Endoscopic intraluminal cutting technique for indwelling devices using a lithotripter handle and guidewire

Many transmural endoscopic devices have been developed for various different procedures; however, few options exist to endoscopically process these indwelling devices once they have been positioned. Here, we introduce a novel technique that allows indwelling devices to be cut endoscopically using a combination of an endoscopic retrograde cholangiopancreatography (ERCP) lithotripter handle and a guidewire, as illustrated in these two patients.

The procedure is performed as follows: (i) an ERCP guidewire (VisiGlide 0.025 inch; Olympus, Tokyo, Japan) is inserted through a therapeutic endoscope (GIF-1T240; Olympus) and is looped around the indwelling device using a biopsy forceps (FB-45Q-1; Olympus) (Fig. 1 a); (ii) a lithotripter cable (Conquest TTCL-1; Cook Japan Inc., Tokyo, Japan) is inserted over the guidewire (Fig. 1 b); (iii) the guidewire and the cable are connected to the handle (Fig. 1 c); (iv) the guidewire is reeled in using the handle, until the tightened loop of the guidewire cuts through the indwelling device (Video 1).

Video 1
A demonstration of the cutting procedure, which is performed by tightening the loop of the guidewire.
Our technique has some advantages over previously reported endoscopic scissor forceps [1,2]. Our method is highly capable of cutting hard materials because the lithotripter system used was originally designed to fracture large common bile duct stones. The technique can be easily and immediately introduced because all the required devices are commercially available.

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**Competing interests:** None

**References**

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**Bibliography**

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