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The Role of MRCP in Evaluation of Pancreatic and Biliary Pathologies in Correlation with ERCP

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Abstract

Background: Diagnosis of pancreaticobiliary pathologies is often required for their successful management. The current study aims to determine hepatobiliary and pancreatic pathologies on MRCP and in deciding further course of management. To evaluate the efficacy of MRCP in detecting biliary tract abnormalities compared to ERCP. Methods: This cross-sectional observational study was conducted in the Department of Radiology, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. MRI-MRCP: was performed on Philips ACHIEVA 1.5 Tesla MRI Scanner in the supine position using a phased-array body coil. ERCP was performed with Olympus type 150 scope, to decompress the biliary system was done by an experienced gastroenterologist after MRI examination. Results: The overall sensitivity, specificity, PPV, and NPV of all pancreaticobiliary lesions. MRCP revealed a Sensitivity of 97.73 % Specificity was 83.33 % Positive Predictive Value (PPV) was 97.73 %, Negative Predictive Value (NPV) was 83.33 %. In ERCP the Sensitivity was 77.27% Specificity was 66.67%. Positive Predictive Value (PPV) was 97.44 %, Negative Predictive Value (NPV) was 28.57%. Conclusion: MRCP has more sensitivity, specificity, and diagnostic accuracy than ERCP in diagnosing obstruction due to pancreaticobiliary disorders. MRCP can determine accurately more cases than ERCP in both cause and extent of obstruction. The anatomy of the biliary tree is well delineated by MRCP. Bile ducts proximal as well as distal to the level of obstruction are made out better by MRCP. Due to invasiveness and contrast media-induced allergic reactions, diagnostic usage of ERCP is limited.