

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63381

Title: Advanced glycation end product: A potential biomarker for risk stratification of non-alcoholic fatty liver disease in ELSA-Brasil study

Reviewer's code: 03536702

Position: Editorial Board

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: China

Author's Country/Territory: Brazil

Manuscript submission date: 2021-01-28

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2021-01-28 13:36

Reviewer performed review: 2021-02-04 16:19

Review time: 7 Days and 2 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This study mainly investigated the relationship between the serum AGE levels and the severity of NAFLD. The results indicated that the serum AGE levels were significantly correlated with the steatosis grade in the overall sample, and the serum AGE content in the moderate/severe NAFLD group was significantly higher than that in the mild NAFLD group. These findings suggested that plasmatic fluorescent AGE quantification by spectroscopy could be a promising alternative method to monitor progression from mild to severe NAFLD. This study thus may have an important implication in diagnosis of NAFLD. This study was carefully designed, data analysis was correctly performed, and the manuscript was well written. As there are few studies on the association between the serum AGE levels and the severity of NAFLD, this study is quite novel. However, I have two comments that need the authors to address before consideration of acceptance for its publication. 1. The severity of steatosis is not the only index of NAFLD severity. In fact, inflammation, fibrosis, cirrhosis and liver injury are more important determinants of NAFLD severity. As this study determined only the steatosis grade, but not inflammation, fibrosis, cirrhosis and liver injury, it is not accurate to claim that the serum AGE level is a good marker of NAFLD severity. Please pay attention to use of NAFLD severity, and correct it when the term is mistakenly used. 2. In the Introduction section, the authors stated that 'To date, there is a lack of clinical studies investigating the role of AGEs in the pathogenesis of NAFLD'. In fact, Magdalena Świdorska et al. has performed a study similar to this study (Free Radic Res, 2019, 53:841-850). They concluded that 'AGE showed good discriminatory ratio for patients with minimal steatosis vs. moderate steatosis, and plasma AGE can be a potential non-invasive biomarker differentiating NAFLD patients. The authors also should discuss the previous study against this study in this manuscript.

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 63381

Title: Advanced glycation end product: A potential biomarker for risk stratification of non-alcoholic fatty liver disease in ELSA-Brasil study

Reviewer's code: 05208113

Position: Peer Reviewer

Academic degree: PhD

Professional title: Assistant Professor, Lecturer

Reviewer's Country/Territory: China

Author's Country/Territory: Brazil

Manuscript submission date: 2021-01-28

Reviewer chosen by: Jin-Lei Wang

Reviewer accepted review: 2021-01-30 07:22

Reviewer performed review: 2021-02-05 12:53

Review time: 6 Days and 5 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

This work showed that high serum AGE content was associated with severe forms of NAFLD, and AGEs might be a potential plasmatic biomarker for differentiating NAFLD patients. This work is of significance for promoting the development of easy and rapid risk stratification of NAFLD, and including the evaluation of AGE status as a part of health examinations.