Reviewer's report

Title: MRCP compared to diagnostic ERCP for the diagnosis of biliary obstruction: a systematic review

Version: 1 Date: 30 May 2006

Reviewer: James J Farrell

Reviewer's report:

General
This is a good systematic review comparing MRCP with diagnostic ERCP for choledocholithiasis, strictures etc. It provides a reference source for MRCP vs ERCP studies. It confirms that the MRCP technology provides a high level of specificity and sensitivity.

The authors may need to consider just focusing on choledocholithiasis or looking at the role of diagnostic MRCP in avoiding further ERCP imaging/therapy for all clinical comers. Patients present with abnormal liver tests or dilated CBD, rather than specific diseases.

Title: OK

Abstract: OK.

It should be stressed that the real role of noninvasive imaging is to avoid invasive procedures, so some assessment how the negative predictive value for example choledocholithiasis would preclude further investigations

Introduction:

Need to add a reference about the role of EUS in diagnosis of biliary obstruction

Although considered the gold standard, it is not perfect and some consider EUS or direct cholangioscopy as being more accurate

Again you need to emphasize the role of noninvasive imaging in avoiding invasive ERCP imaging

Methods

Please define â€œsuspected biliary obstructionâ€, does this mean abnormal liver tests

Please define â€œ biliary dilatationâ€, what is the size cut off

MRCP technology is constantly improving and I wonder is there any change in looking at 1995-2000 and 2000-2004. I note that ref 9 and 34 were from 2000 and 1999 respectively.

Results

Patients donâ€™t essentially present with â€œcholedocholithiasisâ€, the may present with biliary obstruction and have â€œcholedocholithiasisâ€ diagnosed, but how were these studies labeled as choledocholithiasis (after the fact?)

Is there any explanation for the lower sensitivities for MRCP (stones seen on ERCP, but missed by MRCP) and the lower specificities (MRCP says itâ€™s a stones, but nothing seen on ERCP). The former (sensitivity) has the greatest practical implication

The inclusion of â€œmalignancyâ€, â€œdilatationâ€, â€œobstructionâ€ and â€œstricturesâ€ categories is confusing. I can understand a final diagnosis of a CBD stones, but I am not sure what the â€œgold standardâ€ for â€œmalignancyâ€, â€œdilatationâ€, â€œobstructionâ€ and â€œstricturesâ€ is. For these groups, it would be important to make an assessment of how the use of MRCP would preclude the need for further ERCP as a more important assessment. Alternatively, you could remove this group completely.
Discussion

Need to discuss why the lack of prospective studies to assess specific questions

Need to include the use of EUS in the diagnosis of CBD stones

Based on these studies need to make an assessment of how MRCP in certain clinical situations (elevated LFTs, dilated CBD) would preclude the need for therapeutic ERCP

References: OK
Table 1: OK
Table 2: OK
Table 3: OK
Figure 1: OK
Figure 2: OK
Figure 3: OK

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No