

# Appropriateness of MRCP use in a DGH

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## Background

Magnetic resonance cholangiopancreatography (MRCP) is a technique that has evolved over the past two decades. With its numerous advantages and uses, it continues to have a fundamental role in the investigation of many pancreatico-biliary disorders. As a result, there has been a large increase in the number of MRCP scans requested and performed, increasing its burden nationwide.

## Aims

The purpose of this study is to review the appropriateness of MRCP use in a District General Hospital (DGH). Through assessing compliance with standard protocol and assessing the referral criteria for MRCP scans.

## Methodology

Retrospective data collection was performed for more than 200 patients who had MRCPs over 6 months. All MRCP scans investigating intraductal papillary mucinous neoplasms/ tumours were excluded.

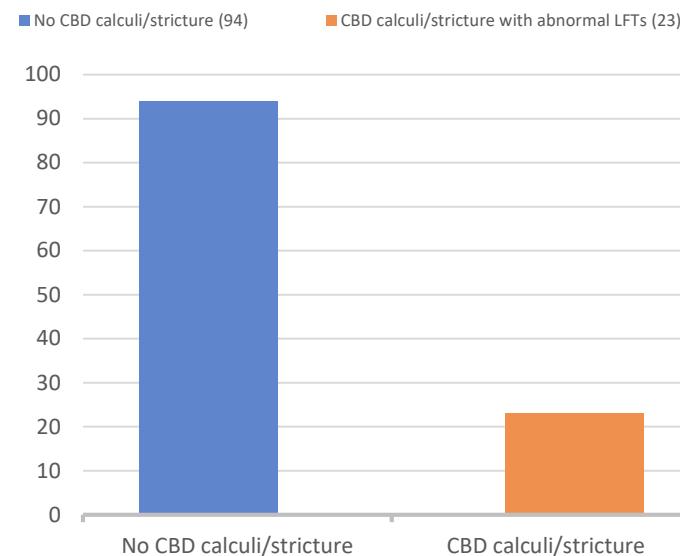
Preceding imaging and pathological reports were reviewed.

## Results

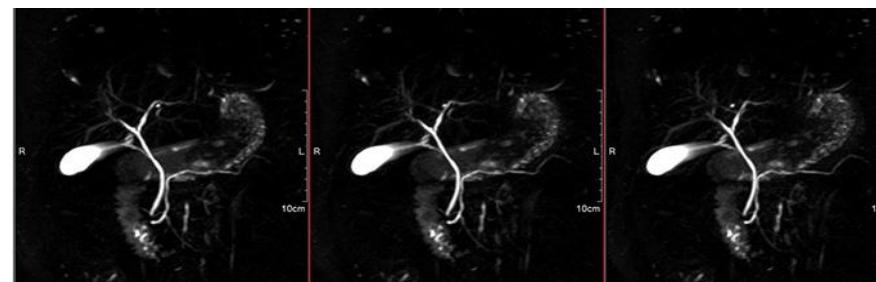
117 MRCPs for ductal assessment were performed in our trust between June 2018 and November 2018. Findings were as follows:

- 45.4% of patients had no biliary dilation on MRCP or preceding US
- 29% of patients had biliary dilation on both US and MRCP
- 14.5% of patients had no biliary dilation on US, but had biliary dilation on subsequent MRCP
- 11.1% of patients had no biliary dilation on MRCP, but showed biliary dilation on preceding US

Figure 2 – MRCP Demonstrating CBD Calculi/Stricture



**80% of patients had no ductal CBD pathology (normal exam).  
All patients with normal LFTs had a normal MRCP examination.**



## Analysis & Discussion

No patients with normal, non-obstructive LFTs were found to have CBD calculi/stricture indicating patients should have biochemically obstructive LFTs to qualify for an MRCP scan.

There were discrepancies between the referral information and the true biochemical results. In addition, there were discrepancies in the duct assessment on US and on MRCP.



The number of seemingly unjustified scans results in increases in the costs of:

- Reporting Radiologist
- Out-of hours scanning and reporting
- Electricity, upkeep and maintenance
- Other Personnel (e.g. Radiographers, Porters)

## Recommendations & Conclusion

To ensure appropriate use of this examination the following recommendations are advised:

- Introduction of referral guidelines for appropriate MRCP examinations which should be agreed on by the department.
- More accurate vetting of MRCPs by Radiologists within the guidelines
- Continuing training and feedback for Sonographers in biliary assessment.

A combination of these factors should result in a decrease in the number of seemingly unjustified MRCP scans performed and requested, ultimately reducing the burden in our DGH.