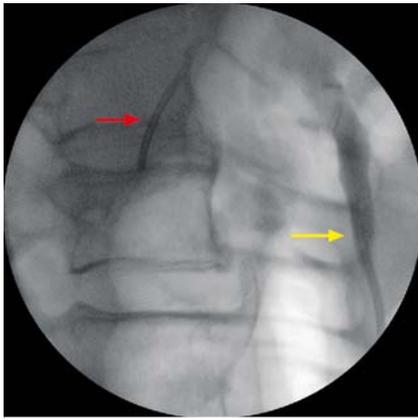


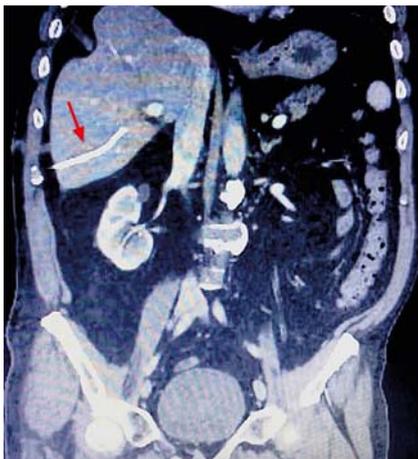
## Perforation of the capsule of Glisson by migration of a plastic biliary stent during a rendezvous and ERCP procedure



► **Fig. 1** Cholangiogram showing proximal migration of the stent (red arrow). A second plastic stent was inserted into the common bile duct to ensure adequate ongoing biliary drainage (yellow arrow).



► **Video 1** Rendezvous and endoscopic retrograde cholangiopancreatography procedure leading to perforation of Glisson's capsule by immediate migration of a plastic biliary stent.



► **Fig. 2** Computed tomography scan image showing migration of the biliary stent through Glisson's capsule.



► **Fig. 3** Laparoscopic surgery revealed the tip of the stent perforating the hepatic surface.

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 (Advanix 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**). 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 (► **Fig. 3**), which was removed (► **Video 1**). The clinical outcome was uneventful, and 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.

## The authors

**Paula Fernández-Alvarez**<sup>1</sup>, **Juan Cintas-Catena**<sup>2</sup>, **Victoria A. Jiménez-García**<sup>1</sup>, **Francisco Bellido Muñoz**<sup>1</sup>, **Rafael Romero-Castro**<sup>1</sup>, **Pedro Hergueta-Delgado**<sup>1</sup>, **Ángel Caunedo-Alvarez**<sup>1</sup>

- 1 Gastroenterology and Endoscopy Unit, Virgen Macarena University Hospital, Seville, Spain
- 2 Colorectal Unit, Department of General and Digestive Surgery, Virgen Macarena University Hospital, Seville, Spain

## Corresponding author

**Paula Fernández-Alvarez, MD**  
Gastroenterology and Endoscopy Unit,  
Virgen Macarena University Hospital, Doctor  
Fedriani, Nº 3, Sevilla 41009, Spain  
paulafer7@gmail.com

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