

# 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.

## **Ms. Theory of the Leaky Intestine: Gender Differences in Intestinal Parasitic Infections, Cytoskeletal Wall Dysfunctions, and Hypertension**

First of all, I do apologize for the late review, but I have literally been swamped! Too many other academic obligations. After careful reading, I have several comments on the manuscript:

Leaky gut syndrome is a hypothetical condition that's not currently recognized as a medical diagnosis. It's based on the concept of increased intestinal permeability, which occurs in some gastrointestinal diseases. Thus, it is a theory that intestinal permeability is not only a symptom of gastrointestinal disease but an underlying cause that develops independently. Thus, that statement should not be included in the title. The authors stated that. More specifically, authors do not state anything in the Introduction related to this issue.

A standardized questionnaire was used to collect clinical symptoms and disease history, including information about the onset and duration of the illness. This is not enough to rule out many conditions that may also cause illness and may be related to the main question. Also, the paradigm that the relationship between parasite infections and hypertension is far from being tested; no positive correlations are shown. I mean, if you look for a correlation (positive) between parasitic infections and hypertension in a place where both are endemic, you will positively find it. I mean, this can be easily seen in populations where parasites are not endemic and there is a high rate of hypertension. Thus, this manuscript is far from demonstrating that. Also, there are no gender differences associated with any of the parameters tested, so they should not be highlighted as important factors. Their findings suggest that patients were exposed to contaminated food and water, which led to infection with IPIs (in an endemic site for parasitic infections, such as the country where the study was conducted, this finding does not have any novelty and may even sound redundant). Their premise of a leaky intestine and the subsequent damage to the organisms was based on speculations. I quote from their own manuscript, "In the present study, we did not analyze the microbiome. However, we hypothesized that IPIs cause dysbiosis of the intestinal microbiome. We further hypothesized that the resulting inflammatory processes led to the dysfunction of the cytoskeleton in the intestinal wall." So, to me, this study does not have any positive correlation that may be of clinical or basic use. It is far from being a clear demonstration of the paradigm of the leaky intestine and its possible causes and effects. The discussion is way too speculative and not based on their results.

