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Endoscopic removal of an embedded uncovered biliary self-expandable metal stent with a mechanichal lithotriptor

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Palabras clave: ERCP. Uncovered self-expandable metal stent. Mechanical lithotriptor. Embeded biliary stent.

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Dear Editor,

Biliary fully-covered self-expandable metal stents (FCSEMS) can be used for benign conditions since they can be removed (1). Uncovered SEMS (uSEMS) are employed for malignant biliary obstruction and are intended to be permanent. Furthermore, they are almost impossible to remove because they become embedded in the bile duct. We present a technique for uSEMS removal in a patient in whom a biliary uSEMS had been inserted for two years. Biliary obstruction due pancreatic cancer was misdiagnosed. Finally an IgG4 related-disease (autoimmune pancreatitis) was identified.

An Olympus® mechanical lithotripter was used for removal. A 0.25-inch, 4.5-meter long guidewire (Visiglide®, Olympus) was passed through the metallic mesh at the distal end of the stent using a sphincterotome (Fig. 1A). After the guidewire was placed through the mesh, its tip was caught with biopsy forceps and pulled into the working

channel, and the midpoint of the guidewire was looped through the distal end of the stent (Fig. 1B). The endoscope was removed and the sheath of a Soehendra lithotriptor (Olympus®) was advanced over both ends of the looped guidewire. After the lithotriptor handle was connected, the stent was gently pulled into the sheath by rotating the handle (Fig. 1C). The stent shrank at the distal end of the bile duct and the mesh broke. Finally, the remaining stent was extracted with a rat-tooth forceps. A FCSEMS was temporarily placed, which was removed three weeks later.

Removal of biliary uSEMS is challenging. Some techniques have been described, such as the use of a suture-cutting device (Olympus) (2) or a piecemeal extraction technique using biopsy forceps (3). However, these techniques are labor-intensive and time-consuming. The stent-in-stent technique (FCSEMS inside an uCSEMS) (4) or the use of a mechanical lithotriptor (5) work better for uSEMS inserted for a short period of time.

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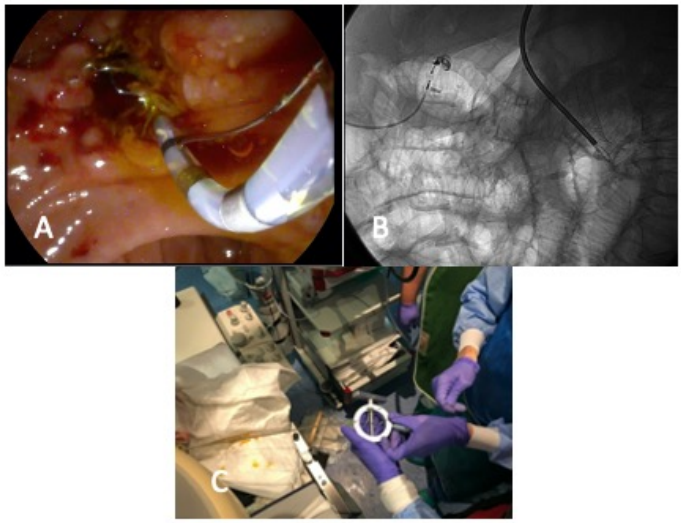

Fig. 1. A. Passage of the guidewire through the holes of the stent with the help of a sphincterotome. B. Insertion of the coil sheath over the looped guidewire. C. uSEMS was gently pulled into the sheath by rotating the handle of the mechanical lithotriptor under fluoroscopy control.