Reviewer’s report

Title: Randomised Clinical Trial: Effect of low-FODMAP rye bread versus regular rye bread on the intestinal microbiota of irritable bowel syndrome patients: Association with individual symptom variation

Version: 0 Date: 28 Jun 2018

Reviewer: Steffen Husby

Reviewer's report:

General comments:

The issue of FODMAPS in relation to symptom relief in IBS is interesting and not settled. IBS patients are difficult to standardise. This paper addresses the question: does low-FODMAPS rye bread influence the microbiota and does the eventual effect have any clinical relevance. The theoretically negative effects of FODSMAPs is mentioned, but not explained in detail. The data are not uniformly easy to interpret, even though the authors do make an effort. The paper lacks clarity in the structure and may be shortened considerably. The language needs revision by a native English speaking person.

Specific comments:

1. 104 IBS patients: how were the patients selected as to severity of IBS? From the previous paper the patients were recruited uncritically from a campaign. The response depends heavily on the IBS-score, so a selection based on severity would be appreciated.

1. 109 even though a randomised double blind design, the study has flaws as changes in the microbiota are induced at baseline, probably related to increase in fibre intake from the usual intake. See below.

1. 147 The microbial analysis was based on 16S analysis. A further analysis in a subset of patients with shotgun analysis would have been appreciated.

1. 265 A treatment effect from baseline in both groups disturbs the final interpretation. This probably relates to the study design with responder vs. non-responder status in the two groups leading to small groups and possibility of type 2 errors. Was there any effect specifically at phase 2 of the trial where the baseline effect is eliminated?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
**Does the work include the necessary controls?**  
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**  
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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

Needs some language corrections before being published

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