BALLOON SWEEPING FOR SUSPECTED CHOLIDOCHOLITHIASIS WITH NORMAL CHOLANGIOGRAPHY

Steven H Price, (Christoph T. Woerlein, M.D., Steven C. Alder, James A. DiSario, M.D.), Division of Gastroenterology, University of Utah Health Sciences Center

Background: Endoscopic retrograde cholangiography (ERC) is often used to diagnose and treat bile duct stones; however, stones may not be visualized by cholangiography. The aim of this study is to evaluate the outcomes of biliary balloon exploration in the setting of suspected choledochocholithiasis and a negative cholangiogram.

Design: Retrospective study of balloon exploration of the bile duct on 169 patients between 1994 and 2003 for sweep yield and complications.

Results: Stones and/or other debris were extracted in 40 (24%) cases. The sweep yield rate was, 24% when sphincterotomy was employed during the procedure, compared to 12% when performed through an intact papilla (p=0.102), and 30 % when sphincterotomy had been performed previously. There were complications in 22 (13%) cases. Exploration through an intact papilla had the lowest complication rate (4%). Advanced age and the presence of an indwelling stent were associated with a positive sweep by multivariate analysis (p=0.018, and 0.028) respectively.

Conclusions: Biliary balloon exploration in the setting of a negative cholangiogram is effective, particularly in the presence of advanced age, and an indwelling stent. Complication rates of balloon exploration compare favorably to prior reports on ERC-related morbidity, and balloon exploration may be safely performed through an intact papilla.