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MRCP before ERCP: the added value in the management of common bile duct stones

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Dear Editor,

Many image techniques (IT) allow the confirmation or exclusion of the presence of common bile duct stones (CBDS). An abdominal ultrasound and liver function test are performed first. Additional techniques should include magnetic resonance cholangiopancreatography (MRCP) and endoscopic ultrasound (EUS); both are recommended in medium risk CBDS patients (sensitivity 93-95% and specificity 96-97%) (1,2). As experts argue, IT must be less invasive, accurate and cost-effective. Some endoscopists consider that they must provide an added value and not just confirm the presence of CBDS. The technique should allow adequate information to be obtained during the endoscopic retrograde cholangiopancreatography (ERCP) to optimize patient management.

EUS is recommended in specific situations such as the presence of a pacemaker, metal valves and intracranial clips, claustrophobia, morbid obesity, critical patients in the intensive care unit and patients with a negative MRCP and a moderate-high suspicion of CBDS (1,2). MRCP is widely available and non-invasive, sedation is not required, intrahepatic ducts can be explored and is useful in patients with a modified gastroduodenal anatomy. In addition, images can be stored and reviewed after the procedure and the procedure is also cost-effective (1-3).

Discussion

The added value of MRCP before performing ERCP is attractive as it provides a "picture" of the bile ducts that allows:

1. The evaluation of the difficulty of the ERCP procedure and its duration and optimization of the endoscopists' schedule, providing better information to the patient and their family.
2. To determine the pancreatic duct anatomy in order to avoid its cannulation.
3. To determine the diameter of the bile ducts, number, morphology and sizes of the stones. This information can be the key to the success of the procedure in medium risk patients, especially those with respiratory difficulties during ERCP, as well as situations where radiological image quality is suboptimal.
4. To discard biliary pathology that can be difficult to evaluate during ERCP and that can change patient management (e.g.: Mirizzi).

EUS is very useful in many different pathologies across our specialty. However, we consider we can´t forget MRCP possibilities. In most cases, MRCP represents the most secure and acceptable technic in patients suspected of CBDS (1,4), knowing that EUS experts would prefer it instead. In our own experience, MRCP provides an important previous added value to manage this type of patient and may also impact on the reduction of radiation exposure.

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