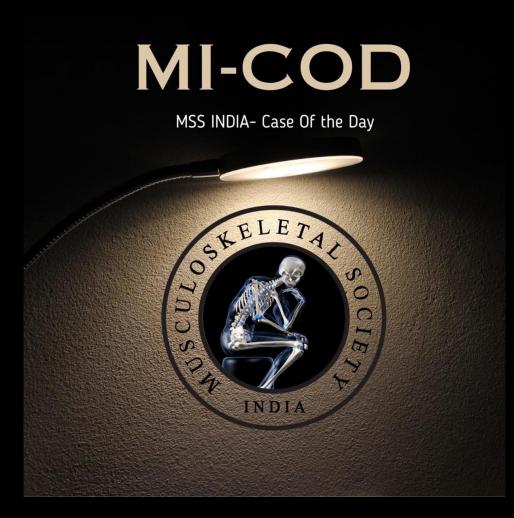
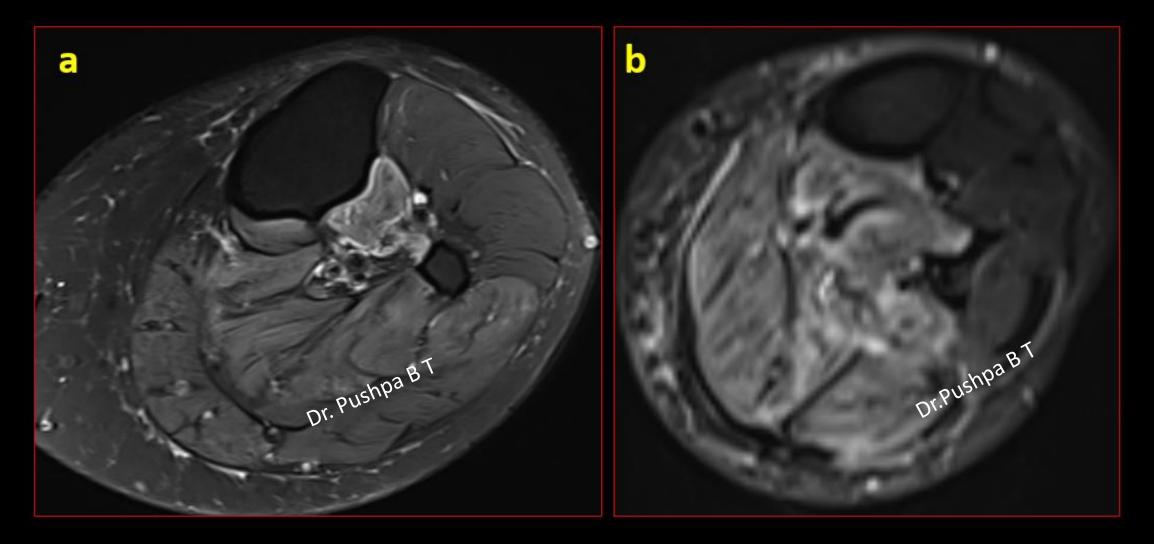
Date: 19.08.2023 Contributor- Dr. Pushpa B T

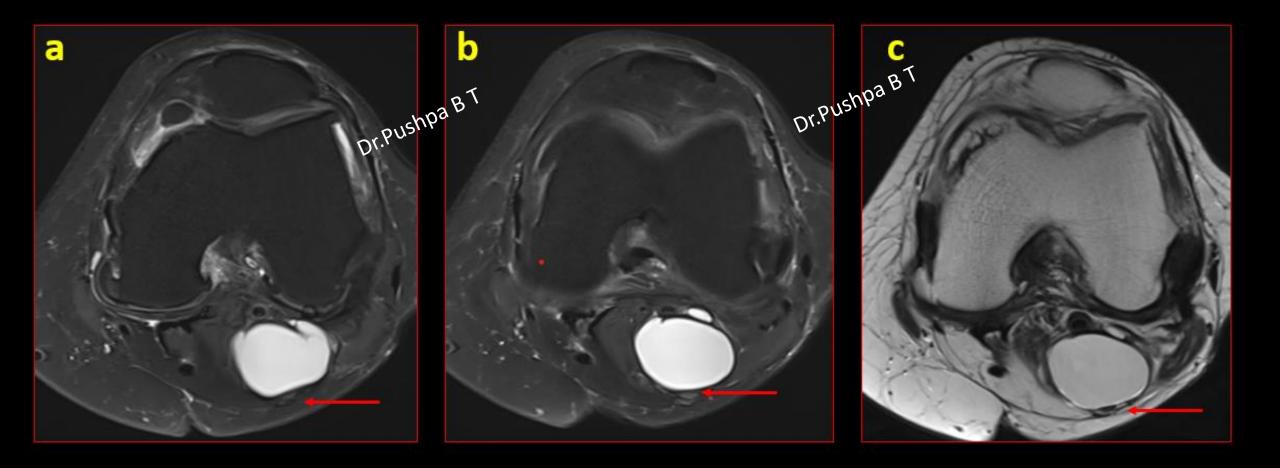


# Clinical details

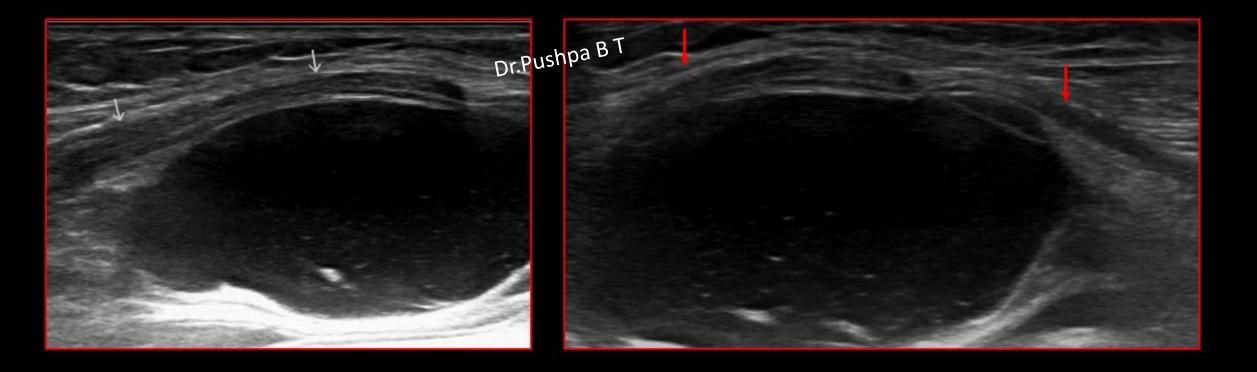
- 65-year-old non-diabetic non-hypertensive female patient presented with left leg pain radiating to foot for 1 week.
- History of numbress and weakness of foot.
- No fever / cough.
- No prior history of trauma, surgery or prolonged immobilization.
- Outside MRI reported as ruptured baker cyst.
- Clinical suspicion was deep venous thrombosis or ruptured baker cyst



Nerve denervation related changes: Axial STIR images (a & b) shows atrophy, edema and fatty replacement of posterior compartment muscles of leg.



Perineural cyst around tibial nerve: Axial STIR images (a & b) and axial T2WI (c) lobulated cystic lesion likely arising from posterior capsulo-ligamentous complex and seen extending posteriorly within the gastrocnemius muscle causing compression of tibial nerve. No obvious intra-articular communication.



#### Sagittal plane USG images shows anechoic cystic lesion causing compression and stretching of tibial nerve.

### Differential diagnosis of cystic lesion in popliteal fossa:

- Intraneural ganglion cyst of the tibial nerve.
- Peri-neural ganglion cyst.
- Cystic nerve sheath tumor (schwannoma).
- Baker's cyst

## Differential clinical diagnosis of posterior leg pain:

- Muscular injuries (Soleus / gastrocnemius or plantaris).
- Deep venous thrombosis.
- Baker cyst.
- Nerve sheath tumor.

**Diagnosis:** Peri-neural ganglion cyst arising from a posterior capsule-ligamentous complex of the knee joint with compression of the tibial nerve and nerve denervation changes in the posterior compartment of the leg.

#### Discussion:

- Perineural ganglion cysts are benign cysts caused by accumulation of thick mucinous fluid encased in dense fibrous capsule.
- They are formed from a capsular injury of the joint secondary to direct or indirect trauma or degenerative changes.
- Clinically, patients present with pain, paresthesias, weakness, muscle denervation and atrophy.
- Eventually, these ganglion cysts dissect into epineurium of nerves and form intraneural ganglion cyst.
- USG-guided percutaneous aspiration and decompression of cyst is primary choice of treatment with higher chances of recurrence. Open surgical approach is more definitive treatment.