LETTER TO THE EDITOR

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Bridging the Gap Between Research and Clinical Practice in Cardiac Tumors

Dear Editor,

I recently had the opportunity to read the comprehensive review article titled "Cardiac Tumors: Review"[1] published in your esteemed journal. The article presents a thorough overview of the incidence, presentation, imaging, and management of primary and secondary cardiac tumors, which are indeed rare and challenging clinical entities. I commend the authors for their detailed examination of these tumors, particularly their focus on the imaging modalities essential for diagnosis. However, I would like to discuss certain aspects of the article that warrant further clarification and expansion, particularly concerning the limitations of current imaging modalities and the therapeutic management of cardiac sarcomas.

The article correctly highlights that cardiac magnetic resonance imaging (CMRI) is the most comprehensive modality for identifying and diagnosing cardiac masses due to its superior ability to assess tumor characteristics such as size, location, and tissue composition. However, I believe the discussion could benefit from a more critical examination of the limitations inherent to CMRI, particularly in differentiating between benign and malignant masses. While CMRI provides excellent tissue characterization, its specificity in distinguishing between tumor types remains suboptimal without histopathological confirmation, as noted in several studies[2]. This limitation emphasizes the need for biopsy in cases where CMRI findings are inconclusive, a point that could have been more strongly emphasized to guide clinical decision-making.

Additionally, the review mentions the use of positron emission tomography (PET) for evaluating cardiac tumors but briefly touches on its limitations, such as low sensitivity. I would argue that the article could further explore the role of PET in conjunction with CMRI, particularly in cases of suspected malignancy. Recent advancements in hybrid imaging techniques, such as PET-magnetic resonance imaging, have shown promise in improving diagnostic accuracy for cardiac tumors by combining metabolic and anatomic data, which may provide a more comprehensive assessment than either modality alone[3]. This evolving field of hybrid imaging could have been included to provide a more current perspective on imaging strategies.

In terms of management, the article discusses the poor prognosis associated with cardiac sarcomas and the use of multimodal therapy, including surgery, chemotherapy, and radiotherapy. However, I believe the review could have expanded on the emerging role of targeted therapies and immunotherapy in the treatment of these aggressive tumors. For instance, the use of tyrosine kinase inhibitors such as pazopanib, which targets the vascular endothelial growth factor receptor, has shown some efficacy in prolonging survival in patients with angiosarcoma, a common cardiac sarcoma[4]. Similarly, immunotherapies, including immune checkpoint inhibitors, are gaining traction as potential treatments for cardiac sarcomas, although their use remains experimental at this stage. Including these newer therapeutic options would provide readers with a more comprehensive view of the current and future landscape of cardiac tumor management.

In conclusion, while the review article provides a valuable summary of cardiac tumors, I hope these additional insights on imaging modalities and emerging treatments will further enhance the understanding and management of these complex cases. I would appreciate if the authors could provide their perspective on the potential role of hybrid imaging techniques and targeted therapies in the management of cardiac tumors. Specifically, how might these modalities influence diagnostic accuracy and therapeutic outcomes in clinical practice?

Thank you for considering my comments. I look forward to the authors' response, which I believe will contribute to the ongoing discussion and help clinicians better navigate the challenges associated with cardiac tumors.

Sincerely,

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