Radial Ligaments

Partial Radial Collateral Ligament Tear

Normal
Tennis Elbow

Partial tear of the common extensor tendons
Intact LUCL
Tennis Elbow

Partial tear of the common extensor tendons
Partial tear of LUCL (Can be associated with posterolateral rotatory instability)
Acute Posterolateral Instability
Acute Posterolateral Injury
Mechanism?
Osborne Coterill Lesion

1. Osseous fragment at the capitellum posterolateral represents ligament avulsion (LUCL) in posterolateral instability

2. Mechanism comparable to bony Bankart lesion in the shoulder

3. Radial head compression may lead to “caput magna radii”

Distal Biceps Tendon

- Crosses the elbow as flat tendon
- Insertion radial tuberosity
- Broad medial extension
  Insertion at fascia of flexor muscles:
  Lacertus fibrosus
Distal Biceps Tendon
Lacertus Fibrosus

- 2nd Insertion
- Bicipital aponeurosis
- Broad medial extension
  Insertion at fascia of flexor muscles
Distal Biceps Tendon

Disruption of the distal biceps tendon
Edema at insertion an musculotendinous junction
Capsular and Joint Anatomy

- Strong fibrous capsule invests the whole joint
- „Fat pads“ are intracapsular
- Fat pads and synovial folds may mimic intrarticular bodies
Lateral Synovial Fringe

Synovial Folds and Plicae
Asymptomatic Volunteer
Plica Syndrome

T2 w

T1w Fat Sat with Gad
Prevalence of Plicae in Asymptomatic

<table>
<thead>
<tr>
<th>Prevalence</th>
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<tbody>
<tr>
<td>Posterolateral</td>
<td>98%</td>
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<tr>
<td>Posterior</td>
<td>33%</td>
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Plicae: Thickness in Asyptomatic

Posterolat. Plica
sag x cc x medlat median 4.3 x 1.9 x 3.9 mm
cc max: 3.1

Posterior plica
sag x medlat 1.8 x 1.4 mm
medlat max: 2.6

Thickness of elbow plicae is usually < 3 mm

Husarik DB, Radiology, 2010
Take Home Point Plicae

1. Generally minor clinical importance
2. More important when thicker than ≥ 3 mm
3. More important when associated with surrounding synovitis (gd. i.v)

Osteochondral Lesion?
Pseudodefect of the Capitellum

Pseudodefect of the Capitellum

Normal variant:
Result of a sulcus between the capitellum and the lateral epicondyle of the humerus
Imaging

- X-Ray
- CT
- CT Arthrography
- US
- MR
- MR Arthrography