

Sigmoid perforation caused by a migrated biliary stent and closed with clips

A 73-year-old man was admitted with sharp tenderness in the left iliac fossa, peritonitis, fever, and leukocytosis. The patient had undergone an endoscopic retrograde cholangiography 15 days earlier, which showed choledocholithiasis and benign biliary stricture. The stones were extracted and a 10-Fr, 12-cm plastic biliary stent was inserted. A computed tomography (CT) scan revealed that the biliary stent had migrated and caused sigmoid colon perforation with mild pneumoperitoneum (● Fig. 1). Sigmoidoscopy was carried out after colon preparation with enema. It showed extensive diverticulosis in the sigmoid colon and the stent was 30 cm from the anus. Its tip had perforated the wall of the sigmoid colon, near the diverticula (● Fig. 2). The stent was atraumatically removed with foreign body forceps. A punctate perforation (● Fig. 3) was closed with two through-the-scope clips and an endoloop (● Fig. 4).

(● Fig. 4). Broad-spectrum antibiotics were commenced, but 5 days later, the patient developed fever. A CT scan showed a 4-cm abscess in the pelvis. The antibiotics were continued and after five days another follow-up CT scan showed no evidence of an abscess. The patient was discharged 14 days after admission. There are few reported cases of clinically significant complications of spontaneous migration of biliary stents [1]. Most of these patients were treated surgically [2]. Patients with a history of diverticular disease are at higher risk of the stent being hindered from going through the bowel lumen [3]. Only four cases of colon perforation by a plastic biliary stent which was removed endoscopically [1,4,5] have been published to date. This is the first report of a patient in whom removal of the biliary stent and closure of the perforation were carried out endoscopically.



Fig. 4 Completed closure was achieved with deployment of two clips and one endoloop.

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N. Alcaide, S. Lorenzo-Pelayo, M. T. Herranz-Bachiller, C. de la Serna-Higuera, J. Barrio, M. Perez-Miranda

Gastrointestinal Endoscopy Unit, Department of Gastroenterology, University Hospital Río Hortega, Valladolid, Spain

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Corresponding author

N. Alcaide
 Department of Gastroenterology
 University Hospital Río Hortega
 C/Dulzaina 2
 47012 Valladolid
 Spain
noelialcaide@hotmail.com

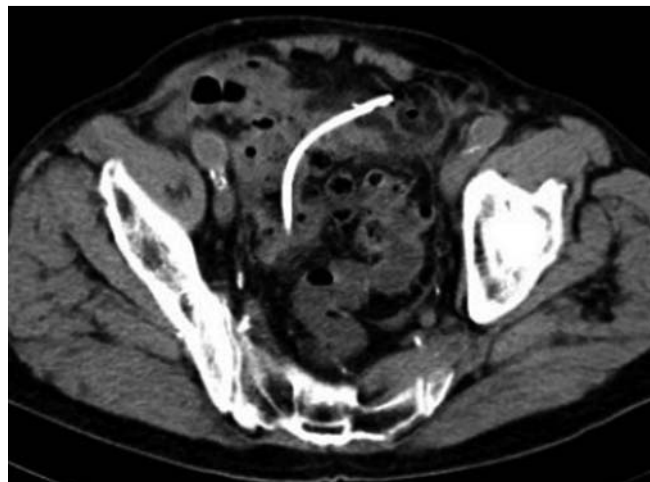


Fig. 1 Computed tomography (CT) scan in a 73-year-old man with sharp tenderness in the left iliac fossa, peritonitis, fever, and leukocytosis following endoscopic retrograde cholangiography. The scan shows a biliary stent perforating the sigmoid colon.



Fig. 2 Endoscopic image of the biliary stent embedded in the wall of the sigmoid colon.



Fig. 3 A small punctate perforation was seen after removal of the biliary stent.