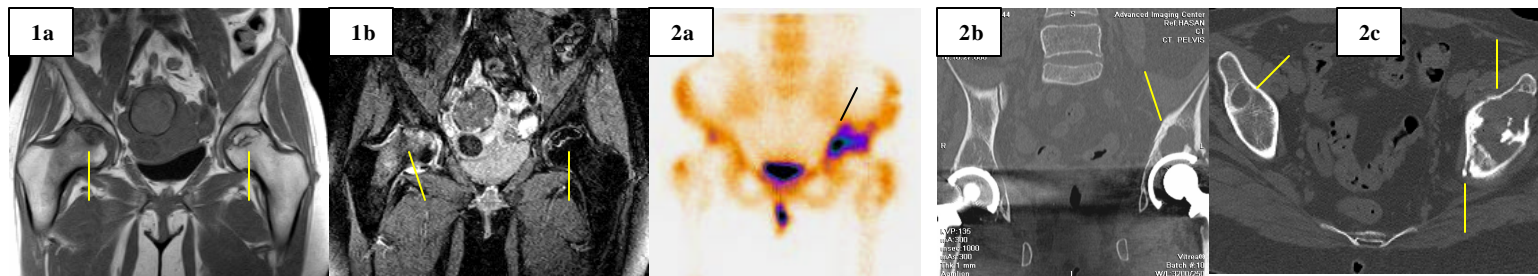


**INTERESTING CASE PRESENTATION**



The above cases were presented by **Dr. A. Hasan, MD** (working with **Dr. J. Ahmed, MD**, both board-certified **Rheumatologist**) and I at the **Fun Presentation Party #2** on Friday, March 5<sup>th</sup> at the Odyssey restaurant.

**PATIENT #1:** A 48-year-old female who presented to Dr. Ahmed with right hip pain and history of rheumatoid arthritis (RA) on chronic steroid therapy. MRI images (**Fig. 1a, b: Sagittal T1W and STIR**) are consistent with **avascular necrosis (AVN)** of both hips much worse on the right side with flattening and fragmentation of the right femoral head and reactive marrow edema extending to intertrochanteric region. The cause of AVN is due to a combination of RA and steroids.

**PATIENT #2:** A 44-year-old female who presented to Dr. Hasan with a couple-months history of left hip pain. Patient has had bilateral total hip replacement prosthesis due to AVN caused by a prior pregnancy and childbirth. Clinically, sacroiliitis was suspected. X-rays were not very impressive. **Fig. 2a** is a coronal **SPECT bone scan** showing intense uptake in left acetabulum. **Fig. 2b,c** are coronal and axial CT images showing bilateral hip prosthesis with lucencies in the acetabulae larger on the left (around 5 cm) with a pathologic fracture.

**DDX:** infection, tumor, loosening, foreign body reaction.

**DIAGNOSIS:** The CT findings and clinical history are most compatible with a **foreign body granulomatous reaction to the prosthesis and superimposed pathologic fracture**. In simple terms, the debris from the prosthesis cause a giant cell granulomatous reaction resulting in “eating away” of the bone, and thus a lytic appearance on CT. Revision of the prosthesis on the left is necessary.

**CAUSES OF AVASCULAR NECROSIS:** The mnemonic is “PLASTIC RAGS”: **P**regnancy, **P**ancreatitis; **L**egg-Perthes disease, **L**upus; **A**lcoholism, **A**therosclerosis; **S**teroids; **T**rauma; **I**diopathic, **I**nfection; **C**aisson disease; **C**ollagen vascular disease; **R**heumatoid arthritis, **R**adiation; **A**myloid; **G**aucher disease; **S**ickle cell disease. No predisposing factor in up to 25% of cases. Involvement of one hip raises the risk for contralateral AVN by up to 70%.

Thanks to those who attended the presentation party, and we missed the ones who could not make it. **The next Fun Presentation Party will be held on Friday, May 7<sup>th</sup>, 2004. Place TBD. Please RSVP ASAP, and also please let me know if you have interesting cases to show.**

**Ray Hashemi, MD**

Ray H. Hashemi, M.D., Ph.D., Director  
Diplomate American Board of Radiology