

# A rare cause of cholangitis

## Abstract

We described a case of hepatic artery pseudoaneurysm occurring as a complication of biliary stent migration, presented as cholangitis. It was managed by endoscopic retrograde cholangiopancreatography and the pseudoaneurysm was treated with coil embolization.

**Keywords:** cholangitis, obstructive jaundice, endoscopic retrograde cholangiopancreatography, false aneurysm

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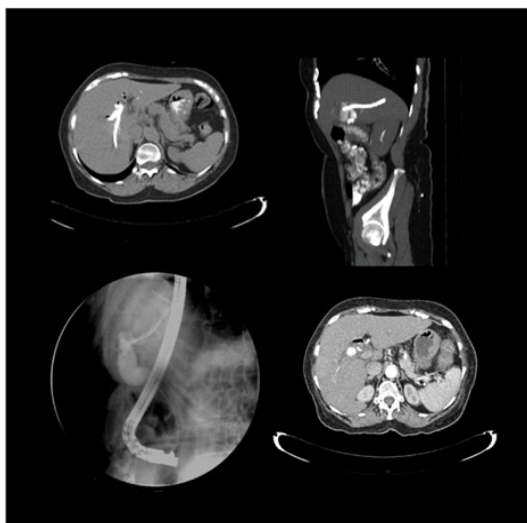
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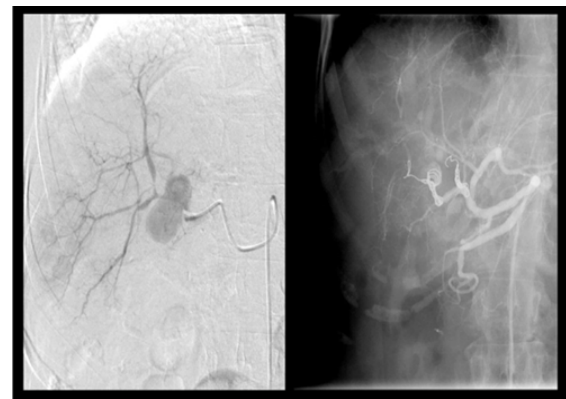
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## Clinical case

A 76-year-old woman presented with fever, jaundice and pain in the right upper abdominal quadrant for 4 days. She had undergone open cholecystectomy 30 years ago, and had subsequently experienced recurrent cholangitis and choledocholithiasis that was treated with endoscopic retrograde cholangiopancreatography (ERCP). The patient developed a benign type I biliary stricture (Bismuth classification), and a biliary stent had been implanted 5 months prior to the current presentation. On admission, the patient had normal vital signs. Physical examination revealed tenderness in the right upper abdominal quadrant. Laboratory studies showed an elevated leucocyte count (12,000/mm<sup>3</sup>) with neutrophil predominance (90%) and abnormal liver function (total bilirubin 4.6 mg/dL, direct bilirubin 3.5 mg/dL, alkaline phosphatase 299 IU/L). Enhanced computed tomography revealed migration of the biliary stent to the right hepatic duct, with a 30 mm hepatic artery pseudoaneurysm that was compressing the right hepatic bile duct. The stent was removed via ERCP Figure 1. Angiography confirmed the diagnosis, and the pseudoaneurysm was treated with coil embolization Figure 2.



**Figure 1** Computed tomography and ERCP revealed migration of the biliary stent to the right hepatic duct.



**Figure 2** Angiography showed a hepatic artery pseudoaneurysm, treated with coil embolization.

## Discussion

Obstructive jaundice secondary to benign or malignant causes is usually managed by ERCP and the insertion of a biliary stent. Long-term complications of ERCP include stent occlusion or migration. Proximal and distal stent migration occurs in 5–10% of patients, with half of these patients remaining asymptomatic. Proximal migration can produce abnormal liver function, painless jaundice, cholangitis, abdominal pain or gastrointestinal bleeding. Distal migration of the biliary stent into the bowel lumen can lead to spontaneous passage of the stent without incident; however, the migrated stent may impact the intestinal wall and cause penetration, perforation, intestinal obstruction, fistula formation, intra-abdominal sepsis or appendicitis.<sup>1</sup> There are previous reports of hepatic artery pseudoaneurysm occurring as a complication of biliary stent insertion, but these previous cases have presented as hemobilia rather than cholangitis.<sup>2–5</sup>

## Acknowledgments

None.

## Conflicts of interest

The author declares there is no conflict of interest.

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