

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Surgery*

Manuscript NO: 82773

Title: Carbon footprints in minimally invasive surgery: Good patient outcomes, but costly for the environment

Provenance and peer review: Invited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05462969

Position: Peer Reviewer

Academic degree: MD

Professional title: Assistant Professor, Attending Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: Singapore

Manuscript submission date: 2022-12-27

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-12-29 01:28

Reviewer performed review: 2023-01-01 13:21

Review time: 3 Days and 11 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This review detaile the environment concern of MIS.And this a new topic and useful lesson for surgon!

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Manuscript NO: 82773

Title: Carbon footprints in minimally invasive surgery: Good patient outcomes, but costly for the environment

Provenance and peer review: Invited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05506838

Position: Peer Reviewer

Academic degree: MD

Professional title: Surgeon

Reviewer's Country/Territory: Italy

Author's Country/Territory: Singapore

Manuscript submission date: 2022-12-27

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-02-07 11:35

Reviewer performed review: 2023-02-08 09:20

Review time: 21 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

In this narrative review, the authors aimed to summarize the impact of Minimally Invasive Surgery (MIS) on carbon footprints, awareness and attitudes of relevant stakeholders towards environmental sustainability, and challenges in reducing carbon footprint with particular attention to abdominal MIS. I consider this article very timely and really interesting, but I have some remarks: - I suggest to change the title as follows: "Carbon Footprints in Minimally Invasive Abdominal Surgery: good patient outcomes, but costly for the environment - a narrative review"; - please, remove or specify any abbreviations in the abstract; - If available, please update your reference list. Some of the references are outdated or not correctly cited. In conclusion, after the suggested improvements, I believe that this article could be suitable for publication on the World Journal of Gastrointestinal Surgery.

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Surgery*

Manuscript NO: 82773

Title: Carbon footprints in minimally invasive surgery: Good patient outcomes, but costly for the environment

Provenance and peer review: Invited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05219083

Position: Editorial Board

Academic degree: MD

Professional title: Doctor, Professor, Surgeon

Reviewer's Country/Territory: Mexico

Author's Country/Territory: Singapore

Manuscript submission date: 2022-12-27

Reviewer chosen by: Geng-Long Liu

Reviewer accepted review: 2023-02-09 23:42

Reviewer performed review: 2023-02-15 20:20

Review time: 5 Days and 20 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Title: Carbon Footprints in Minimally Invasive Surgery – Good patient outcomes, but costly for the environment? Criteria Checklist for New Manuscript Peer-Review To review a manuscript and ensure the integrity and quality of the process, the Peer-Reviewer should guide their review activities by the following two questions: (1) Is the manuscript important/innovative and why? It is a review manuscript that highlights the considerable impact of MIS as it is an important source of CO₂ release, which has a negative impact as it is the main gas that causes the greenhouse effect, contributing to global warming and therefore highly adverse to the environment. (2) In particular, does it contain new concepts, hypotheses, and/or mechanistic, diagnostic or therapeutic information, or does it represent a state-of-the-art review of the topic?; The manuscript represents a review of the state of the art on the subject and is an excellent resource to influence the awareness of all surgeons in the world to favor interventions and counteract the causes of the phenomenon of CO₂ production in MIS. (3) and (2) Is the manuscript well, concisely, and coherently organized and presented? Yes. In addition, the Peer-Reviewer should perform the review of a manuscript according to the



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criteria checklist, itemized below: 1 Title. Does the title reflect the main subject/hypothesis of the manuscript? Yes. 2 Abstract. Does the abstract summarize and reflect the work described in the manuscript? Yes. 3 Key Words. Do the key words reflect the focus of the manuscript? I suggest authors add 2 key terms: Greenhouse Effect, Global Warming. 4 Background. Does the manuscript adequately describe the background, present status and significance of the study? Yes. 5 Methods. Does the manuscript describe methods (e.g., experiments, data analysis, surveys, and clinical trials, etc.) in adequate detail? Does not apply. 6 Results. Are the research objectives achieved by the experiments used in this study? What are the contributions that the study has made for research progress in this field? Does not apply. 7 Discussion. Does the manuscript interpret the findings adequately and appropriately, highlighting the key points concisely, clearly and logically? The body of this review manuscript, which addresses 3 main aspects and some secondary ones, treats and comments them very appropriately: 1. IMPACT OF MINIMALLY INVASIVE SURGERY ON THE CARBON FOOTPRINT: In turn, it refers specifically to: Causes and factors contributing to carbon emissions. Clinical impact of carbon emissions on patients. 2. AWARENESS AND ATTITUDE ON ENVIRONMENTAL SUSTAINABILITY. 3. CHALLENGES AND EFFORTS TO ENSURE ENVIRONMENTAL SUSTAINABILITY, also includes here: Education of the individual on environmental sustainability. In the previous topics, he explains the figure included at the end of the manuscript that is titled: Healthcare Carbon Footprint, with its 3 components: Causes, Challenges and interventions. Are the findings and their applicability/relevance to the literature stated in a clear and definite manner? Yes. Is the discussion accurate and does it discuss the paper's scientific significance and/or relevance to clinical practice sufficiently? Does not apply. 8 Illustrations and tables. Are the figures, diagrams, and tables sufficient, good quality and appropriately illustrative, with labeling of figures using arrows, asterisks, etc, and are

the legends adequate and accurately reflective of the images/illustrations shown? Yes.

9 Biostatistics. Does the manuscript meet the requirements of biostatistics? Does not apply.

10 Units. Does the manuscript meet the requirements of use of SI units? Yes.

11 References. Does the manuscript appropriately cite the latest, important and authoritative references in the Introduction and Discussion sections? Yes. Does the author self-cite, omit, incorrectly cite and/or over-cite references? No. It is only convenient to indicate to the authors that the References must be written under the guidelines that the Journal requires and in a complete way. All references must correct their wording, also the references: 3, 22, 29, 44, 60, and 65 are missing the PMID and DOI. The following text must be deleted from reference 2: Research Foundation and the National Institute of Diabetes and Digestive and Kidney Diseases outside the submitted work. No other disclosures were reported.

12 Quality of manuscript organization and presentation. Is the manuscript well, concisely and coherently organized and presented? Yes. Is the style, language and grammar accurate and appropriate? Yes.

13 Research methods and reporting. Authors should have prepared their manuscripts according to BPG's standards for manuscript type and the appropriate topically-relevant category, as follows: (1) CARE Checklist (2013) - Case report; (2) CONSORT 2010 Statement - Clinical Trials study, Prospective study, Randomized Controlled trial, Randomized Clinical trial; (3) PRISMA 2009 Checklist - Evidence-Based Medicine, Systematic review, Meta-Analysis; (4) STROBE Statement - Case Control study, Observational study, Retrospective Cohort study; and (5) The ARRIVE Guidelines - Basic study. For (6) Letters to the Editor, the author(s) should have prepared the manuscript according to the appropriate research methods and reporting. Letters to the Editor will be critically evaluated and only letters with new important original or complementary information should be considered for publication. A Letter to the Editor that only recapitulates information published in the article(s) and states that more studies are needed is not

acceptable? It is a review manuscript and is in accordance with the guidelines of the Journal. 14 Ethics statements. For all manuscripts involving human studies and/or animal experiments, author(s) must submit the related formal ethics documents that were reviewed and approved by their local ethical review committee. Did the manuscript meet the requirements of ethics? As a review manuscript, if it meets the ethical requirements. Manuscript Peer-Review Specific Comments To Authors:* Please make your specific comments/suggestions to authors based on the above-listed criteria checklist for new manuscript peer-review and the below-listed criteria for comments on writing. The criteria for writing comments include the following three features: First, what are the original findings of this manuscript? What are the new hypotheses that this study proposed? What are the new phenomena that were found through experiments in this study? What are the hypotheses that were confirmed through experiments in this study? These 4 questions do not apply to a review manuscript. Second, what are the quality and importance of this manuscript? What are the quality and importance of this manuscript? The quality as a review article is good and the number of references is adequate. Its importance is to be highlighted, the authors draw attention to the negative impact of MIS for the environment and propose the implementation of several actions to reduce this negative effect of CO₂. What are the new findings of this study? None. What are the new concepts that this study proposes? None. What are the new methods that this study proposed? None. Do the conclusions appropriately summarize the data that this study provided? Yes. What are the unique insights that this study presented? None. What are the key problems in this field that this study has solved? None. Third, what are the limitations of the study and its findings? What are the future directions of the topic described in this manuscript? What are the questions/issues that remain to be solved? What are the questions that this study prompts for the authors to do next? How might this publication impact basic

science and/or clinical practice? These 5 questions do not apply to a review manuscript. In conclusion, your review manuscript is of good quality in general terms, with adequate writing, it reviews a fundamental aspect that must be addressed and disrupt the awareness of all surgeons in the world who perform MIS to reduce the deleterious effect of CO₂ on the environment. I invite you to make improvements to the manuscript in order to obtain its publication.