A simple method to remove an embedded self-expandable metallic stent with a balloon

A 56-year-old woman with a history of obstructive jaundice secondary to a post-operative biliary injury after a laparoscopic cholecystectomy was transferred to our hospital for treatment of a benign biliary stricture. She had three sessions of plastic biliary stent exchange (8.5, 10, 11.5 Fr, 9 cm, Soehendra Tannenbaum stent; Wilson-Cook Medical Inc., Winston-Salem, North Carolina, USA) placed into the common bile duct (CBD) to treat biliary tract obstruction. Her liver function tests returned to normal. However, after removal of the last plastic stent, the jaundice and right upper quadrant pain recurred. She then received a covered self-expandable metallic Wallstent (SEMS, Boston Scientific Corp., Natick, Massachusetts, USA) in the CBD (Fig. 1). She was asymptomatic after placement of the SEMS. After 4 months, she was admitted for removal of the SEMS. Endoscopy showed that the SEMS had migrated and had embedded into the CBD (Fig. 2). Attempts to remove it with a snare and rat-tooth forceps were unsuccessful.

Fig. 1 A covered self-expandable metallic Wallstent was placed into the common bile duct.

Fig. 2 After 4 months, the self-expandable metallic stent migrated into the common bile duct, and attempts to remove it with a snare and rat-tooth forceps were unsuccessful.

Fig. 3 A guide wire was inserted into the interstice between the self-expandable metallic stent and bile ductal wall, followed by a balloon, which was then dilated.
forceps were unsuccessful. Then a guide wire was inserted into the interstice between the SEMS and bile ductal wall, followed by a balloon, which was then dilated (Fig. 3). The SEMS was gradually separated and dislodged from the CBD by balloon dilations, and the inferior segment of the SEMS was exposed (Fig. 4a). Finally, the embedded SEMS was successfully captured with a snare and removed (Fig. 4b, c).

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Bibliography
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