Synovial chondromatosis is a rare disorder characterized by the development of multiple cartilaginous nodules in the synovial membrane of joints, bursae or tendon sheaths as a result of subsynovial connective tissue metaplasia. It usually affects larger joints (knee, hip, elbow and shoulder), the wrist and hand is an exceptionally rare localization. Because of its low prevalence and nonspecific symptoms, synovial chondromatosis may pose differential diagnostic difficulties for the treating clinician, which may lead to a delay in treatment.

CASE PRESENTATION: A 56-year-old female patient was referred to our department with persistent ulnar sided wrist pain on the left side, two years following minor trauma and chronic overuse. She complained of increasing swelling over the pisotriquetral joint and flexor carpi ulnaris tendon, she noticed the apperance of a mass which had become increasingly painful over the previous 3 months and there was a limitation in the range of motion also (F/E 20/40). Radiographs demonstrated an area of calcification over the pisiform and the ulnar styloid process. MRI and CT scan suggested synovial proliferation with calcification or atypical pigmented villonodular synovitis. Surgical excision revealed numerous loose bodies surrounded by a 25x5x10 mm area of soft tissue. Histological examination demonstrated mature hyaline cartilage surrounded by fibrous tissue and partly lined by synovium, which was consistent with synovial chondromatosis. 9 months after the excision there was no recurrence, the pain decreased immediately after surgery and the range of motion increased continuously (F/E 40/50).

Discussion: Synovial chondromatosis is a rare condition with a largely unknown etiology. The metaplasia of the synovial membrane results in the formation of multiple intraarticular cartilaginous bodies. In the early stage of synovial chondromatosis, plain radiographs may be normal. Milgram described three stages of the disease. Phase 1 consists of active synovial disease with no free or loose bodies, phase 2 has both active synovial disease and loose bodies in the synovial tissue and in the joint cavity or bursa, and phase 3 consists of multiple osteochondral loose bodies without active synovial disease. Cases involving the pisotriquetral joint is extremely rare. As a result of rarity other diseases mentioned in the differential diagnosis are suspected at first. The high prevalence of other conditions in this region and the low prevalence of synovial chondromatosis may result in a failure to diagnose the condition or delay appropriate treatment, which is synovecctomy and removal of loose bodies.

References: