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Authors:
Omar Vergara-Fernández, Danilo Tueme de la Peña, Jorge Canto-Losa

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Plastic biliary stent migration as a cause of ascending colon perforation

Omar Vergara-Fernández¹, Danilo Tueme-De la Peña¹, Jorge Eduardo Canto-Losa²

Department of ¹Colorectal Surgery and ²General Surgery. Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán. Mexico City, Mexico

Correspondence: Danilo Tueme-de la Peña

e-mail: danilotuememd@gmail.com

Danilo Tueme-De la Peña: ORCID 0000-0001-9520-3633

Jorge Eduardo Canto-Losa: ORCID 0000-0003-3768-3688

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Dear Editor,

Endoscopic placement of plastic and metal biliary stents has become a well-established procedure for both benign or malignant biliary disease. One of the most dreaded complications related to this procedure is stent migration with bowel perforation.

Case report

A 65-year-old male with stage IV pancreatic cancer came to the Emergency Department due to eight-hour right upper quadrant pain, fever and shivering. He had a history of endoscopic retrograde cholangiopancreatography (ERCP) and plastic biliary stent placement 43 days earlier. On admission, contrast enhanced computed tomography (CE-CT) showed migration of the biliary stent to the ascending colon, with signs of perforation on its antimesenteric edge, with impact on the inner edge of the abdominal wall (Fig. 1A).

A diagnosis of colonic perforation due to a foreign body was made. Antibiotic therapy was started and a surgical approach was proposed. A laparotomy was performed, and no free fluid was found. The biliary stent was found perforating the ascending colon and in contact with the abdominal wall as described in the CT scan (Fig. 1B). The stent contained the colonic perforation, avoiding the leakage of fecal content. The migrated endoprosthesis was removed and primary closure was performed, without further complications. The patient remained under observation with intravenous (IV) antibiotics.

On postoperative day (POD) 7, the patient developed fever, elevation of liver enzymes and right upper quadrant (RUQ) pain. Acute cholangitis was diagnosed. ERCP was performed once again with the placement of an 8 cm by 10 Fr Amsterdam-type plastic stent, with a subsequent complete recovery of the patient.

Discussion

Stent migration may be present in up to 3-8 % of the cases (1-3). In most cases, distal migration has an uncomplicated passage, but it may cause bowel injury in up to 1 % of cases (2). The most common site of bowel injury is the duodenum (92 %), but others sites such as the ileum have also been described (1). This life-threatening complication requires prompt evaluation and management, either by an endoscopic or surgical approach.

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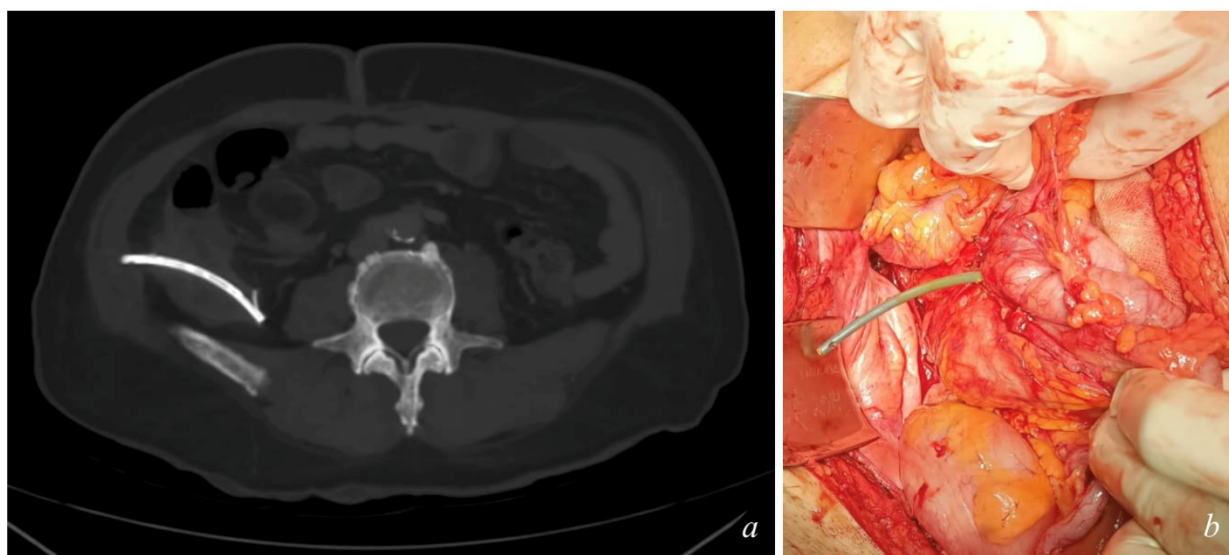


Fig. 1. A. Contrast enhanced computed tomography (CE-CT) scan. Biliary stent migration with perforation of the ascending colon on its antimesenteric edge, contacting the abdominal wall. B. Ascending colon perforation due to biliary plastic stent migration.