

## REVIEWER'S REPORT

Manuscript No.: IJAR-56097

**Title:** The Pivotal Role of  $^{99m}\text{Tc}$ -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		Good		
Techn. Quality		Good		
Clarity		Good		
Significance		Good		

Reviewer Name: Dr. Sumathi

### Detailed Reviewer's Report

- Osteogenic osteosarcoma is the most common primary malignant bone tumor, characterized by cancerous cells producing immature bone (osteoid). It primarily affects children, teenagers, and young adults, typically developing in the long bones around the knee or shoulder. This aggressive cancer causes pain, swelling, and reduced mobility.**
- Extra-osseous metastases refer to cancer that has spread from its original location to areas outside of the bone, such as soft tissues (muscles, nerves, blood vessels). While many cancers metastasize to the skeleton, extra-osseous spread involves surrounding soft tissues or distant organs. These tumors often present as soft tissue masses, particularly in Ewing sarcoma.**
- Technetium-99m sodium pertechnetate - This variant is used for diagnostic imaging of the thyroid, salivary gland, urinary bladder, vesicoureteral reflux, and nasolacrimal drainage imaging. Its use in the gastrointestinal tract is primarily for diagnosing Meckel's diverticulum (Meckel scintigraphy scan)**
- Scintigraphy, or nuclear imaging, is a diagnostic technique in nuclear medicine that uses small amounts of radioactive material**

**REVIEWER'S REPORT**

radiopharmaceutical to create images of the structure and function of organs and tissues. A gamma camera detects the radiation emitted by the tracer, creating 2D images used to diagnose issues in bones, kidneys, the thyroid, and heart, as well as detecting cancer.

5. Soft tissue metastases are rare, often painful, and firm masses occurring when cancer cells spread from a primary malignancy (such as lung, kidney, or colon) to skeletal muscle or soft tissue, often signaling an advanced stage and poor prognosis. They are frequently misdiagnosed as primary soft-tissue sarcomas, requiring immunohistochemical stains for accurate identification.
6. Bone scintigraphy (bone scan) is a nuclear medicine imaging technique used to detect abnormal metabolic activity, tumors, infections, fractures, and metastatic cancer in bones. By injecting a radioactive tracer that highlights areas of high bone turnover, it identifies conditions often missed by standard X-rays, including stress fractures and cancer spreading from other sites.
7. Abstract and pictures are good.
8. Result part should be with tables and graphs.
9. Summary points must be included.
10. References should be in alphabetical order.
11. After those changes can be published.