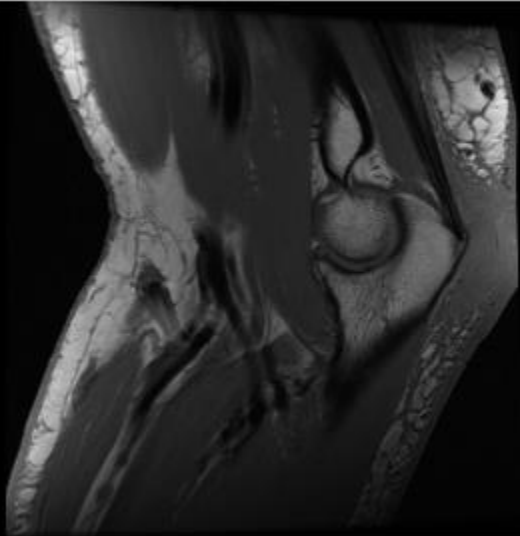


Fall with cellulitis, drainage to skin
surface

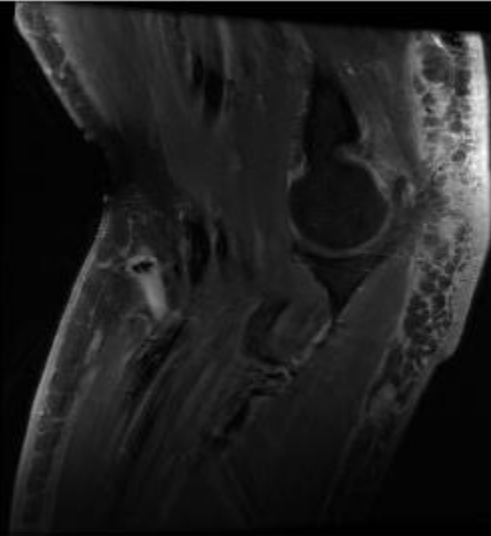
Ben Rokach

15



W 28089 : L 14044

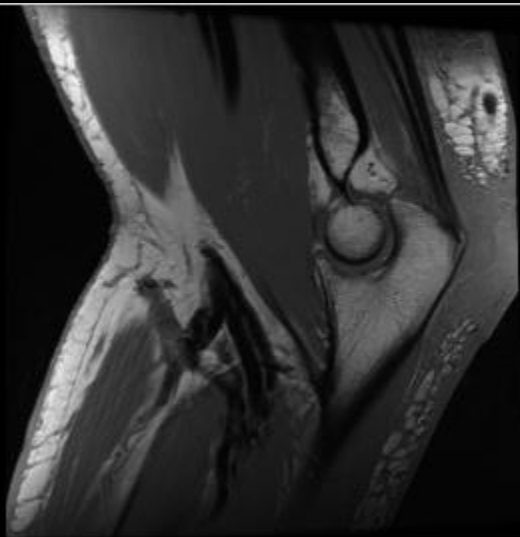
15



W 30651 : L 15325

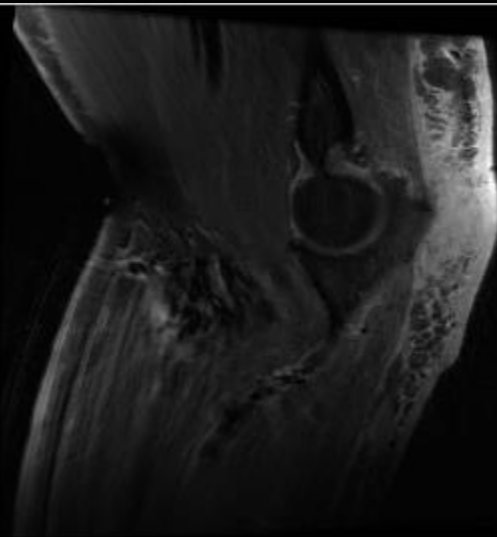


16



W 24313 : L 12156

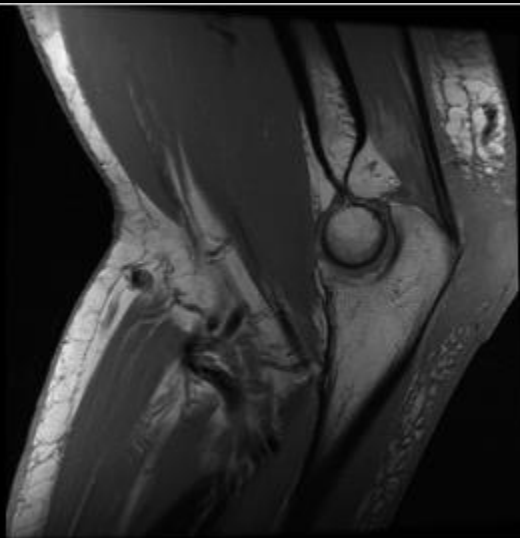
16



W 32767 : L 16383



17



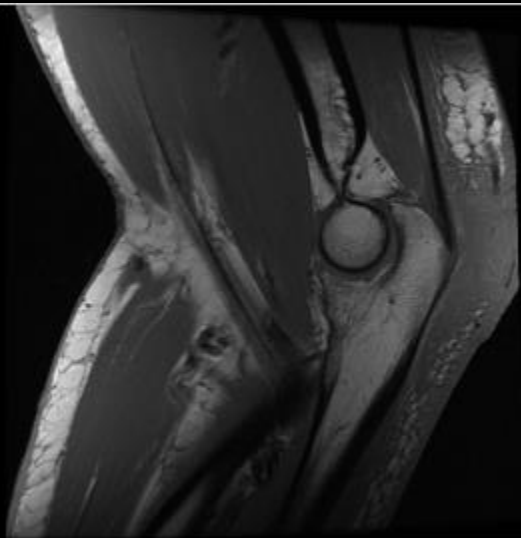
W 23563 : L 11781

17



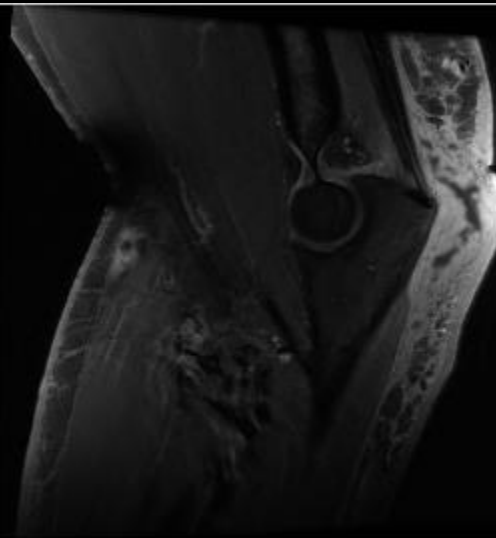
W 32767 : L 16383

18



W 23371 : L 11685

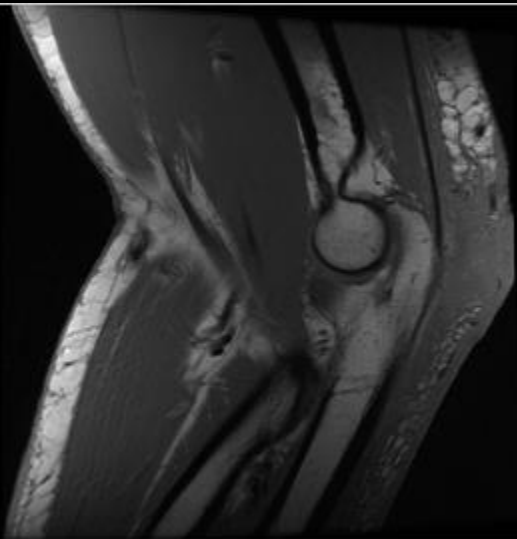
18



W 32767 : L 16383

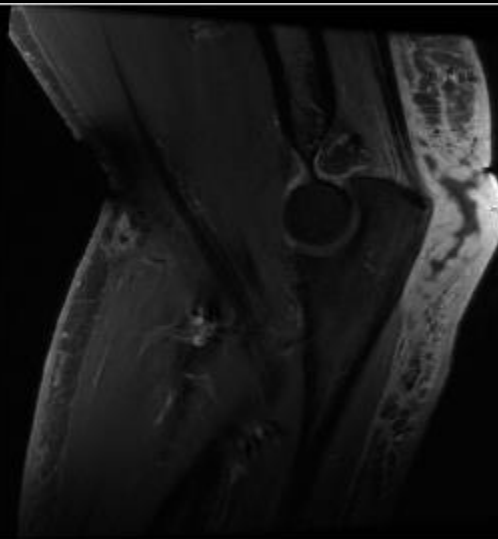


19



W 22865 : L 11432

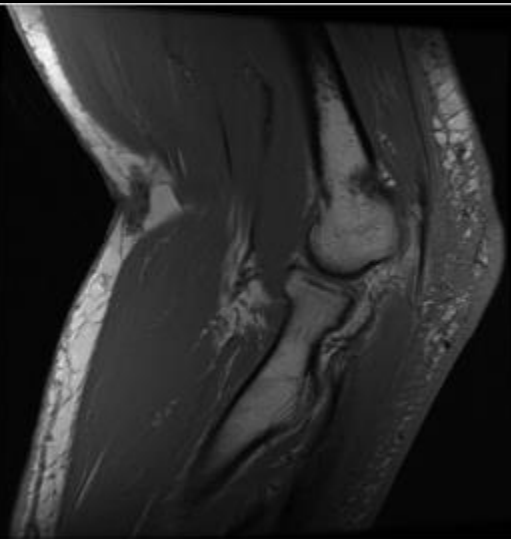
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W 32767 : L 16383

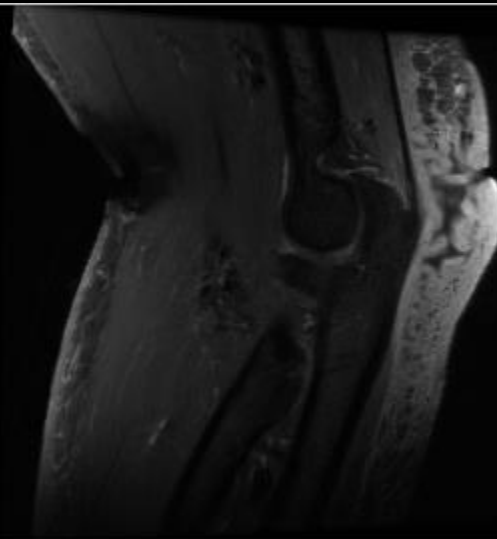


21



W 21312 : L 10656

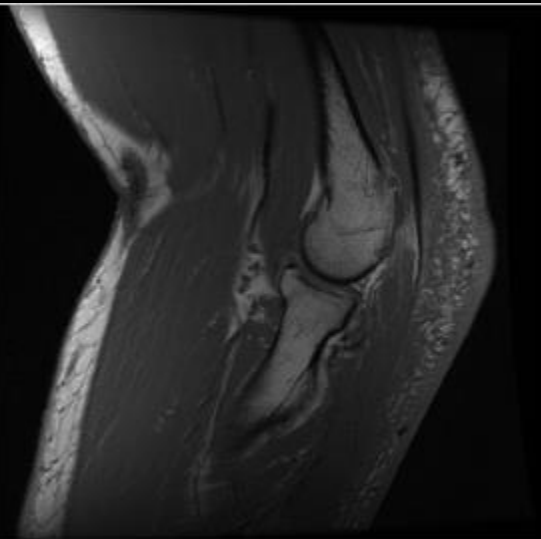
21



W 30298 : L 15149

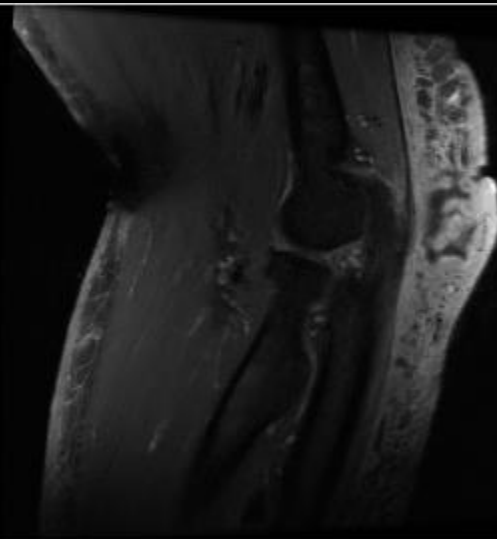


22



W 22342 : L 11171

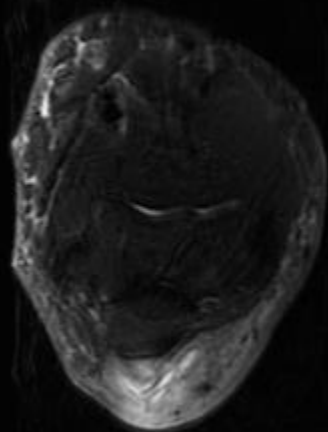
22



W 26935 : L 13467

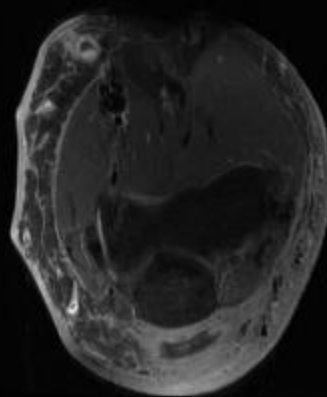


29



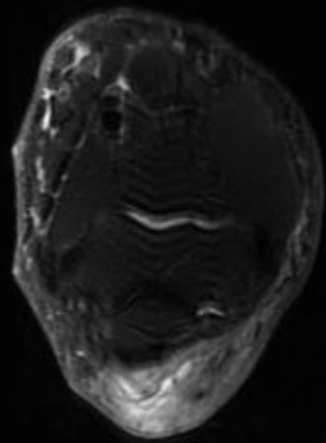
W 16210 : L 8105

29



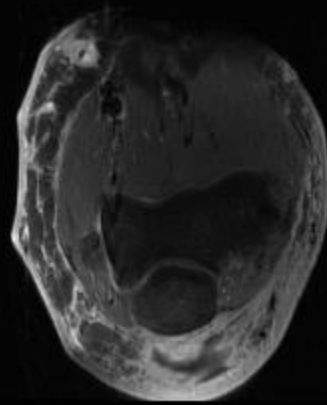
W 27977 : L 13988

30



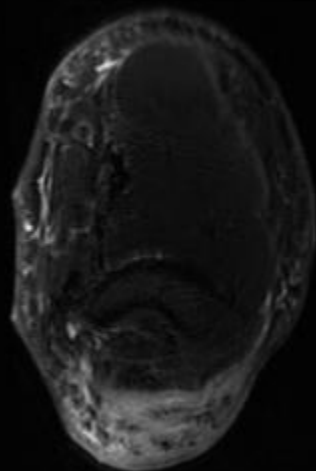
W 16358 : L 8179

30



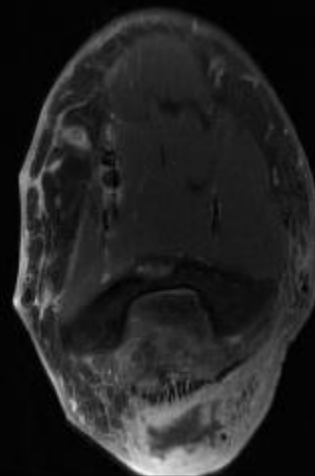
W 23728 : L 11864

36



W 18350 : L 9175

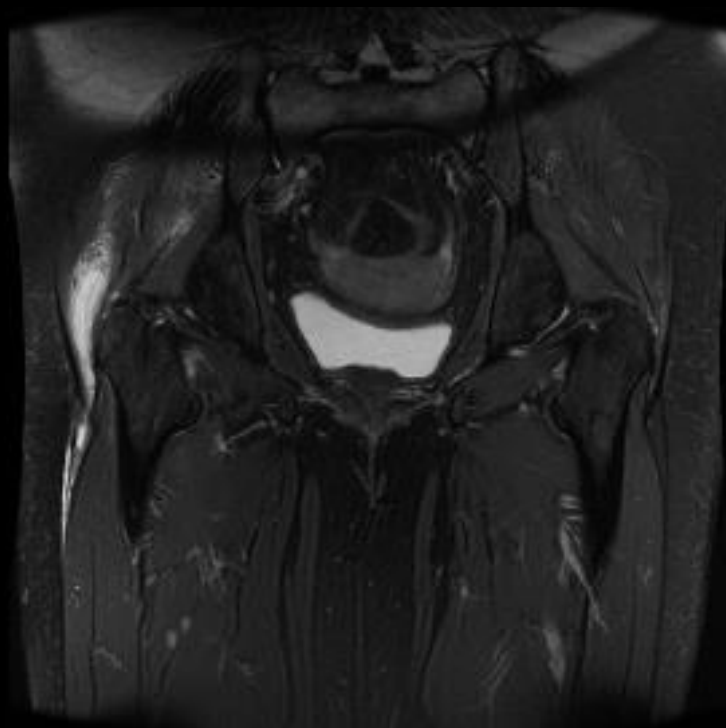
36



W 28536 : L 14268

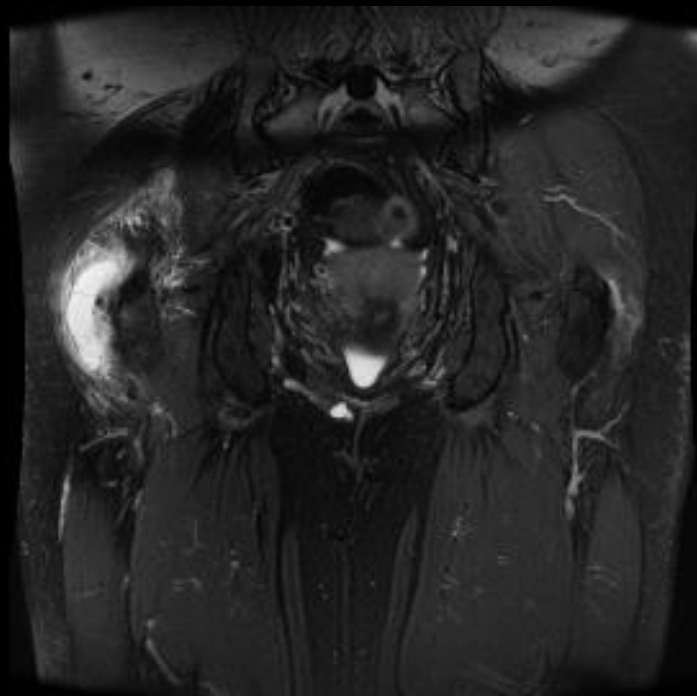
- Decreased range of motion of the right hip, pain, elevated CRP x 3 days.

11



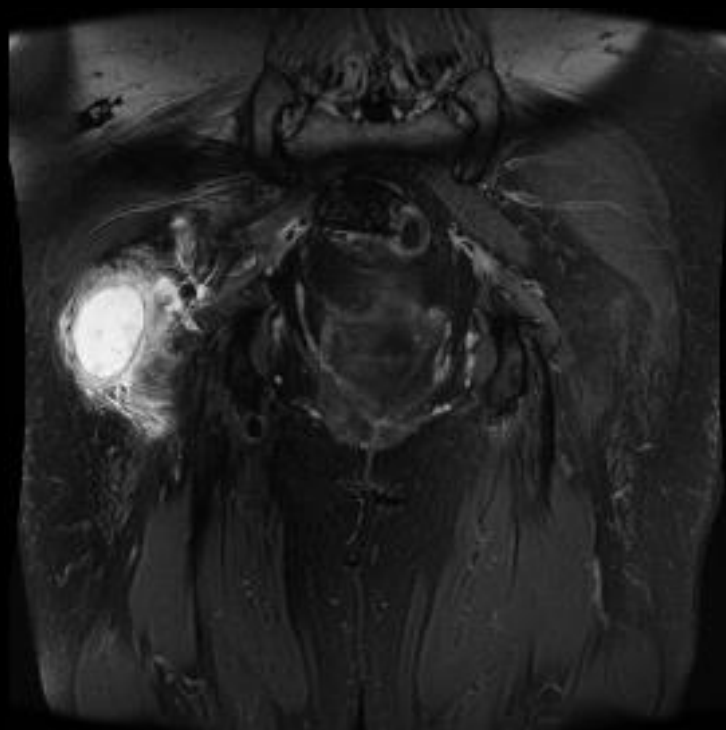
W 1356 : L 678

8



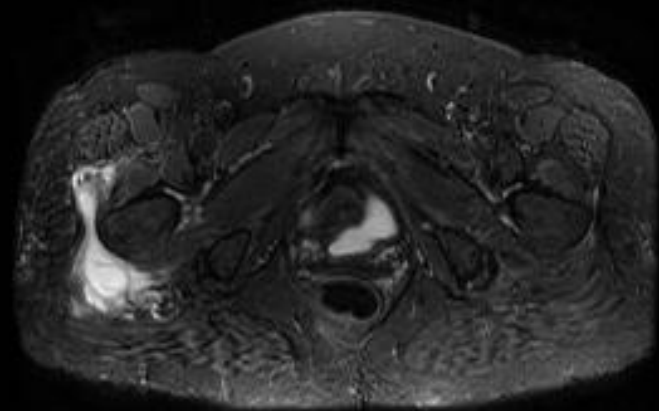
W 1198 : L 600

6



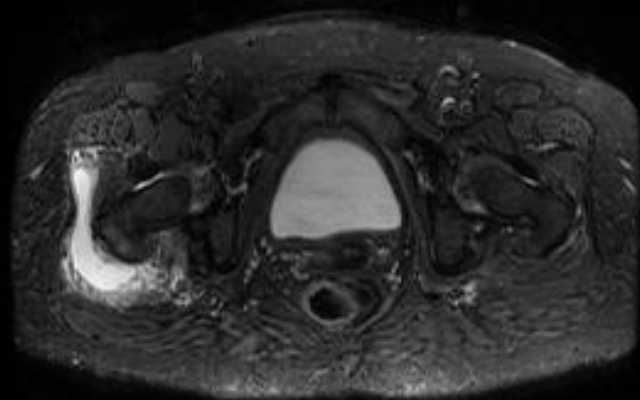
W 1246 : L 623

12



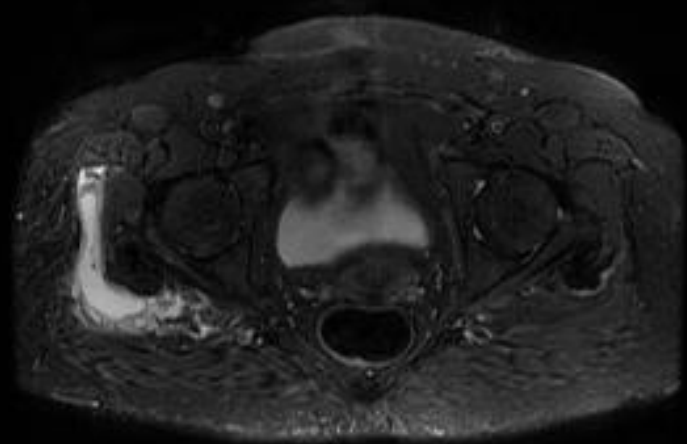
W 1249 : L 624

15



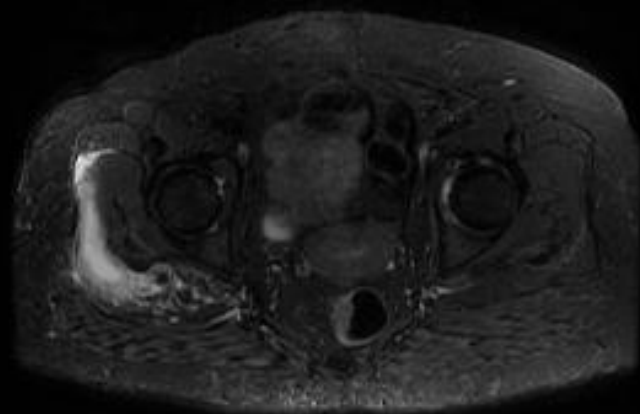
W 1257 : L 628

17



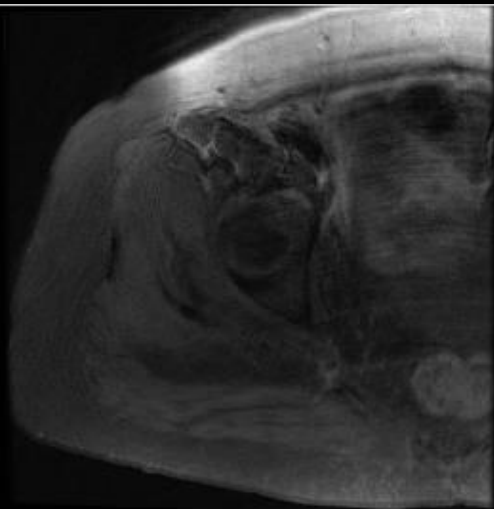
W 1596 : L 798

19



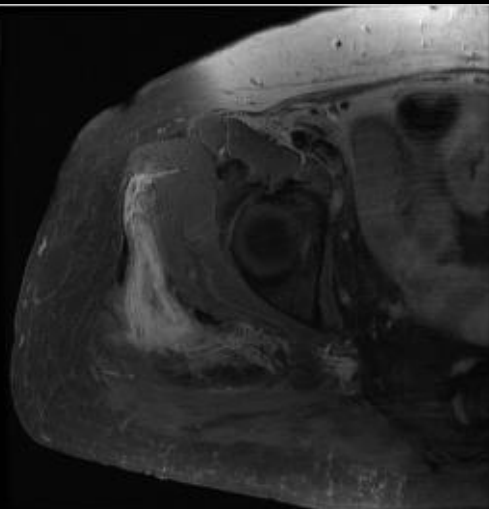
W 1665 : L 833

11



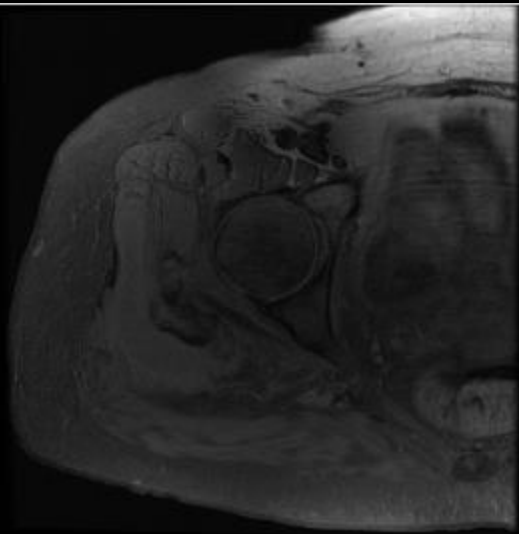
W 3021 : L 1511

11



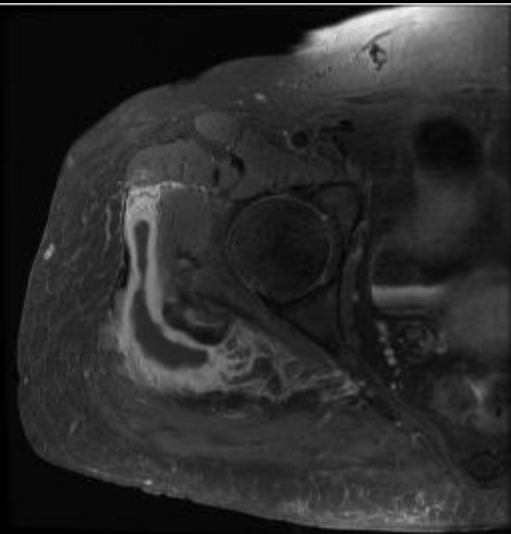
W 4244 : L 2123

14



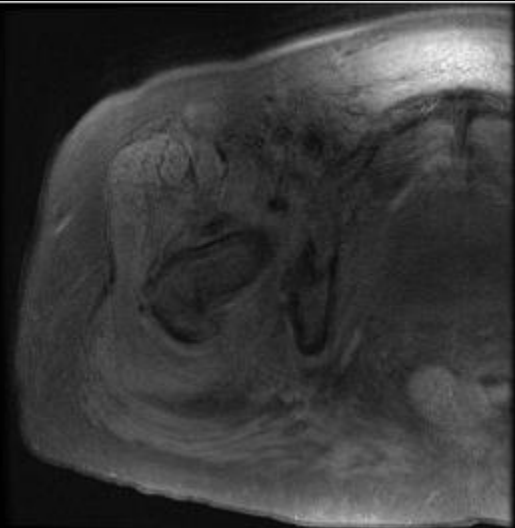
W 3760 : L 1880

14



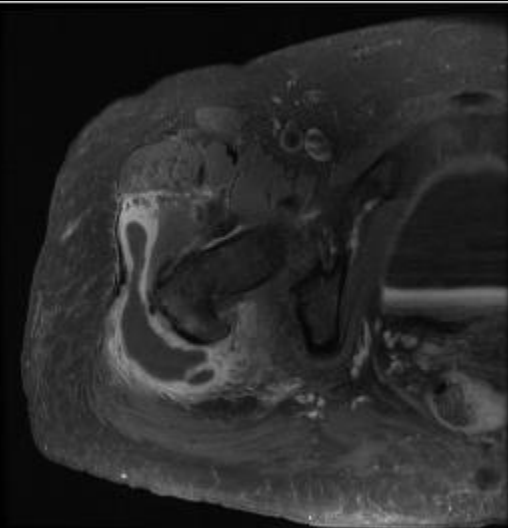
W 3738 : L 1870

17



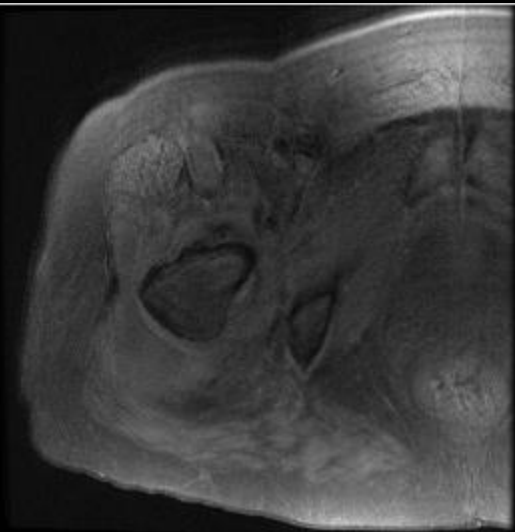
W 2154 : L 1077

17



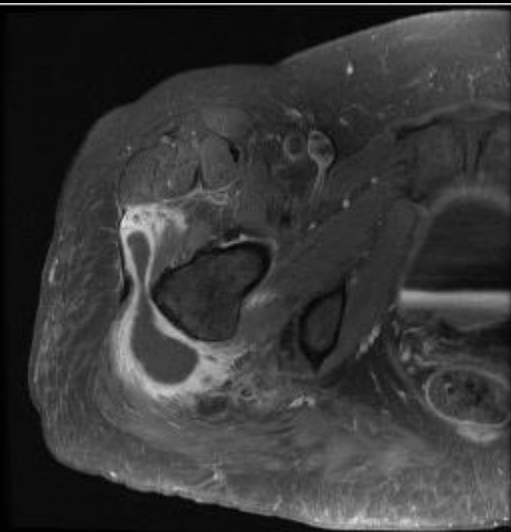
W 3504 : L 1753

19



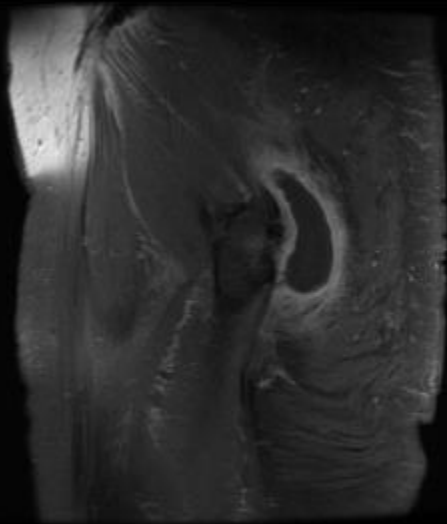
W 1990 : L 996

19

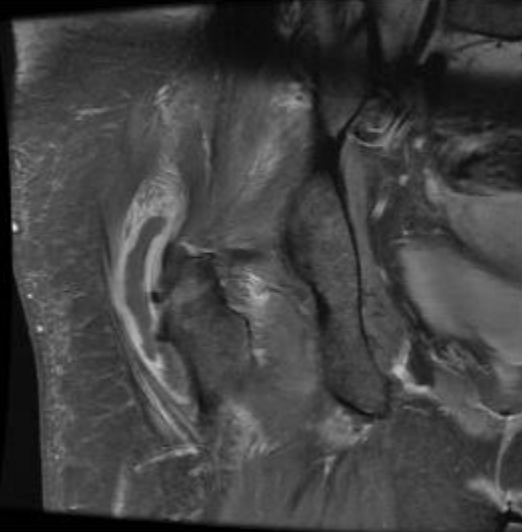


W 2566 : L 1284

11



W 3362 : L 1682



Bursae

- Generally found over bone prominences, especially in subcutaneous locations
- Bursitis: inflammation of lining of bursa
- Small amounts of bursal fluid are normal, large amounts usually indicate bursitis
- Some causes of bursitis include:
 - Rheumatoid arthritis
 - Seronegative spondyloarthropathies
 - Crystal deposition diseases
 - Infection
 - trauma

- Olecranon bursitis – student's elbow
- Prepatellar bursitis – housemaid's knee
- Infrapatellar bursitis – preacher's knee

- 2 types of bursae
 - Synovial bursae: synovial lined bursae, develop in utero in defined anatomic locations
 - Adventitious bursae: non synovial lined bursae, acquired post partum due to friction between opposing tissues
- Bursae can be classified as communicating or non-communicating. When a bursa is located adjacent to a joint, the synovial membrane of the bursae may communicate with the joint

There are lots of bursae

- Shoulder
- Subscapularis recess
- Subacromioid bursa

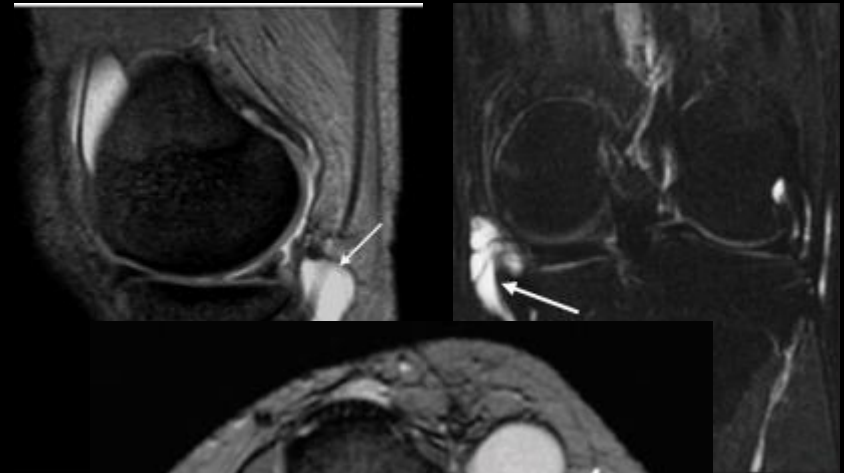


Bursae about the knee

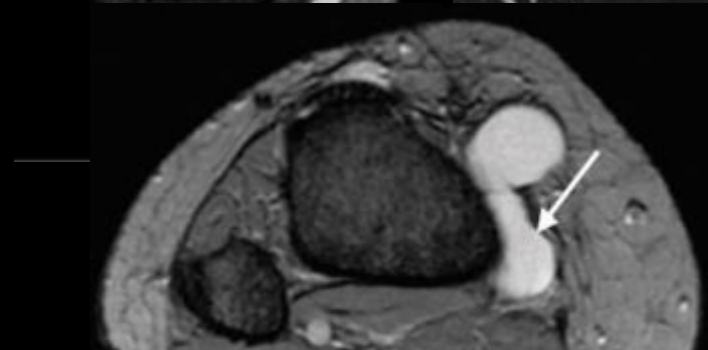
- Superficial infrapatellar
- Deep infrapatellar
- Prepatellar
- Suprapatellar



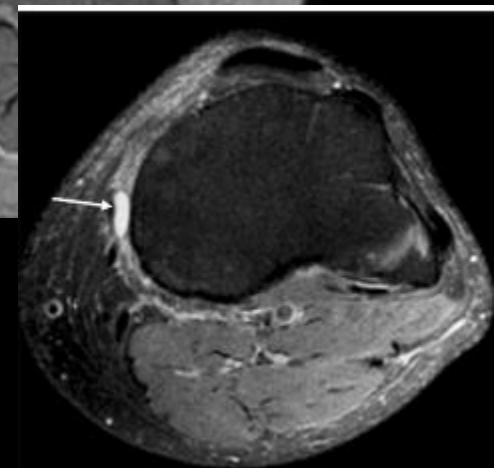
- Semimebranosus bursa



- Pes anserine bursa

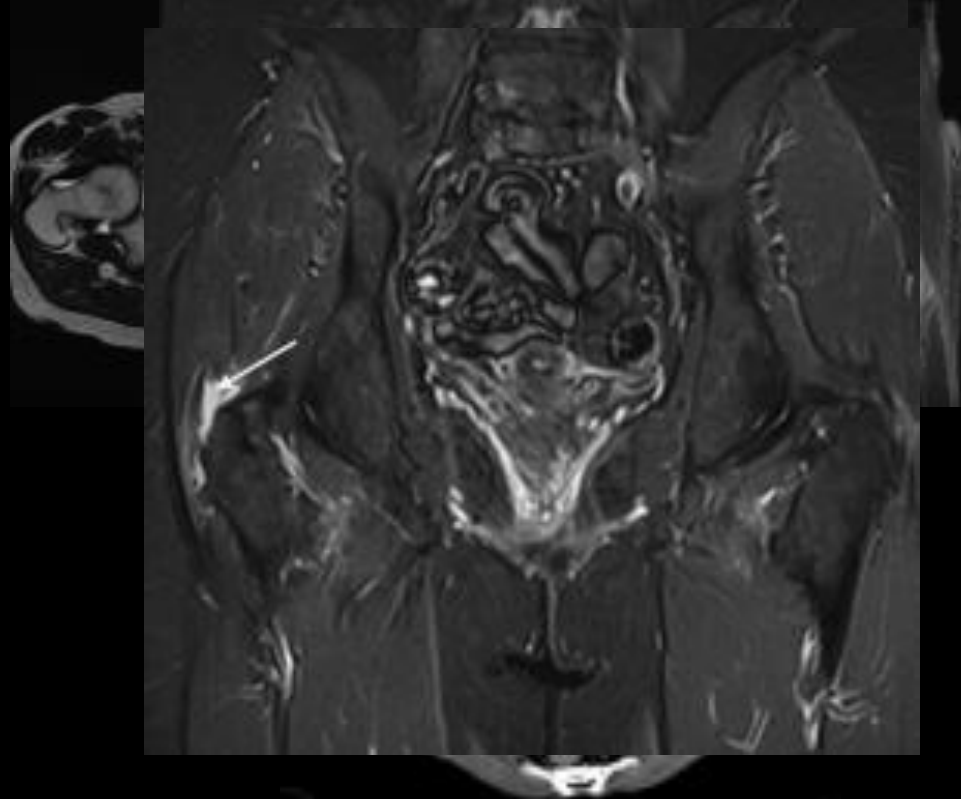
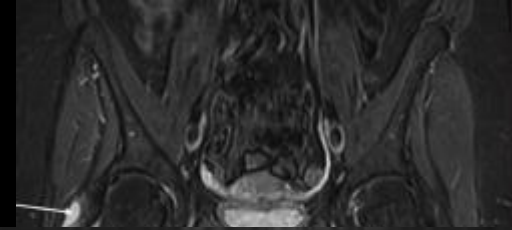


- Medial collateral ligament bursa



Bursae about the hip

- Trochanteric bursitis
- Iliopsoas bursitis
- Subgluteus medius bursitis
- Subgluteus minimus bursitis



Septic subcutaneous bursitis

- Most frequent in olecranon and prepatellar regions
- Other sites:
 - Subdeltoid, infrapatellar, trochanteric, subgluteal, retrocalcaneal and iliopsoas bursae.
- Men affected more frequently than women
- Prepatellar bursa may become infected in children

Risk factors

- Often history of recent injury, occupational trauma, puncture wound or therapeutic injection
- Other predisposing conditions:
 - Diabetes
 - Alcoholism
 - Immunocompromised state, eczema, psoriasis
 - Rheumatoid and gouty arthritis

Clinical manifestations

- Painful swelling localized to involved bursa
- Subcutaneous edema
- Normal range of joint motion
- Fever
- Cellulitis commonly present
- Typically not associated with septic arthritis – so presence of joint fluid in cases of septic bursitis does not necessarily imply joint is infected

Olecranon bursitis



- Majority results from inflammatory arthritis (aseptic)
- Only 25% infectious in etiology
- Due to superficial location, a common site for injury, inflammation and infection
- Trauma to the skin, or infection in surrounding soft tissues provide portal of entry for bacteria.
- Nonseptic olecranon bursitis has also been reported in football players who play on artificial turf
- Many patients with septic olecranon bursitis lack a history of trauma or visible laceration in region of bursa and speculation exists that penetration through microbreaks in skin surface occur.
- Seen with inflammatory arthropathy such as RA and gout

Ultrasound and bursitis

- Majority of bursae not visible with u/s unless distended with fluid or proliferative synovial tissue
- Acute bursitis: thin walled bursa distended with hypoechoic fluid, peribursal edema
- Chronic bursitis: greater thickening of bursal wall, more mature synovial proliferation, more echogenic content and increased likelihood of intrabursal hyperemia
 - Can simulate a soft tissue mass or abscess
 - If echogenic foci in distended bursa, consider crystal deposition

MRI Characteristics of Olecranon Bursitis

Frank Floemer¹
William B. Morrison²
Georg Bongartz¹
Hans Peter Ledermann¹

Treatment

- Conservative
 - Rest, anti-inflammatory agents
 - Ultrasound-guided corticosteroid \pm long-acting local anesthetic injection
- Surgical
 - Excision for resistant cases

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- Hirji Z, Hunjun JS, Choudur HN. Imaging of the bursae. *J Clin Imaging Sci*. 2011;1:22.
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- Chung CB, Steinbach LS. *MRI of the Upper Extremity, Shoulder, Elbow, Wrist and Hand*. Lippincott Williams & Wilkins; 2009.