

Clinical Image

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Where is the biliary stent?

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Description

80 years-old female patient came to the emergency department with fever and pain in the right upper quadrant. She had diabetes mellitus and cirrhosis due to nonalcoholic steatohepatitis. In her history, she had undergone Endoscopic Retrograde Cholangiopancreatography (ERCP) 3 months prior due to biliary stones. In her laboratory findings total bilirubin was 3.65 mg/dL, direct bilirubin 2.16 mg/dL, alanin aminotransferase 57U/L, aspartat aminotransferase, 101 U/L, alkaline phosphatase 147 U/L, gamma-glutamyl transferase was 222U/L, white blood cell count $7.31 \times 10^3/\mu\text{l}$, neutrofil percentage 86.4%, C reactive protein level 99 mg/L. On physical examination heart rate was 95 beats per minute, breath rate was 18 beats per minute, fever was 38°C, and abdominal tenderness without rigidity or rebound was noted. The patient was hospitalized with a diagnosis of cholangitis. Oral intake was stopped and parenteral fluids and antibiotics were administered. Magnetic Resonance imaging revealed a dilated common bile duct and some sludge formations in the distal part. The following day, an ERCP procedure was performed. Papilla was located adjacent to the diverticulum with sphincterotomy maden appearance. No stent was observed in the papilla or inside diverticulum (Figure 1a). A synchronous fluoroscopy image revealed a plastic biliary stent, which was located inappropriately, and the middle part of the stent was in the duodenoscope head line, continuing inferiorly and resembling that the stent was in the common bile duct (Figure 1b). Initially, perforation and migration of the stent were suspected. A common bile duct was swept with a balloon catheter, and sphincteroplasty was performed. No other pathology

was observed, excluding minimal sludge. Computed Tomography (CT) showed that the stent was in the ascending colonic lumen without any perforation (Figure 2). The stent migrated through the normal gastrointestinal lumen. Two days after the procedure, the patient had taken a stent out via defecation.

Complications associated with biliary stents include stent migration, cholangitis, stent blockage, hemorrhage, perforation, and pancreatitis. Stent migration was most common. Distal or proximal displacement of the stent occur in 5-10% of patients. Gastrointestinal perforation is rare, with an incidence of <1% [1]. In a study conducted by Duman, AE et al., 61.0% of distally migrated patients were asymptomatic, and 69.2% of the patients passed through the intestine spontaneously without intervention [2]. Our case is unique with fluoroscopic and endoscopic images that resemble duodenal perforation of the migrated stent; however, the true is unmatched interposition of the stent on fluoroscopy, which is in the ascending colon. This situation highlights the importance of obtaining CT images.

References

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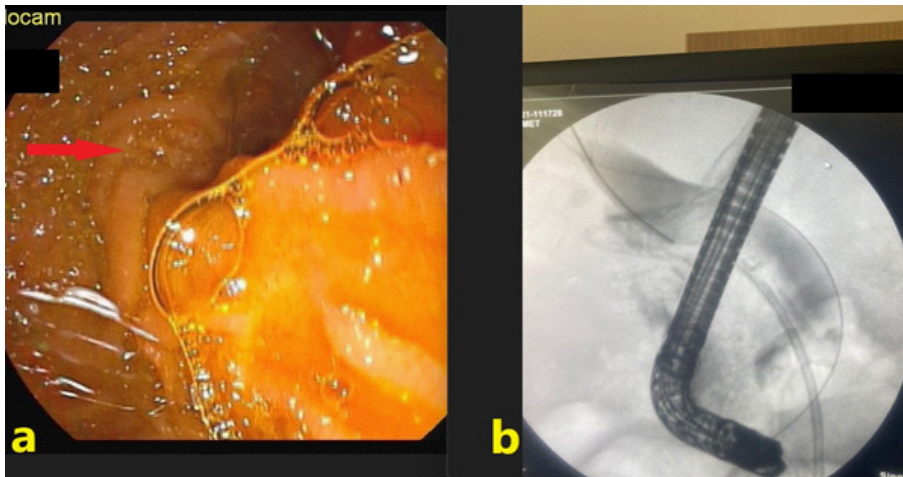


Figure 1: Endoscopic appearance of the papillary orifice located adjacent to the diverticulum (a). Fluoroscopic image showing migrated biliary plastic stent (b).

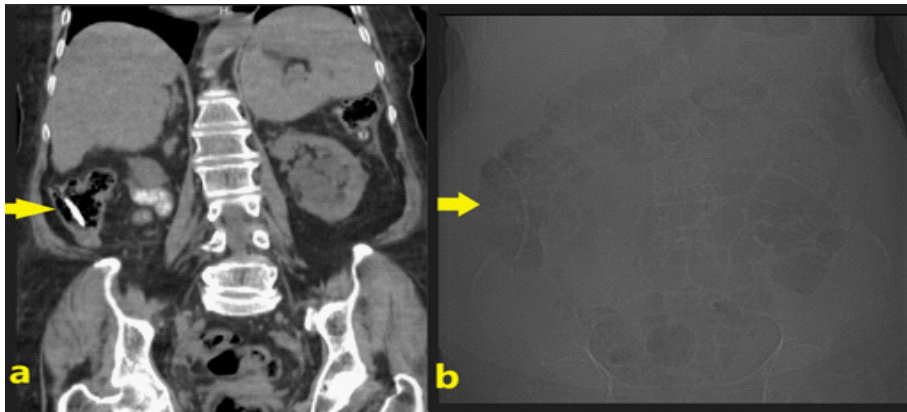


Figure 2: CT (a) and plain radiography (b) revealing a biliary stent in the ascending colon.