

PICTURES IN DIGESTIVE PATHOLOGY

Successful extracorporeal shock wave lithotripsy (ESWL) treatment of a symptomatic massive biliary stone proximal to an anastomotic biliary stricture

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CASE REPORT

Postoperative benign biliary stricture in the anastomotic site is one of the most common complications of biliary-enteric anastomosis, with a rate of 6.87% after 2-13 years of follow-up (1). If untreated, biliary strictures can induce other complications such as recurrent cholangitis, intrahepatic stones, pancreatitis and secondary biliary cirrhosis (2,3). We report our experience with extracorporeal shock wave lithotripsy (ESWL) in a patient with a massive symptomatic stone proximal to an anastomotic biliary stricture.

A 72-year-old man was admitted with fever, recurrent right upper quadrant pain and weight loss. He underwent a partial gastrectomy with Billroth II reconstruction in 1981 and a curative pancreaticoduodenectomy for pancreatic cancer in 2011.

Laboratory tests showed the following: bilirubin: 1.53 mg/dl (N: 0.20-1.10); gamma-glutamyl transpeptidase (GGT): 100 IU/L (N: 5-36); alkaline phosphatase (ALP): 153 U/L (N: 35-120); CRP: 12.0 mg/dl (N: < 0.6). Pancreatic enzymes, CEA and CA 19-9 were normal.

Ultrasound examination and magnetic resonance cholangiopancreatography (MRCP) found a 6 cm biliary stone proximal to the anastomotic biliary stricture, with intrahepatic and common hepatic duct dilatation. Considering the surgical alteration of the biliary anatomy, the obstruction was initially treated with percutaneous transhepatic drainage.

Therefore, six ESWL sessions were performed, and direct colangiography confirmed a 6 cm biliary stone impacted on the anastomotic biliary stricture (Fig. 1). Percutaneous transhepatic cholangiography procedures were repeated to remove stone fragments during the ESWL sessions, and balloon dilatation was performed, reaching up to 18F over three weeks.

Complete stone removal was achieved through the biliary catheter after the successful stone fragmentation (Fig. 2). Finally, the stricture was relieved with percutaneous placement of a biliary stent. The diameter of the intrahepatic and common hepatic duct was reduced and rapid contrast outflow into jejunum was observed (Fig. 3).

The procedure was successful, with no complications and an excellent clinical and laboratory response.

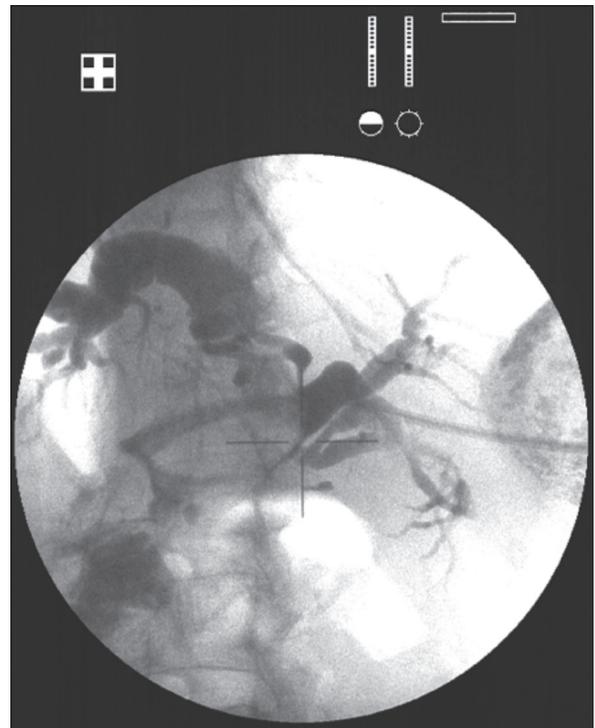


Fig. 1. Direct colangiography shows a 6 cm biliary stone impacted on the anastomotic biliary stricture.



Fig. 2. The stone was totally fragmented after the last ESWL session. However, the intrahepatic and common hepatic ducts were still dilated proximal to the stricture.

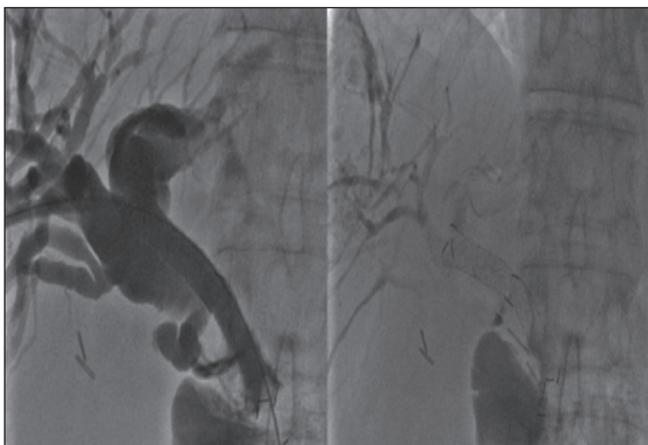


Fig. 3. After the stone fragments removal and the biliary stent placement, the diameter of the intrahepatic and common hepatic duct was reduced and rapid contrast outflow into jejunum was observed.

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