

REVIEWER'S REPORT

Manuscript No.: IJAR-56097

Title: The Pivotal Role of 99mTc-MDP Bone Scintigraphy in Detecting Widespread Extra-Osseous Metastases in Osteogenic Osteosarcoma: A Case Report and Literature Review

Recommendation:

- Accept as it is
 ✓ Accept after minor revision.....
 Accept after major revision
 Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr S. K. Nath

Date: 07.02.26

Detailed Reviewer's Report

Strengths of the Study

- **Originality:** The case report highlights a rare and important phenomenon—the detection of extensive extra-osseous metastases in osteogenic osteosarcoma using 99mTc-MDP bone scintigraphy, emphasizing its extended utility beyond skeletal metastases.
- **Relevance:** The findings are highly relevant to medical professionals involved in oncological imaging and management of osteosarcoma, promoting awareness of comprehensive metastatic detection techniques.
- **Methodology:** The study combines functional imaging (bone scintigraphy) with anatomical imaging (CT) and advocates for hybrid imaging (SPECT/CT), illustrating best practices in staging and surveillance.
- **Data Quality:** The case presentation includes detailed imaging findings corroborated by both scintigraphy and CT, strengthening the validity of the observations.
- **Contribution to the Field:** The paper underscores the significance of whole-body screening in high-risk patients and advocates for the integrated use of hybrid imaging, potentially influencing clinical practice guidelines.

Weaknesses of the Study

- **Sample Size:** As a single case report, the generalizability of the findings is limited, and the study does not provide statistical analysis or larger cohort validation.
- **Literature Review:** The review, while useful, is somewhat limited in scope; incorporating a broader review of existing cases involving extra-osseous metastases detectable via scintigraphy would enhance depth.
- **Discussion Depth:** The discussion on the limitations of scintigraphy, alternative imaging modalities, and prognosis could be expanded for a more comprehensive view.
- **Methodological Details:** The description of imaging protocols lacks specific technical parameters (e.g., imaging acquisition details), which would benefit reproducibility.
- **Ethical Considerations:** The manuscript mentions informed consent but does not specify institutional approval or ethical clearance details—important for case reports involving patient data and images.

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

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Reviewer Comments

- **Title and Abstract:** The title clearly reflects the scope and focus of the paper. The abstract effectively summarizes the background, case presentation, and implications but could improve clarity by explicitly stating the significance of the findings in terms of clinical practice and potential impact.
- **Introduction and Objectives:** The introduction provides a solid background on osteogenic osteosarcoma and imaging modalities but should more clearly state the specific objectives of the case report, including the goal of demonstrating the utility of scintigraphy in detecting extra-osseous disease.
- **Methodology and Statistical Analysis:** As a case report, the methodology is primarily descriptive; however, detailed imaging protocols, including specifics of scintigraphy and CT acquisition, would strengthen reproducibility. No statistical analysis is applicable but including references to similar cases or literature data would enrich the discussion.
- **Results and Discussion:** The results are clearly presented with supporting images; the correlation between scintigraphy and CT is compelling. The discussion effectively emphasizes the potential of bone scintigraphy for whole-body surveillance and advocates for hybrid imaging usage. Further elaboration on limitations of the technique and comparison with other modalities (like MRI or PET/CT) would enhance depth.
- **Conclusion and Implications:** The conclusion appropriately summarizes the key points. Emphasizing the impact on clinical decision-making and management guidelines would underline the significance.
- **Ethical Clearance:** The manuscript states that informed consent was obtained, which is appropriate. However, explicit mention of approval by an institutional review board or ethics committee, including approval number if applicable, is recommended for transparency.
- **Grammar and Language:** The English language is generally clear and professional. Minor typographical inconsistencies are minimal but should be reviewed for polishing.
- **Tables, Figures, Formatting, References:** Figures effectively complement the text; ensuring high-resolution images and consistent labeling would improve clarity. Formatting adheres generally to standards; the reference list is comprehensive, but in-text citations should be cross-checked for consistency.

Additional Note: Based on the content and referencing style of the provided manuscript, as well as a review of existing literature and online sources, there is no indication that this specific paper has been previously published on the internet. The manuscript appears to be an original work, although a formal plagiarism check or database search would be required for absolute confirmation.