

ABSTRACT

Background: *Magnetic Resonance Cholangiopancreatography (MRCP) is a non-invasive imaging modality used to evaluate the biliary and pancreatic systems. This examination has high sensitivity and specificity and can replace invasive procedures such as Endoscopic Retrograde Cholangiopancreatography (ERCP) in diagnosing biliary disorders. The use of MRCP facilitates more accurate and safer diagnosis and therapy planning.*

Method: *This was a descriptive study with a retrospective approach and a cross-sectional design. The sample consisted of all patients who underwent MRCP at RSUD Raden Mattaher Jambi from January 2023 to December 2024. Data were collected from radiology expertise reports and analyzed univariately to describe the characteristics and imaging findings from MRCP.*

Results: *A total of 173 samples were examined. Most patients were in the high-risk age group (>40 years old) and were female. The most frequently identified biliary abnormalities were choledocholithiasis and cholelithiasis. Lesions were commonly found in multiple numbers, with gallstones most frequently located in the gallbladder and common bile duct. Lesions in the form of masses, stenosis, and cysts were found in various locations. The average size of gallstones was 12.27 ± 7.04 mm, masses were 51.87 ± 19.73 mm, and cysts were 15.00 ± 9.98 mm. Dilatation of the extrahepatic bile duct, intrahepatic bile duct, and pancreatic duct was most frequently observed in patients with choledocholithiasis. Strictures were most commonly found in the common bile duct. Most patients did not exhibit gallbladder abnormalities; however, hydrops was the most frequently encountered gallbladder abnormality.*

Conclusion: *MRCP provides a comprehensive overview of biliary disorders and assists in diagnosis and therapy planning. The study findings demonstrate a high prevalence of cholelithiasis and choledocholithiasis, which can serve as a basis for clinical decision-making.*

Keywords: *MRCP, biliary disorders, choledocholithiasis, cholelithiasis*

ABSTRAK

Latar Belakang: *Magnetic Resonance Cholangiopancreatography* (MRCP) merupakan metode pencitraan non-invasif untuk mengevaluasi sistem bilier dan pankreas. Pemeriksaan ini memiliki sensitivitas dan spesifisitas tinggi, serta dapat menggantikan prosedur invasif seperti *Endoscopic Retrograde Cholangiopancreatography* (ERCP) dalam menegakkan diagnosis kelainan bilier. Pemanfaatan MRCP dapat membantu penentuan diagnosis serta perencanaan terapi yang lebih akurat dan aman.

Metode: Penelitian ini merupakan studi deskriptif dengan pendekatan retrospektif dan rancangan *cross-sectional*. Sampel terdiri dari seluruh pasien yang menjalani pemeriksaan MRCP di RSUD Raden Mattaher Jambi selama periode Januari 2023 hingga Desember 2024. Data dikumpulkan dari hasil expertise radiologi, kemudian dianalisis secara univariat untuk mendeskripsikan karakteristik dan temuan gambaran MRCP.

Hasil: Pada penelitian ini, sebanyak 173 sampel diteliti. Sebagian besar sampel berada pada kelompok usia risiko tinggi (>40 tahun) dan berjenis kelamin perempuan. Kelainan bilier yang paling sering ditemukan adalah *choledocholithiasis* dan *cholelithiasis*. Lesi sering ditemukan dalam jumlah multipel, dengan batu empedu terbanyak terletak di *vesica biliaris* dan duktus biliaris komunis. Lesi berupa massa, stenosis, dan kista ditemukan pada lokasi yang bervariasi. Rata-rata ukuran batu empedu yaitu $12,27 \pm 7,04$ mm, rata-rata ukuran massa yaitu $51,87 \pm 19,73$ mm, dan rata-rata ukuran kista yaitu $15,00 \pm 9,98$ mm. Dilatasi duktus biliaris ekstrahepatik, duktus biliaris intrahepatik, dan dilatasi duktus pankreatikus paling sering ditemukan pada sampel dengan *choledocholithiasis*. Penyempitan duktus paling sering ditemukan pada bagian duktus biliaris komunis sampel. Kelainan pada *vesica biliaris* mayoritas tidak dialami sampel. Adapun kelainan *vesica biliaris* yang sering dijumpai adalah *hidrops*.

Kesimpulan: Pemeriksaan MRCP memberikan gambaran komprehensif terhadap kelainan bilier yang membantu dalam diagnosis dan perencanaan terapi. Hasil penelitian menunjukkan prevalensi tinggi *cholelithiasis* dan *choledocholithiasis* yang dapat dijadikan dasar pengambilan keputusan klinis.

Kata Kunci: MRCP, kelainan bilier, *choledocholithiasis*, *cholelithiasis*