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ENDOSCOPIC REMOVAL OF AN EMBEDDED UNCOVERED BILIARY SELF EXPANDABLE METAL STENTS WITH A MECHANICHAL LITHOTRIPTOR.

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Dear Editor,

Biliary fully covered self-expandable metal stents (FCSEMS) can be used in benign conditiions due to its capacity to be removed (1). Uncovered SEMS (uSEMS) are employed in malignant biliary obstruction and are intended to be permanent. Furthemore, Its removability is almost impossible, because they become embedded in the bile duct. We present a technique for uSEMS removal in a patient in whom a biliary uSEMS was inserted for two years. Bilary obstruction due a pancreatic cancer was misdiagnosed. Finally an IgG4 related-disease (autoimmune pancreatitis) was found.
For removal we used an Olympus® mechanical lithotripter. 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. 1.a). After the guidewire was placed through the mesh, its tip was caught with a biopsy forceps and pulled into the working channel and the midpoint of the guidewire was looped through the distal end of the stent (Fig.1.b). 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. 1.c). The stent shrank to the distal end of bile duct and the mesh broke. Finally the remaining stent was extracted with a rat-tooth fórceps. Temporarily we placed a FCSEMS which was removed three weeks later

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

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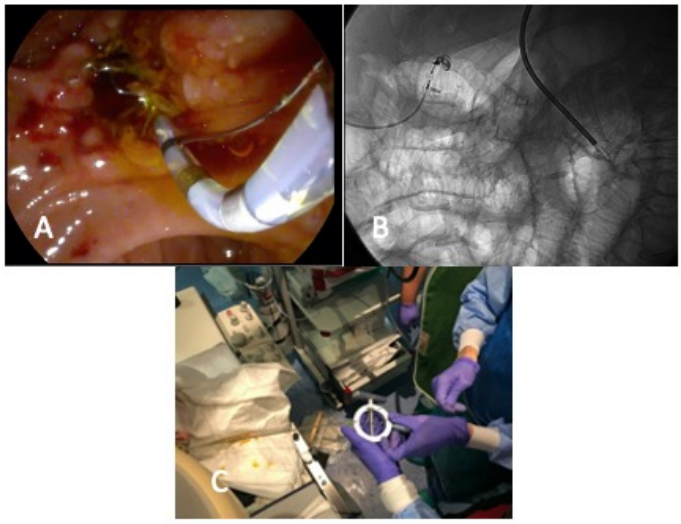

Figure 1. A. Passage of the guidewire between the holes of the stent with the help of a spincterotone. B. Insertion of the coil sheath over the looped guidewire. C. uSEMS was gently pulled into the sheath by rotating the handle of the mechanical lithotriptor with fluoroscopy control.