Reviewer's report

Title: Does the inflammatory potential of diet affect disease activity in patients with inflammatory bowel disease?

Version: 0 Date: 19 May 2019

Reviewer: Mireille Harmouche-Karaki

Reviewer's report:

Overview and general recommendation:

The study "The effects of the inflammatory potential of diet on disease activity in patients with inflammatory bowel disease: a cross-sectional study" has evaluated the association between two dietary indexes (Dietary Inflammatory Index -DII- and Empirical Dietary Inflammatory Pattern -EDIP) and disease activity in 143 patients with inflammatory bowel disease (IBD). The authors explicitly stated what the novelty of this study was. To the best of their knowledge, this is the first study examining the links between foods with inflammatory potential in habitual diet and disease activity in patients with IBD. The topic is one of interest; however, I believe that there are few points that need to be addressed before considering this manuscript:

Major comments:

Abstract: The abstract clearly introduces and motivates the topic of this research. It contains adequate summary of the important findings of the study however it is missing a description of the statistical tests used in the methods section of the abstract (Please refer to the Nutrition Journal guidelines).

Background: This section adequately provided the background to the study and stated its aim.

Methods: I found that the description of some important points is missing or inadequate such as:

1. The authors mentioned that they derived the DII score from a food frequency questionnaire (FFQ) previously validated on 132 adults in Tehran Lipid and Glucose Study. I suggest that the authors consider describing the dietary assessment section in more details.

2. The authors state they calculated DII score based on 39 food parameters instead of 45. However, they have mentioned the following food parameters twice: magnesium, zinc, niacin, and thiamin. Hence, the actual number of the parameters in the methods section is 34. In the strengths and limitations of the study, the authors say they have unavailable data on ginger, saffron, turmeric, thyme/oregano, and rosemary. So, I assume that the dietary intakes of the following food parameters were included in the study even though
they did not mention them: alcohol, vitamin B6, eugenol, fibre, and pepper. Please confirm the number of food parameters used.

3. The above section would benefit from an explanation on how the omission of 6 (or 11) parameters was accounted for with more details.

4. Any data on the frequency of consumption of the omitted foods in the Iranian population? I believe that the answer to this question is important to discuss after you mention this point in the limitations of the study (page 9, line 205).

5. I highly recommend the authors to include more details on calculation of DII and EDIP scores.

Results: In the results section, there was a need for a more appropriate approach to reporting the findings. I suggest adding a detailed description of the analysis of the two scores with a table explaining the results.

Table 1:

1. For consistency, space should be added before and after this symbol (±) and others like it throughout.

2. Please consider replacing "or otherwise stated" by "unless otherwise stated".

3. Table 2: According to the journal guidelines, "table titles (max 15 words) should be included above the table.". The word count of this table's title is 20. Please consider revising the table's title.

Discussion: I think that the manuscript should include further discussion of the results.

Conclusion: The conclusion included the summary of important findings and clinical implication and mentions the scope for further research.

References: Reference #5 is incomplete; please confirm all references are accurate and complete and follow journal requirements.

1. Minor comments:

1. Page 2, line 43. For consistency, space should be removed after this symbol (±) in -1.20±1.24.

2. Page 2, line 50. Please add an "s" to deserve.

3. Page 3, line 57. I suggest rephrasing this sentence: "The incidence and prevalence of IBD have been shown a significant rise….".
4. Page 4, line 83. Please remove "of" from the following sentence: to predict inflammatory markers of CRP, IL-6,…

5. Page 4, line 84. "Has" been shown instead of "have" been shown.

6. Page 4, line 87. Please remove "the" form the following sentence: An increased risk of UC with higher "the" DII scores.

7. Page 4, line 97. Please remove word "ulcerative" from: …..CD and ulcerative UC.

8. Page 5, line 99. In formal writing, sentences should not begin with shorthand (abbreviations, acronyms, etc); the shorthand should either be written out or the sentence should be rearranged so that the shorthand is not at the beginning. Please consider changing: "IBD patients....." to "Inflammatory bowel disease (IBD) patients ..... ".

9. Page 5, line 115. Please mention the company and country of Seca scales.

10. Page 6, line 127. Please remove the extra comma.

11. Page 6, line 129 and 132. Please remove "s" from parameters in "…each food parameters…".

12. Page 6. Line 133. Same comment as above (#8); please consider revising the sentence that starts with DII per 1000kcal.…

13. Page 8, line 172. Please remove "ly" statistically: None of these findings reached "statistical" significance not "statistically" significance.

14. Page 8, line 184. Please remove "s" from patterns.

15. Page 8, line 184. Please define "US".


17. Page 10, line 224. Please remove "s" from employees: …. Is an employee of CHI.

18. Please use a serial comma (Oxford comma) when listing more than two items. The absence of a serial comma can alter the meaning of the sentence:
   a. Page 2, line 43. After adjusting for energy intake, drug use and IBD type: should add a comma after drug use, and…
   b. Page 3, line 67. Innate immune cells including antigen-presenting cells (APC), T helper cells (Th cells), T regulatory cells and macrophages: should add a comma after regulatory cells, and macrophages.
c. Same for Page 3, line 68. Please add a comma after IL-1β.
d. And throughout the whole manuscript.

**Level of interest**
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal