

### A NOVEL CASE OF BILIARY STENT MIGRATION WITH ENTRAPMENT WITHIN A SIGMOID DIVERTICULUM

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#### INTRODUCTION

Many Americans suffer from gallbladder disease, from which 1-4% develop symptomatic disease. Pancreaticobiliary obstruction, a rare complication, can be life-threatening. Stenting with plastic stents (PS) is the gold standard for ductal obstructions. Patency of PS is usually less than 4 months. Complications of prolonged stent retention include migration, pancreatitis, and obstruction leading to cholangitis. Commonly, stents become dislodged and pass through spontaneously if they successfully transverse the ileocecal valve. We report a case of lower GI bleed secondary to PS dislodgement into a diverticulum five years post-placement.

#### CASE PRESENTATION

A 72-year-old veteran with history of cholecystitis status-post laparoscopic cholecystectomy complicated by biliary leak with subsequent biliary stenting twice five years ago presented with a two-month history of failure to thrive. His labs were significant for: WBC10.3, AST/ALT153/94, ALP703, total bilirubin1.5, procalcitonin2.24, CRP190.3, ESR64. Imaging demonstrated two-centimeter dilatation of the bile duct with stents near the ampulla and sigmoid colon. Subsequently, he developed hematochezia with a hemoglobin drop from 14.6 to 9.0. Colonoscopy revealed the dislodged stent within a sigmoid diverticulum with bleeding stigmata adjacent. The stent was removed with resolution of the patient's hematochezia.

#### DISCUSSION

Of the 40 cases involving foreign bodies and sigmoid diverticular disease, only 10 cases presented with stent migration related entrapment or perforation. Persistence of a PS for greater than 3-6 months significantly increases the risk of complication between 5-10%, which increases proportionally with time.

We speculate this patient had stent dislodgement, leading to common bile duct occlusion and resultant cholangitis. After passage through the ileocecal valve the stent lodged in the sigmoid colon. This case underscores the importance of adhering to post-stenting follow-up. As time elapses post-stenting, the risk, and severity of complication increases. Thus, every effort should be made to avoid loss of follow-up to obviate life-threatening and preventable complications of biliary stenting.

**Figure 1:** **A)** Sigmoid diverticulum. **B)** Plastic biliary stent visualized adherent to colonic mucosa and embedded within sigmoid diverticulum. Several distal diverticula can be visualized as well. **C)** Direct luminal view within sigmoid colon along axis of plastic biliary stent embedded within diverticula. **D)** Another view of plastic biliary stent following removal from sigmoid diverticulum. Fresh blood clots can be visualized in surrounding diverticula.

