OCD of the PF Joint
(Patella and Trochlea)

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Patella OCD

• Rare, est. to be 2-5% of all knee OCD
  – < 100 reported in the literature
  – most articles small series with dated techniques and imaging

• Etiology unknown. Leading theories:
  – Shear stress from a mal-aligned patella
  – a result of repeated insults to articular surface
  – neither theory explain unusual locations of these patellar lesions.
Patella OCD location

Medial facet predominates
For Trochlear, lateral facet >>>> medial
Patella & Trochlear OCD

• Indications for treatment
  – Evidence for cartilage detachment / softening/ loosening
  – Knee swelling (beware of knee pain as sole symptom)
Patella & Trochlea OCD

- Treatment Options:
  - Debride
  - Drilling (micro-fracture)
    - falling out of favor for patellar lesions
  - Cartilage restoration options limited (insurance)
    - ACI (cartilage cells)
    - DeNeuvo (fetal cells)
    - Osteochondral allograft (10mm plugs or whole patella grafting)
Patella & Trochlea OCD

• Outcomes
  – Literature scarce in this area
  – Earlier series largely favorable (pre-1980)
  – More recent series: basically discuss operative management
  – Trochlea outperforms patella lesions
Case #1

- 34 y/o female w/ anterior knee pain
- No h/o trauma
- Exam: lean, BMI 22
  - Decreased medial patella mobility
  - No knee swelling
  - No crepitus
Arthroscopy

Patient 1 2013
Arthroscopy
Arthroscopy
Arthroscopy

Patient 1  2013
Arthroscopy
Patella OCD

- Treatment strategy
  - (+) lesion on MR (lateral Patellar facet)
  - (-) lesion on XR
  - (+) response to McConnell taping
  - (+) tightness on Physical Exam
  - (-) pathology by arthroscopy

Consider lateral retinacular lengthening
Lateral Retinacular Lengthening

1) IT band is incised longitudinally, adjacent to its patellar attachment.
2) The LPFL is then identified and incised at a more lateral location.
3) The lateral portion of the IT band is sewn to the medial portion of the LPFL.
NG – Anterior knee pain

• Results: 24 months post op:
  – No pain.
  – Functional test continues with 20% LSI
Case #2

Patient 2  2014
Case #3

• Division I WBB player

• History of uni-lateral anterior knee pain
  – No specific trauma
  – No knee swelling
  – Increased pain with increased practice load
Case #3

- 2 years collegiate play
- 2 years WNBA play
- Monitors her training load
- No surgery or lost game time to date
Take home message (for Patella and Trochlea):

• Every attempt should be made to retain the OCD fragment

• There is potential for healing even in chronic lesions

• OCD lesions seen on MRI & not radiographs favor conservative management; usually do well even in active patients.
Take home message (for Patella and Trochlea):

- For cartilage restoration techniques:
  - Trochlear lesion outcomes approach the favorable outcomes seen with MFC lesions
  - Patella lesion outcomes do less well than all other lesions, but better than no cartilage restoration, though true RCT not done (closest to RCT are matched controls)