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## **Biliary stent migration as a rare cause of ileal perforation**

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**Abbreviations:** Computed Tomography (CT), Endoscopic Retrograde Cholangiopancreatography (ERCP).

Dear Editor,

The incidence rate of biliary stent migration is of 3-6% (1), being most of them asymptomatic, with elimination of the piece by the feces.

### **Case report**

We report the case of a 54-year-old female with a history of umbilical hernioplasty. She was undergoing follow-up due to chronic dilatation of the extrahepatic bile duct, having required several Endoscopic Retrograde Cholangiopancreatography (ERCP) and biliary stent replacements (the last one 6 years ago), with a histological diagnosis of papillary fibrosis.

She was admitted to our emergency unit for abdominal pain in the right lower quadrant and symptoms compatible with intestinal obstruction in the last 24 hours.

CT-scan showed obstruction of distal ileum with hyperdense material consistent with biliary stent migrated.

Given the radiological findings and the clinical worsening, the patient underwent emergency surgery.

The procedure revealed a purulent peritonitis with distal ileum perforation, where the biliary endoprosthesis was embedded (figure 1). Finally, resection of the involved small bowel loops and ileo-ileal anastomosis were performed, with a subsequent complete recovery of the patient.

## **Discussion**

Intestinal perforation secondary to biliary stent migration is an extremely rare complication, located in 92% of cases at duodenum (2).

Prosthetic migration is favoured by using plastic over metallic stents and covered instead of uncovered ones. The insertion of several smaller-diameter stents and avoiding the use of shorter ones (<7cm) may prevent endoprosthesis migration (3,4).

Among the few similar cases published in medical literature, all patients showed some risk factor for perforation (previous surgeries, diverticulosis, hernias, etc.) (4). This group of patients requires special attention in case of stent migration, initially with an expectant attitude and considering extraction by enteroscopy (5) if embedding is suspected, or early surgery if signs of perforation appear.

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**Figure 1.** Surgical specimen. Resected small bowel loops with biliary plastic stent embedded and perforating distal ileum.