Review of: "[Perspective] Glucolipotoxicity: A Novel Different Perspective on the Causes of Cancer"

Nidula Mullappilly[1]

1 Duke University

Potential competing interests: No potential competing interests to declare.

The article Glucolipotoxicity: A Novel Different Perspective on the Causes of Cancer written by Maher Akl is a novel study that focuses on Glucolipotoxicity, which might be a cause of cancer. The article offers an in-depth exploration of glucolipotoxicity. Each section, from elucidating the concept of glucolipotoxicity to discussing its cellular mechanisms and its impact on immune dysfunction, is meticulously detailed. The author effectively communicates scientific concepts clearly and understandably. The writing style facilitates accessibility for readers across various scientific backgrounds. It's written in a very simple manner. The integration of cellular repair mechanisms following glucolipotoxicity and the role of lactic acid in inhibiting apoptotic enzymes provides a nuanced understanding of how metabolic disturbances might contribute to cancer development.

Major revisions:

1. I think the references cited for each topic are very little. For a review, I think it needs to be improved.
2. While the article excels in detailing cellular mechanisms, it could benefit from a section discussing the clinical implications of these findings. How might this understanding translate into diagnostic, therapeutic, or preventive strategies in clinical settings?
3. The part that describes Glucolipotoxicity and immune dysfunction should be improved by stating more recent studies or ongoing research in the field.
4. Are there any recent studies in glucolipotoxicity and cancer that have been established? If so, it's necessary to state and discuss how glucolipotoxicity may affect different types of cancer or whether certain cancers are more susceptible to these metabolic disturbances could enrich the review.

Minor revisions:

1. A few typo errors have been found. For example: In the part The Paradoxical Conditions that Activate Tumor Growth: Glycolipids is mentioned as Glyucolipids

2. Incorporating visual aids such as diagrams or tables could enhance reader comprehension of complex mechanisms discussed throughout the article.

For Example: In the Discussion part, it would be better if you could conceptualize a schematic figure that simplifies your hypothesis and idea.

If it’s a comparison with the Warburg effect, it adds up more.