



### **KARNATAKA RADIOLOGY EDUCATION PROGRAM**

## A case of septic prepatellar bursitis

COMPILED BY BY Dr. Rame Gowda Y(RESIDENT) GUIDED BY DR REVANESH N. (PROFESSOR DEPT OF RADIODIAGNOSIS). SUBBAIAH INSTITUTE OF MEDICAL SCIENCES AND RESEARCH INSTITUTE, SHIMOGA.

# Introduction

- Bursae are fluid-filled sac-like structures located between mobile structures of the musculoskeletal system, between skin and bone, or between the joints.
- Septic (or infectious) bursitis occurs when infection from either direct inoculation (usually superficial bursa) or hematogenous or direct spread from other sites (deep bursa involvement) causes inflammatory bursitis.
- Septic bursitis can be acute, subacute, or recurrent/chronic. The clinical features of septic bursitis are sometimes indistinguishable from non-infectious bursitis; therefore, bursa aspiration and fluid analysis must be completed to make an accurate diagnosis.

### Clinical details

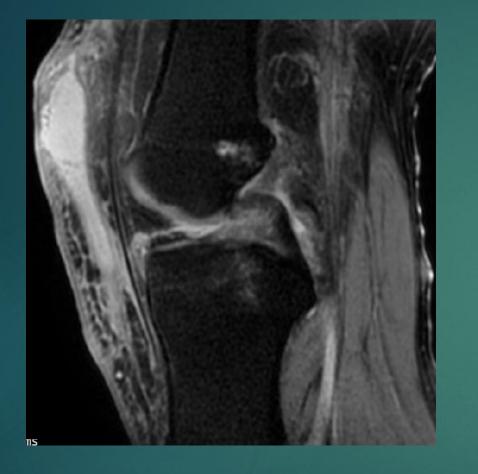
A 53 year old man came with c/o swelling, redness, pain in right knee, predominantly in anterior aspect of knee and h/o fever.
He underwent MRI of right knee for further evaluation

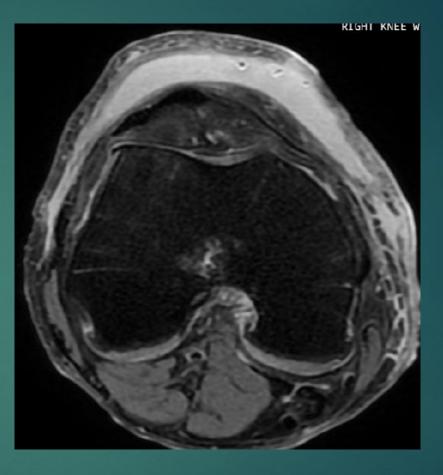
# Imaging findings

Thick irregular walled peripherally enhancing collection in prepatellar bursa and superficial infrapatellar bursa with significant surrounding soft tissue edema – S/o Infected / Septic bursitis.

#### **Other incidental findings:**

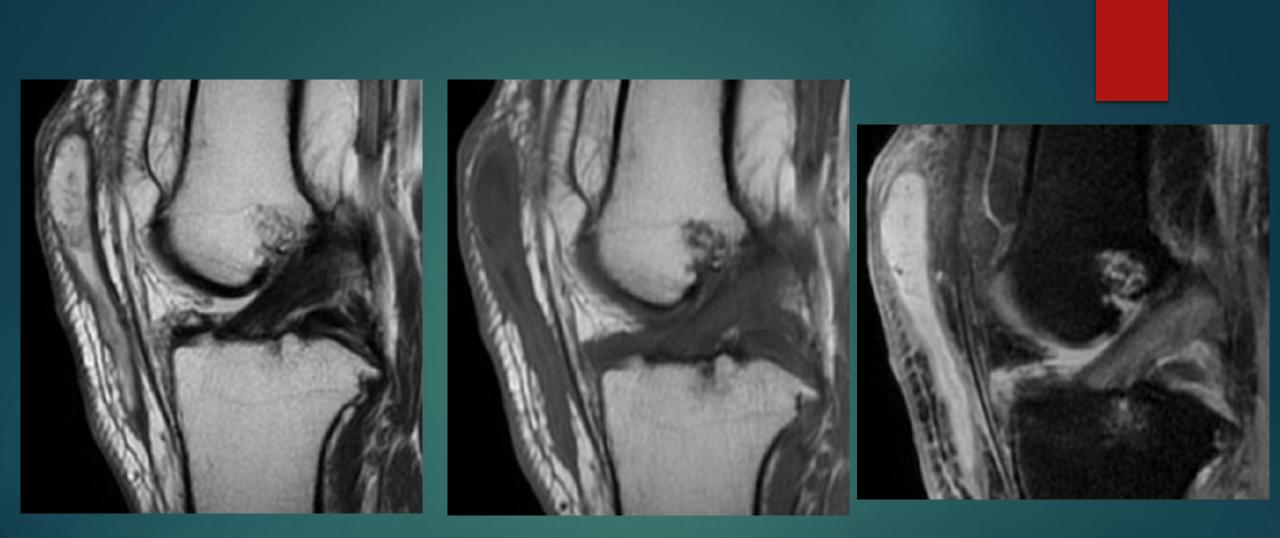
- Thickening of anterior cruciate ligament with increased signal intensity on T1, T2 and PDFS images – likely mucoid degeneration with moderate sprain.
- Grade 4 chondromalacia patella involving lateral articular cartilage with severe joint space narrowing and patellar osteophytes
- Mild knee joint effusion.





#### Sagittal PDFS

Axial PDFS

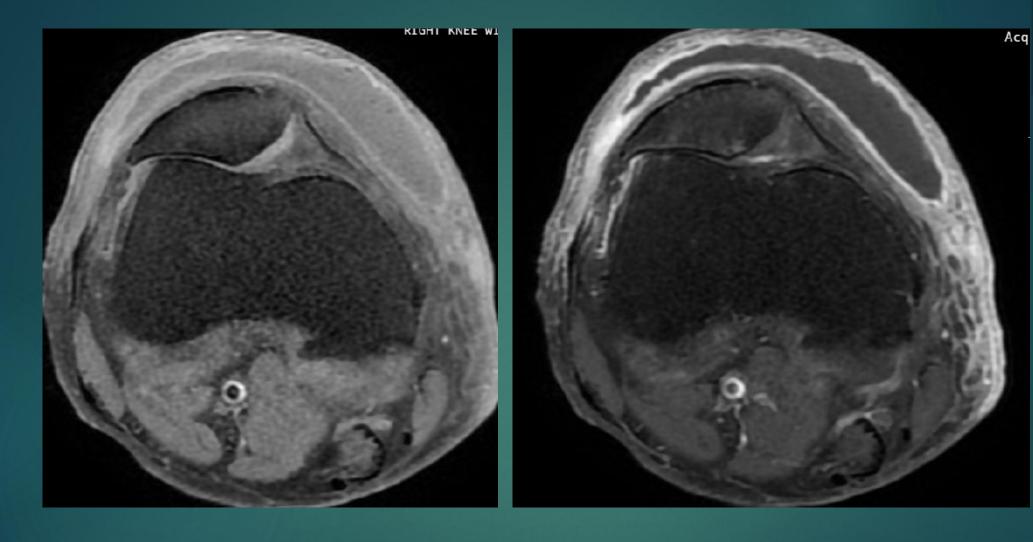


Sagittal T2

Sagittal T1

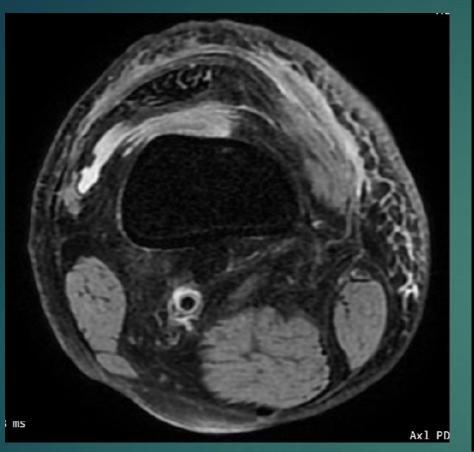
Sagittal PDFS

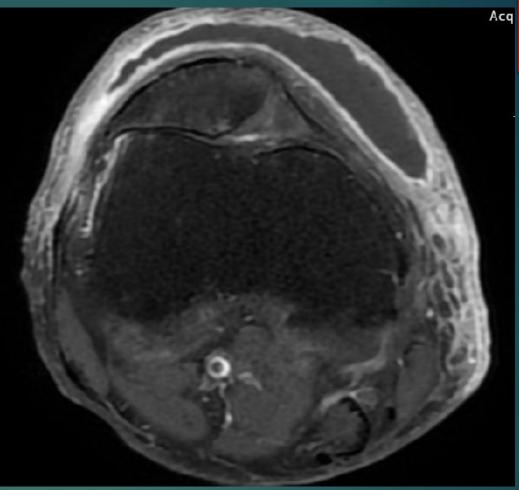
T2/PDFS heterogenous hyperintense and T1 hypointense collection in prepatellar bursa and superficial infrapatellar bursa with ACL mucoid degeneration.



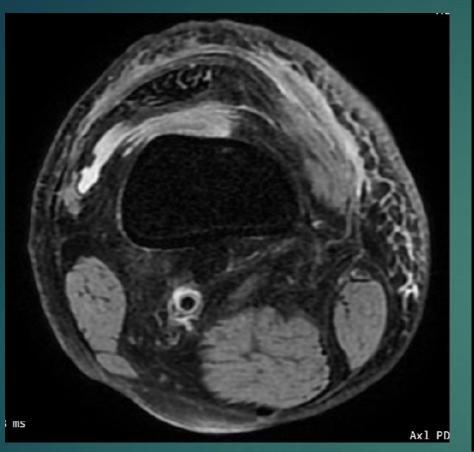
#### Axial T1 pre-contrast

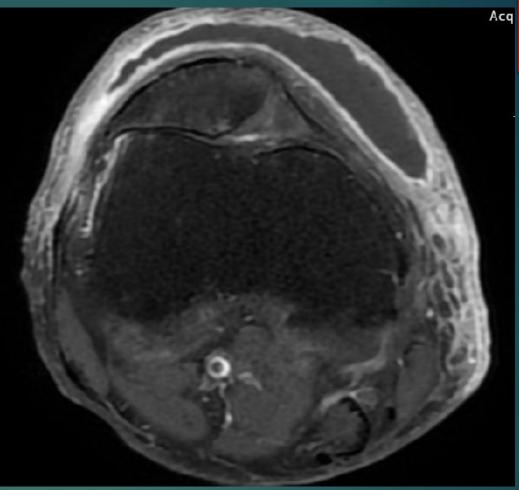
Axial T1 post-contrast showing peripheral enhancement



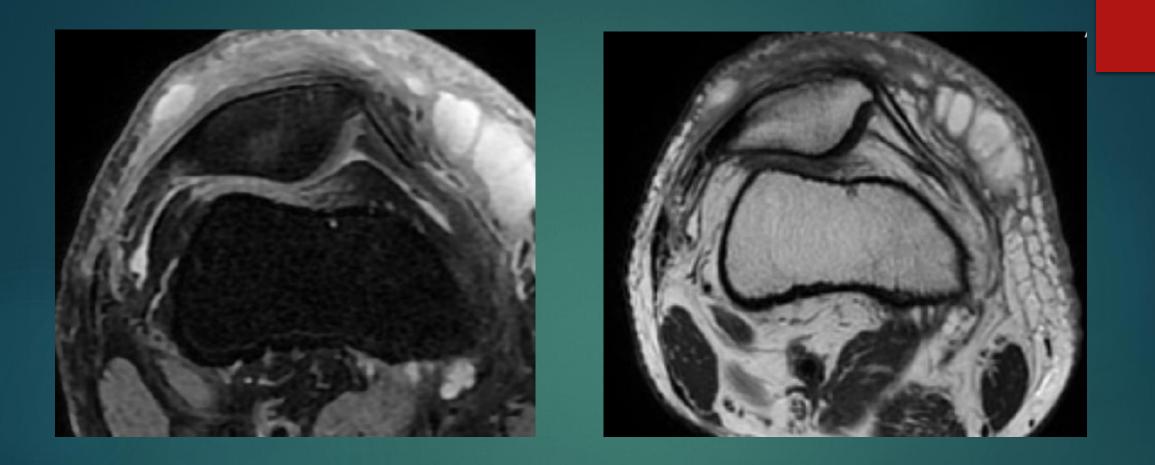


#### Axial PDFS showing significant soft tissue edema





#### Axial PDFS showing significant soft tissue edema



Axial PDFS and Axial T2 showing Grade 4 chondromalacia patella of lateral patellar facet with osteophyte

#### Differential Diagnosis

- Cellulitis
- Gout and Pseudogout
- Rheumatoid Arthritis
- Soft Tissue Knee Injury
- Tendonitis

Thank you