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Letters to the Editor

Successful extracorporeal shockwave lithotripsy in chronic calcified pancreatitis management

Key words: Stones. Pancreatobiliary. ESWL (extracorporeal shockwave lithotripsy). Endoscopic ultrasonography.

Dear Editor,

Pancreatic duct (PD) stones are a common feature of chronic calcified pancreatitis (CCP). Extracorporeal shockwave lithotripsy (ESWL) has been long used in recent years with good results in pain relief (1,2).

Case report

A 33-year-old woman with a 3-year history of idiopathic CCP and recurrent attacks of acute pancreatitis was referred to our institution for PD stones management. Prior attempts of endoscopic retrograde cholangiopancreatography (ERCP) approach had failed. Plain abdominal X ray showed calcified stones in the pancreatic area (Fig. 1A). Magnetic resonance cholangiopancreatography (MRCP) demonstrated a dilated pancreatic main duct with multiple stones along it (Fig. 1B). Endoscopic ultrasound (EUS) revealed a dilated PD (5.5 mm) in the body and tail of the pancreas, with several hyper-echogenic structures inside the duct, the largest measuring 9.3 mm (Fig. 1C). Initial approach utilized ESWL therapy with an electromagnetic lithotripter (Dornier Medtech®). ESWL was performed twice in a 2-month period (session 1: 2.7 Hz, 1078 frequency waves, intensity of 6, 40.38 Julies; session 2: 2.7 Hz, 1,458 frequency waves, intensity of 7, 68.66 Julies). The patient did well after each session, with no complications. EUS eight weeks after second ESWL session showed the absence of pancreatic stones in the PD and significant reduction of its size (Fig. 1D). Since then, the patient has shown no new recurrent episodes of pancreatitis (two year follow-up).

Discussion

ESWL with or without interventional endoscopy has been long used for treatment of PD stones associated with CCP (1,3), with good results in pain relief and improvement in quality of life (2). ESWL alone seems to be equally effective than its combination with interventional endoscopy (4,5). EUS is a minimally invasive, low risk method for diagnosis of CCP, and the presence of stones in the PD has been regarded as the most reliable feature (6). This case illustrates the usefulness of exclusive ESWL-based therapy for long term PD stones management, as well as the value of EUS for post-ESWL documentation of stones clearance.

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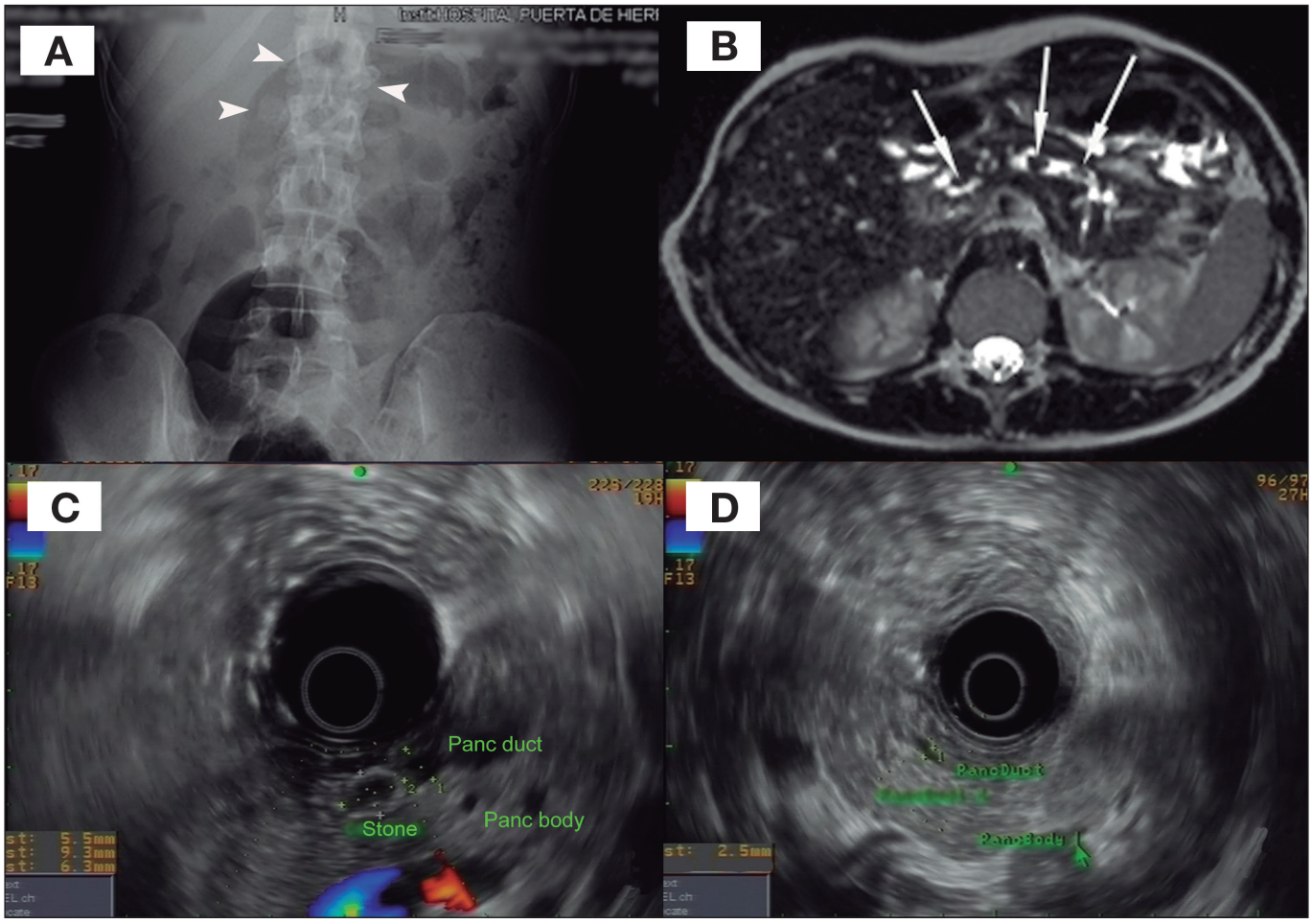

Fig. 1. A. Plain abdominal X: Three large calcified stones (arrow heads) in the pancreatic area. B. MRCP image: Dilatation of the main PD with intraductal stones (arrows). C. EUS image: Pancreatic body with the presence of a 9 x 6 mm stone inside a dilated PD (5 mm). D. EUS image: Pancreatic body with significant reduction of main PD size (2.5 mm) and secondary duct slightly dilated.

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