Reviewer's report

Title: Small bowel enteroclysis with magnetic resonance imaging and computed tomography in patients with obscure delivery of patency capsule

Version: 1 Date: 29 July 2011

Reviewer: Johannes Heverhagen

Reviewer's report:

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

Abstract
The abstract of the manuscript must be understandable on its own without requiring the reader to access the complete manuscript. Please rephrase accordingly.

Background: The stated aim in the abstract is different from the aim stated in the main body of the text. Please check and rephrase accordingly.

Methods: Here, it should be explicitly stated that this is a retrospective study.

Results: The authors state that the 20 VCEs finally performed were mainly done in younger patients. However, only about 50% of patients were less than 30 years old. Please rephrase.

Results: Here, the authors mention alarm symptoms for the first time. It needs to be stated explicitly what these symptoms are.

Conclusion: The provided conclusion does not match the stated aim of the study. Please rephrase.

Background
Page 5: As stated before the stated aim of the study in the main body of the text is different from the abstract. Please check and rephrase.

Methods
Page 6: The authors state that this is a partly retrospective review. This needs to be explained in more detail. Why is it only partly retrospective? For me, this is a completely retrospective study maybe with a re-analysis of some data.

Study Design
Page 6: The authors should provide the number of patients that underwent complete VCE during the inclusion period. This would help the reader to put the number of patients with late or unconfirmed delivery of the test capsule into perspective.
Page 6: The authors mention a further follow-up period stretching until mid 2010. What was done in this follow-up period?

MRI- and CT-Enteroclysis

Page 7: The authors used a true enteroclysis method to investigate the small bowel in MRI and CT. However, this is not the commonly used technique to evaluate the small bowel with MRI and CT. Usually, patients have to drink a certain amount of a distension medium immediately prior to the investigation. As we all know, this sometimes leads to incomplete distension but is a much more comfortable method and it is preferred by most patients. Therefore, I am not sure if the results of this study are transferrable to many clinical settings.

Page 7: The authors state that scanning commenced when caecal filling was established. How did the authors monitor caecal filling?

Evaluation of Enteroclysis

Page 9: The authors state that the exams were re-evaluated by two radiologists. How did they perform their evaluation? Was it done in consensus or separately?

Page 9: The authors state that one of the radiologists was board certified. How about the other radiologist? Was he board certified too or still in training?

Page 9: The authors describe that radiological signs were summarized into three groups. One of these groups was an alleged bleeding source. Please provide their criteria for detecting such a bleeding source.

Results

Magnetic Resonance Imaging (MRI) and Computed Tomography (CT)

Page 11: Please state why the quality of the radiological examinations was rated suboptimal in two patients.

Page 12: Sensitivity for Crohn’s disease was extremely low in this series. Only six out of 47 patients were correctly diagnosed in CT and MRI. What is the reason for this very low sensitivity? Did the authors only look for active disease? The authors should provide the criteria they used for the detection of Crohn’s disease in CT and MRI.

Page 12: The authors state that a miscellaneous finding was increased number of normal mesenteric lymph nodes. What is the clinical meaning of this finding?

Page 12: In another patient they stated increased contrast enhancement of normal sized mesenteric lymph nodes as a miscellaneous finding. Again, what is the clinical meaning of this finding?

Video Capsule Enteroscopy (VCE)

Page 12: The authors state that occult bleeding was an indication for VCE in five patients. However, CT and MRI detected 13 patients with occult bleeding. Why did not all 13 patients undergo VCE?

Page 12: The authors state that VCE found Crohn’s disease in four patients. However, only one of them had signs of Crohn’s disease in MRI. As stated
before, this provides a very low sensitivity for Crohn’s disease of MRI. Why is this the case?
In this paragraph, the authors compare the results of MRI and VCE. However, I am missing such a comparison for CT and VCE.

At Study End
Page 14: The authors state that no correlation between alarm symptoms and morphologic findings could be established. However, as stated before, the results of the imaging modalities seem to be rather poor. Therefore, it is expected that such a correlation cannot be found.
Page 14: The authors state that in patients without alarm symptoms and with normal laboratory analysis the results of the imaging studies were negative. Why would patients without symptoms and with normal laboratory analysis undergo any imaging studies?

Discussion
Page 16: The authors state that the results of MRI or CT together with clinical re-evaluation provided sufficient data not to undertake further enteroscopies. However, how do we know that the results provided by CT and MRI in this study were correct. As stated before, the outcome of CT and MRI in comparison with VCE and other clinical data were rather poor. Accuracy of imaging in this study was very low. Therefore, the results of CT and MRI might have provided a false sense of security for the clinician. This should be addressed in the discussion.
Page 17: The authors state that 23 % of women and 20 % of men showed pathological diagnoses. They conclude that this may indicate that men are less prone to seek health services. However, the percentages seem to be almost the same. Why would this allow such a conclusion?
Page 18: The authors state that their data could not disclose any correlation between clinical symptoms and finding at imaging examinations. While this is correct, this might be related to their imaging technique and analysis. This should be discussed further.

Conclusion
The provided paragraph is not a conclusion but rather a summary of the results. Please completely rephrase the conclusion.

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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)

Abstract
Results: Here, the authors mention follow-up enteroclysis. It is not obvious for the reader that this enteroclysis is meant to be either MRI or CT enteroclysis. Please rephrase.

Study Design
Page 7: Please explain the term “bio-statistically”.

Magnetic Resonance Imaging (MRI)
Page 8: The authors need to provide a more detailed description of the used MRI sequences.
Page 8: The authors state that they used a coronal 2D gradient-echo sequence. Why did they choose to use a 2D and not a 3D sequence? A 3D sequence would have allowed to acquire thinner slices with a better spatial resolution.

Results
Patient Characteristics
Page 11: This entire paragraph provides materials and methods and should be moved to the appropriate section.

At Study End
Page 13: The delay times between PC test and enteroclysis and between enteroclysis and final VCE examination seem very long to me. Especially for the case of chronic inflammatory disease the state of the disease might have changed in between examinations. Please comment.

Complications and Limitations
Page 14: Please state why the two enteroclyses were technically suboptimal. Please also state which criteria were used to assess technical adequacy.

Discussion
The second paragraph of this page should be part of the introduction and should therefore be moved to the appropriate section.
Page 17: I would suggest to rephrase the last sentence of the first paragraph. This is hard to comprehend for the reader.
Page 17: Please remove the last sentence of the second paragraph. This has not been studied in this manuscript and is not really related to this study.

Discretionary Revisions (which the author can choose to ignore)
None

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

I declare that I have no competing interests.