PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology
Manuscript NO: 32290
Title: Diffusion Weighted MR Imaging of Liver: Principles, Clinical applications and recent updates
Reviewer's code: 03646639
Reviewer's country: Japan
Science editor: Yuan Qi
Date sent for review: 2017-01-03
Date reviewed: 2017-01-10

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[Y] Grade B: Very good	[Y] Grade B: Minor language polishing	[ ] The same title	[ ] High priority for publication
[ ] Grade C: Good		[ ] Duplicate publication	
[ ] Grade D: Fair	[ ] Grade C: A great deal of language polishing	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor		[Y] No	[Y] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[ ] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

The systematic review paper by Bhangle et al was undertaken to investigated whether diffusion-weighed magnetic resonance imaging (DW-MRI) serves as a noninvasive diagnostic tool for the detection of focal liver lesion and a potential tool for patients who cannot undergo an imaging exam with intravenous contrast material. They found that DW-MRI is useful for monitoring therapeutic response of hepatic malignancies to locoregional and systemic therapy. They also reported that the usefulness of DW-MRI in the evaluation of chronic liver diseases including liver cirrhosis and non-alcoholic steatohepatits is still being explored. It will be of interest to readers of this Journal, particularly practitioners and researchers involved in basic principles, clinical applications and future trends of DW-MRI in the liver.   Minor comments   1) On page 9 line 7, the description of hyperintensity on DWI   2) On page7 line 8, 'intravenous gadolinium However it is' should be 'intravenous gadolinium. However, it is'.

PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology
Manuscript NO: 32290
Title: Diffusion Weighted MR Imaging of Liver: Principles, Clinical applications and recent updates
Reviewer's code: 03700164
Reviewer's country: Singapore
Science editor: Yuan Qi
Date sent for review: 2017-01-03
Date reviewed: 2017-01-12

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[Y] Grade A: Priority publishing	Google Search:	[ ] Accept
[Y] Grade B: Very good	[ ] Grade B: Minor language	[ ] The same title	[Y] High priority for
[ ] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[ ] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[ ] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Well-written and concise review. Please use an acronym consistently ie, either DW-MRI or DWI throughout the manuscript. Secondly, the limitations of DW-MRI need to be discussed in greater depth. Also, its role/experience in children, who may need anaesthesia/deep sedation etc, could be discussed.

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[Y] Grade C: Good	polishing	[ ] Duplicate publication	publication
[ ] Grade D: Fair	[Y] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[Y] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

Dear Associate Editor,   Thank you for sending the article entitled "Diffusion Weighted MR Imaging of Liver: Principles, Clinical applications and recent updates" for review. This review focuses on the basic principles, technique, current clinical applications and future trends of DW MR imaging in the liver. There is no data regarding search strategy. The keywords are not selected based on MeSH terms. The references are not provided according to the journal format. The draft needs a great deal of English editing. The acknowledgment section is not meaningful. The sources of figures are missing.

PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology
Manuscript NO: 32290
Title: Diffusion Weighted MR Imaging of Liver: Principles, Clinical applications and recent updates
Reviewer's code: 03647916
Reviewer's country: Poland
Science editor: Yuan Qi
Date sent for review: 2017-01-03
Date reviewed: 2017-01-16

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
[ ] Grade A: Excellent	[ ] Grade A: Priority publishing	Google Search:	[ ] Accept
[ ] Grade B: Very good	[ ] Grade B: Minor language	[ ] The same title	[ ] High priority for
[ ] Grade C: Good	polishing	[ ] Duplicate publication	publication
[Y] Grade D: Fair	[Y] Grade C: A great deal of	[ ] Plagiarism	[ ] Rejection
[ ] Grade E: Poor	language polishing	[Y] No	[ ] Minor revision
	[ ] Grade D: Rejected	BPG Search:	[Y] Major revision
		[ ] The same title	
		[ ] Duplicate publication	
		[ ] Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS
General comments: The topic on DW MRI in the liver is important and interesting. However, the manuscript is hardly informative. It should be thoroughly revised. In the present form the manuscript should not be published in WJG.   The manuscript is too long. It would be better to make an article short and conclusive. The important things are mixed with a lot of unnecessary and sometimes not understandable writings. The Authors made many simply description of already published papers. Please avoid writing in the manner: in the Topic 1, the First Author wrote …, the Second Author wrote …, the Third Author wrote, … In the Topic 2, The Fourth Author wrote … and so on.   The review article should summarize current knowledge rather than simply describe other published papers.   It should be clearly stated what is currently known on DW MRI application and what is considered as not proven hypothesis.   1. Especially the role of quantitative assessment by means of ADC should be clarified for the reader who may be not familiar with DW MRI. The Authors wrote in the introduction: "DWI

allows quantitative evaluation of the apparent diffusion coefficient (ADC), which is helpful not only in lesion characterization but also in follow-up" but further in the text the Authors wrote: "The reproducibility of quantitative ADC values has also been questioned" "substantial degradation of image quality and systemic errors in the calculations of ADC values" "The cut-off values reported have high variability likely due to the difference in scanners and parameters used to obtain DW MR images and ADC maps" "high degree of overlap between solid benign and malignant lesions" "the use of absolute ADC values or ADC value cut-off for characterization of focal hepatic lesions should be avoided" Please clarify the current state of knowledge in the quantitative assessment of diffusion (i.e. ADC).   Introduction: The Authors wrote:"DW MRI has been shown to compliment and substitute multiphase contrast enhanced MRI for a wide array of clinical application." 2. What does "compliment" mean in this context? 3. In patients with impaired renal function (GFR < 30) DW MRI can substitute contrast enhanced phases in focal lesion detection. With DW MRI it is also possible to differentiate solid lesions and simple cysts. Do exist other applications? What does "wide array" mean in this context? In this context, are there more applications than focal lesion detection?   4. The Authors wrote: "DWI allows quantitative evaluation of the apparent diffusion coefficient (ADC), which is helpful not only in lesion characterization but also in follow-up of changing histological tumor characteristics after cancer related therapies" The usage of the term "histological" is inappropriate - the term related to the microscopic not radiological evaluation.   Section DWI: Basic Principles 5. Please enumerate high cellular tissues that restrict diffusion – this would be of clinical importance.   6. The sophisticated technical terms and sentences should be avoided thorough the whole article. Example: "DW MRI is performed by applying a symmetric pair of diffusion sensitizing bi-polar gradients on the either side of a 1800 refocusing pulse of a T2-weighted echo planar sequence."   7. The Authors compared breath-hold and free breathing sequences. This paragraph should be shortened. It could be limited to the list of advantages and disadvantages. In the present form this paragraph contains 220 words.   8. The authors wrote : "The differences of the diffusion properties in different tissues provide information on tissue density/cellularity and the integrity of cellular membranes." Density is not the same as cellularity. DW MRI does not show tissue density. The word density was used improperly.   9. The subsection "Intravoxel incoherent motion (IVIM) imaging" is very unclear.   Is this a DW MRI principle or the future trend?   Section: Clinical applications in liv