

Magnetic Resonance Cholangiopancreatography: Value of Using the Half-Fourier Acquisition Single-Shot Turbo Spin-Echo (HASTE) Sequence

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Abstract

The purpose of this study was to evaluate the accuracy of magnetic resonance cholangiopancreatography (MRCP) for visualisation and diagnosis of pancreatico-biliary diseases. Our results of 35 case studies, correlating with results from endoscopic, percutaneous cholangiopancreatography or laparotomy, showed that MRCP performed using the half-Fourier acquisition single-shot turbo spin echo (HASTE) sequences was fast and accurate for depiction of the biliary and pancreatic system, with a diagnostic value comparable to that of direct cholangiography. The presence of biliary obstruction was accurately diagnosed in all but one patient. In hilar strictures, MR cholangiogram was able to depict the intrahepatic biliary tree proximal to the level of obstruction which was not readily displayed by endoscopic retrograde cholangiopancreatography (ERCP) (Figs. 1 & 2). This overview of the entire biliary system was found to be advantageous for preprocedural planning. However, the accuracy for stone detection was limited by the presence of aerobilia from previous sphincterotomy or biliary-enteric anastomosis. Ductal stones less than 3 mm in size within a non-dilated system may be missed due to inadequate spatial resolution. This occurred in a patient with pancreatic duct stones. It is hoped that the accuracy of HASTE magnetic resonance cholangiopancreatography in evaluation of pancreatico-biliary disease would obviate the need for diagnostic invasive cholangiography in selected patients.

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