Extraction of a big-sized common bile duct stone by means of biliary sphincterotomy followed by papillary dilatation using a hydrostatic balloon

J. García-Cano, A. Pérez Sola, C. J. Gómez Ruiz, M. Viñuelas Chicano, C. Jimeno Ayllón and N. Sánchez Manjavacas

Gastroenterology Department. Virgen de la Luz Hospital. Cuenca, Spain

An 83-year-old woman was admitted because of colicky pain in the abdominal right upper quadrant and a cholestatic pattern in liver chemistry. Transcutaneous abdominal ultrasound showed a huge dilation of the extrahepatic bile duct. A distal common bile duct stone was also observed. An endoscopic retrograde cholangio-pancreatography (ERCP) was performed. Vater’s papilla was located in the right rim of a duodenal diverticulum. At cholangiography a common bile duct stone was observed. It was ovoid in shape and had a size of 19 mm in the largest diameter (Fig. 1). An endoscopic biliary sphincterotomy procedure was performed. As Vater’s papilla was in a juxtadiverticular position, sphincterotomy size could not be extended beyond approximately 5 mm. This papillary opening seemed unlikely to allow common bile duct stone extraction. Then a sphincterotomy dilatation was performed. A 15-mm in diameter hydrostatic balloon was employed (Figs. 2 and 3). Afterwards, the common bile duct was swept with an extraction balloon and choledocholithiasis was removed (Fig. 4). The common bile duct stone slipped easily through the dilated papillary opening even though its size was greater than the papillary dilatation.
Endoscopic common bile duct stone extraction (by means of ERCP) has been performed since 1973. When only extraction balloons and Dormia baskets are used the complete extraction rate for choledocholithiasis was around 70% at first endoscopic attempt (1). Vater’s papilla dilatation after sphincterotomy has been performed using large-diameter (12-20 mm) hydrostatic balloons, and is a simple technique. It has been recently introduced (2), and allows complete extraction rates of nearly 100%. Furthermore, after performing a small sphincterotomy, the compression caused by the inflated balloon is mainly brought to bear on the biliary sphincter instead than the pancreatic one. This fact is related to a smaller pancreatitis rate, and seems to be dissimilar to the procedure when the intact papilla is dilated with no previous cutting (3).

REFERENCES