99mTc-MDP in Pathological Fracture
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Case — Recurrent Breast Cancer

Patient had known breast cancer with previous right mastectomy. CT showed recurrence 4 months ago, and nuclear medicine scan was requested to assess metastatic involvement.

On whole body planar imaging there was widespread bony metastatic disease, with involvement of skull, ribs, vertebral column, pelvis and proximal femur. There was additional increased uptake in the left neck of femur. The patient proceeded to SPECT/CT which revealed a lucent line running through the left neck of femur in keeping with fracture of the neck of femur. A further area of increased uptake in the left inferior pubic ramus also localized to a fracture on SPECT/CT. The patient was transferred to Acute Oncology and referred to the Orthopedic team for urgent fixation of the fracture.
CONCLUSIONS

- **99mTc-MDP** is a common radionuclide used for assessing skeletal metastases.
- Patients with widespread bony metastases are prone to pathological fractures which may be incidentally picked up, and can be correlated with CT or plain film.
- Early detection is essential to avoid complications such as avascular necrosis, hence it is important to review common fracture sites on SPECT/CT.

References:


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