

Coronal IR sequence right arm

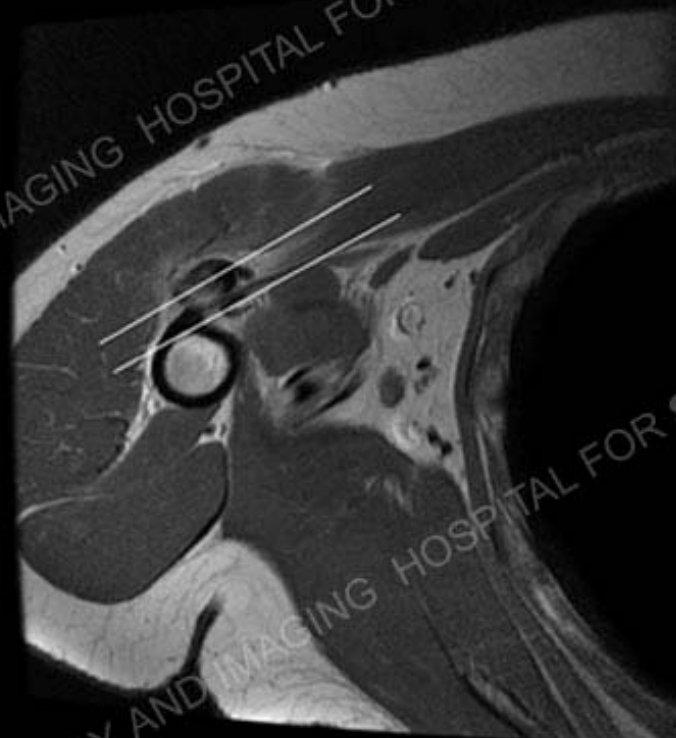


Axial PD sequence right arm

History: 53 year old woman with upper extremity pain for six months



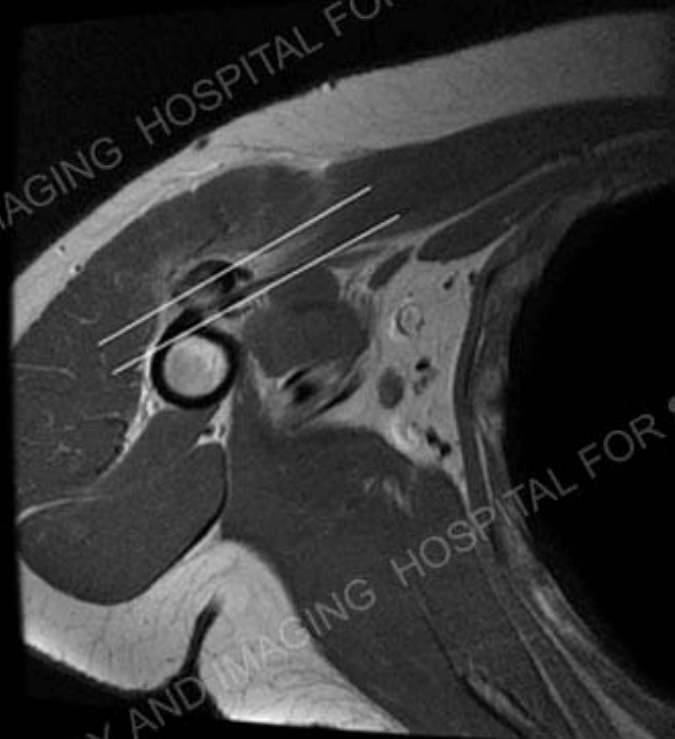
Oblique coronal PD sequence
right arm



Axial PD sequence for
reference of plane of
imaging for oblique PD
sequence. White lines
indicates plane of imaging



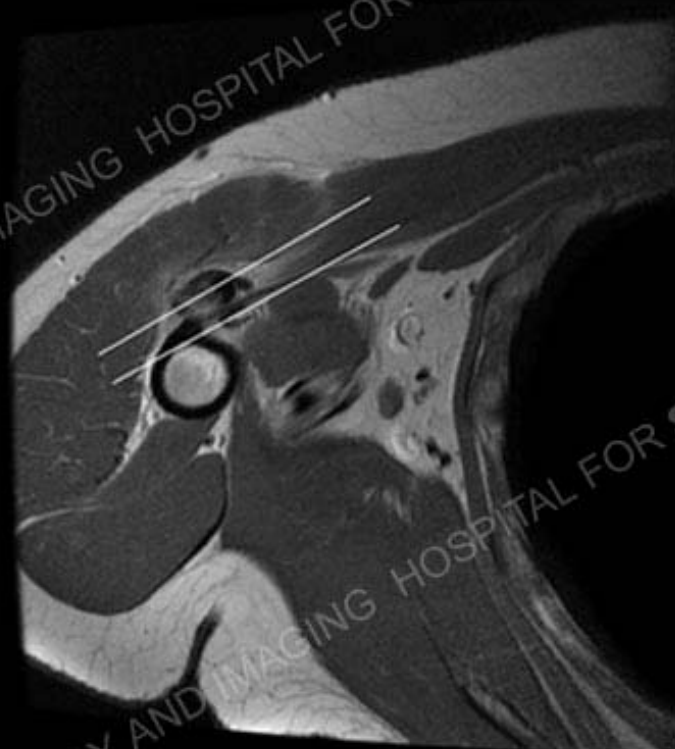
Oblique coronal PD sequence
right arm



Axial PD sequence for
reference of plane of
imaging for oblique PD
sequence. White lines
indicates plane of imaging



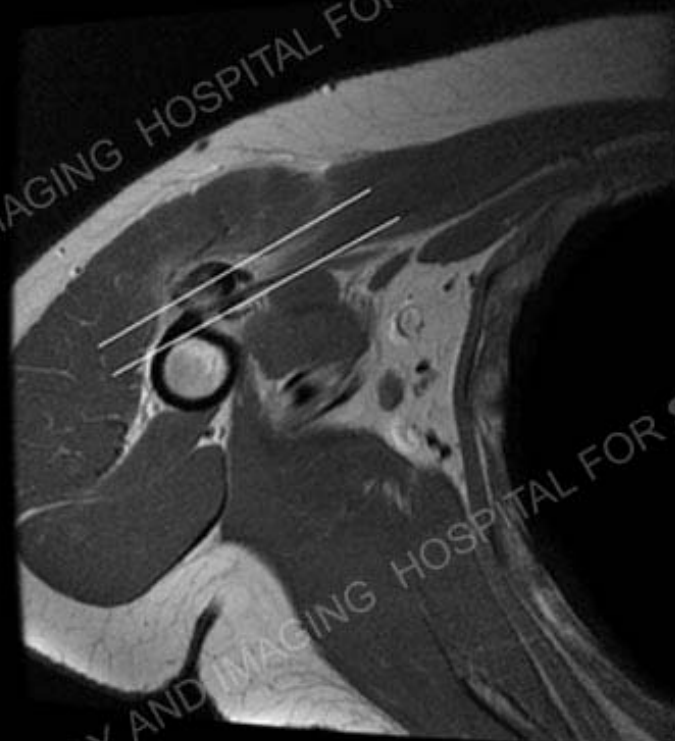
Oblique coronal PD sequence
right arm



Axial PD sequence for
reference of plane of
imaging for oblique PD
sequence. White lines
indicates plane of imaging



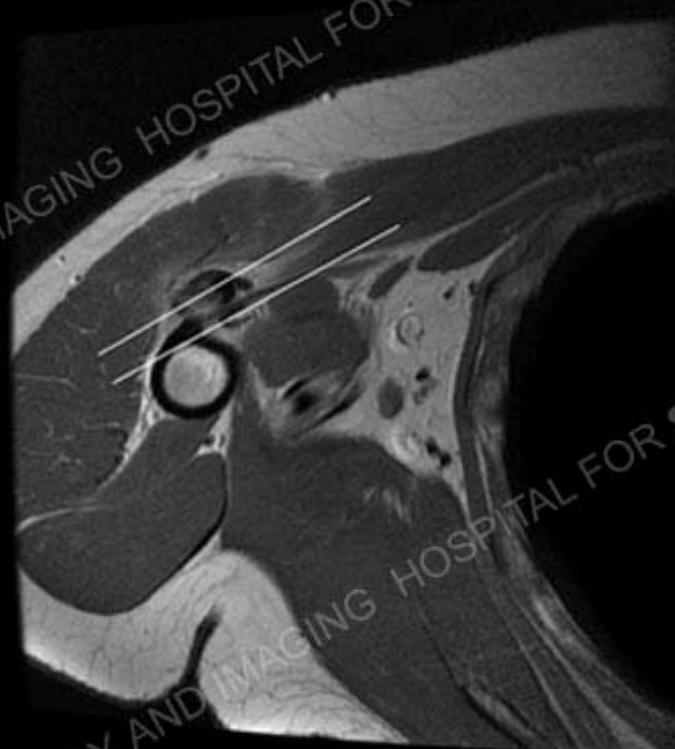
Oblique coronal PD sequence
right arm



Axial PD sequence for
reference of plane of
imaging for oblique PD
sequence. White lines
indicates plane of imaging



Oblique coronal PD sequence
right arm



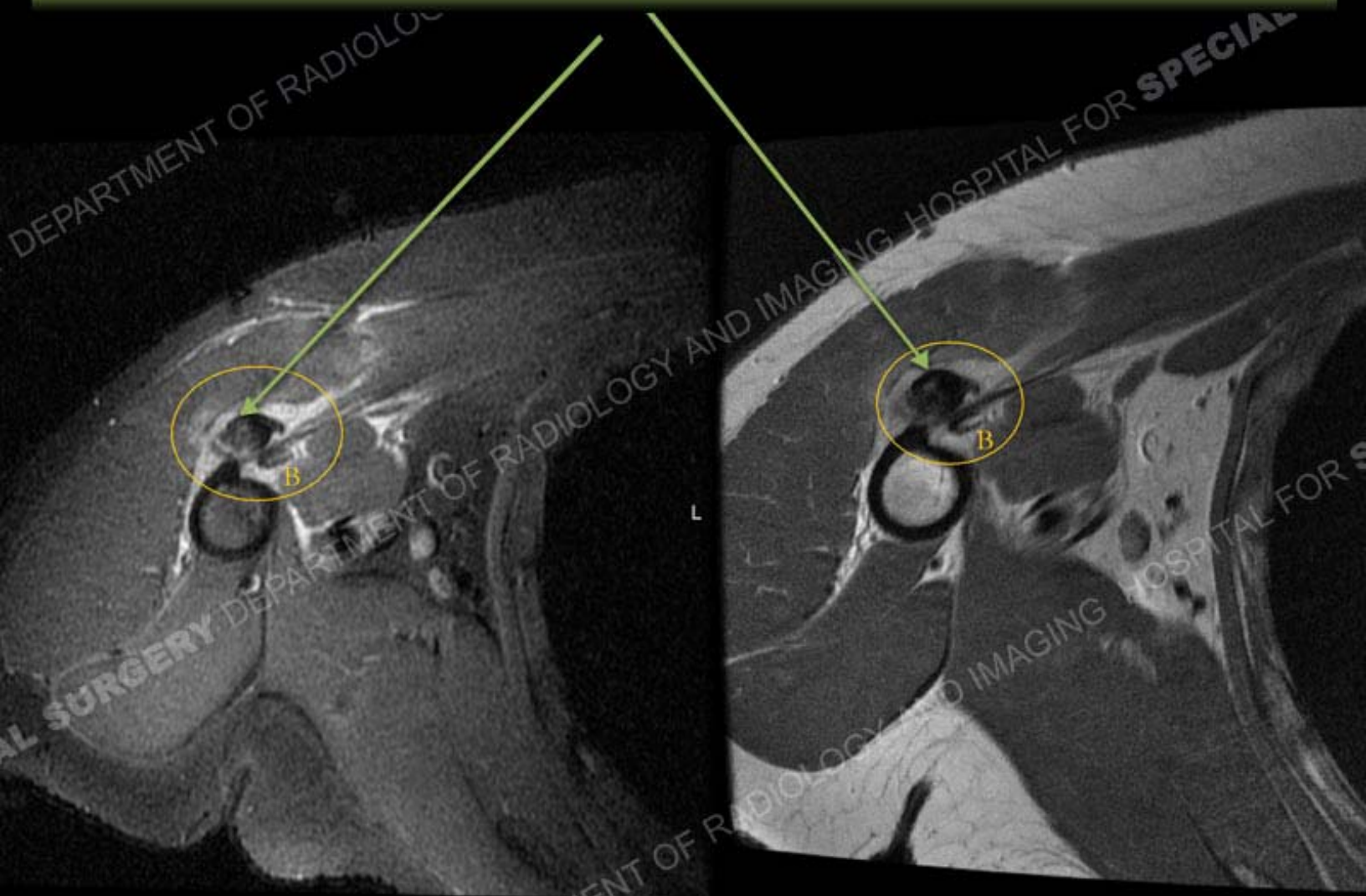
Axial PD sequence for
reference of plane of
imaging for oblique PD
sequence. White lines
indicates plane of imaging

Findings

A low signal mass or focus on all pulse sequences is seen situated about the pectoralis major insertion to the lateral crest of the intertubercular sulcus. This has yielded a marked amount of high signal, edema, in the adjacent soft tissue with additionally, a reactive tenosynovitis of the long head of the biceps. The mass is in close apposition to the underlying humerus but without definite connection to the underlying bone.



Low signal mass along the course of the pectoralis major tendon



Gold circles: Areas of marked soft tissue edema
B: Long head of the biceps tendon

Marked surrounding edema about the mass



Course of the pectoralis insertion in the oblique plane with the insinuating mass

Diagnosis

Calcium hydroxyapatite (CH) can deposit in and around tendons, bursae, or less commonly about a joint. This deposition may be referred to as calcium hydroxyapatite deposition disease but more commonly as calcific tendinosis or calcific tendonitis. The CH can cause a marked inflammatory response as is seen in this case and may involve the soft tissues and/or bone. In the bone, this may yield erosive change and when deposited in the joint may lead to joint destruction. CH's typical appearance on radiographs is a cloud like, amorphous density lacking architecture (no cortical/medullary differentiation). On MRI, it shows low signal intensity on all pulse sequences, and when painful, typically is associated with a marked amount of surrounding edema/inflammatory change.



Discussion

This may present as an acute, severely painful process or more so as a lingering, chronic process with acute exacerbations. The CH may resolve spontaneously but can also frequently be aspirated using ultrasound guidance. In particularly recalcitrant cases, surgical excision may be required.

Although commonly seen and recognized about the shoulder and particularly off the rotator cuff tendons, CH may infrequently involve the pectoralis major as in this case or the long head of the biceps at the biceps anchor.



Resources

Resnick. Diagnosis of Bone and Joint Disorders. 4th Ed. 2002.

<http://emedicine.medscape.com/article/1267908-overview>

