Evidence Discussion (AB 27)

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Magnetic Resonance Cholangiopancreatography (MRCP) is the preferred imaging modality for assessing the biliary and pancreatic systems, offering soft tissue contrast resolution without ionizing radiation exposure. Literature highlights MRCP's high sensitivity and specificity in detecting various hepatobiliary pathologies, including choledocholithiasis, cholangitis, pancreatitis and pancreatic neoplasms. Moreover, MRCP provides detailed visualization of the pancreatic duct and biliary tree, facilitating accurate diagnosis and surgical planning. While ERCP is the gold standard for visualization of pancreaticobiliary ducts and provides opportunity for therapeutic intervention, MRCP is a non-invasive method that has gained wide acceptance for diagnostic evaluation.

Limitations around MRCP include its slower acquisition time with associated higher sensitivity to motion artifact, potential need for sedation, contraindications related to ferrous magnetic implants or foreign bodies, and relatively higher cost compared to alternate options, such as ultrasound or CT. Accessibility could also be an issue, potentially leading to diagnostic delays in some healthcare settings. Safety concerns mainly revolve around gadolinium-based contrast agents, particularly in patients with compromised renal function.

References

Kaltenthaler EC, Walters SJ, Chilcott J, Blakeborough A, Vergel YB, Thomas S. MRCP compared to diagnostic ERCP for diagnosis when biliary obstruction is suspected: a systematic review. BMC Med Imaging. 2006 Aug 14;6:9

McDonald RJ, McDonald JS, Kallmes DF, Jentoft ME, Murray DL, Thielen KR, Williamson EE, Eckel LJ. Intracranial Gadolinium Deposition after Contrast-enhanced MR Imaging. Radiology. 2015 Jun;275(3):772-82

Faerber EN, Benator RM, Browne LP, et al. American College of Radiology. ACR practice guideline for the performance of magnetic resonance imaging (MRI) of the abdomen. Reston (VA): American College of Radiology (ACR); 2010 (revised 2015)