Advances in Radiological Techniques for Cancer Diagnosis: A Narrative Review of Current Technologies

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1. Round 1

1.1 Reviewer 1

Date: 01 November 2023

Reviewer:

The manuscript would significantly benefit from a more comprehensive comparison of the effectiveness and limitations of advanced radiological techniques versus traditional methods across different cancer types. Including specific case studies or statistical data to support the discussions could provide tangible evidence of the advancements' impact on diagnostic accuracy and patient outcomes.

While the manuscript mentions the role of artificial intelligence (AI) in enhancing radiological techniques, a deeper exploration into how AI is specifically transforming cancer diagnostics is needed. This should include discussions on algorithm development, challenges in AI integration, ethical considerations, and future directions for AI in radiology.

The manuscript addresses the issue of global access to advanced diagnostics but could further elaborate on the barriers to access in low- and middle-income countries. Providing detailed strategies or initiatives aimed at overcoming these challenges, such as international collaborations, technology transfer agreements, or funding mechanisms, would enrich the discussion.

The manuscript highlights the importance of collaboration between disciplines but could delve deeper into how these collaborations have practically facilitated the development and implementation of advanced radiological techniques. Including examples of successful interdisciplinary projects or models of collaboration could illustrate the benefits of such synergies.

The ethical implications of advanced radiological techniques, including patient consent, data privacy, and the potential for overdiagnosis, warrant a more detailed examination. Discussing how these ethical concerns are being addressed in the development and application of new technologies would provide a comprehensive view of the challenges faced by the field.

Authors revised the manuscript and uploaded the updated document.

1.2   Reviewer 2

Date: 30 October 2023

Reviewer:

The manuscript would benefit from a more detailed explanation of the inclusion and exclusion criteria for the studies reviewed. Specifically, clarifying why certain studies were selected over others could enhance the reader's understanding of the review's scope and depth.

While the manuscript touches upon the challenges and limitations associated with the adoption of advanced imaging technologies, a more detailed discussion on this aspect could provide a balanced view. This includes potential drawbacks related to cost, availability, and the learning curve for healthcare professionals.

Ensure that all references are up-to-date and accurately reflect the most recent and relevant research in the field. Cross-verifying citations and updating any that have become outdated since the initial submission will strengthen the manuscript's credibility and relevance.

The manuscript mentions patient-centered approaches briefly. Expanding this section to include examples of how these advanced techniques have directly impacted patient experiences, including patient comfort and the psychological effects of quicker and more accurate diagnoses, would be valuable.

Some sections of the manuscript could be made more concise without losing critical information. Streamlining the text to remove redundancy and focusing on the most impactful statements will improve readability and engagement.

Authors revised the manuscript and uploaded the updated document.

2.   Revised

Editor's decision after revisions: Accepted.

Editor in Chief's decision: Accepted.