

Peer Review

Review of: "Candida, the Gut Microbiome, and the Epidemic Levels of Cancer and Autoimmune Disease in Young Women, Dementia, and Obesity"

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This article offers an extensive narrative linking Candida overgrowth and gut dysbiosis to rising rates of cancer, autoimmune diseases, dementia, and obesity, especially among young women. While it presents a compelling mechanistic hypothesis and supports it with numerous literature references, several important limitations affect its scientific rigor and clinical relevance.

Strengths and Pros

The article synthesizes physiological, biochemical, and epidemiological data to create a broad, interdisciplinary hypothesis connecting gut microbiome dynamics, Candida, and systemic disease states.

There is strong emphasis on mechanistic pathways, such as altered tryptophan metabolism, estrogen receptor modulation, and protease-driven inflammation, connecting microbiome activity with disease risk.

Numerous recent studies are cited throughout, showing diligence in reviewing current literature on Candida, dysbiosis, and molecular pathways linking gut health to cancer and autoimmune disease.

It includes therapeutic considerations based on microbiome manipulation, diet, and supplementation.

Limitations and Weaknesses

The work is a commentary/preprint and does not present new clinical or experimental data; it is a hypothesis-driven synthesis rather than empirical research.

The narrative is broad and association-heavy, mostly relying on correlations and mechanistic speculation; causative relationships are not substantiated by intervention studies or direct clinical trials.

Many links between Candida, estrogen, and the epidemic of chronic diseases remain hypothetical, with the author explicitly acknowledging interpretative and methodological uncertainty.

The quality of references spans meta-analyses, reviews, and primary studies, but the logical chain is sometimes built on circumstantial evidence rather than robust causal demonstrations.

Scientific Quality and Rigor

The commentary is thorough and well-referenced, but as a hypothesis paper, it lacks direct methodological rigor such as controlled design, statistical analysis, or clinical endpoints.

Models and figures are proposed as hypothetical frameworks rather than validated clinical tools or algorithms.

It features a wide scope, making it useful for generating future research ideas or interdisciplinary discussion, but not for clinical application or decision-making.

Overall Critique

Pros: Broad synthesis, up-to-date citations, mechanistic proposal; important topic.

Cons: Speculative nature, lack of new data, over-reliance on correlations, limited clinical applicability.

Limitations: No experimental or patient-level data, hypotheses outpace available evidence, causation not proven, some narrative leaps.

Quality: Good scholarly synthesis, but inherently limited by format (preprint commentary) and by lack of rigorous methodology.

This work may best be used to inform hypothesis generation, guide basic science research, or stimulate debate on the impact of the gut mycobiome on systemic disease—but should not be used as direct evidence for clinical decision-making until more robust confirmation becomes available

Declarations

Potential competing interests: No potential competing interests to declare.