

Reviewer's report

Title: Increased proton pump inhibitor and NSAID exposure in irritable bowel syndrome: results from a case-control study

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Reviewer: Xianrui Wu

Reviewer's report:

The manuscript by Keszthelyi and colleagues aimed to evaluate the association between exposures of several certain medications and the development of IBS symptoms in a large-population-sized case-control study. Major finding was that NSAIDs and PPIs were more frequently used in IBS patients when compared with controls. A number of issues need to be discussed and clarified.

Major Compulsory Revisions

1. As noted, comorbidities (rheumatic disorders, GERD, ect) were not adjusted in the study. This raised the question that the relationship between drug use and development of IBS symptoms might be a reflection of the true association between underlying comorbidities and IBS. This could be addressed in either of the following two ways: 1) run the multivariate analysis with comorbidities included in the model; 2) select the controls by matching for comorbidities with the IBS patients.

Minor Essential Revisions

2. Several studies, including a recently published systemic review (Ruepert L, et al. Cochrane Database Syst Rev. 2011;(8):CD003460.), showed that SSRIs use could improve the IBS related symptoms. While results from this study indicated that exposure of SSRIs was positively associated with IBS. Wondering whether the authors can comment on the controversies.

3. Methods, paragraph 4. The authors mentioned that "The control group consisted of 408 individuals randomly selected from the general population...". What method is applied to select the potential controls from the general populations?

4. Table 1, which statistical analysis was applied to compare age and BMI between IBS patients and controls? This was not consistent with what was described in the methods (statistical analysis).

5. Table 3, OR [95% CI] was calculated for different types of drug use. Was this the result from the univariate analysis or the result after adjusting for other potential risk factors? This needed to be clarified.

6. Full name needed to be provided when the abbreviation was used for the first time in the manuscript.

Discretionary Revisions

7. No significant association between drug use and IBS subtype was found in this study. Do the authors have the data regarding the relationship between drug use and severity of the IBS related symptoms?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.