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March 30th, 2023

Dr. Andrzej S Tarnawski
Editor-in-chief,
World Journal of Gastroenterology

Dear Dr. Tarnawski,

We thank the reviewers and the editorial office for reviewing our paper and for their positive feedback. We have updated the manuscript accordingly. Figures have been reviewed and aligned with the following journal requirements: All figures are presented in a uniform fashion in keeping with the journal guidelines. In the multipanel figure, each panel is labeled according to journal requirements (A, B, C) with labeling reflected in figure caption. All figures are original and copyright information has been added to the bottom right-hand side of the image in PowerPoint. Both images were generated in specialized mapping software (QGIS) and as a result cannot be provided as decomposable figures; figures have been added to a PowerPoint document with editable copyright information. The authors are willing to discuss any additional necessary changes with WJG editors so figures can be edited in mapping software. Please contact author K Jacobson with any further questions.

Tables have been reviewed and are uniform and align with WJG requirements of three-line tables, aligned rows and columns, and no spaces or carriage returns within table cells.

Abbreviations throughout tables, figures, and all sections of the main text, abstract, core tip, and article highlights are now in line with journal requirements.

Audio core tip has been provided.

The Reference Citation Analysis tool has been applied to search for additional relevant citations. Please note that additional citations of recently published articles relevant to this manuscript have been added.

- Nikkilä A, *et al* (2022) Clustering of pediatric onset inflammatory bowel disease in Finland: a nationwide register-based study.
- Rajasekaran V, *et al* (2023). Rising Incidence of Inflammatory Bowel Disease in South Asian children in New Zealand - A Retrospective Population-Based Study.
- Huang JG *et al*, (2022) Epidemiological characteristics of Asian children with inflammatory bowel disease at diagnosis: Insights from an Asian-Pacific multi-centre registry network.
- Adami G, *et al* (2022) Association between long-term exposure to air pollution and immune-mediated diseases: a population-based cohort study.
- Ding S, *et al* (2022) Association between exposure to air pollutants and the risk of inflammatory bowel diseases visits.
- Li F-R *et al* (2022) Long-term exposure to air pollution and risk of incident inflammatory bowel disease among middle and old aged adults.

In response to added references, the following changes have been made (changes in bold):

Page 3, abstract, results section: “**Modeling results were represented as incidence rate ratios (IRR) with 95% confidence intervals (CI).**”

Page. 5, paragraph 1: “Results from studies in **Finland**, Norway, Northern France, and Manitoba, Canada suggest that IBD may have a clustered spatial distribution, but more research is necessary for understanding local spatial patterns^[2-5]. To date, no study has focused on empirically detecting and evaluating disease clusters in **Canadian or North American PIBD** populations”

Page 12, paragraph 1: “However, higher rates of IBD have been documented in South Asian populations in BC, the United States, the United Kingdom, **New Zealand, and Singapore and Malaysia** ^[7,48-51].”

Page 13, paragraph one: “PM_{2.5} air pollution was a significant risk factor for **PIBD** and CD. **Italian (IBD) and Chinese (UC but not CD) studies of middle and older adults have identified PM_{2.5} as a risk factor for incident cases as well as IBD and UC hospitalizations in China** ^[53-55]. In contrast, an Ontario pediatric study found no association and a European adult study which found a negative association **with PM_{2.5}**^[13,56].”

“O₃ air pollution was a significant risk factor for UC **which is consistent with a Chinese study which measured an association between O₃ and IBD and UC hospital visits**^[54]. We observed statistically significant negative associations with CD for NO₂, and O₃. **This is** in contrast to the lack of association observed for IBD in Ontario and Europe, a United Kingdom study which found a positive association between NO₂ pollution and CD onset before age 23, **and a Chinese study which found a positive association between NO₂ and UC incidence in middle and older aged adults**^[13,55,56,59].”

We thank the editorial office for their assistance in revising the manuscript.

Sincerely,



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