

MSK CASE WITH CLASSICAL FINDINGS



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UNDER THE GUIDANCE OF DR. AMIT KHARAT

HISTORY



- 31 years old female presented with c/o swelling and pain in the lower-third of left leg since 1 year.
- H/o difficulty in walking since 1 year.
- No h/o any discharge from the swelling.
- No h/o trauma/fever/tingling sensation.

RADIOGRAPH LEFT LOWER LEG & ANKLE JOINT



DIFFERENTIAL DIAGNOSIS

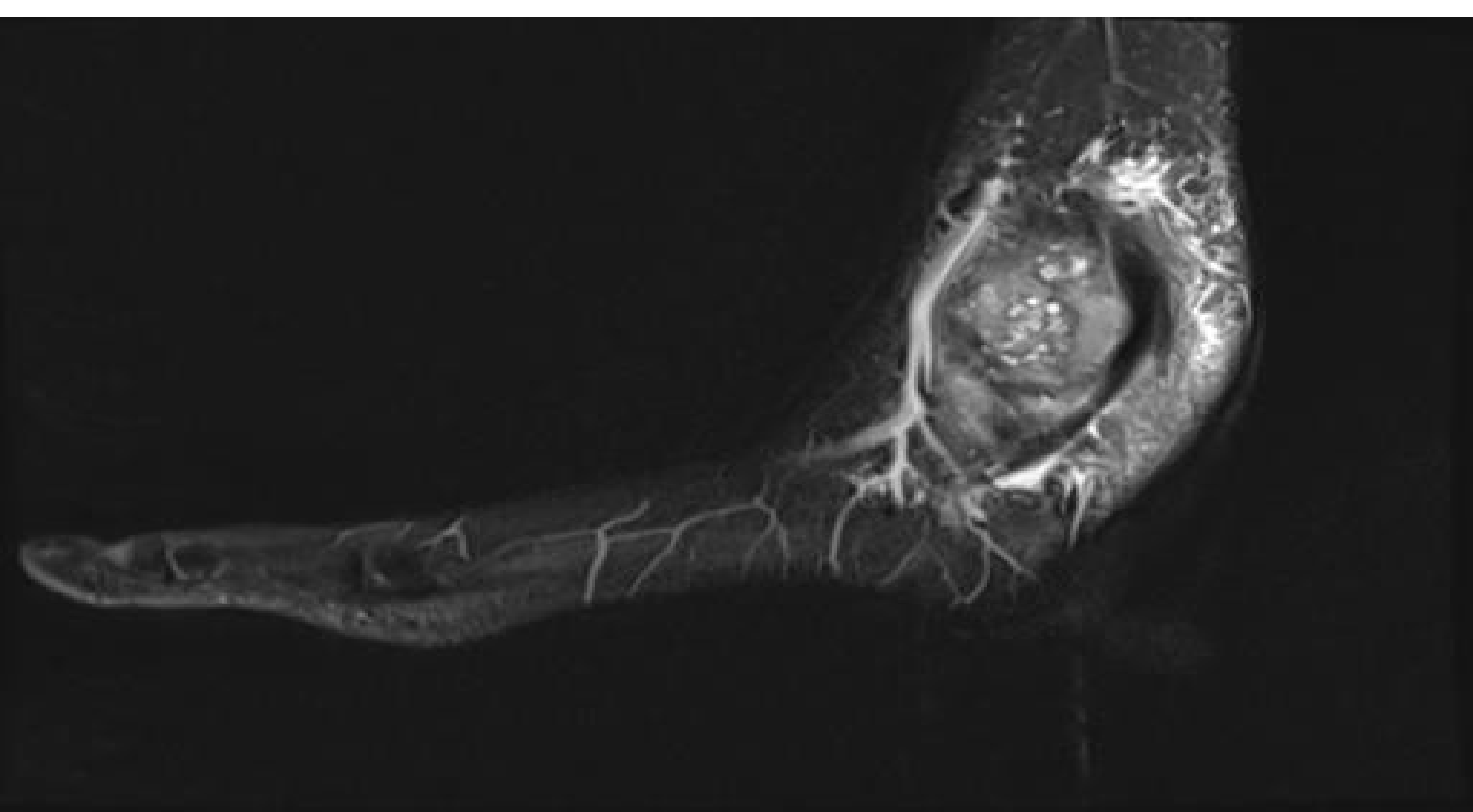


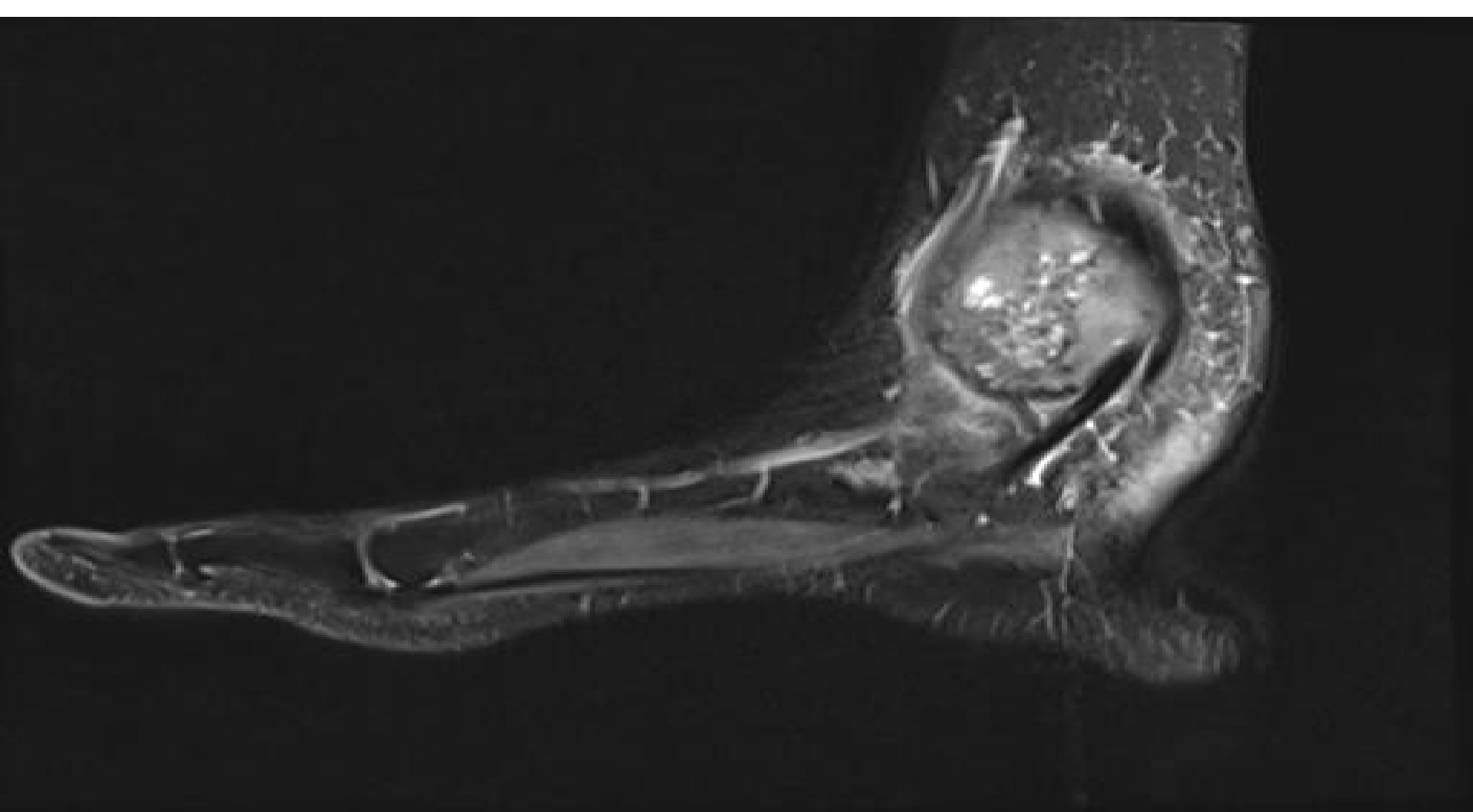
- GIANT CELL TUMOR
- CHONDROMYXOID FIBROMA (before fusion of growth plate, sclerotic margins, matrix calcification)
- ANEURYSMAL BONE CYST (younger age group, sclerotic margin, fluid-fluid level)
- CHONDROBLASTOMA (skeletally immature)
- Telengectatic osteosarcoma (Diaphyseal- metaphyseal)

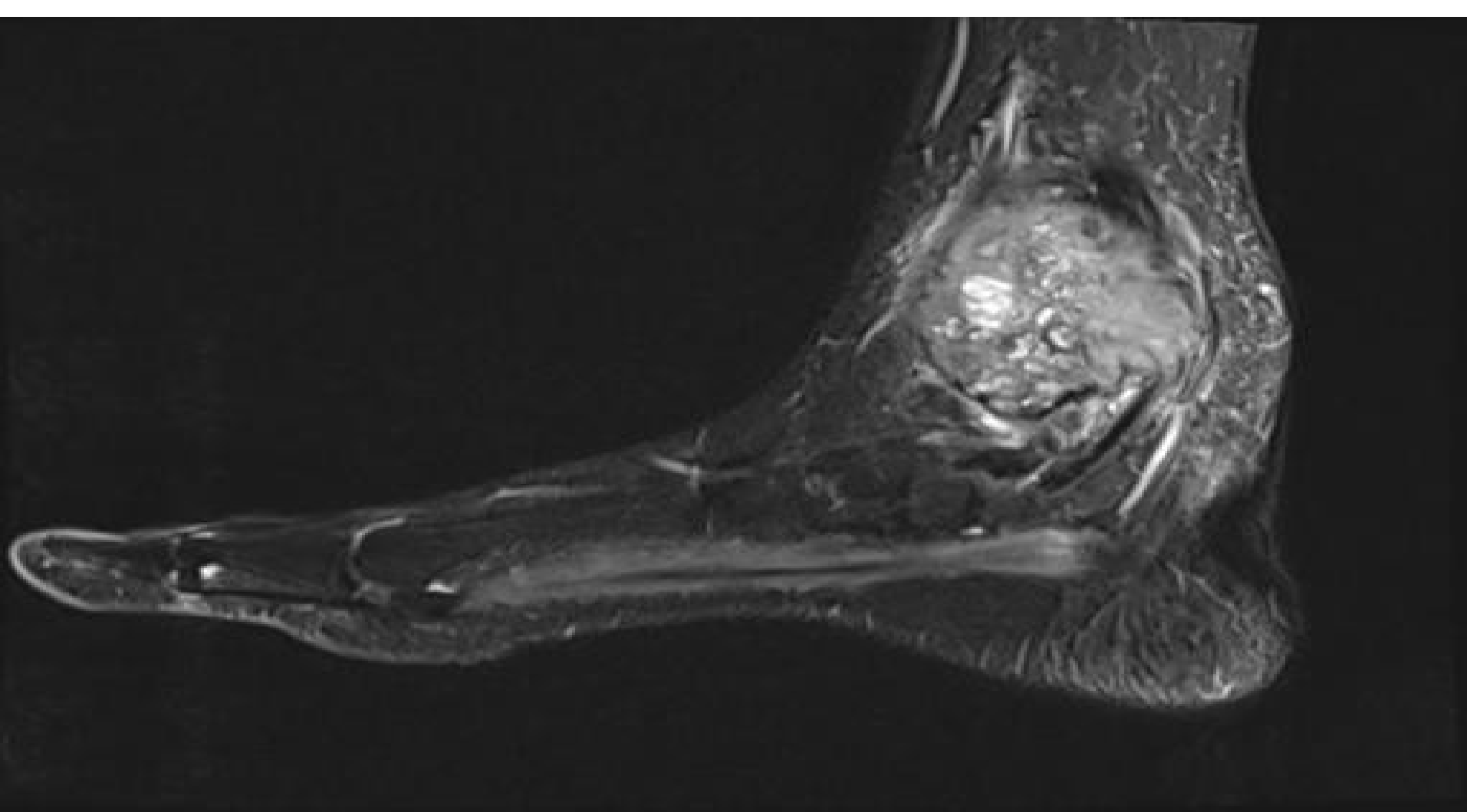
MRI

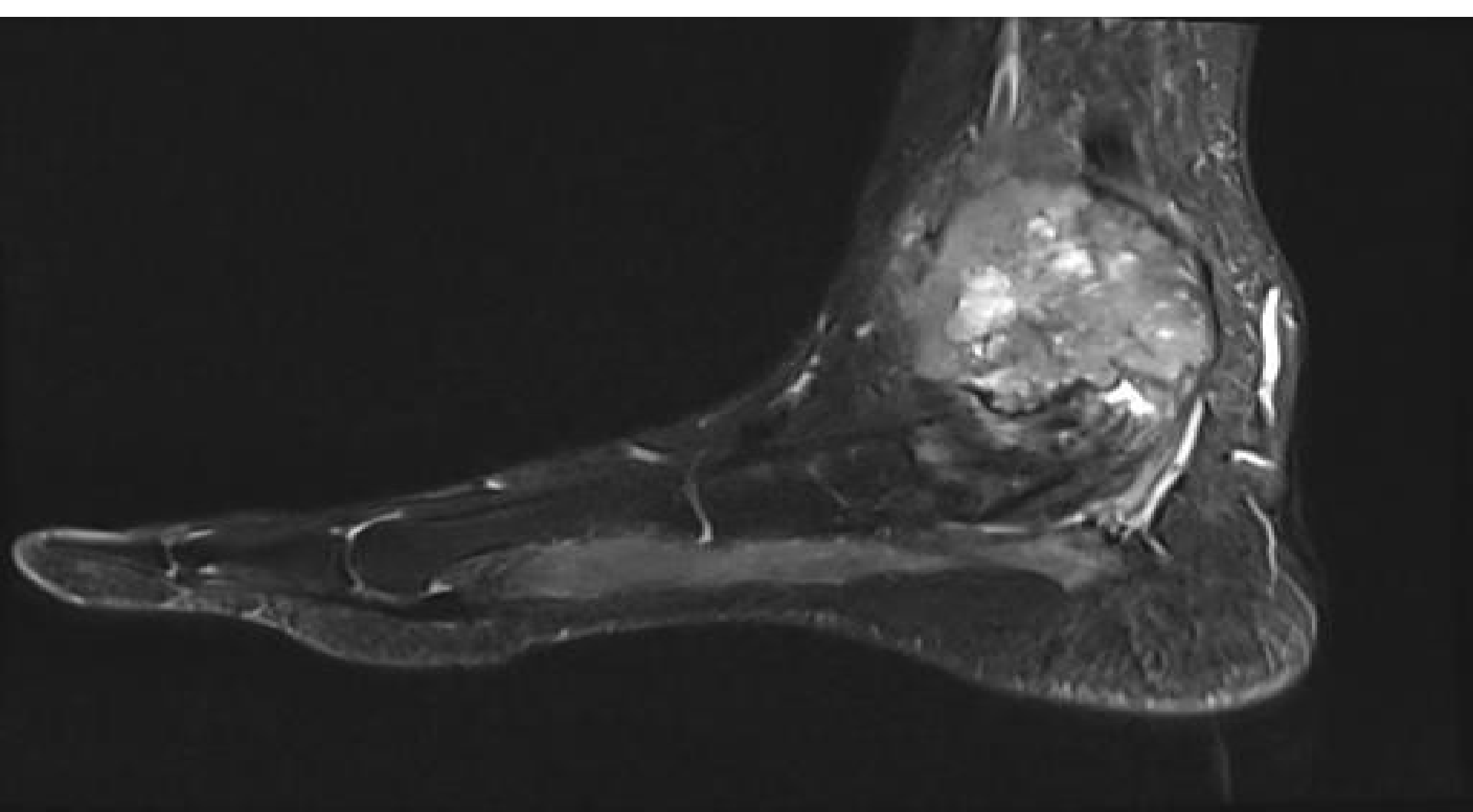


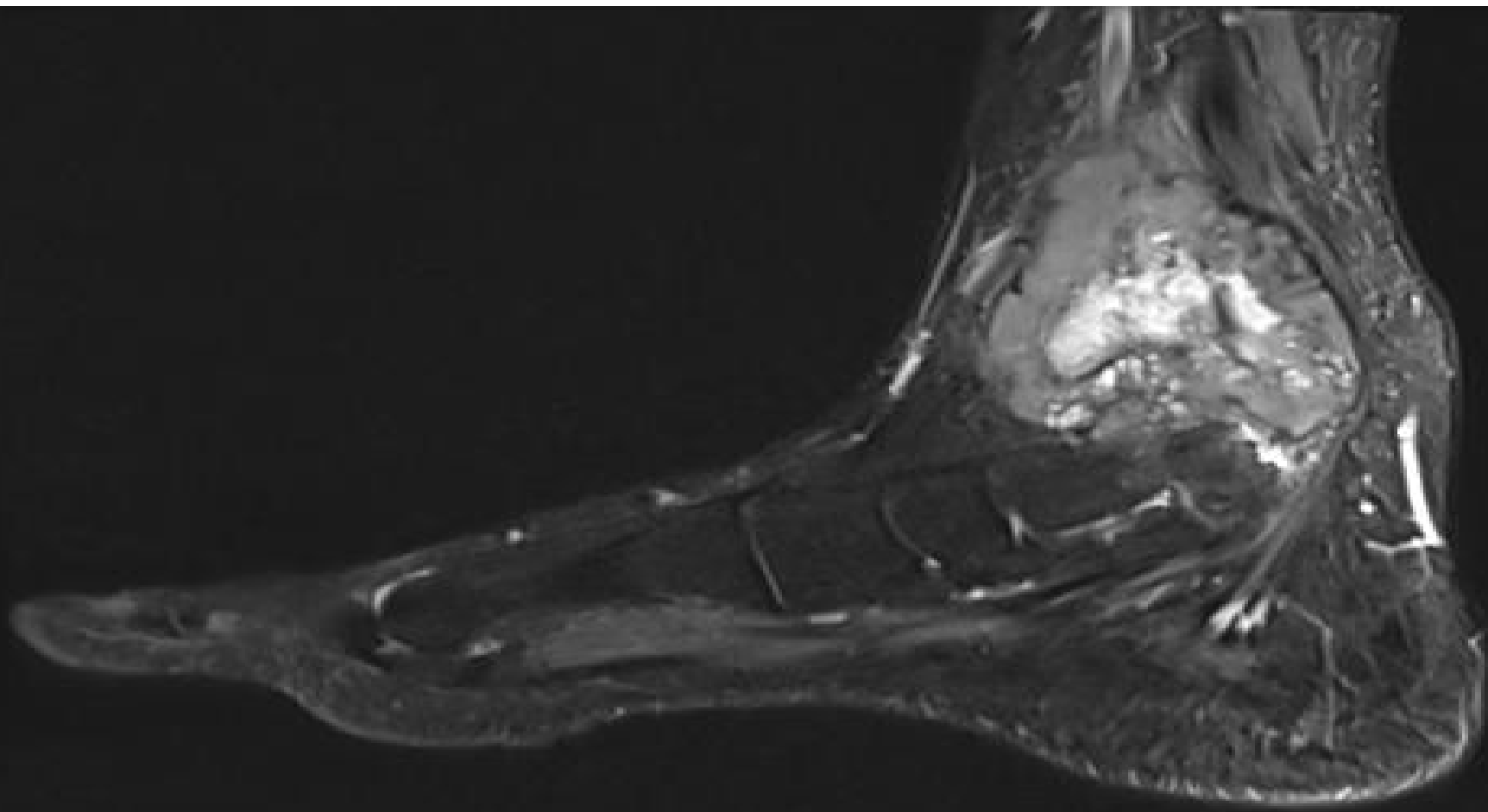
T2 STIR SAGITTAL SEQUENCE

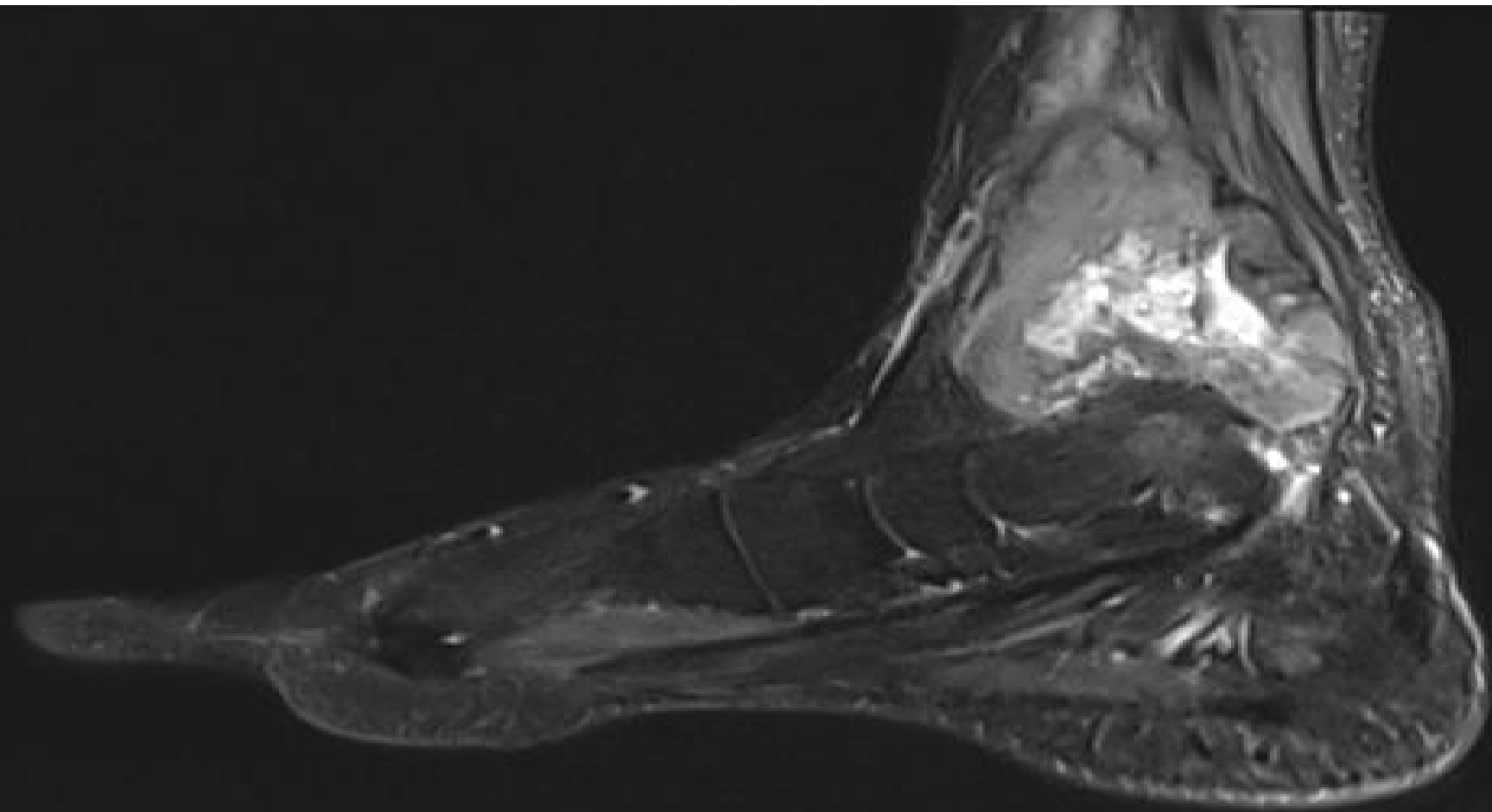


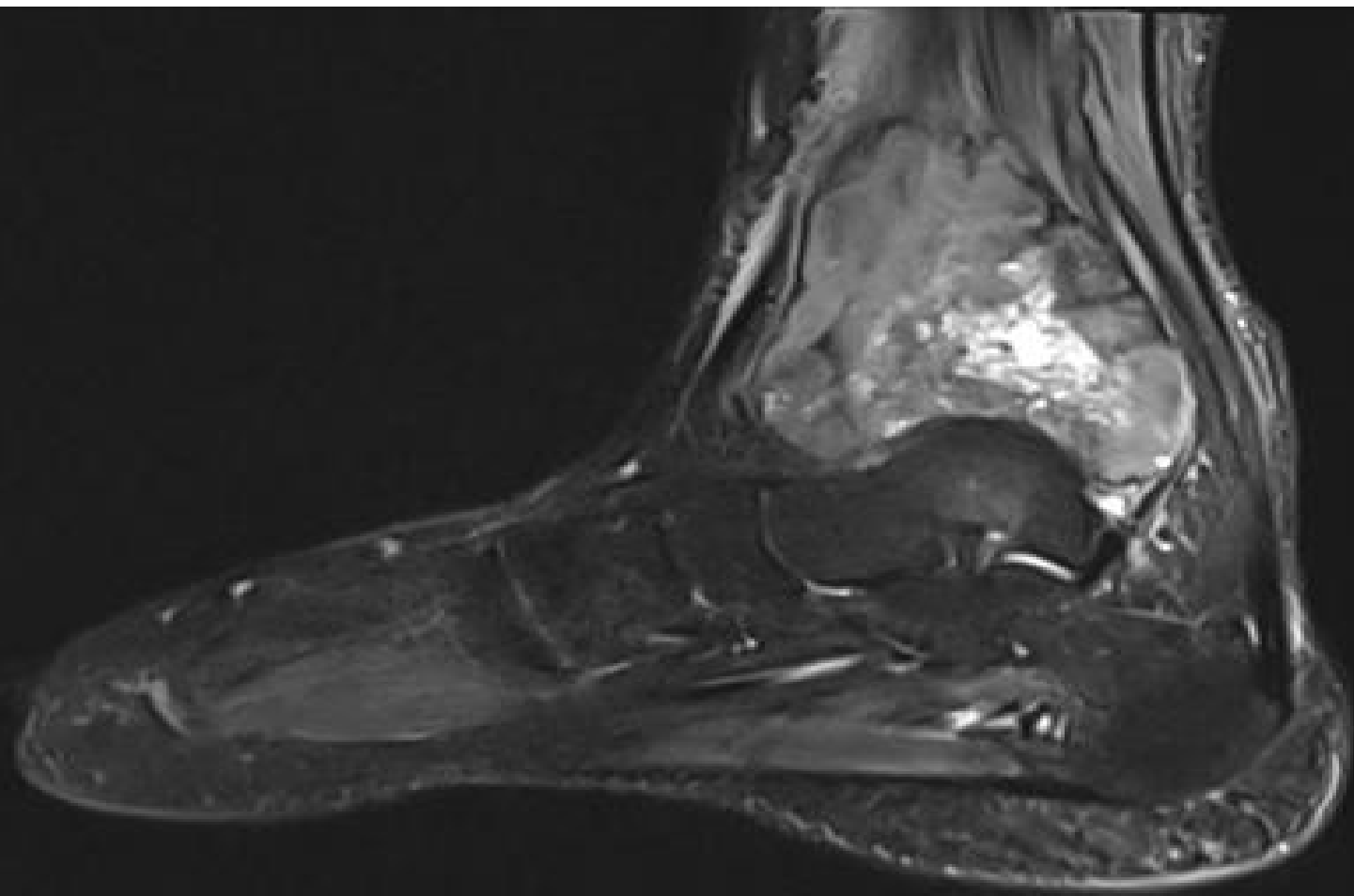


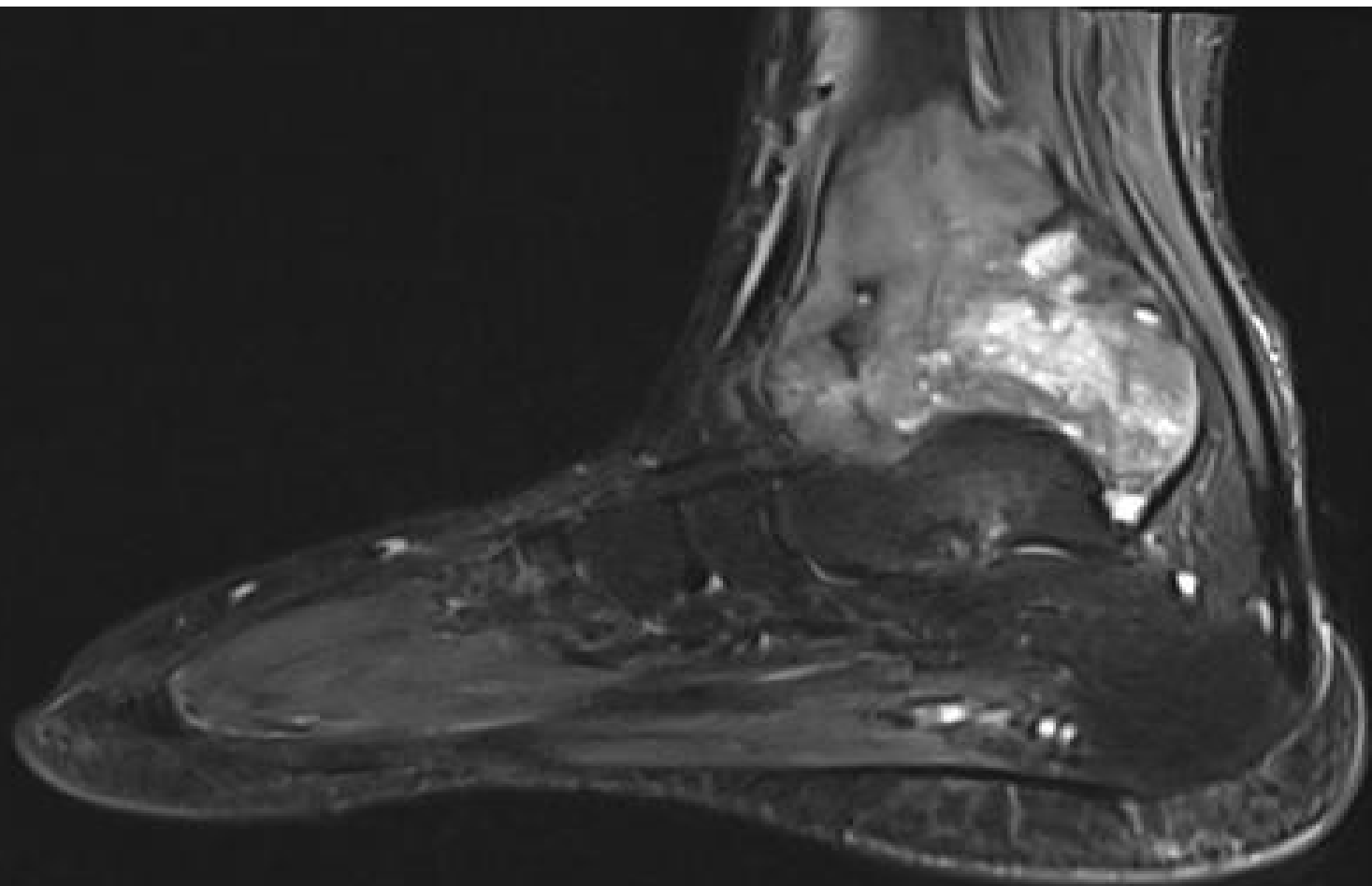


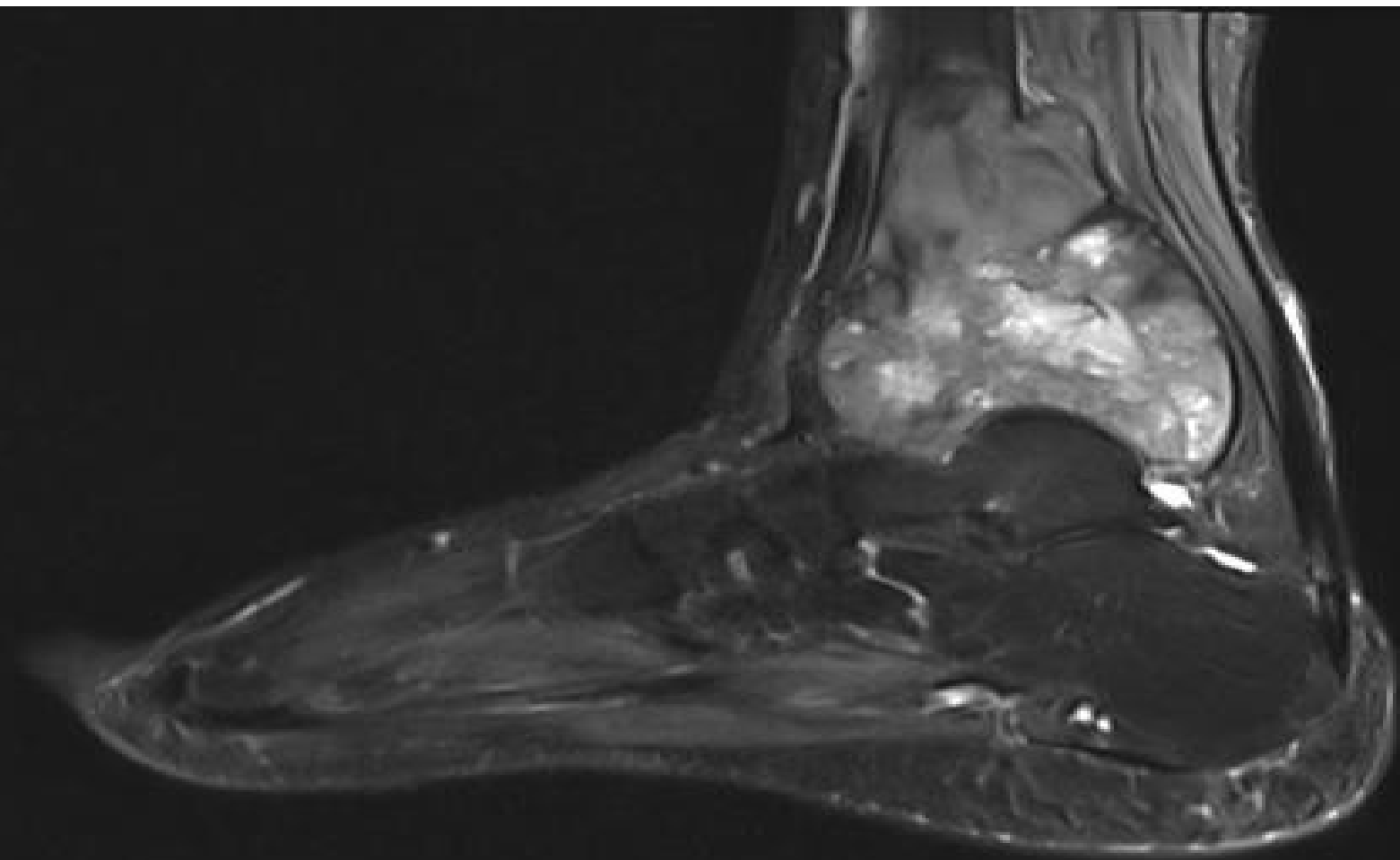


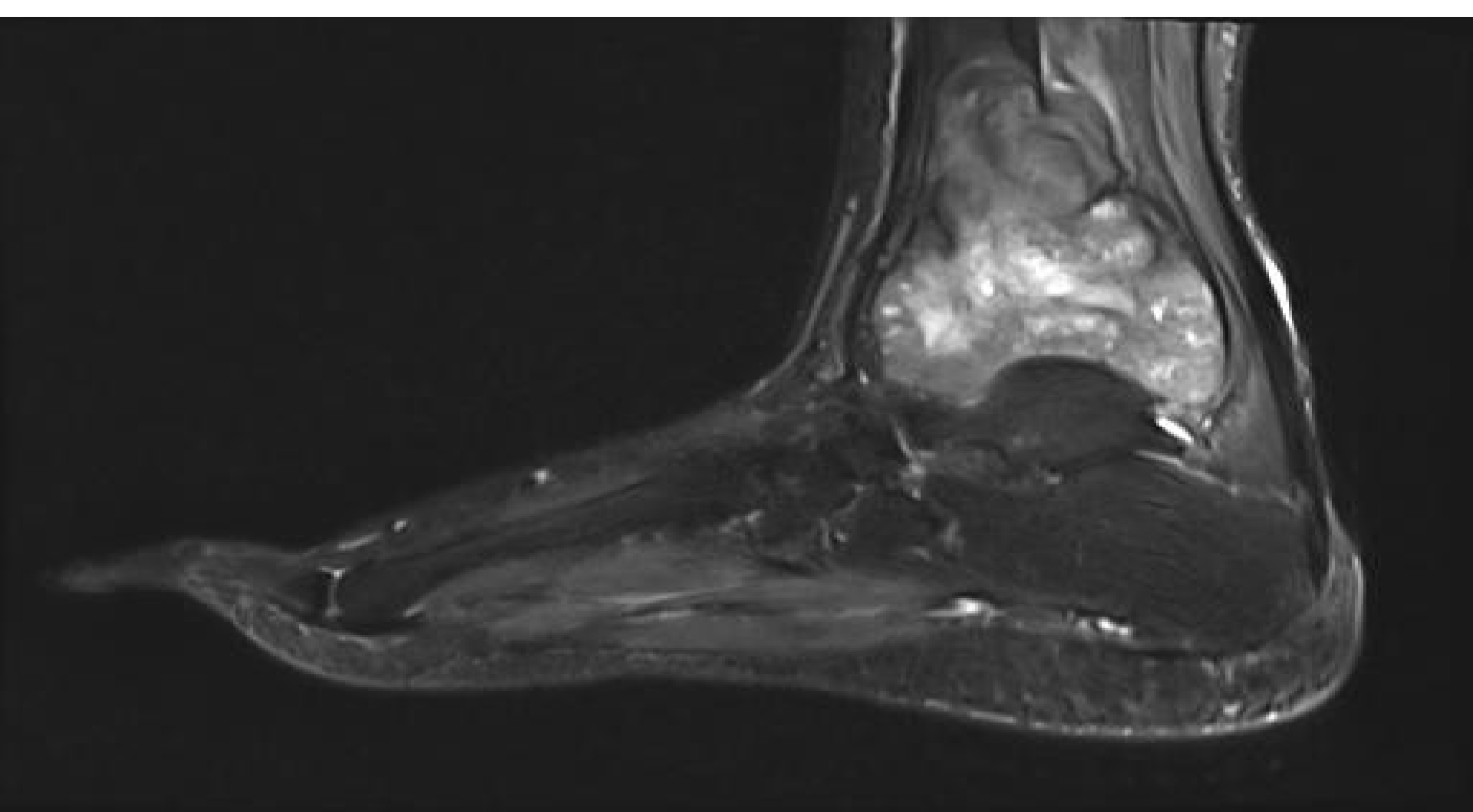


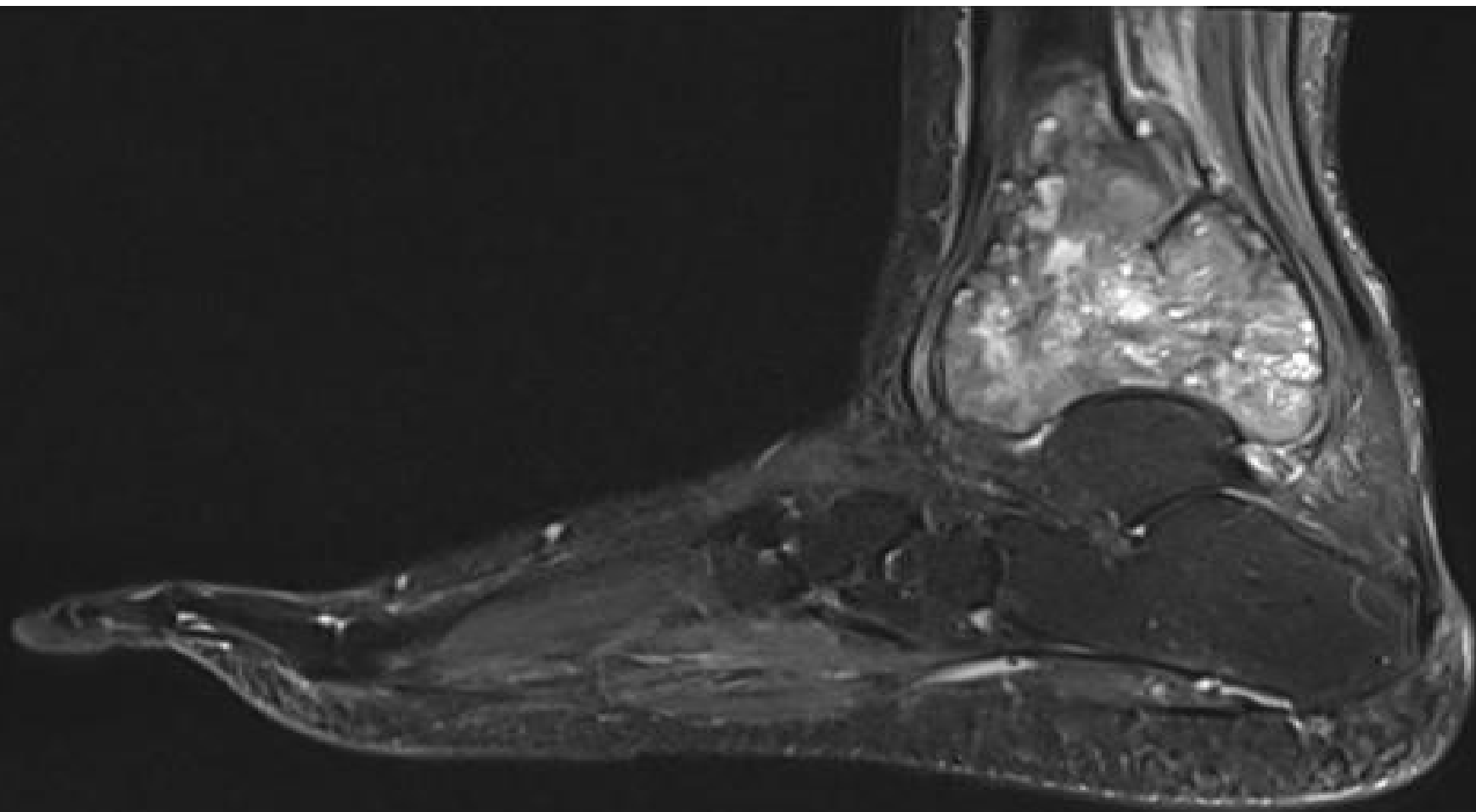


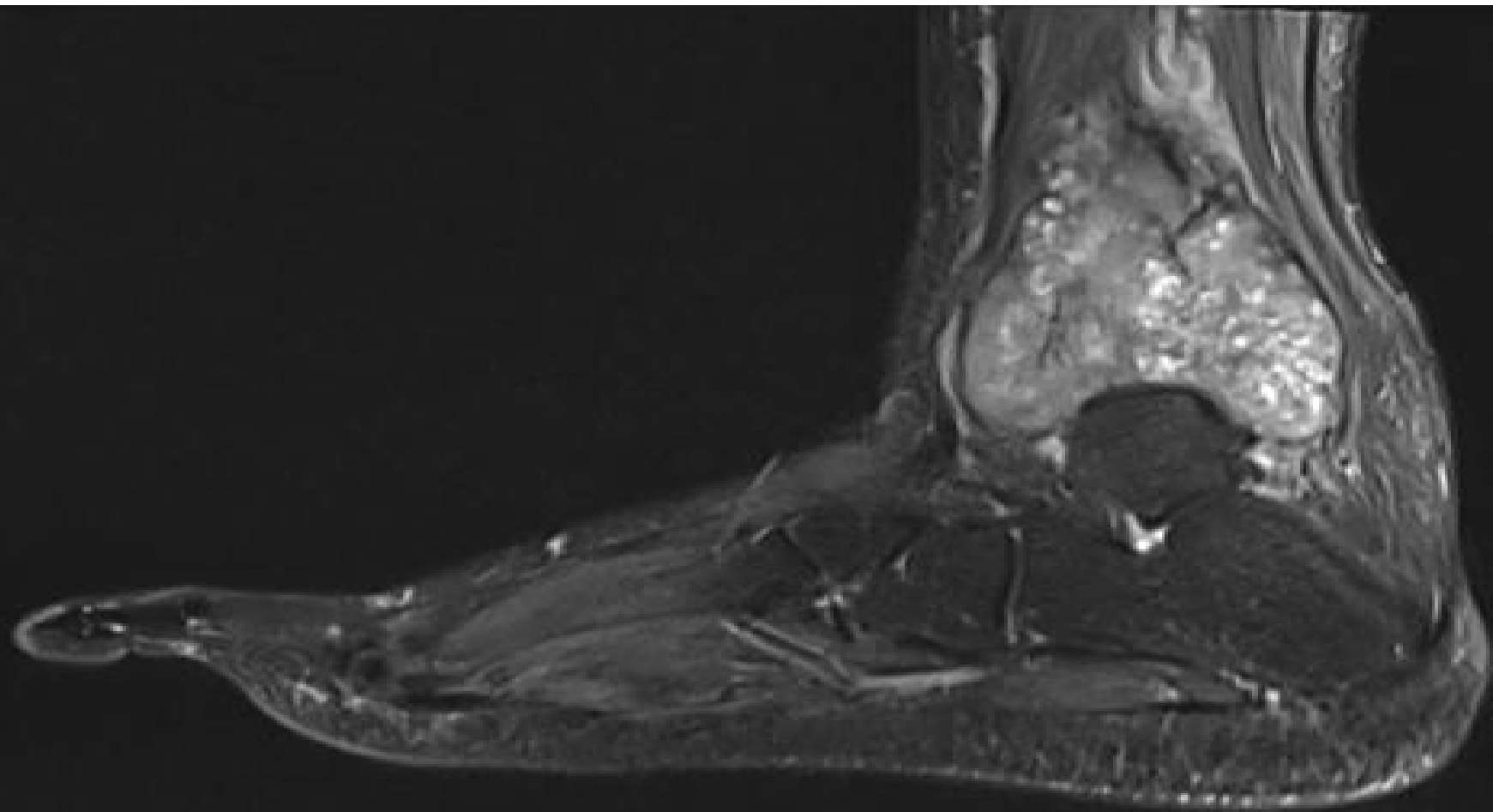


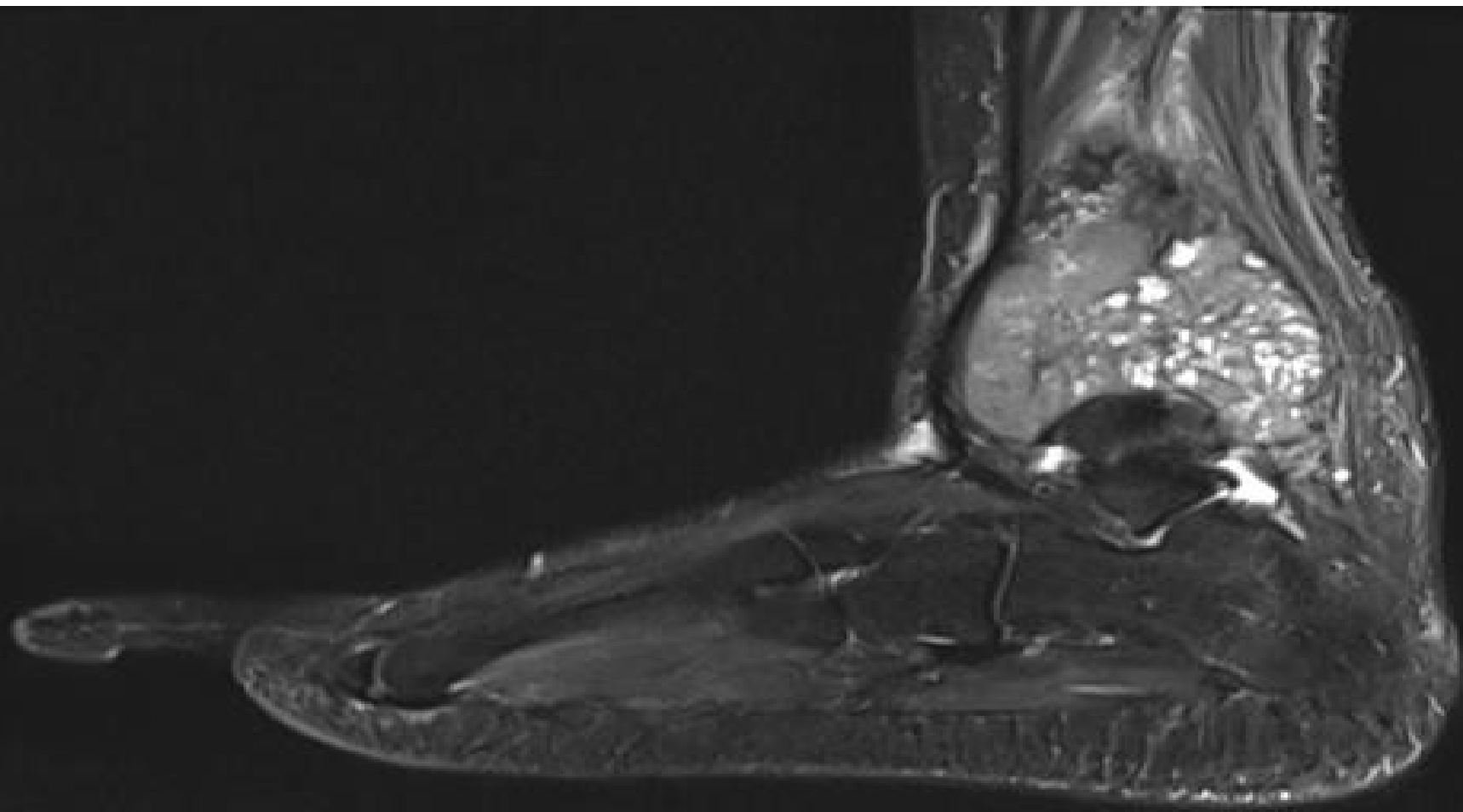


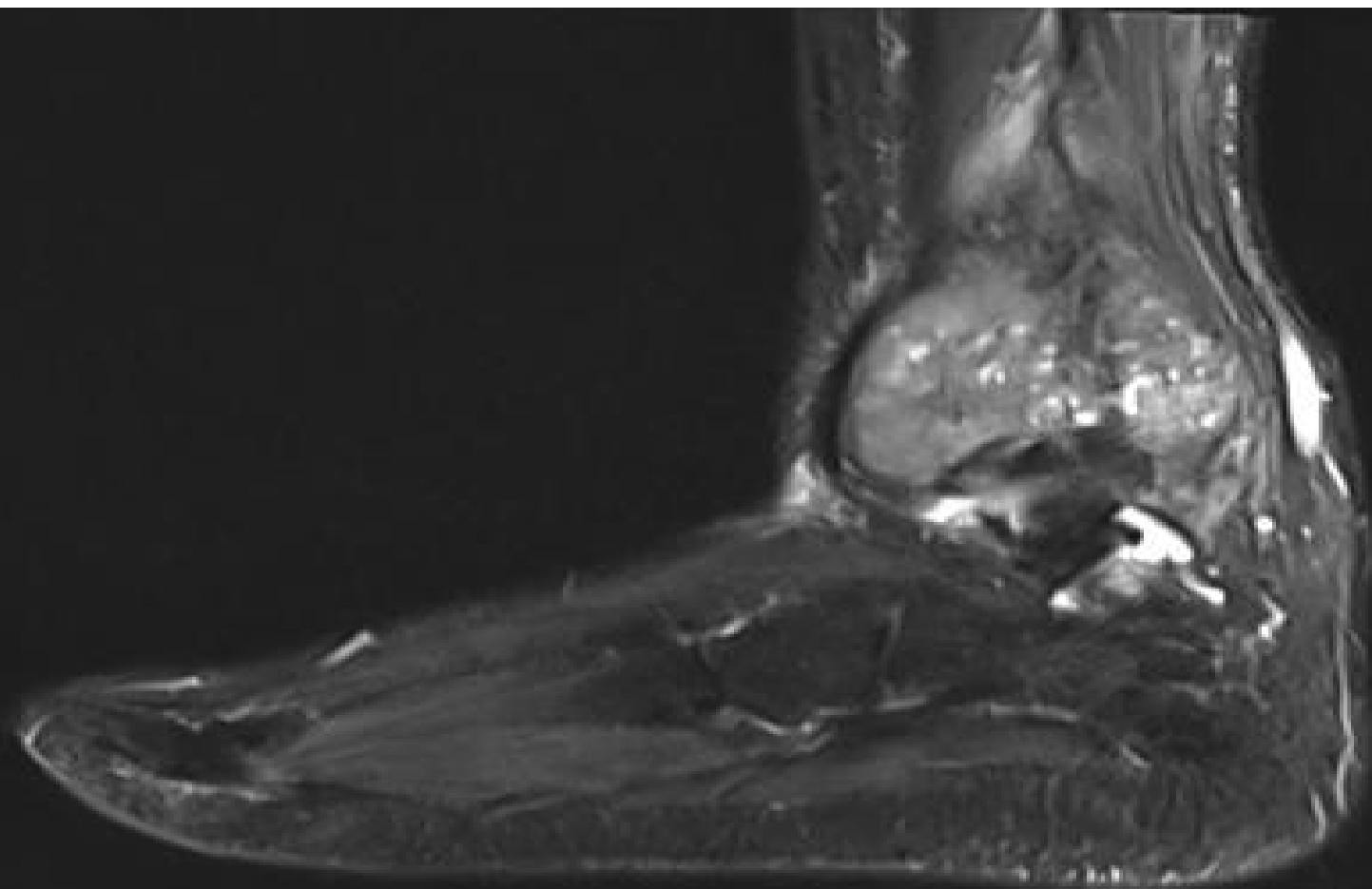


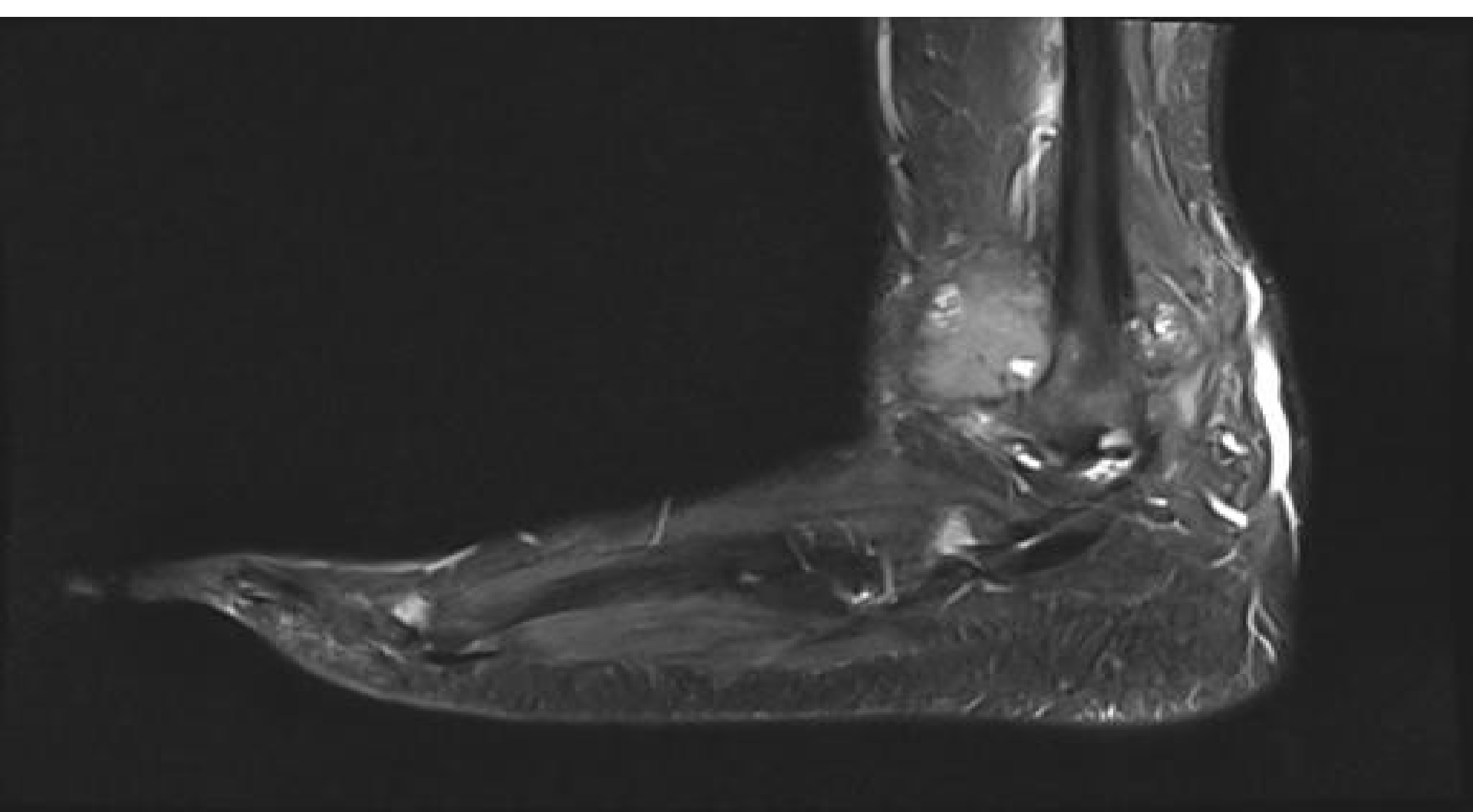




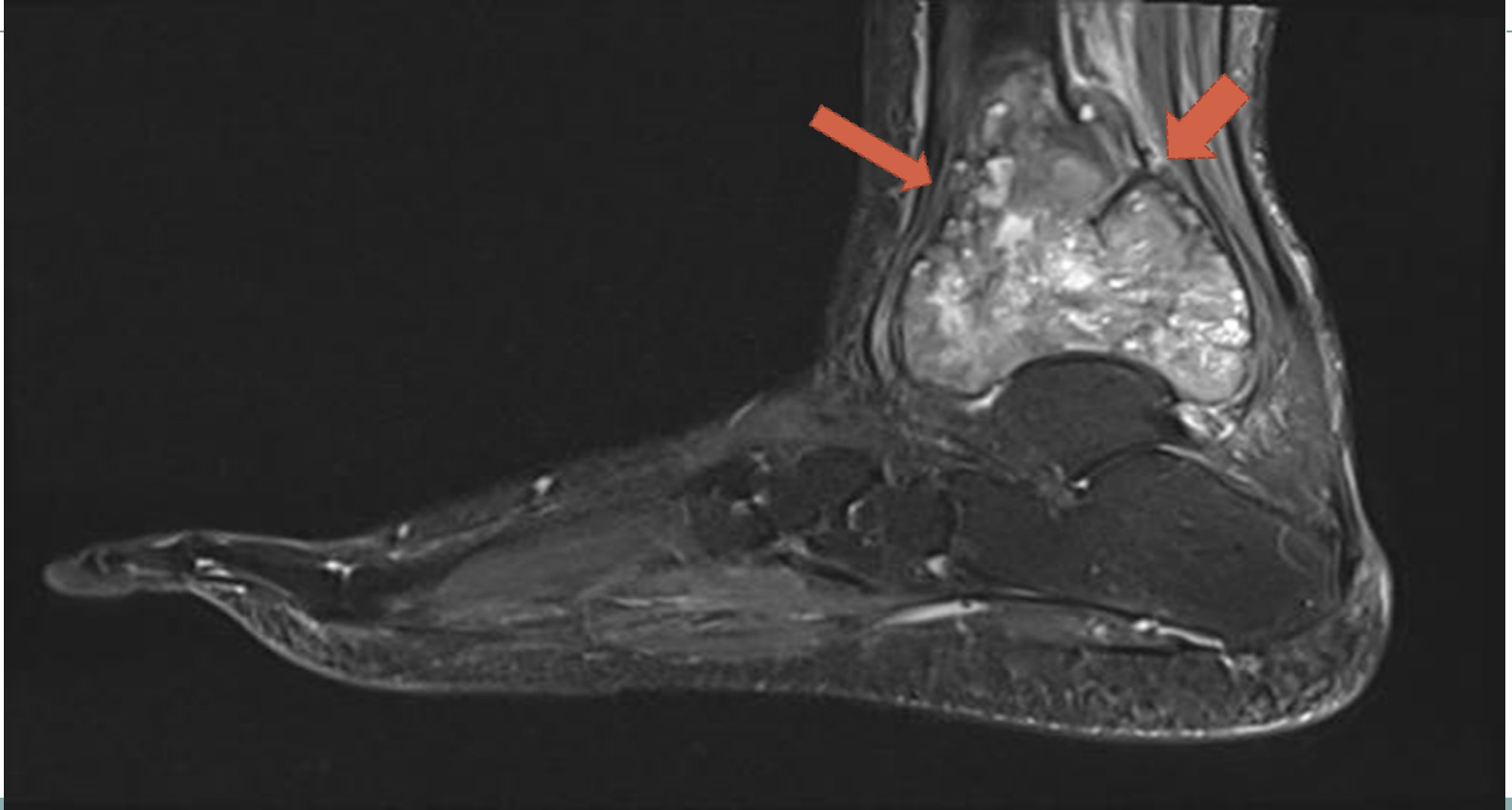




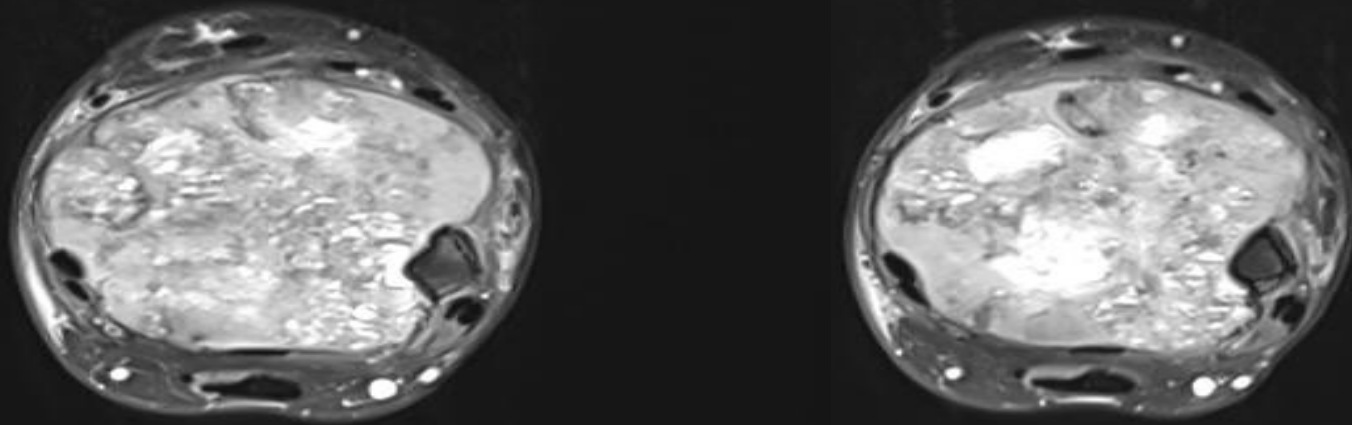




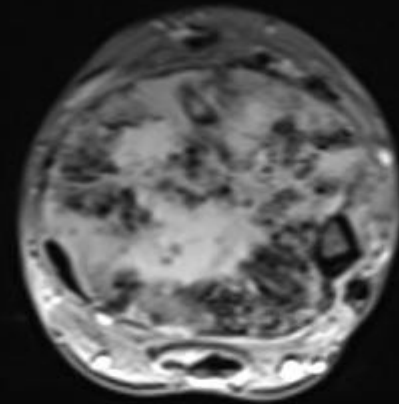
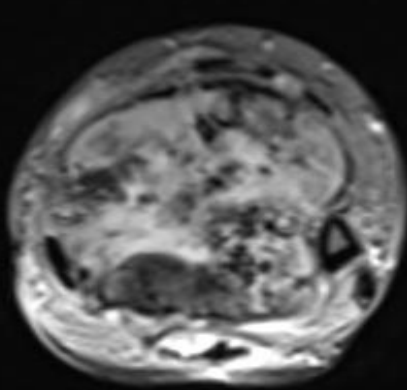
T2 STIR (SAGITTAL)



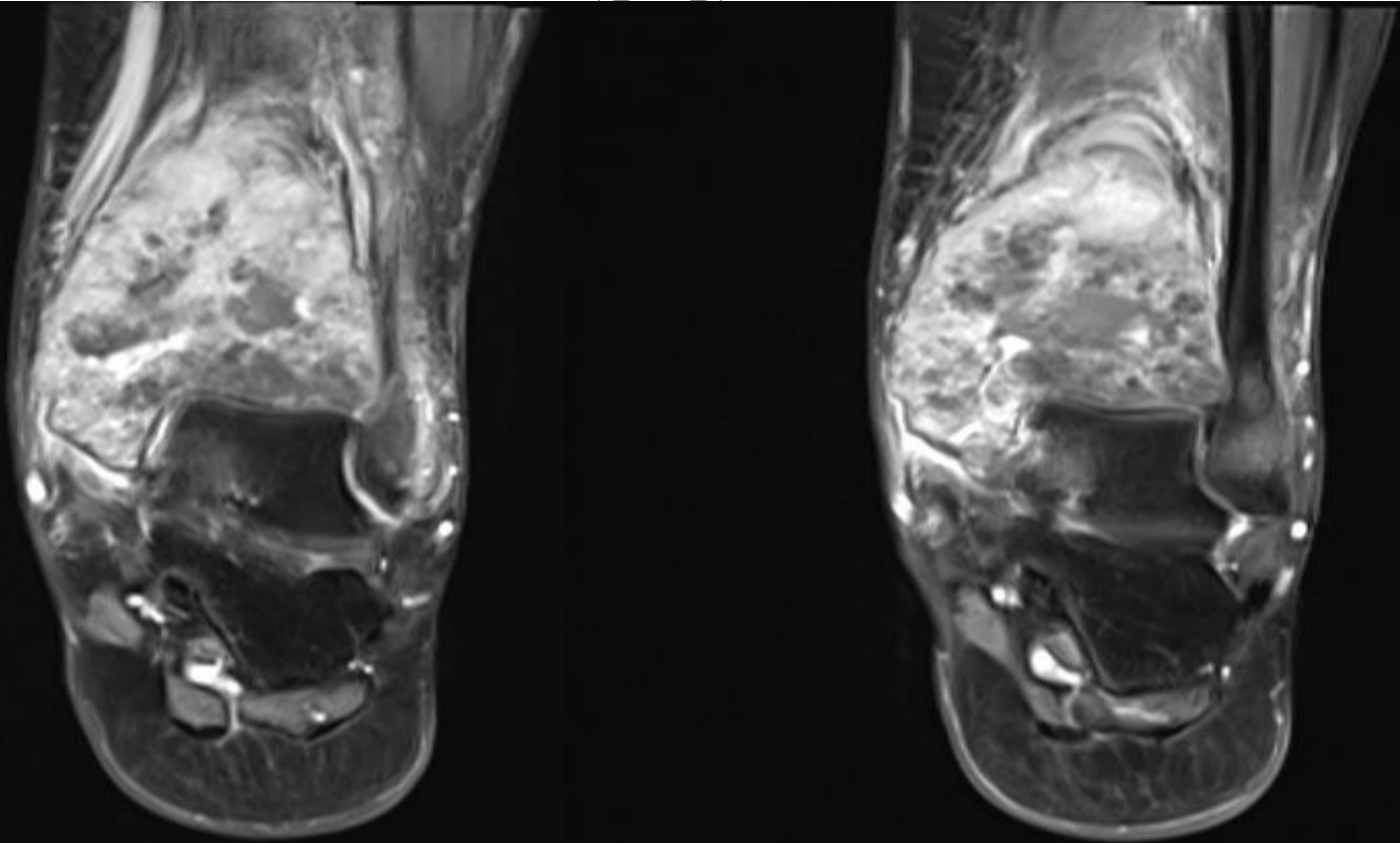
T2 STIR (AXIAL)



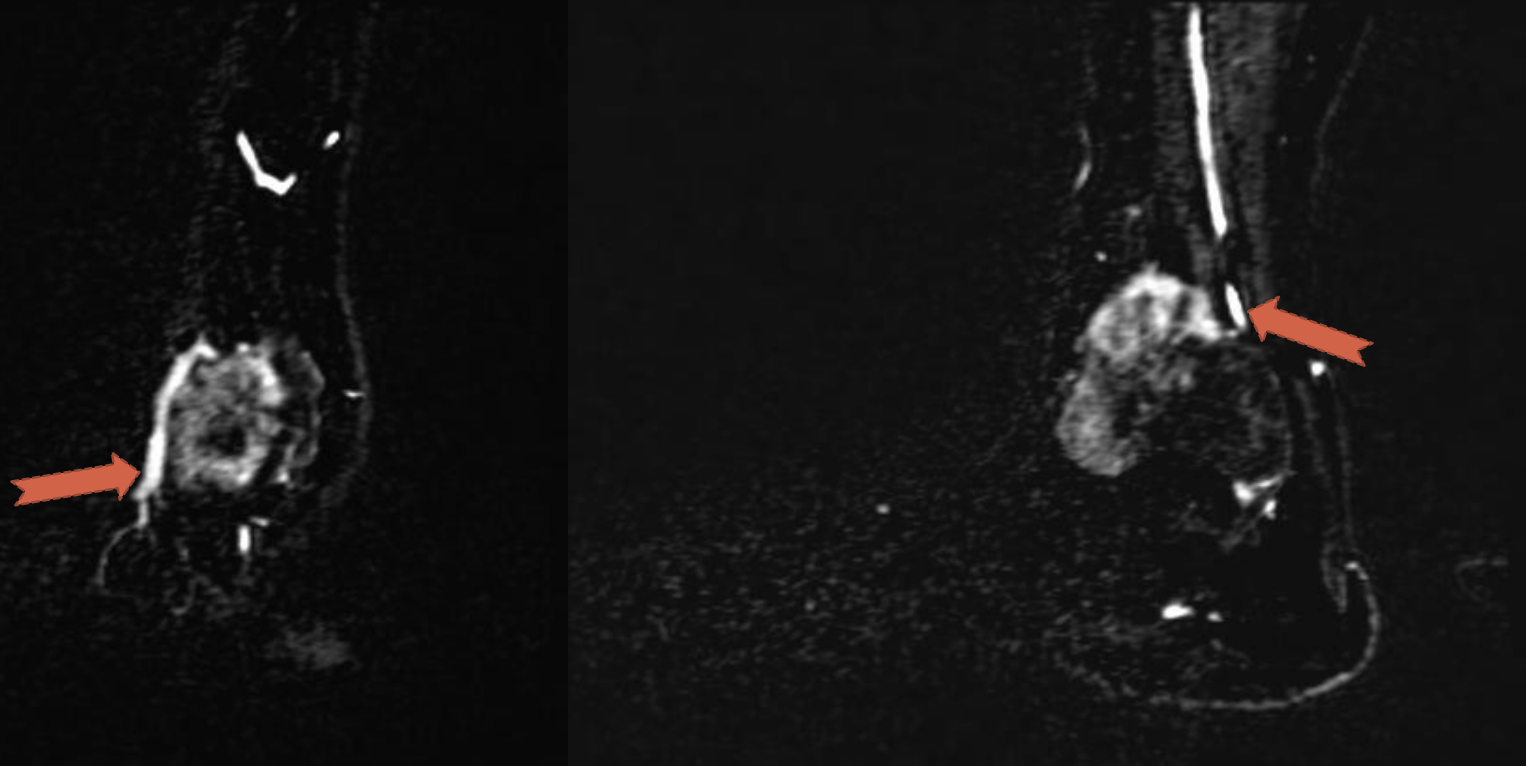
GRE (AXIAL)



POST CONTRAST (CORONAL)



ANGIO SEQUENCE (SAGITTAL)



FINAL DIAGNOSIS



GIANT CELL TUMOR INVOLVING LOWER END OF LEFT TIBIA

HISTOPATHOLOGICAL DIAGNOSIS



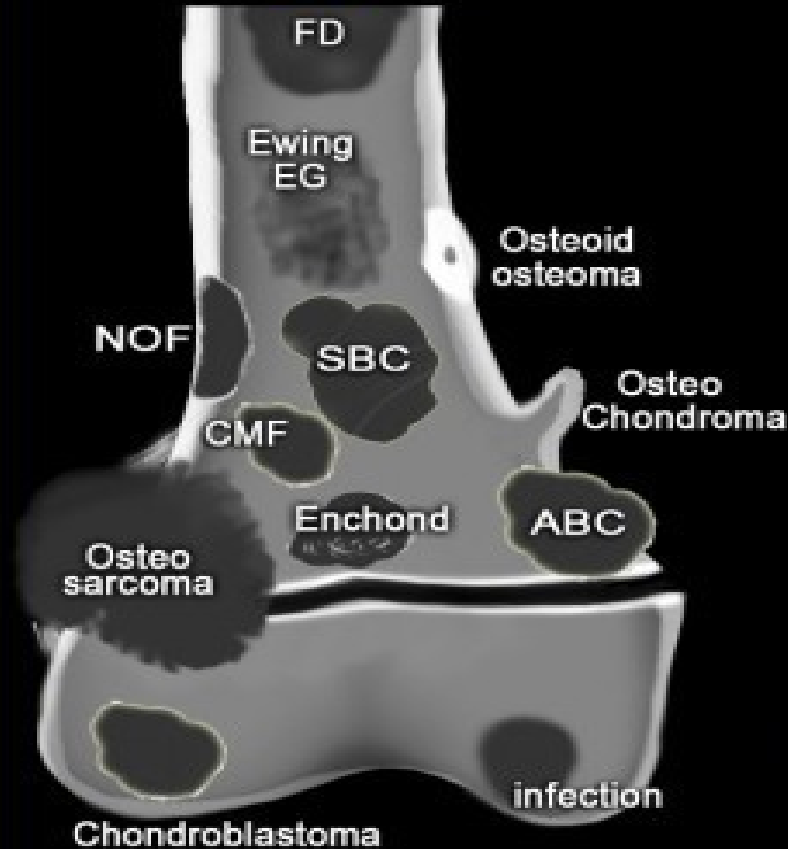
GIANT CELL TUMOUR OF BONE

ADVANTAGES OF MRI

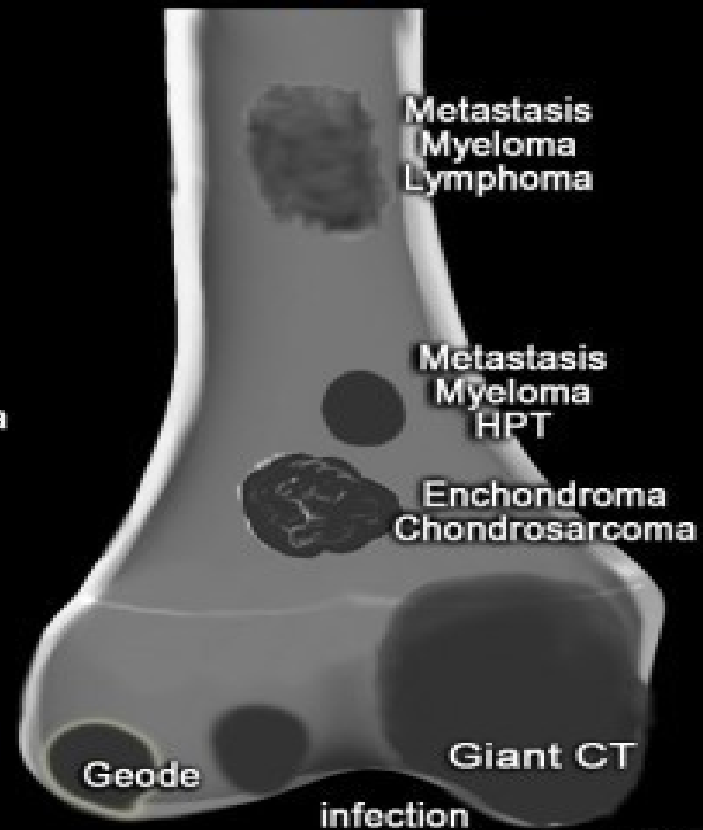


- To know the extent of tumor
- Pathological fractures
- Neovascularization
- Presence of soft tissue component

< 30 years



> 30 years



RS

GIANT CELL TUMOUR



- 5% of bone neoplasms
- Age: 20 to 40 yrs
- Female>Male
- Location: distal femur> proximal tibia > distal radius > sacrum > vertebral body
- Benign , but pulmonary metastasis can occur
- Pathology: over expression of RANK/ RANKL signaling pathway leading to proliferation of osteoclasts with presence of multiple thin walled vascular channels- hemorrhage.
- Co exist with aneurysmal bone cyst (30%)

RADIOGRAPHY

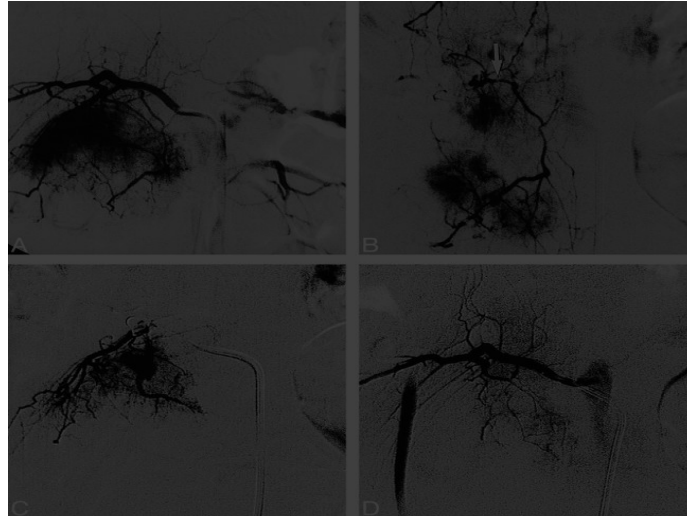


- Occurs only with a closed growth plate
- Eccentric: if large this may be difficult to assess
- Abuts articular surface: 84-99% come within 1 cm of the articular surface
- Well-defined lytic with non-sclerotic margins

ANGIOGRAPHY (DSA)



- Hypervascular tumor (two-thirds of cases) with the rest being hypovascular or avascular.



TREATMENT



- Curettage and packing with bone chips or polymethylmethacrylate (PMMA).
- Filing the bone cavity with cement or bone graft.

BIBLIOGRAPHY



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- **Bone & Joint Imaging Resnick 5th Edition.**
- **Fundamentals of Diagnostic Radiology: Brandt and helms 4th Edition.**



Thank You