# Review of: "Theory of the Leaky Intestine: Gender Differences in Intestinal Parasitic Infections, Cytoskeletal Wall Dysfunctions, and Hypertension"

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Potential competing interests: No potential competing interests to declare.

Peer review report:

Manuscript: Theory of the Leaky Intestine: Gender Differences in Intestinal Parasitic Infections, Cytoskeletal Wall Dysfunctions, and Hypertension

Reviewer: Dr. Cláudio Daniel Cerdeira

Dear Qeios Team/Authors,

I have finished reviewing the manuscript entitled “Theory of the Leaky Intestine: Gender Differences in Intestinal Parasitic Infections, Cytoskeletal Wall Dysfunctions, and Hypertension” by Njemanze et al. This is a very interesting manuscript and it is well written. I think it is ready for publication after some "minor revisions". I hope to add some helpful comments.

Find helpful feedback on the manuscript and the potential benefits and drawbacks addressed.

Sincerely,

Dr. Cláudio Daniel Cerdeira,

Independent Researcher, Brazil

Comments to the authors

Dear authors,

Overall, this is a remarkably interesting manuscript with excellent clinical data on the differential impact of intestinal parasitic infections (IPIs) in patients of both biological sexes. Here are a few possible areas of improvement (below) and issues that need to be addressed.

Suggestions/considerations:

- Include the ethical aspects of the study (including approval number) also in the Methodology section.

- The clinical data of the study are excellent and well explored in the Results and Discussion sections (macroscopic findings). However, the aspects that point to the underlying biochemical mechanisms related to the cytoskeletal

architecture and its dysfunctions need to be better explored (cytological and functional analysis of cytoskeletal integrity), as well as for extrapolations of dysbiosis (in the gut microbiome). Alterations in sodium balance can have multiple causes, not limited to changes in cytoskeletal architecture. As the authors discuss: “As the intestinal wall thickens due to cytoskeletal rearrangement, sodium channels become inactivated, disrupting the osmotic gradient on both sides of the intestinal brush border membrane (BBM)”; this would be plausible but is speculative. My suggestion is that the authors include this as a limitation of the study in the Discussion section and/or comment on the potential drawbacks of this lack of more in-depth analysis, in addition to considering writing changes throughout the manuscript and in the title.

- As a suggestion, in the Discussion section, consider the impact of the specificity of a given parasitic infection (since different parasitoses have been reported in this study) on the complications observed in patients, for both sexes.

- According to the “Sex and Gender Equity in Research (SAGER) Guidelines (https://ease.org.uk/communities/gender-policy-committee/the-sager-guidelines/), it is more appropriate to use the term "biological sex" or “sex” rather than gender to refer to "biological sex" (conceptualized as a binary factor: female and male, which is what this article is about). Sex should be used as a classification of female/male based on biological characteristics. Gender is based on socially constructed roles, behaviors, and identities (Heidari et al. 2016. Research Integrity and Peer Review, 1:2). Authors should consider adjustments to the manuscript.

Overall reviewer’s contribution:

As a reviewer on Qeios, I provide constructive and detailed feedback on the manuscript: Theory of the Leaky Intestine: Gender Differences in Intestinal Parasitic Infections, Cytoskeletal Wall Dysfunctions, and Hypertension. My suggestions and comments are intended to improve the manuscript, and I may revise it again if necessary.

Decision: Minor revisions and acceptance (The manuscript can be published in Qeios)

Sincerely,

Dr. Cláudio Daniel Cerdeira,

Independent Researcher, Brazil