Perforation of the capsule of Glisson by migration of a plastic biliary stent during a rendezvous and ERCP procedure

Stent migration is a rare complication reported in 5%–10% of cases, with proximal migration being even more infrequent [1,2]. Migration causing perforation of intrahepatic structures is exceptional, with only 14 cases reported [3]. We present a case of migrated plastic stent during a rendezvous and endoscopic retrograde cholangiopancreatography (ERCP) procedure, which led to perforation of Glisson’s capsule.

A 70-year-old man presented with abdominal pain and jaundice. His medical history included laparoscopic cholecystectomy. Magnetic resonance cholangiography showed multiple choledocholithiasis. ERCP was unsuccessful due to the unstable duodenoscope position and “floppy” papilla. Therefore, a percutaneous rendezvous technique was performed.

After placement of a 0.035" guidewire (Wilson-Cook Medical, Limerick, Ireland) and sphincterotomy, removal of choledocholithiasis was achieved but papillary fibrosis was observed. Owing to the difficulty of the procedure, a straight-type plastic stent, 5 cm in length and 8.5 Fr in diameter (Advancix Biliary Stent; Naviflex, Boston, Massachusetts, USA) was placed. However, during stent delivery, firm resistance was observed and, after several back-and-forth movements from both sides of the guidewire, the biliary stent was finally released, although it disappeared from endoscopic view. The cholangiogram showed its migration into the periphery of the right hepatic lobe (Fig. 1). A second plastic stent with the same characteristics was placed uneventfully (Fig. 1). The rupture of Glisson’s capsule was confirmed by computed tomography scan (Fig. 2).

Intrahepatic perforation has previously occurred after laparoscopic bile duct repair [4]. A second plastic stent with the same characteristics was placed uneventfully (Fig. 1). The rupture of Glisson’s capsule was confirmed by computed tomography scan (Fig. 2). Cholangioscopy-guided stent removal [4] was not available. Emergency laparoscopic surgery showed a small amount of bilioperitoneum and the hepatic surface perforated by the tip of the stent (Video 1), which was removed (Fig. 3), when the patient was discharged 4 days later.

These unusual cases of intrahepatic perforation have previously occurred after...
late stent migration, with 5 days being the shortest period of time reported [5]. This report describes immediate stent migration leading to perforation of Glisson’s capsule and visualized during ERCP.

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Competing interests

The authors declare that they have no conflict of interest.

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