Right shoulder calcific rotator cuff tendinopathy and a milk of calcium present with no trauma or predisposing factors: A case report.
Cerrato J: Sacred Heart University, Fairfield, Connecticut

Background: The patient is a 38-year-old, non-athlete, female. Patient has no pertinent medical history, no past surgeries, takes no medications on a daily basis, and is allergic to Penicillin. Patient presented to the emergency room with severe right shoulder pain but denied a mechanism of injury or trauma. Upon initial evaluation the patient stated she had been dealing with the pain for approximately two months, the pain reduced initially, but has now significantly increased. The patient’s shoulder ranges of motions were no greater than 90 degrees in all planes. Differential Diagnosis: Potential patient pathologies based upon initial evaluation findings included: osteochondritis dissecans, SLAP lesion, bankark lesion, rotator cuff strain, or cyst. Treatment: In the emergency room the patient was injected with Toradol and prescribed narcotics and prednisone, no imaging occurred. After the initial emergency room evaluation with the physician x-rays images were taken. The x-ray results showed significant calcific tendonitis. After the x-ray, an MRI was ordered. The MRI revealed a low to moderate grade partial infraspinatus tear as well as a complex fluid collection that displaced the supraspinatus tendon. At this time a CT scan was ordered in an attempt to acquire a better image of the complex fluid collection. The CT scan revealed the complex fluid collection contained high attenuation material that may have represented peripheral calcifications and/or milk of calcium. The milk of calcium was multiloculated but the largest component of the structures measured approximately 3.6 x 1.4 x 1.9 cm. The patient was scheduled for arthroscopic surgery in order to address: the right shoulder scapular cyst (milk of calcium), calcific tendinopathy, and adhesive capsulitis. Surgery procedures included right shoulder examination under anesthesia, manipulation under anesthesia, arthroscopic extensive debridement of the intermuscular cyst (milk of calcium), extensive debridement of the infraspinatus calcific tendinopathy, subacromial decompression with acromioplasty, and arthroscopic rotator cuff repair. To date, two months post-operative, the patient is pain free with approximately 170 degrees of shoulder abduction. Uniqueness: The milk of calcium and significant calcific tendinopathy is unique because of the patient’s age, no history of overhead sports, no significant medical history, and no history of trauma. The patient demonstrated no risk factors that would pre-dispose her to calcific tendinopathy. Furthermore, there was no research with a patient with a milk of calcium lesion in the shoulder. Research shows that milk of calcium cysts are primarily found in the gallbladder, gastrointestinal tract, kidneys, breast, and nose. The etiology of a milk of calcium is unknown. The only similarities of this patient’s milk of calcium and others’ milk of calcium cysts, was the appearance. The nasoalveolar cyst presented as a soft mass and contained dense brown mucoid fluid, as with this patient's milk of calcium did. Conclusions: Right shoulder calcific rotator cuff tendinopathy and a milk of calcium were present with no trauma or predisposing factors. At this time there are no records of a milk of calcium located in the shoulder in any literature.