Reviewer’s report

Title: Is MRCP necessary to diagnose pancreas divisum?

Version: 0 Date: 19 Jan 2019

Reviewer: Raffaella Pozzi Mucelli

Reviewer's report:

Abstract and background: ok

Methods:
P. 7, line 29-39: the objectives of the study are not supposed to be described in this section. The last paragraph of introduction/background is usually a more appropriate place.
p. 7, line 39: Standard of reference is named here and further down in the image analysis section (redundancy)
p.8, line 50: "PD was deemed to be present when a dominant dorsal pancreatic duct was visualized to enter the duodenum superior to the common bile duct". Is this definition of PD sufficient? What about the cases when a prominent Santorini duct communicates with the Wirsung? Better to use the description given in the discussion section (p.12, line 18-26)
p. 8, line 45-50: Standard of reference: the choice of using all the available sequences - included those tested - as standard of reference may cause the so-called "incorporation bias", that is when the results of the test under study (i.e., non-MRCP and 3D-MRCP sequences) are part of the information available to the consensus panel making the consensus diagnosis. That poses the results at risk of overestimating the accuracy of the test.
Suggestion: instead of performing a single-reader analysis compared to a probably biased standard of reference, the authors may consider evaluating the interrater agreement among two or three readers in the identification of PD on non-MRCP sequences versus 3D-MRCP.

Other question regarding the standard of reference:
 - Are the two radiologists constituting the consensus panel and the one who evaluated the images, three different radiologists?
 - please describe the field of expertise as well as years of expertise of the two radiologists used for the consensus diagnosis.
 - Were the two radiologists of the consensus panel blinded to clinical information?
 - How was disagreement managed? Additional expert? Discussion? Other? Please describe

p.8, line 55: "Inability of pancreatic duct orifice assessment". It is unclear. What do the Authors mean? p.8 line 60: please clearly define that the analysis of "the general magnitude of motion artifacts"
corresponds to the parameter "image quality" (as it appears later in the results)

p.9, line 10-11 (Statistical analysis): please define "performance". Sensitivity? Specificity? (these parameters are described in the results section, but not in the materials and methods).

p. 9, line 23: "active control method": maybe "comparator"/"standard of reference" might be a more appropriate term

Results

p.10, line 45-48: it would be nice to have some numerical details about the non-inferiority of non-MRCP sequences. Figure 1 is a bit difficult to perceive.

Discussion: OK

List of abbreviations:
"ERCP - Endoscopic retrograde cholangiopancreaticography": has to be corrected in cholangiopancreaticography
"MRCP - Magnetic resonance cholangiopancreaticography": has to be corrected in cholangiopancreaticography

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

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