


MICOD – 01/08/2024

Case contributor – Dr. Rajesh Botchu

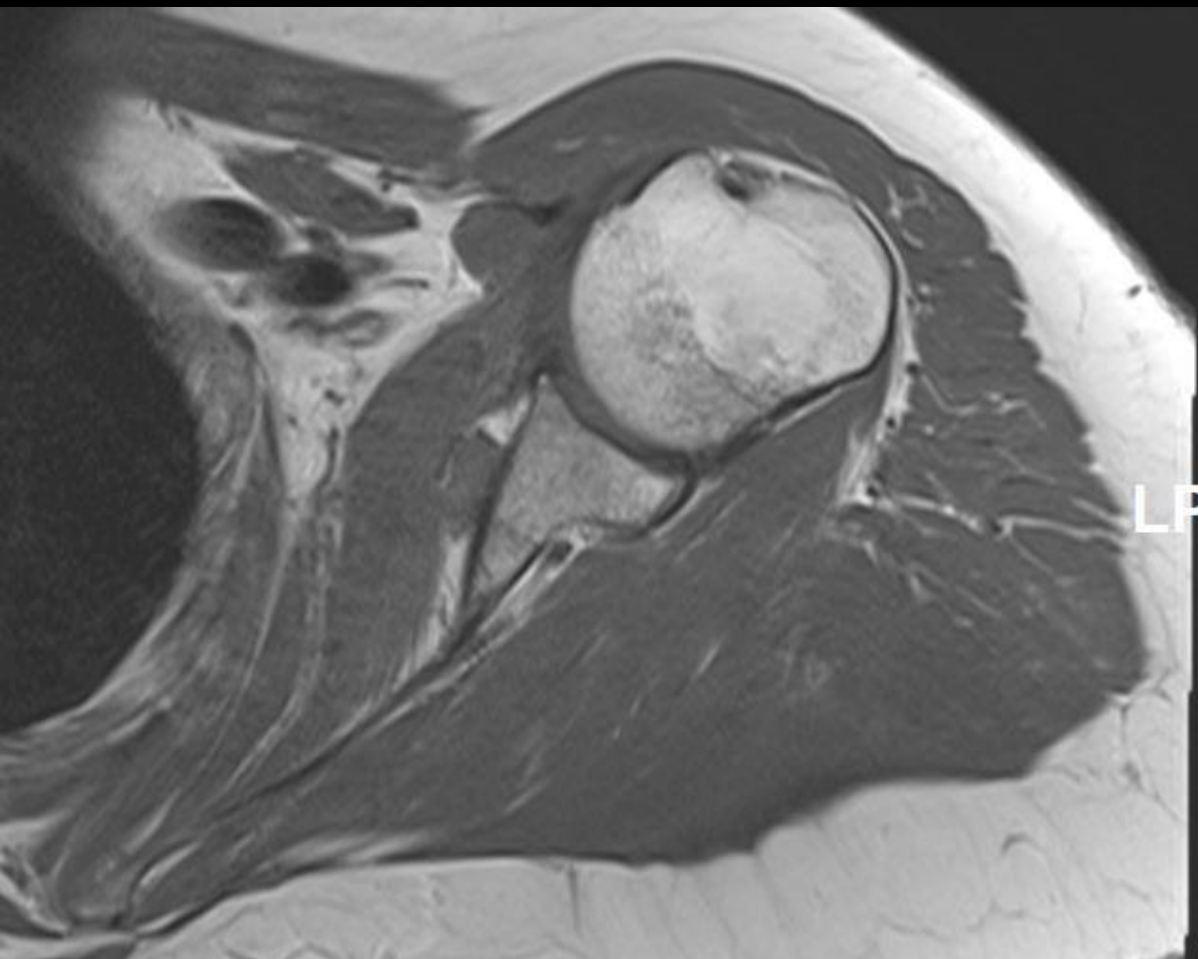
MI-COD

MSS INDIA- Case Of the Day

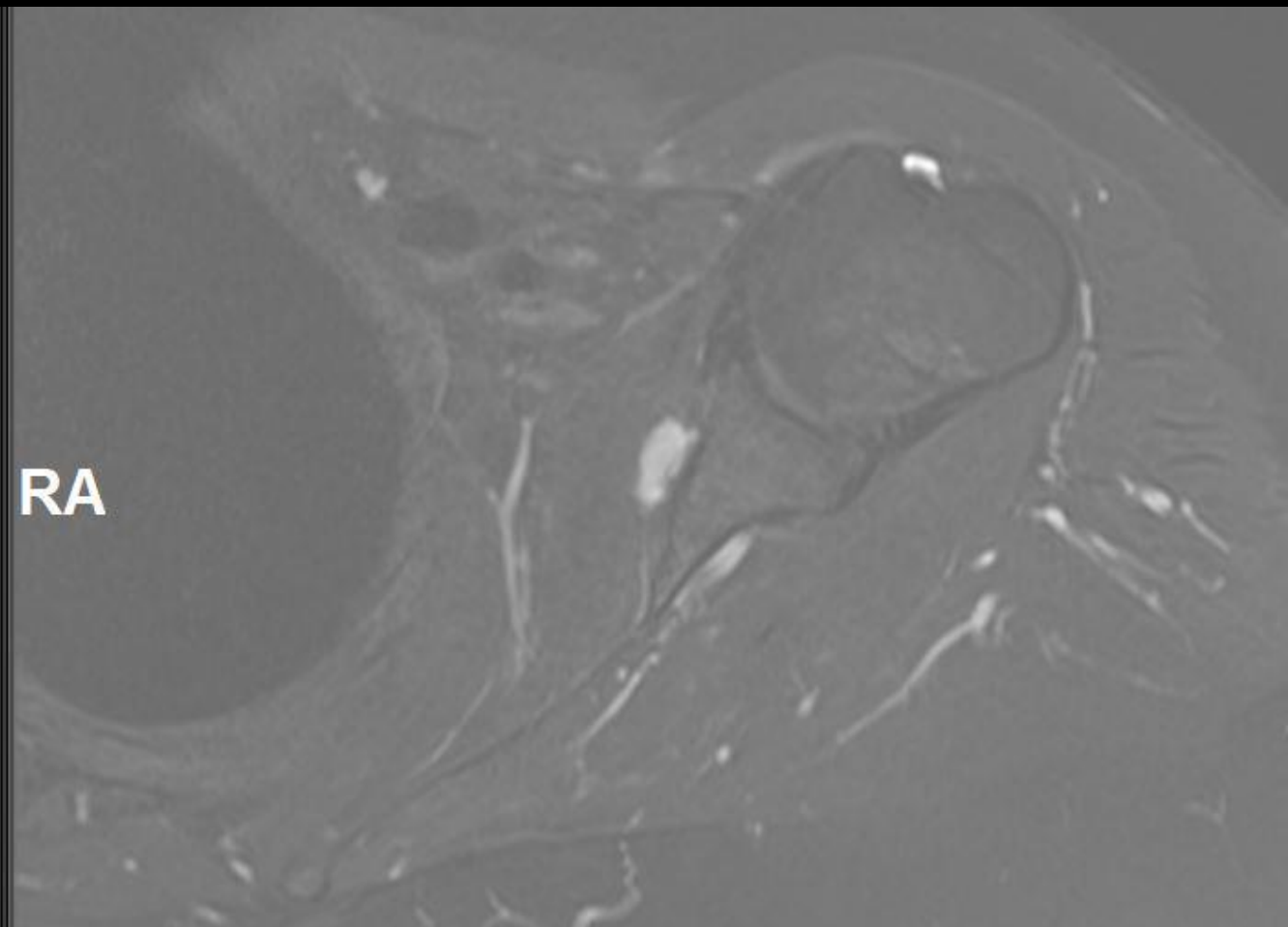


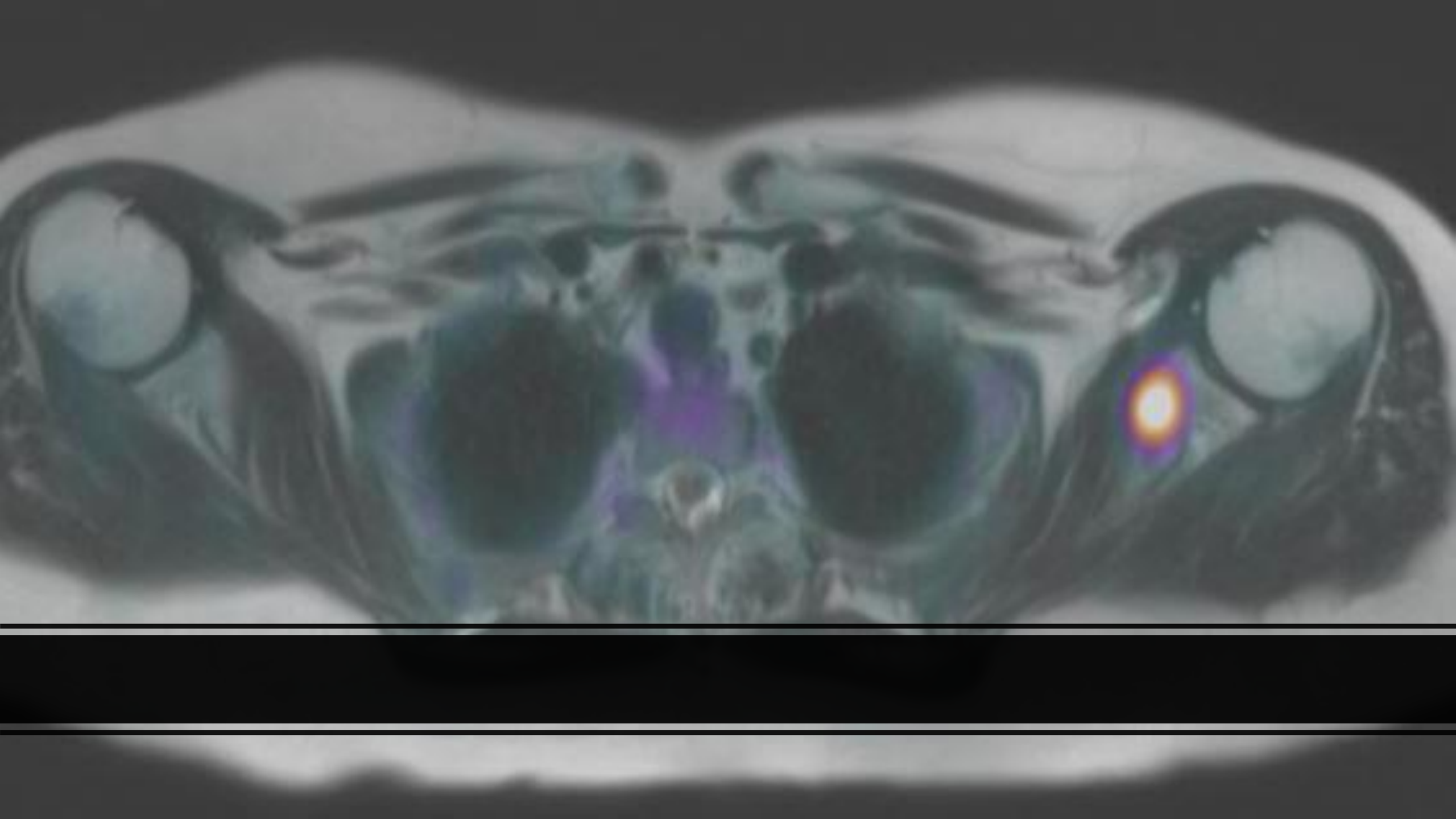
- 
- Patient presented with multiple fractures.
What are the differentials?
How would you biopsy it?

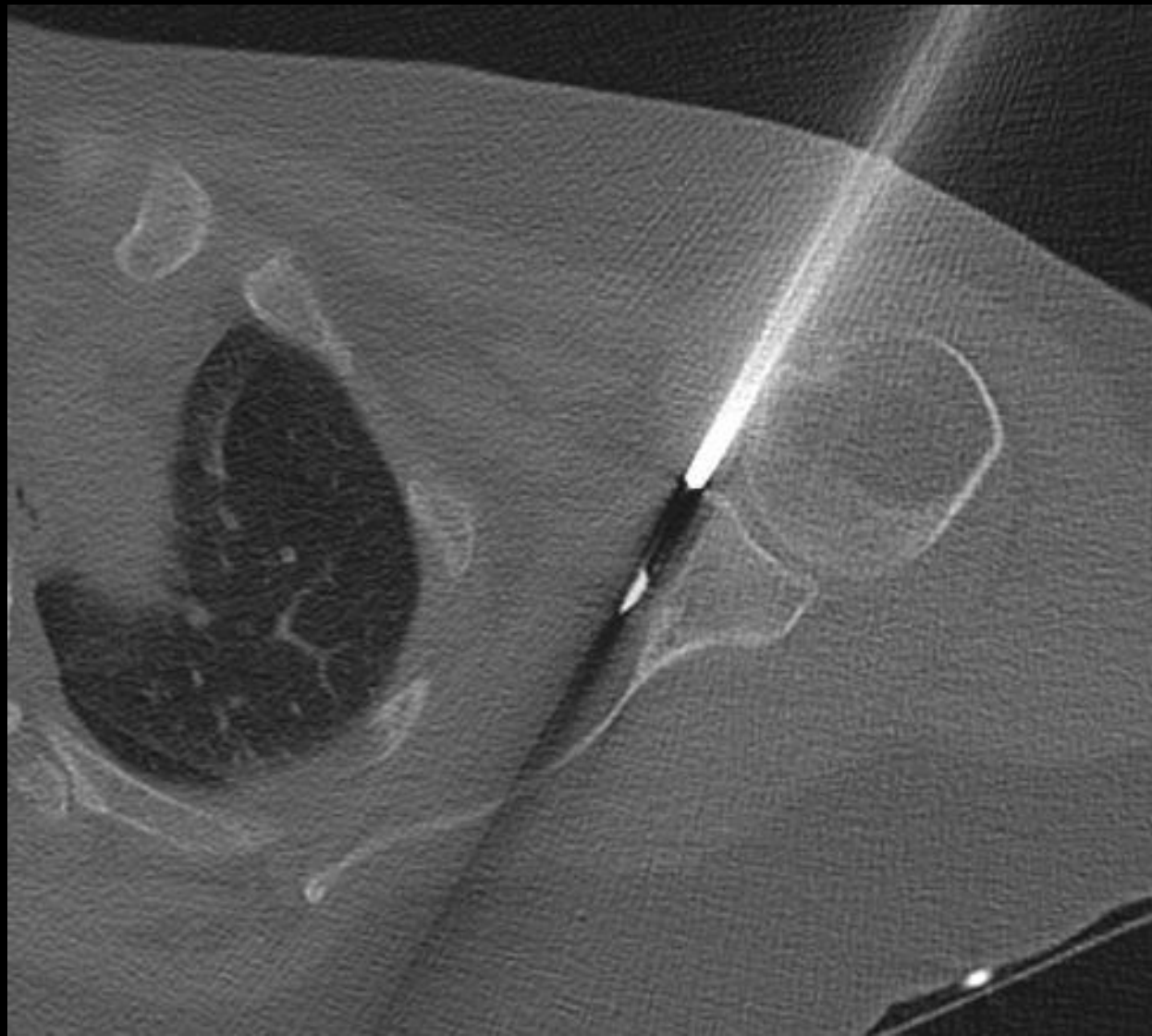




LP RA







PHOSPHATURIC MESENCHYMAL TUMOUR

Phosphaturic mesenchymal tumors are the cause of the vast majority of cases of tumor-induced (oncogenic) osteomalacia due to the production of fibroblast growth factor-23 (FGF-23).

These tumors are extremely rare, with fewer than 500 cases reported in the literature. Most occur in middle-aged adults, but cases in all ages have been reported.

Clinical presentation

- Patients usually present with symptoms related to hypophosphatemia, such as chronic muscle aches and weakness, and to osteomalacia, such as bone pain and multiple fractures.
- The biochemical features are hypophosphatemia, phosphaturia, and inappropriately normal or low levels of 1,25-hydroxyvitamin D (calcitriol).

Pathology

Phosphaturic mesenchymal tumors are benign spindle cell neoplasms.

Location

Phosphaturic mesenchymal tumors usually originate in a bone or soft tissue site.

Radiographic features

CT

The tumors are round/oval, circumscribed soft tissue masses with contrast enhancement. Fat or calcification may be present.

MRI

The tumors show the following signal characteristics:

- T2**: markedly hyperintense
- T1 C-**: isointense to muscle unless there is intratumoral fat or cystic change.
- T1 C+**: marked homogeneous enhancement.

Larger tumors tend to be more heterogeneous in signal intensity. Vascular flow voids may be seen.

BIOPSY IS DONE WITH : T-lok bone marrow biopsy needle

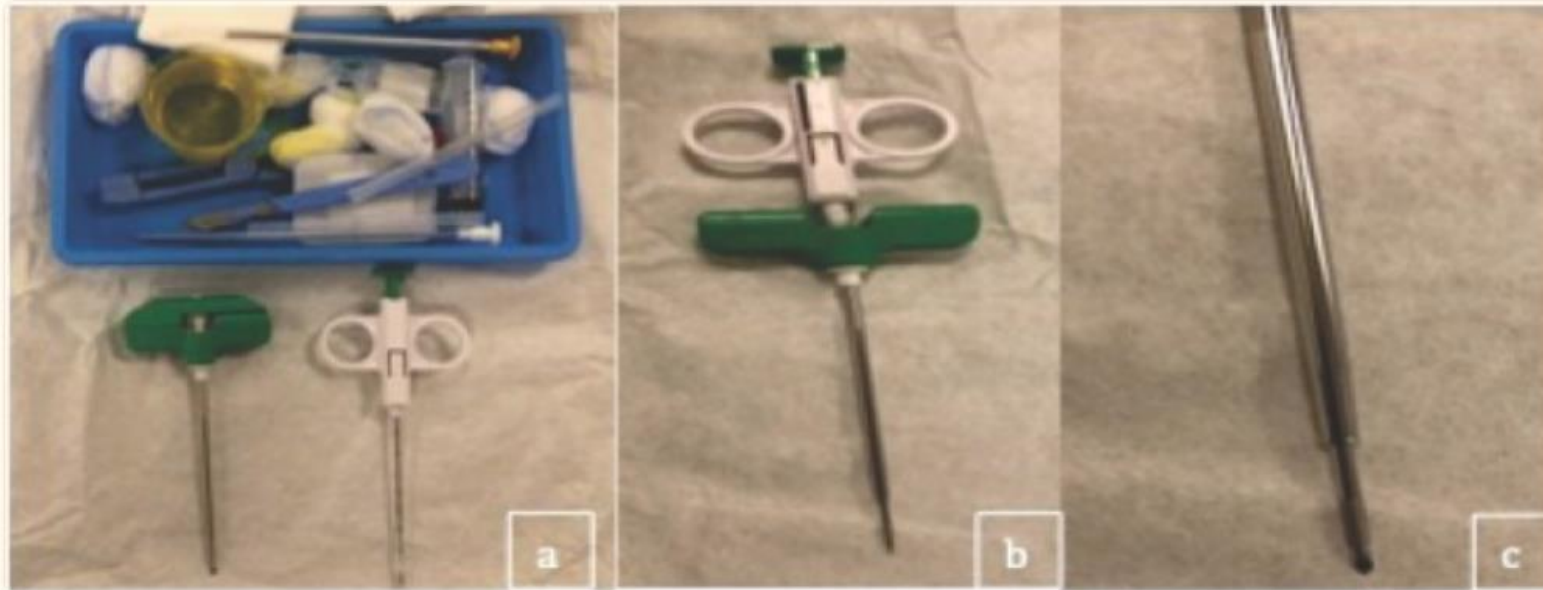


Figure 3

(A) shows the 8 gauge bone marrow biopsy and 14 gauge soft tissue biopsy needle on the left and right respectively. (B) shows how the soft tissue needle is placed through the bone biopsy needle. (C) shows a close up view of the trochar needle tip.

T LOK

- - “Twist-lock” is ergonomically designed and allows for sufficient pressure, while keeping assembly intact.
 - Double diamond stylet point allows quick and easy penetration into marrow cavity.
- - Twin peaks cutting edge provides excellent biopsy coring ability.
- - T-Lok extraction forceps ensure specimen capture.
- - Elimination of a painful deflection technique to harvest a quality sample.

Specificities :

- The ergonomic Twist-Lock handle allows you to exert sufficient pressure while maintaining the two elements of the handle.
- The conically shaped trocar reduces effort during insertion.
- The double twin peaks cutting edge of the trocar offers excellent biopsy coring capacity.
- The tip of the "double diamond" type of the stylet allows rapid penetration to the medullary canal.
- The T-Lok tip allows capture and extraction of the sample.
- The probe removes the sample from the T-Lok extraction cannula.

An aerial photograph of a multi-lane highway bridge spanning across a body of turquoise water. The bridge has several lanes in each direction, with white lane markings. Several vehicles, including cars and trucks, are visible on the bridge. The water is a vibrant greenish-blue color with visible ripples. The word "THANKYOU" is overlaid in the center of the image in a white, bold, sans-serif font.

THANKYOU