

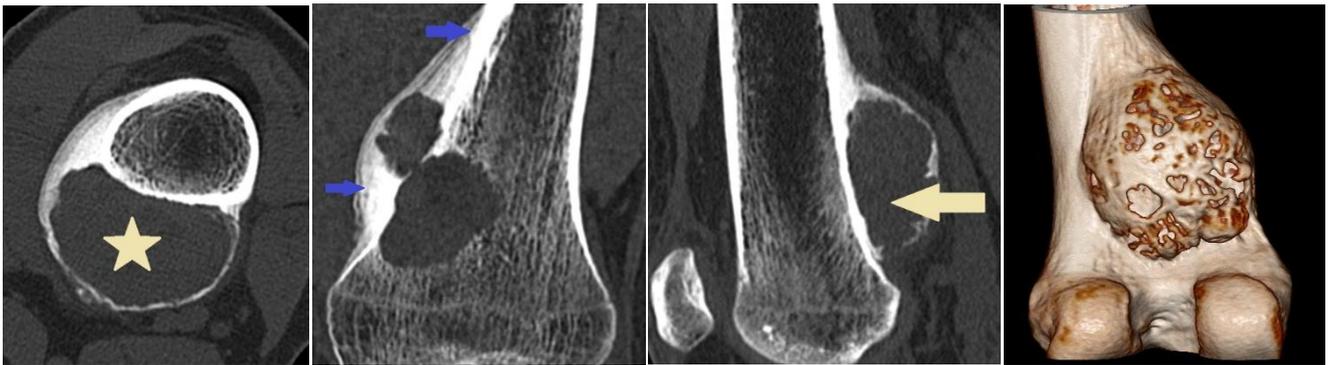
## ANEURYSMAL BONE CYST- DIAGNOSED BY CT SCAN AND CT GUIDED TRUCUT BIOPSY

**Clinical history:** 20 year old male presented with mildly painful expansile swelling around the left knee.

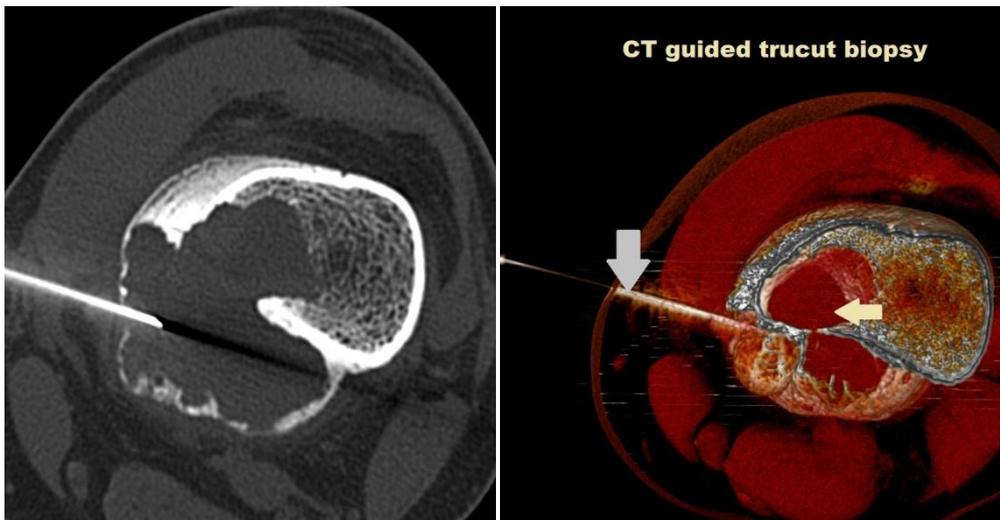
**Imaging findings:**

- Well defined, expansile lytic lesion noted along the medial aspect of the metadiaphyseal region of the distal left femur (yellow arrow) with mild adjacent periosteal reaction (blue arrows).
- The distal femoral cortex is significantly expanded and thinned out with multiple cortical breaks. No significant associated soft tissue component noted. No matrix calcifications (star).

**The imaging differentials include Aneurysmal Bone Cyst or a Giant cell tumor.**



CT guided Trucut Biopsy was performed for histopathological confirmation



**Diagnosis- Aneurysmal Bone Cyst**



## **DISCUSSION:**

**Aneurysmal bone cysts (ABC)** are benign expansile tumour-like bone lesions of uncertain aetiology, composed of numerous blood-filled channels, and mostly diagnosed in children and adolescents.

**Clinical presentation:** Patients may present with pain, which may be of insidious onset or abrupt due to pathological fracture, with a palpable lump or with restricted movement.

**Location:** They are typically eccentrically located in the metaphysis of long bones, adjacent to an unfused growth plate. Although they have been described in most bones, the most common locations are

- Long bones: 50-60%, typically the metaphysis
  - Lower limb: 40%
    - Tibia and fibula: 24%, especially proximal tibia
    - Femur: 13%, especially proximally
  - Upper limb: 20%
- Spine and sacrum: 20-30%

Especially posterior elements, with extension into the vertebral body in 40% of cases

- Craniofacial: jaw, basisphenoid, and paranasal sinuses
- Epiphysis, epiphyseal equivalent, or apophysis: rare but important

## **Imaging:**

Radiographs demonstrate sharply defined, expansile osteolytic lesions, with thin sclerotic margins. CT will demonstrate these findings to a greater degree and is also better at assessing cortical breach and extension into soft tissues. Additionally, CT can demonstrate fluid-fluid levels.

MRI is able to demonstrate the characteristic fluid-fluid levels exquisitely as well as identify the presence of a solid component suggesting that the aneurysmal bone cyst is secondary. The cysts are of a variable signal, with a surrounding rim of low T1 and T2 signal. Focal areas of high T1 and T2 signal are also seen presumably representing areas of blood of variable age (see ageing blood on MRI).

**Regards,**

**Dr. Gaurish G. Surlakar / Dr. Deepa S. Nadkarni / Dr. Shaikh M. Mazhar**

N.B: This case is authentic and from the archives of Radiance Diagnostics. For any queries/suggestions/feedback write to us at [radiance@radiancediagnostics.in](mailto:radiance@radiancediagnostics.in) . Case of the month can also be accessed anytime online at VIEW BOX at [www.radiancediagnostics.in](http://www.radiancediagnostics.in)