History

50 year old woman with long standing wrist pain.
Coronal MPGR and Coronal Proton Density Images
Sagittal and Axial Proton Density Images
Findings

Radiographs and MR images demonstrate a volar flexion of the lunate on sagittal/lateral views and an abnormal triangular configuration of the lunate on the frontal radiograph. MR images demonstrate a lack of the normal low signal intensity lunatotriquetral ligament and a high signal, granulation tissue is interposed at the site of the previous ligament. Axial images demonstrate the high signal of the lunotriquetral interval spanning from dorsal to volar.
High Signal, granulation tissue at site of lunatotriquetral ligament

Normal Low signal scapholunate ligament for comparison
Discontinuity of lunatotriquetral ligament from dorsal to volar.

Volar tilt of the lunate
Diagnosis: Lunatotriquetral Ligament Disruption with VISI

The lunatotriquetral (LT) ligament is one of the main intrinsic ligaments of the wrist along with the scapholunate (SL) ligament. The LT ligament is a complex structure with the volar fibers providing the majority of functional stability. In the setting of a lunatotriquetral ligament injury, a volar intercalated segment instability can sometimes be yielded. The proximal row of the wrist functions as a synchronous.

The assessment of volar intercalated segment instability is provided on a sagittal or lateral image by evaluating the capitolunate and scapholunate angles. The normal capitolunate angle of 0 to 20 degrees is increased and the scapholunate angle of 30 to 60 degrees is decreased secondary to the palmar angulation of the lunate. On the contrary, DISI abnormality yields an increase in both the scapholunate and capitolunate angles.
Resources


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