

Point-by-point reply ESPS NO: 20183

The author would like to thank the editor-in-chief, science editor and the reviewers for the thorough revision and their specific comments and critique to further improve the quality of our top highlight manuscript "4D flow MR Imaging in Cirrhosis". Here are my efforts in response to your concerns:

Editor:

Comment 1:

Authors are required to make this statement in the manuscript's title page (please see sample wording in attachment). A copy of signed statement should be provided to the BPG in PDF format, which are necessary for final acceptance, Thank you!

Response:

I appreciate the comment. The whole manuscript was reviewed to fulfil the guidelines and requirements for manuscript revision in the category topic highlight. Especially the first page of the manuscript was corrected in regards to running title, author contributions, conflict-of-interest, open-access and core tip.

Comment 2:

Don't need blank space between reference number and the before words. Please check throughout. Thank you!

Response:

The reference numbers were changed accordingly throughout the manuscript.

Comment 3:

The graphs supplied should be decomposable (each part of your figure could be moved so as to easily edited). You can send it as excel, word or power-point format so that I can edit them easily. Thank you!

Response:

All the graphs were additionally sent in power-point format for easier editing.

Reviewer:**Comment 1:**

Although there are no language and grammatical errors, I found several punctuation errors such as 30.000 instead of 30,000 (page 4 line 3) and patients' on page 8, line 12. Please proof read the manuscript carefully.

Response:

I apologize for the type errors, the manuscript was proof-read carefully and corrected accordingly.

Liver cirrhosis is a leading cause of serious morbidity and the 9th most often cause of death in the United States and Europe with a mortality of more than 35,000 deaths per year^[1,2].

The modalities in evaluating liver stiffness in hepatic fibrosis are useful to reduce invasive pressure measurements, predict lethal complications or improve patient's prognoses and risk stratification.

Comment 2:

Please reword the sentences "Since nephrogenic systemic fibrosis (NSF) has been observed with its potential connection to the injection of gadolinium-based contrast medium, contrast-enhanced MRI examinations tend to be considered more appropriate for diagnosing the vessel system, and contrast medium is being more carefully applied" page 10, lines 8-15.

Response:

I appreciate the comment, the sentence in the manuscript was reworded.

Since nephrogenic systemic fibrosis (NSF) has been observed with its potential connection to the injection of gadolinium-based contrast medium, contrast medium is being more carefully applied^[92-96].

Comment 3:

If there is any discussion in the literature, could the author elaborate a little bit more on its potential applications in interventional radiology, pre-procedure mapping etc.

Response:

Thank you for the comment. The manuscript was changed accordingly to address these issues in more detail discussing the potential application of 4D flow MRI in interventional radiology.

These recent studies evaluating 4D flow MRI for abdominal imaging after TIPS placement show the potential for this technique to be an additional tool for interventional radiologists while enabling pre-procedure mapping and planning of the optimal stent graft configurations ^[152,153]. As a result, ideal outcome after TIPS placement can be obtained including pressure gradient reduction and long-term stent graft patency.