PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 57087

Title: Liver fat accumulation measured by high-speed T2-corrected multi-echo magnetic resonance spectroscopy can predict the risk of cholelithiasis

Reviewer's code: 02818262

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: France

Author's Country/Territory: China

Manuscript submission date: 2020-05-29

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-06-02 08:47

Reviewer performed review: 2020-06-02 10:35

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
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

In this retrospective study, authors analyze a population of chinese patients with cholelithiasis as compared to patients explored the same way but without liver disease and cholelithiasis by means of MR spectroscopy and R2 MRI and show increased liver fat fraction together with increased liver iron concentration (both of mild magnitude). Moreover, a PDFF greater than 4.4% was shown to be predictive of cholelithiasis. Some remarks to improve the quality of this manuscript of good scientific quality: In the statistical analysis section , authors should indicate which normality tests have been used to assess the Gaussian distribution of the data since samples size are rather small. In the Results section : Paragraph Demographic and clinical characteristics of the study population Results of normality test for the various variables should be given Paragraph PDFF and R2 Authors give the crude results of R2 values, it would be wise to give values of liver iron concentration (LIC) extrapolated from R2 values ; conversely in the figure 2 authors could add a graph on LIC. In the Discussion section : Authors should introduce this section on the mild magnitude of increase in PDFF and LIC in patients with cholelithiasis beside the diagnostic interest of PDFF and possibly its pathophysiological role. Pages 10 and 11: authors discuss the data published on the relationship between PDFF and iron. Their discussion should include the recently published mechanistic demonstration of ability of iatrogenic iron overload in dialysis patients to induce an increase of liver fat fraction as its regression which parallels the normalization of LIC (ROSTOKER G, LORIDON C, GRIUNCELLI M, RABATE C, LEPEYTRE F, URENA-TORRES P, ISSAD B, GHALI N, COHEN Y. Liver Iron Load Influences Hepatic Fat Fraction in End-Stage Renal Disease Patients on Dialysis: A Proof of Concept Study. EBioMedicine. 2019 Jan;39:461-471. doi: 10.1016/j.ebiom.2018.11.020. Epub 2018 Nov 2).

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Scientific quality	[Y] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[Y] Accept (High priority) [ ] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The revised version of the manuscript has extensively taken into consideration reviewers' comments; the manuscript has now a very high quality and fulfills the criteria for publication in the journal.