

Peer Review

Review of: "Human Exposure to Arsenic and Toxic Metals Through Meat Consumption in Africa: A Review of Scientific Literature"

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Journal: Qeios

Manuscript Number: 64LZR7

Manuscript Title: Human Exposure to Arsenic and Toxic Metals Through Meat Consumption

In Africa: A Review of the Scientific Literature

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Comments

The manuscript demonstrates several strengths, notably its comprehensive geographic scope, as it reviews studies from a wide range of African countries including Nigeria, Ghana, Egypt, Uganda, Ethiopia, Algeria, and others, offering a valuable overview of current knowledge on toxic metals exposure through meat consumption across the continent. It tackles a focused and highly relevant topic of environmental contamination through dietary exposure in a region where regulatory frameworks are often underdeveloped, thus highlighting a critical yet underexplored public health issue. However, before publication, the following comments need to be addressed.

1. The title should be revised for clarity and accuracy. Currently, it reads *"Human Exposure to Arsenic and Toxic Metals Through Meat Consumption in Africa: A Review of the Scientific Literature"* which unintentionally implies that arsenic is not classified as a toxic metal. Since arsenic is indeed a well-known toxic metal, it should not be listed separately in a way that distinguishes it from other toxic metals. A more accurate and concise title would be: *"Human Exposure to Toxic Metals Through Meat*

Consumption in Africa: A Review of the Scientific Literature” This revised title better reflects the scope and focus of the manuscript.

2. It would be helpful to include line numbers in the manuscript. Adding line numbers allows reviewers to reference specific sections more easily when providing feedback or discussing particular points. This is especially important during the peer review process, as it improves clarity and facilitates efficient communication between authors, reviewers, and editors.
3. The literature search was limited to only two databases, PubMed and Scopus. While these are reputable sources, expanding the search to include additional academic databases and search engines such as Web of Science, Elsevier, SpringerLink, and Google Scholar could yield a broader range of relevant articles. This is particularly important given the scarcity of data from many African countries on this topic. Including studies from a wider array of sources would not only strengthen the comprehensiveness of the review but also enhance the depth of the Discussion, the robustness of the Conclusion, and the relevance of the recommendations. A more inclusive search strategy could uncover valuable data from underrepresented regions and provide a more balanced view of toxic metal exposure across the African continent.
4. In the conclusion, the sentence “toxic trace element content in muscle tissues is generally lower than in other tissues and organs, and toxic metal levels in meat are usually less significant than in other food groups like fish and seafood” needs revision. The phrase “toxic trace element” is not appropriate as it combines the concepts of toxicity and essentiality, which can be misleading. Since the context clearly refers to harmful substances, the term “toxic elements” or “toxic metals” would be more accurate. Therefore, the word “trace” should be removed.

Attachments: available at <https://doi.org/10.32388/XVUPIB>

Declarations

Potential competing interests: No potential competing interests to declare.