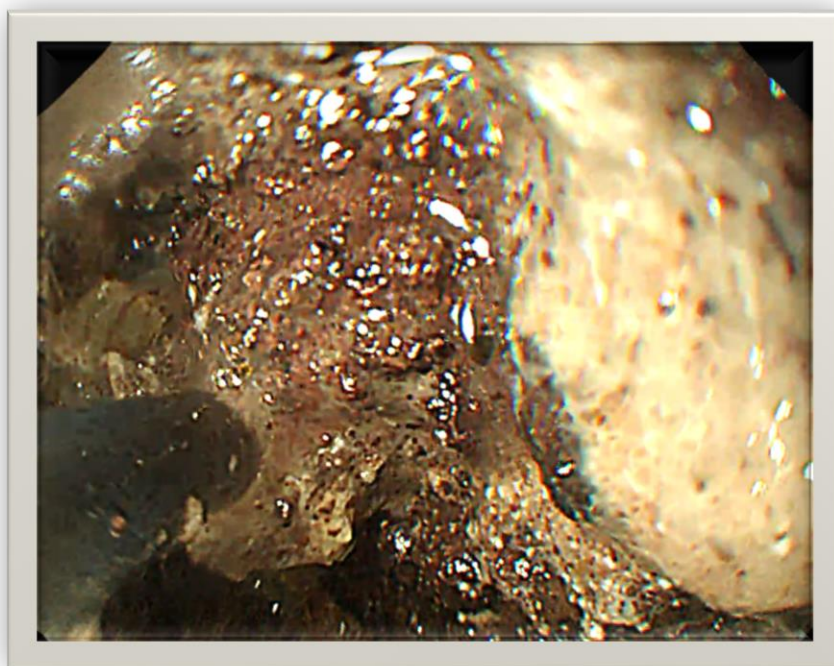


該病人入院後，我們在內視鏡超音波引導下使用雙蘑菇頭金屬支架作為內視鏡治療，當金屬支架置入引流後，腹痛、發燒等感染症狀立即有緩解的趨勢。

### 雙蘑菇頭金屬支架



一週後，我們取出雙蘑菇頭金屬支架後開始操作直接內視鏡壞死清創術。因為該病人病況較為嚴重，仍有大量殘留固體壞死物質，所以我們每週執行直接內視鏡壞死清創術。



而在此個案我們改變及創新了一個小技巧，使得直接內視鏡壞死清創術的效率得以提高，也對於此種術式所衍生之意外事件及狀況，得以獲得處置，我們將此經驗發表在國際知名期刊 *Digestive Endoscopy*。

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**DEN Video Article**

**Simple trick to reposition a maldeployed lumen-apposing metal stent from a walled-off cavity and replace the same lumen-apposing metal stent for multiple necrosectomy sessions**

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**BRIEF EXPLANATION**

**A** 54-YEAR-OLD WOMAN was admitted with infected walled-off necrosis (WON) of the pancreas and endoscopic ultrasound (EUS)-guided drainage of WON with a lumen-apposing metal stent (LAMS) (2 cm × 16 mm; Plumber stent; MITTECH, Seoul, Korea) was performed. During the LAMS deployment, the proximal flange was accidentally released into the cavity due to the poor endoscopic view from the bloody collection. On the next day, a grasping forceps (FC-443B; L. Olympus, Tokyo, Japan) was advanced across the cystogastrostomy under fluoroscopic image. The maldeployed stent in the cavity was grasped to cross the gastric wall. Subsequently, the stent was repositioned by grasping the removal lasso on the proximal end of the stent with a biopsy forceps (BFC2K-1; Olympus), which allowed construction of the proximal flange (Fig. 1). After the stent repositioning, the necrotic fluid was drained through the LAMS.

One week later, direct endoscopic necrosectomy (DEN) was initiated after removing the LAMS by a grasping forceps. Because significant residual solid necrotic material remained, the same removed LAMS was placed back into position across the cystogastrostomy for subsequent multiple DEN sessions. This technique was performed by grasping the lasso with a biopsy forceps to reinsert the LAMS inside the working channel (Fig. 2). Once the scope was in position inside the cavity, the distal flange was extruded by applying forward pressure using the same forceps. The proximal flange was then deployed in the

**Figure 1** Fluoroscopic view of the Plumber stent. New radiopaque markers were visible three proximal (yellow arrow), three middle (blue arrow), and three distal (green arrow). The proximal flange was constrained by the biopsy forceps.

gastric lumen, across the natural cystogastrostomy tract (Video S1).

EUS-guided LAMS placement carries a risk of maldeployment.<sup>1</sup> We present a case of repositioning of a maldeployed LAMS and redeployment of the same LAMS by grasping the retrieval lasso to maintain the cystogastrostomy for multiple DEN sessions that is safe and effective.<sup>2–4</sup> The use of the removal lasso, which is unique to the

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