PEER-REVIEW REPORT

Name of journal: *World Journal of Radiology*

Manuscript NO: 87987

Title: Two-point Dixon and six-point Dixon magnetic resonance techniques in the detection, quantification and grading of hepatic steatosis

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03538879

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Chief Doctor, Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Canada

Manuscript submission date: 2023-09-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-09-11 23:50

Reviewer performed review: 2023-09-14 10:38

Review time: 2 Days and 10 Hours

Scientific quality	[Y] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Novelty of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No novelty
Creativity or innovation of this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	[ ] Grade A: Excellent [Y] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No scientific significance
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous
	Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

NAFLD is a chronic disease worldwide, and the grading and quantification of liver fat is dependent on histological examination. Due to the invasive attributes and potential risks, liver biopsy is not easy to for broad generalization, and the development of credible imaging techniques is crucial.   The authors used a retrospective single center cross-sectional study to compare the diagnostic performance of two point Dixon and Six point Dixon MR in detecting liver steatosis, including quantification and grading. The study was approved by the institutional ethics and review committee, and the requirement for informed patient consent was waived. Considering the quality control of MR and a detailed data analysis plan, it is evident that Six-point Dixon MR has unparalleled advantages. However, the following issues need to be considered: 1. The number of enrolled patients in the study is relatively small, although statistical differences were obtained, it cannot represent the clinical significance. 2. It is a single center study, and there are issues with the representativeness of the study. Lack of necessary histological control studies. 3. Comparison between diffuse and focal lesions is needed; 4. The parameters of instruments from different providers should be considered.