Abstract

Background: Pancreatic calculi are sequelae of chronic pancreatitis (CP) and may obstruct pancreatic ducts leading to pain. Indications for endotherapy include nonimpacted <5 mm stones in the head of pancreas with the absence of downstream strictures. The assessment before endotherapy is done by magnetic resonance cholangiopancreatography/computed tomography. Objectives: To assess the modality of endoscopic ultrasound (EUS) as a roadmap before endoscopic retrograde cholangiopancreatography (ERCP) in patients planned for endotherapy in CP. Methods: The data of 412 patients with CP were retrospectively analyzed. A total of 143 were associated with stones in the head/papillary region of pancreas. Of these, around 75 were excluded and remaining 68 were evaluated by EUS using a linear/radial echoendoscope before ERCP. Results: Of 68 cases, 48 were associated with hard stones with acoustic shadowing while twenty were associated with soft stones without acoustic shadowing. In twenty soft stones cases, ERCP was successful in 18 patients. In 48 patients with hard stones, there was failure of endotherapy in forty patients which required extracorporeal shock wave lithotripsy/surgery. The presence of large, hard, immobile stones was negative predictors of successful endotherapy. Small, ampullary/papillary stones were positive predictors. Conclusions: EUS can influence therapeutic decisions before endotherapy and can prevent unsuccessful attempts improving overall success/prognosis. EUS has an additional advantage of making a diagnosis of ampullary/papillary stones and biliary obstruction which can be treated endoscopically. It can guide whether endotherapy needs to be performed through major or minor papilla. EUS by diagnosing pancreatic tumor/strictures missed on other imaging modalities allows early surgical reference and hence improves long-term prognosis.

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