

PEER-REVIEW REPORT

Name of journal: *World Journal of Hepatology*

Manuscript NO: 72616

Title: Dietary Phytochemical Consumption is Inversely Associated with Liver Alkaline Phosphatase in Middle Eastern Adults.

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02936529

Position: Editorial Board

Academic degree: FRCS (Hon), MD, PhD

Professional title: Professor, Surgical Oncologist

Reviewer's Country/Territory: Brazil

Author's Country/Territory: Iran

Manuscript submission date: 2021-11-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-11-08 02:27

Reviewer performed review: 2021-11-12 00:35

Review time: 3 Days and 22 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 Grade E: Do not publish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 type="checkbox"/> Grade A: Priority publishing <input checked="" 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="radio"/>] Anonymous [<input type="radio"/>] Onymous
	Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No

SPECIFIC COMMENTS TO AUTHORS

The manuscript shows an inverse association between dietary phytochemical index (DPI) score and serum ALP in Iranian adults. This is very well written paper with a proper methothology, however the title does not reflect the main hypothesis of the manuscript, as it is a cohort with specific endpoint (serum liver function tests measurement), the term "insights" would reflect a more abrangent and general view of the topic. The abstract summarizes and reflects the work described in the manuscript. The manuscript adequately describes the background and significance of the study, and the methods and statistics are adequate detailed, and finally the research objectives are achieved. In the discussion session the authors interpret the findings adequately and appropriately, highlighting the key points of the subject. This paper has a high quality of organization and presentation.

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Title: Dietary Phytochemical Consumption is Inversely Associated with Liver Alkaline Phosphatase in Middle Eastern Adults.

Provenance and peer review: Invited manuscript; externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 04025443

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Doctor, Senior Researcher

Reviewer's Country/Territory: Russia

Author's Country/Territory: Iran

Manuscript submission date: 2021-11-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-11-27 04:40

Reviewer performed review: 2021-11-29 21:01

Review time: 2 Days and 16 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 type="checkbox"/> Grade A: Priority publishing <input checked="" 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 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

SPECIFIC COMMENTS TO AUTHORS

Dear authors! I read with pleasure and interest your manuscript entitled "Dietary Phytochemical Index and Liver Function: Insights from a Middle Eastern Population" which is based on cross-sectional population-based prospective study. Evident strength are the sample size (more than 5,000 participants) and high methodological level of nutritional examination. The results are novel, and would be interesting to the readers. I have only a few minor comments. I absolutely agree with your statement in the "strengths" (page 8), that the sample is great, however, it is unlikely "nationally representative", as only people of 35-70 y.o. were enrolled. I would suggest revision of this part of the manuscript and the explanation of the age limits used in the study. Another limitation that may not allow extrapolation the results of this study on the whole Iranian population is that the data of the present study were obtained in 1 province only. However, the dietary patterns may differ significantly depending on the region and ethnicity. Although the reference to previously described study protocol is provided, please, mention that the participants were generally healthy (not recruited from the medical centre visitors). In the exclusion criteria there is a plenty of the information about different types of cancer, however, skin carcinoma in situ would unlikely impact dietary habits. On the other hand, no information on abdominal and chest surgery, as well as food intolerance/allergies is mentioned in the exclusion criteria - please, explain whether these factors were taken into the account. Another interesting point is that some of the participants could have followed special diet (vegetarian, keto, etc), used specialized food products or biologically active compounds other than multivitamin/mineral food supplements - please, provide your comment on this. There

is no information on concomitant medications which could have been used for prophylaxis, or even treatment (for example, statins, in case of hyperlipidaemia), but could influence the studied parameters, due to both, the main and the possible side effects. Please, provide the details on concomitant medications, if possible. It is mentioned that "The USDA food database was used to calculate nutrient intakes". My own experience suggests that this database is not comprehensive, and a lot of local foods and products are not listed. Moreover, chemical composition of some products may differ significantly region by region. Please, explain, whether USDA food database suited for the study performed in your country. It seems to be important to discuss the data on the components of DPI, as larger amounts of fruits may not be that healthy for the liver. For example, food rich in fructose is known factor associated with NAFLD development. Thus, the pattern of fruits and vegetables consumption may be important also. Formal matters. I would recommend to choose additional key words to enhance visibility of the research by search engines (for example, dietary patterns, phytochemical index, etc). The paper (including tables and references) is not formatted per the requirements of the journal. There are some typos, please, check. The comments provided above in no way diminish the scientific quality of the paper. I hope, that my suggestions would help the authors make their manuscript even better.