Author's response to reviews

Title: Small intestinal bacterial overgrowth in irritable bowel syndrome: are there any predictors?

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Author's response to reviews: see over
To The Editor,  
BMC Gastroenterology.  

Re: Submission of revisions to MS: 8317536724676099- Small intestinal bacterial overgrowth in irritable bowel syndrome: are there any predictors?  

We would like to thank you for reviewing our manuscript for BMC Gastroenterology. First of all we would like to apologize for the delay in getting back to you with our responses and revisions. We appreciate your efforts and that of the reviewers in evaluating the manuscript. We would like to answer queries of the reviewer and editorial office comments as follows:  

**Reviewer 1:**  
Recently, a paper speculated that since many IBS patients are on proton pump inhibitor, that the PPI is affecting the result or even causing SIBO. While this was speculation, this study answers this question. Thus even more important than age and sex is this relationship. This needs to be expounded in the manuscript and included in the discussion.  

**Response:** We thank the reviewer for bringing this to our attention. We have cited the manuscript that speculated the association between increased PPI use and SIBO in IBS patients and we have included this in the discussion section (page 10, last paragraph-discussion section) to highlight the fact that we have not found any association between PPI use and a higher likelihood of GBT positivity. We also note on page 11, paragraph 1 that a possible reason for lack of such association in our study is that the duration of hypochlorhydria due to PPI’s is variable and not sustained and this effect is unpredictable unless PPI’s are reliably taken every day by the patient.  

**Reviewer 2:**  
There is no evidence that the proposed criteria for the GBT detect SIBO. There is no control group and hence we do not know what proportion of patients in the normal population would also have an abnormal test using these criteria.  

**Response:** The proposed criteria for a positive GBT used in the study are based on prior studies and we acknowledge (Page 11, paragraph 2) the fact that lack of a control group is a limitation of the study. The rate of GBT positivity in the normal population is currently not known.  

**Reviewer 3:**  
**Question 1:** were the 98 patients consecutive or not? Did the author refer for a breath test any patient seeking medical advice for IBS?
**Response:** The 98 patients who underwent a GBT were not consecutive patients and included only those with predominance of bloating and flatulence. We acknowledge this in the manuscript and also include the total number (169) of IBS patients evaluated in the functional bowel disease clinic in the time frame of the study.

**Question 2:** Many patients (more than 35 %) were treated by opiates. This is very unusual in IBS. The author has to explain why they receive this treatment.

**Response:** The possible reason for the high rate of opiate use is because the functional bowel disease clinic at the University of Kansas Medical Center is a tertiary care referral center and most of the patients at the time of presentation were already on narcotics.

**Question 3:** The authors report that SIBO was more frequent in patients older than 55. Due to the lack of control group, it is very difficult to interpret this association. The question is whether the high frequency of SIBO related to IBS or is it rather due to age? The authors have to comment this point and outline this major weakness of their study.

**Response:** We identify that lack of control group is a weakness of our study and we have included this as a limitation of our study (Page 11, paragraph 2). We also point out the fact that the patients seen at this tertiary setting had been evaluated by a number of physicians in the past and had the diagnosis of IBS for a number of years, hence SIBO could have been present for some years, including when they were much younger.

We have made some changes in the methods, results, and discussion section of the manuscript as per the reviewer’s suggestions and also to help with the flow. We have highlighted wherever the manuscript was modified.

We would like to thank you and the reviewers again for their input into our manuscript. We have tried to revise the manuscript by incorporating their suggestions and believe that this strengthened the manuscript and hope that the current version of the article is more acceptable. However if there is still thought to be any shortcomings in the article, we would be willing to make further revisions as felt appropriate by the Editor and reviewers.

Regards,

Savio C Reddymasu, MD

and

Richard W McCallum, MD