

Image Guided Biliary Stone Clearance in Bariatric Patients

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Introduction: The population of post bariatric surgery patients is rapidly increasing worldwide. Due to the altered anatomy post Roux-en-Y gastric bypass (RYGB), conventional endoscopic management for choledocholithiasis is challenging. These patients are now commonly managed by means of a laparoscopic assisted ERCP. Although effective, this requires significant resource utilization and potential morbidity related to the need for surgical intervention. We present our preliminary experience with a purely percutaneous management of choledocholithiasis in bariatric patients post-RYGB.

Methods: A retrospective single center review identified six patients with choledocholithiasis after bariatric RYGB who underwent percutaneous CBD access and treatment by interventional radiology. Five patients underwent percutaneous transhepatic CBD access while one patient underwent percutaneous trans-cholecystic CBD access. In four of the six patients conscious sedation alone was sufficient to perform the procedure.

Results: All patients had radiologically confirmed choledocholithiasis and were clinically symptomatic prior to intervention. The biliary tree was successfully accessed percutaneously and cleared in all six patients. In the five patients where a percutaneous transhepatic access was utilized, three patients required only fluoroscopic balloon sphincterplasty and sweep of the CBD to clear the ductal stones, while the fourth required percutaneous cholangioscopy assisted clearance and the fifth needed lithotripsy for clearance. In the sixth patient with non-dilated intrahepatic bile ducts a trans-cholecystic approach into the CBD was utilized with percutaneous cholangioscopic assistance to clear the ductal stones. All procedures were completed successfully with no post procedure complications.

Conclusion: Percutaneous clearance of CBD stones in bariatric patients presents a minimally invasive alternative to current surgical practice. The use of conscious sedation and the purely percutaneous approach may potentially reduce morbidity and resource utilization for this increasingly common clinical scenario.

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