

## **Response prepared for Reviewers**

We would like to thank the Reviewers for detailed comments and suggestions for the manuscript. We believe that the comments have identified important areas which required improvement. After completion of the suggested edits, the revised manuscript has benefitted from an improvement in the overall presentation and clarity. Below, you will find a point-by-point description of how each comment was addressed in the manuscript. Original comments in boldface, responses are highlighted by yellow color

### **Response to Reviewer #2**

- 1. There are 132 references in this review. We noticed that the results of different studies are inconsistent. I would like to know how the author selected the references? Please provide literature selection rules in the article.**

According to reviewer's suggestion in the methods section the following information has been provided

This narrative review was based on PubMed electronic database search for relevant publications using the following terms ("fatty liver" OR "NAFLD" OR "Non-alcoholic Fatty Liver Disease" OR "Steatosis of Liver" OR "steatohepatitis" OR "steatosis") AND "obesity" AND ("diet" OR "dietary pattern" OR "dietary interventions" OR "nutrition") to identify the studies on the association between dietary patterns and NAFLD and specific clinical dietary interventions studies in adult patients with NAFLD. Also, we focused on systematic review with meta-analysis. Studies relevant to the topic, conducted in humans, published in English and preferably in the last ten years were included. The list of references has been reduced because priority has been given to studies that are relevant to clinical practice. The final list of references was approved with the consent of the authors.

In addition, we had to take into account the request of the journal that a maximum of 3 references from the same journal can be included in the reference list.

- 2. Five studies in the section of Mediterranean dietary pattern and NAFLD did not show a good relationship between adherence to MD and odds of NAFLD. Only one studies showed that adherence to MD reduced the risk of this disease. However, the European Association for the Study of The Liver (EASL), European Association for the Study of Diabetes (EASD)-European Association for the Study of Obesity (EASO) Clinical Practice Guidelines have encouraged MD diet as a lifestyle choice for treating the disease. Please provide some analysis of why MD is recommended.**

In our study a reverse association between high adherence to MD and NAFLD odds, even after adjusting for some confounders such as age, sex, diabetes, physical activity (PA), energy intake (EI), smoking status, and supplement was seen in two case-control studies<sup>1 2</sup>, and one cross-sectional study<sup>3</sup>.

EASL–EASD–EASO for the management of NAFLD recommends that the macronutrient composition of the diet should be adjusted according to the Mediterranean diet<sup>4</sup>. This recommendation was based on a single experimental study<sup>5</sup> and a lot of indirect evidence, granting the strength of the body of evidence on the B1 grade. In a later review George et al. 2018<sup>6</sup> among key dietary advices (limit excess fructose consumption and avoid processed foods and beverages with added fructose; PUFAs, especially long-chain omega-3 rich foods and MUFAs, should replace SFAs in the diet; replace processed food, fast food, commercial bakery goods, and sweets with unprocessed foods high in fiber, including whole grains, vegetables, fruits, legumes, nuts, and seeds; and avoid excess alcohol consumption) for the management of NAFLD, still recommended the use of the traditional dietary patterns, such as the Mediterranean diet. This recommendation is based on 1 longitudinal trial<sup>7</sup>, 1 case-control study<sup>8</sup>, and 3 RCTs<sup>5,9,10</sup> which showed consistent results that were used to determine the evidence grade B.

Thus, the following sentences have been added to the subsection *Mediterranean dietary pattern and NAFLD* to clarify the interpretation of the association between dietary patterns and NAFLD:

It should be highlighted that the dietary indices which measure adherence to the Mediterranean diet vary among the included studies. Hence the specific dietary components and/or food items included within each of these indices and the methods used to evaluate compliance should be taken into consideration when interpreting obtained results.

#### References:

1. Entezari, M.-R. *et al.* Mediterranean dietary pattern and non-alcoholic fatty liver diseases: a case-control study. *J Nutr Sci* **10**, e55 (2021).
2. Giraldi, L. *et al.* Mediterranean diet and the prevention of non-alcoholic fatty liver disease: results from a case-control study. *European Review for Medical and Pharmacological Sciences* **24**, 7500–7507 (2020).
3. Baratta, F. *et al.* Adherence to Mediterranean Diet and Non-Alcoholic Fatty Liver Disease: Effect on Insulin Resistance. *American Journal of Gastroenterology* **112**, 1832–1839 (2017).
4. EASL–EASD–EASO Clinical Practice Guidelines for the management of non-alcoholic fatty liver disease. *Journal of Hepatology* **64**, 1388–1402 (2016).
5. Ryan, M. C. *et al.* The Mediterranean diet improves hepatic steatosis and insulin sensitivity in individuals with non-alcoholic fatty liver disease. *Journal of Hepatology* **59**, 138–143 (2013).

6. George, E. S. *et al.* Practical Dietary Recommendations for the Prevention and Management of Nonalcoholic Fatty Liver Disease in Adults. *Advances in Nutrition* **9**, 30–40 (2018).
7. Zelber-Sagi, S. *et al.* Long term nutritional intake and the risk for non-alcoholic fatty liver disease (NAFLD): A population based study. *Journal of Hepatology* **47**, 711–717 (2007).
8. Kontogianni, M. D. *et al.* Adherence to the Mediterranean diet is associated with the severity of non-alcoholic fatty liver disease. *Clinical Nutrition* **33**, 678–683 (2014).
9. Gelli, C. *et al.* Effect of a counseling-supported treatment with the Mediterranean diet and physical activity on the severity of the non-alcoholic fatty liver disease. *WJG* **23**, 3150 (2017).
10. Trovato, F. M., Catalano, D., Martines, G. F., Pace, P. & Trovato, G. M. Mediterranean diet and non-alcoholic fatty liver disease. *Clinical Nutrition* **34**, 86–88 (2015).

3. **Please provide Legend for Figure 1. NAFLD spectrum is recommended to be placed at the top of Figure 1. All abbreviations such as MUFA, PUFA and SFA need to give notes. What do the different text colors in the figure mean?**

We have provided Legend for Figure 1. in the revised manuscript Progression of NAFL to cirrhosis and/or liver cancer and suggested dietary intervention in NAFLD patients according to risk factors

NAFLD spectrum is placed at the top of Figure 1. We have given notes for all abbreviations.

Blue fonts in the figure means: evidence-based proven effect of the dietary component and this is also explained in the Legend.

#### *Response to Science editor:*

The manuscript summarizes the associations between different dietary patterns, obesity and NAFLD prevention / risk, and describes the effects of specific dietary interventions on hepatic steatosis of NAFLD in adults. The manuscript is well written and can be helpful for the readers to ameliorate the therapeutic approach for this scenario. Self Citation Count: 4. **It is unacceptable to have more than 3 references from the same journal. To resolve this issue and move forward in the peer-review/publication process, please revise your reference list accordingly.**

We have revised our list of references and now no journal has been cited more than 3 times. This has led to a reduction in the number of references because some journals predominantly publish dietary pattern studies and diet intervention studies as well as meta-analyses. The final list of references was approved by all authors.

*Response to Company editor-in-chief:*

1. **Please be sure to use Reference Citation Analysis (RCA) when revising the manuscript. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database.** For details on the RCA, please visit the following web site: <https://www.referencecitationanalysis.com/>.

We used Reference Citation Analysis in revising the manuscript.

2. **Please provide decomposable Figures (in which all components are movable and editable), organize them into a single PowerPoint file.**

We provided decomposable Figures in which all components are movable organize into a single PowerPoint file.

*Response to Company editor-in-chief:*

1. Please authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

We provided standard three-line tables in compliance with the instructions given.

2. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022. If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published; and correctly indicating the reference source and copyrights. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable.

Figure 1 are original i.e. generated *de novo* by the authors for this paper but created in Birender.com