Elbow and Ankle Joint Arthroscopy: Indication and Outcomes

Seung Jin Yi, M.D.
Orthopaedic Surgery
Sports Medicine

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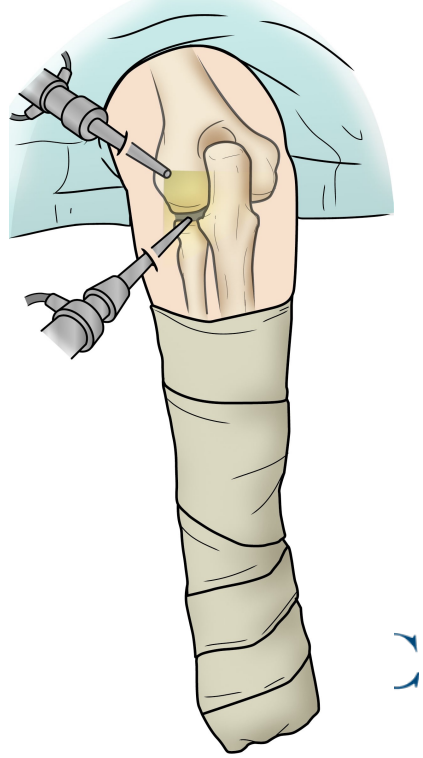
Elbow Arthroscopy

- Indications
  - **osteophyte debridement**
  - **loose body removal**
  - **synovectomy**
  - **lateral epicondylitis**
  - capsular releases for stiffness
  - osteochondritis dissecans of capitellum
  - debridement for septic arthritis



Elbow Arthroscopy

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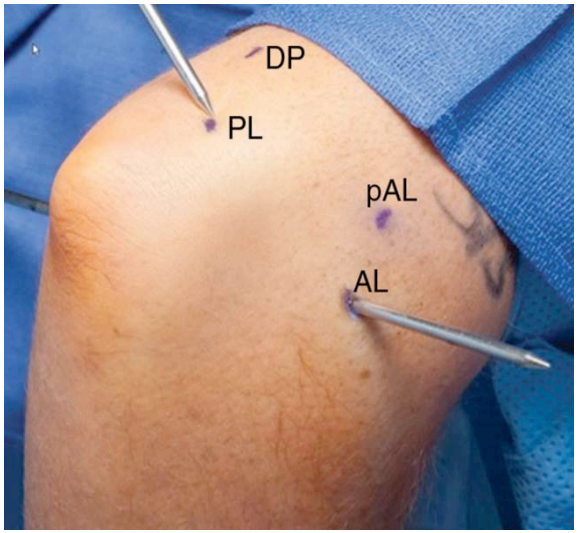
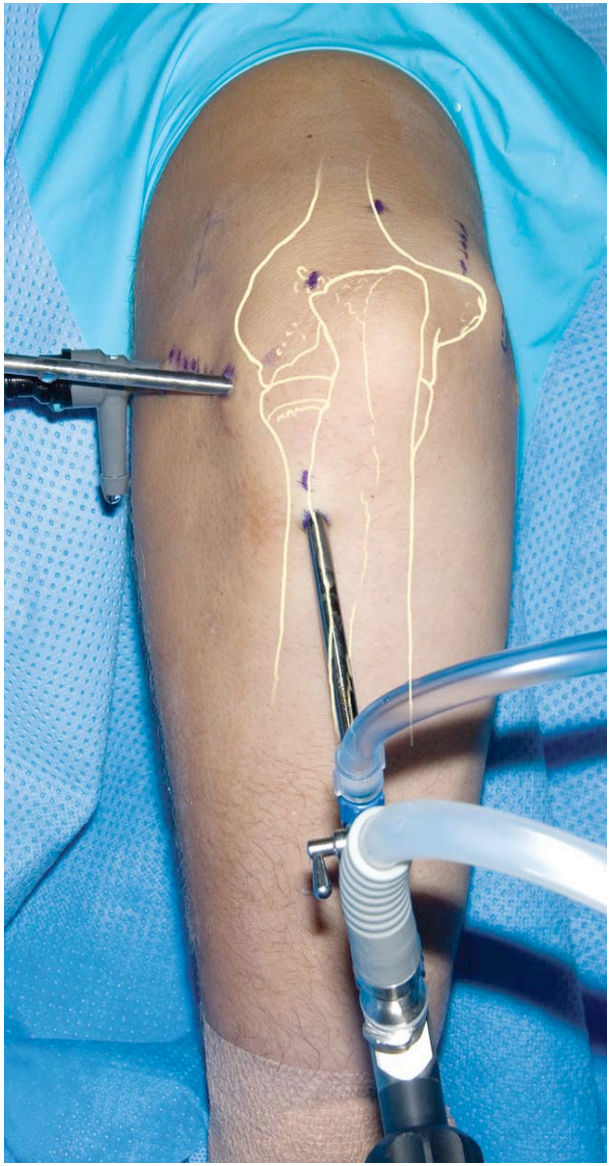
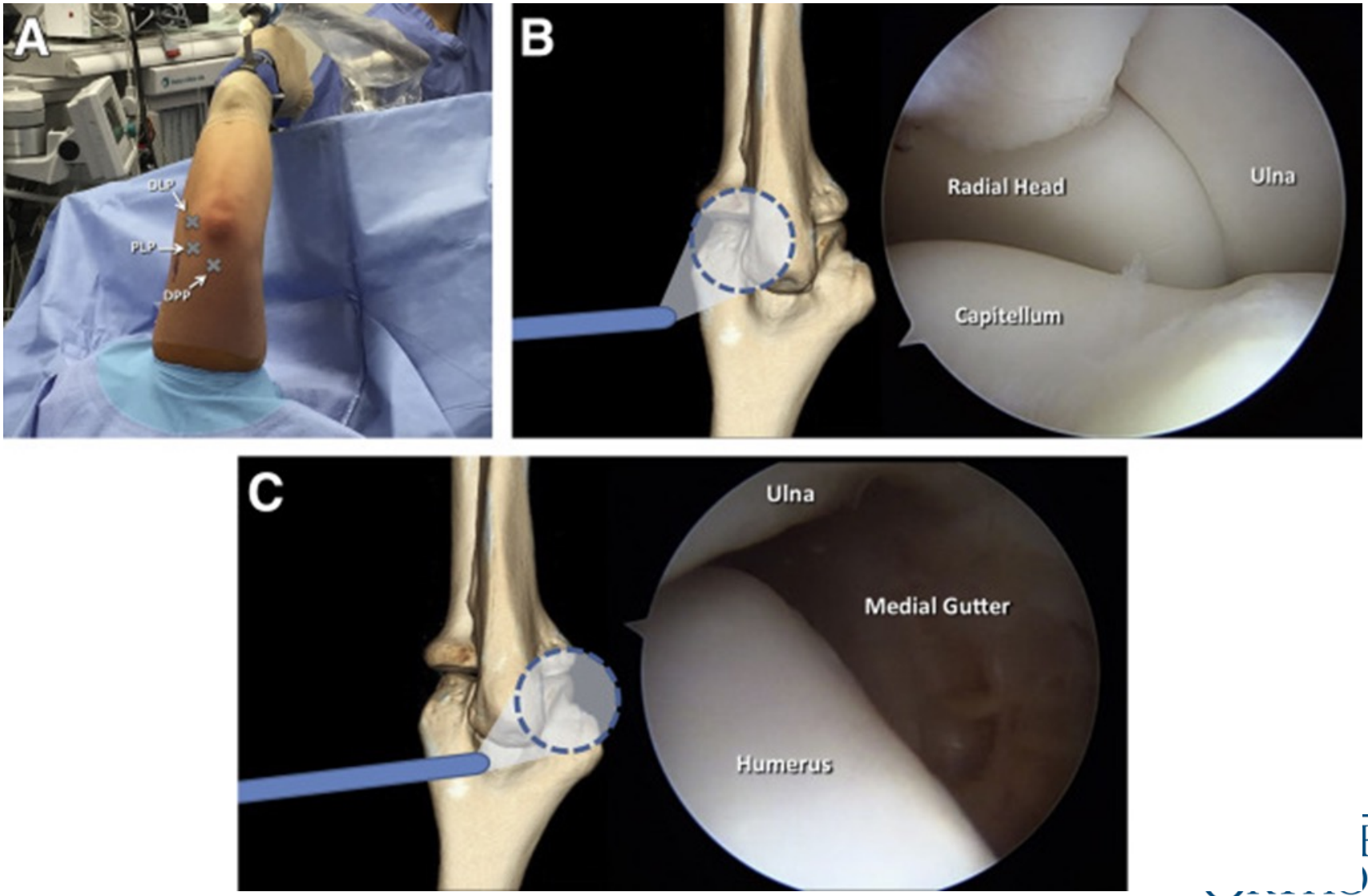




Elbow Arthroscopy



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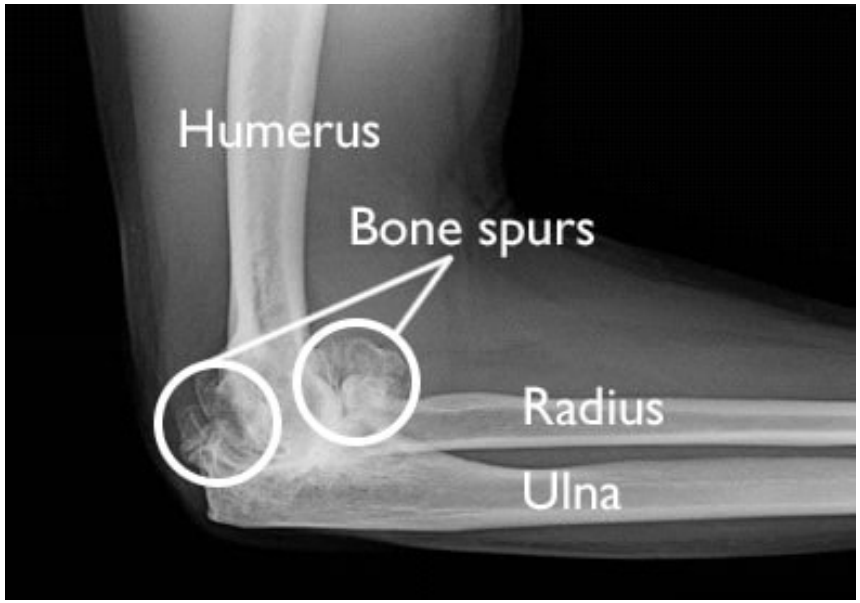
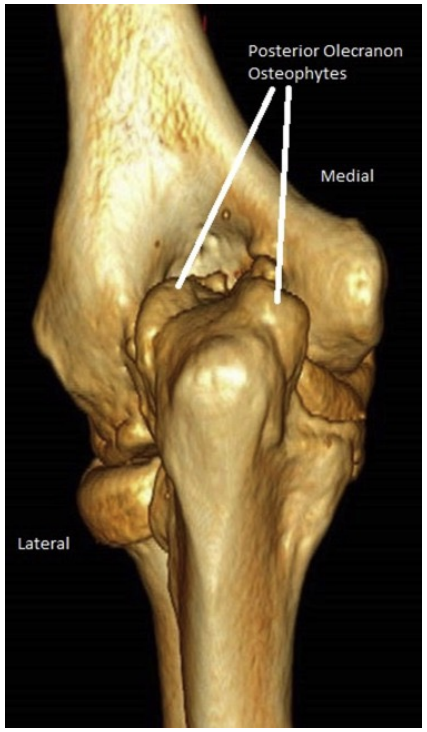
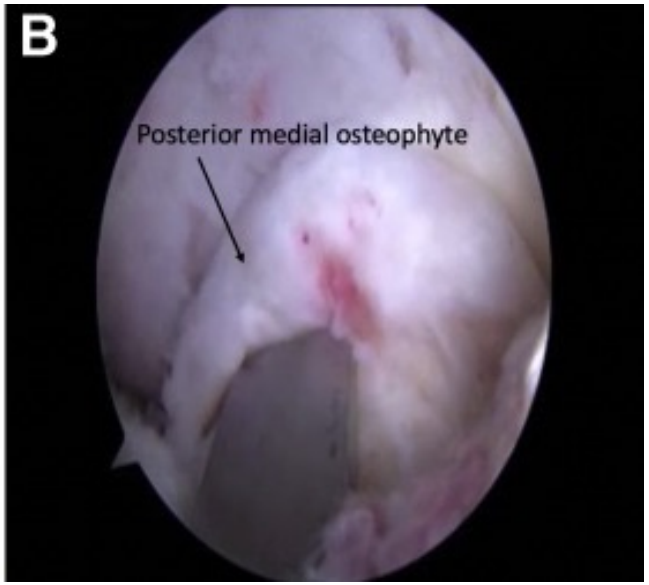
Osteophyte Debridement





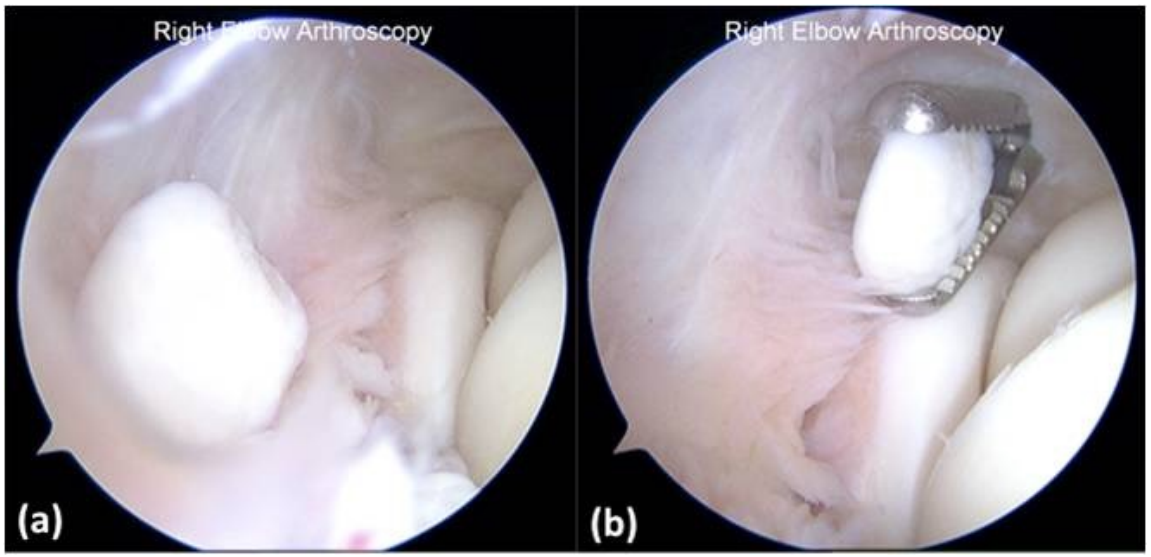


- Results favorable
  - Motion and function
  - Full restoration unlikely
    - Extension
    - Pronation

Loose Body Removal

a

b



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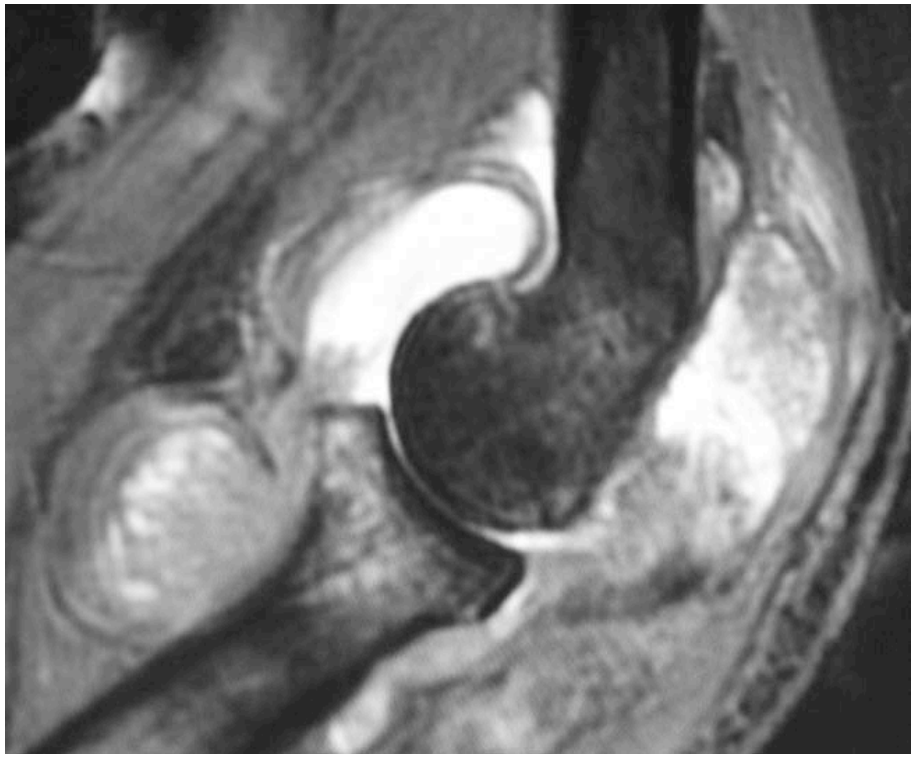
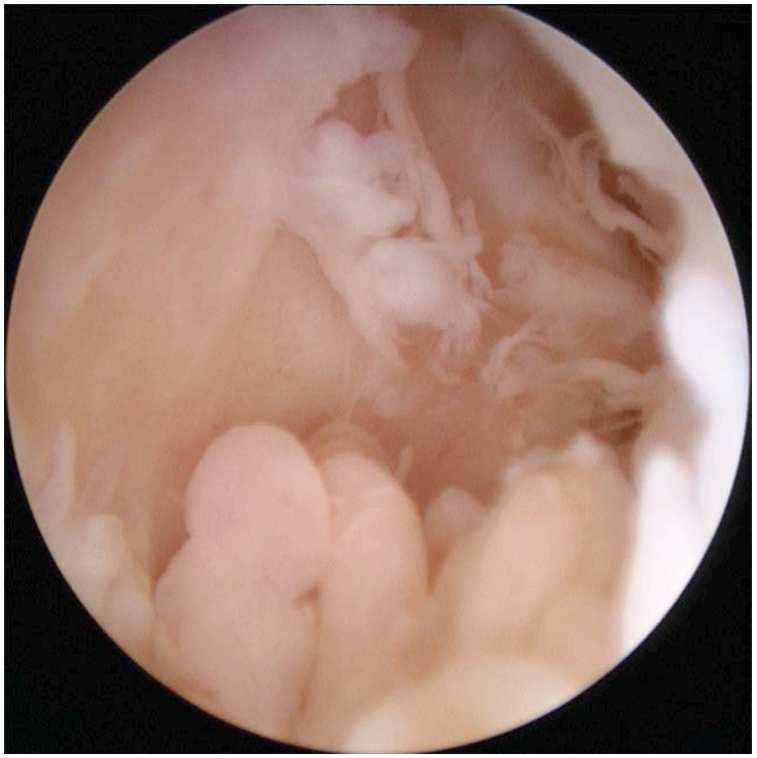
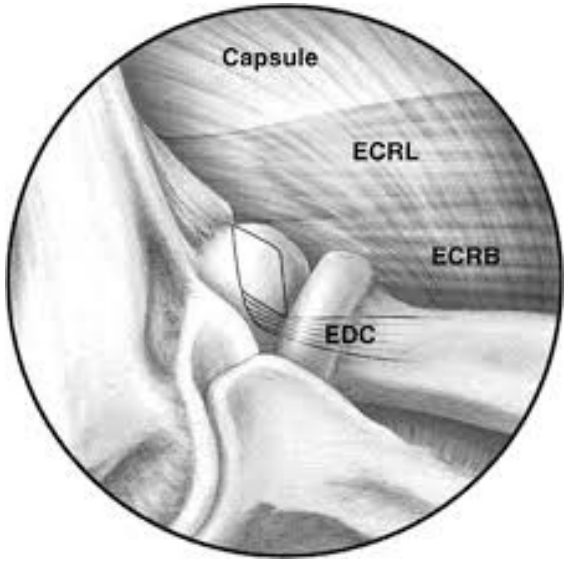
Synovitis Debridement

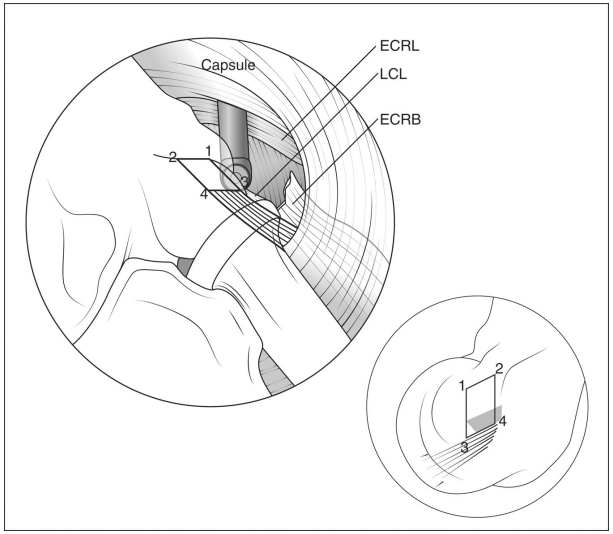


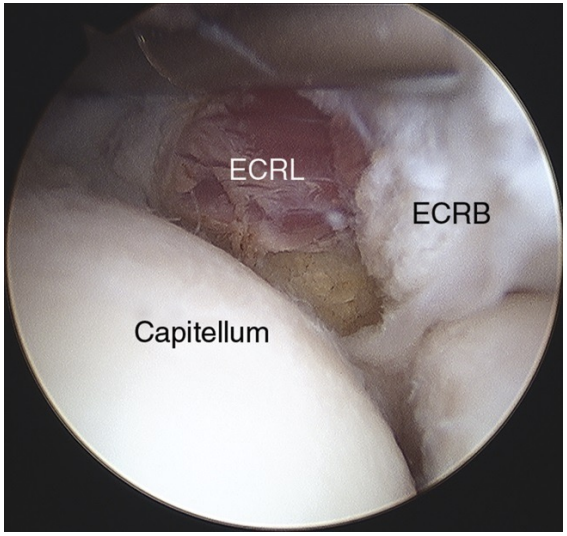


- Comparable to open synovectomy
- Results deteriorate over time
- Better with preserved articular cartilage

Lateral Epicondylitis







- Arthroscopic results variable
  - Difficulty identifying ECRB origin arthroscopically

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Latterman and Romeo et al. JSES 2010

- 36 patients with recalcitrant lateral epicondylitis
- 4 weeks to return to regular activities
- 7 weeks to return to full work duties
- 28% (10 patients) reported continued pain with strenuous activities and repetitive use of the affected arm
- 6% (2 patients) continued to have significant pain and were considered failures

- Lattermann C, Romeo AA, Anbari A, et al: Arthroscopic debridement of the extensor carpi radialis brevis for recalcitrant lateral epicondylitis. J Shoulder Elbow Surg 2010;19(5):651-656.

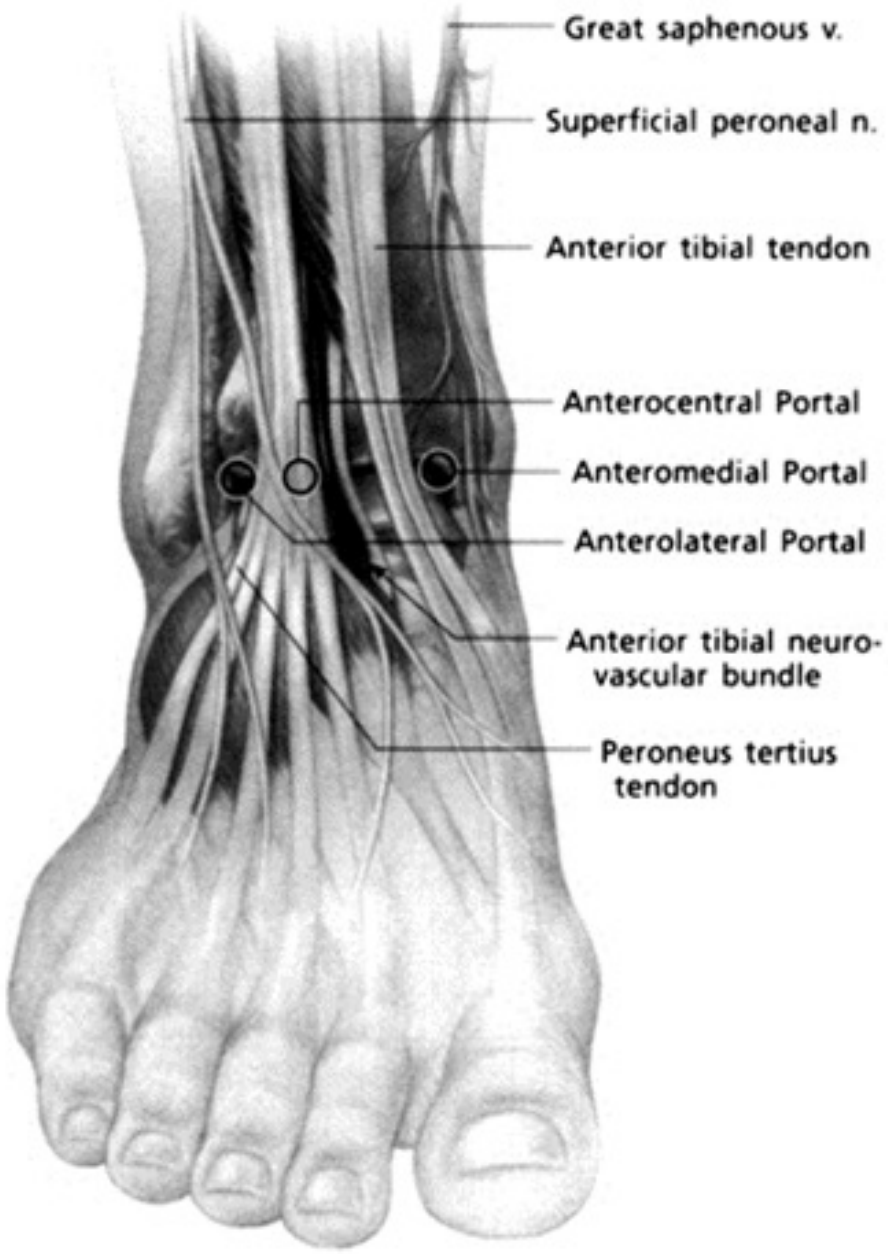
Complications

- Nerve Palsy
- Heterotopic Ossification
- Infection

Ankle Arthroscopy

- Indications
  - **Microfracture of OCD**
  - **Os trigonum excision**
  - **Anterior impingement**
  - Removal of loose bodies
  - Debridement of post-traumatic synovitis

Ankle Arthroscopy



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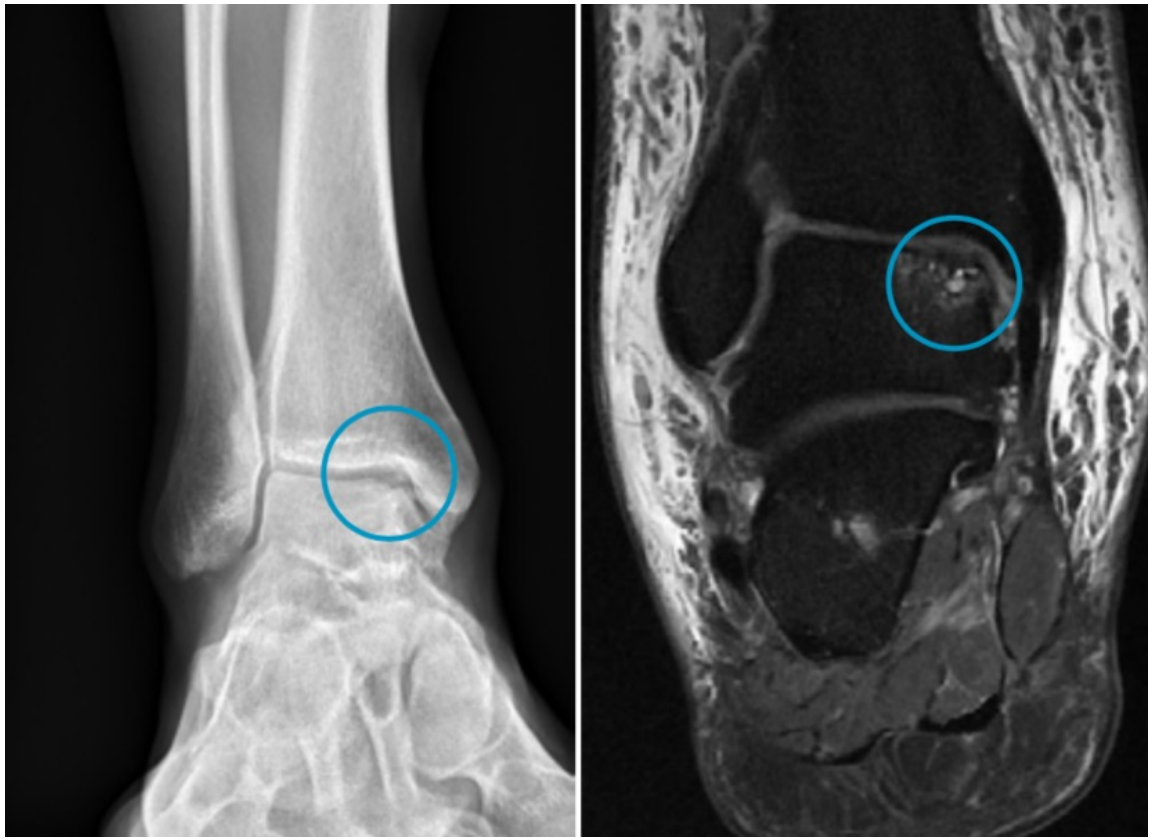
OsteoChondral Defects

- Lesion involving cartilage and subchondral bone
- Prior trauma 93%
- Persistent deep ankle pain with activity



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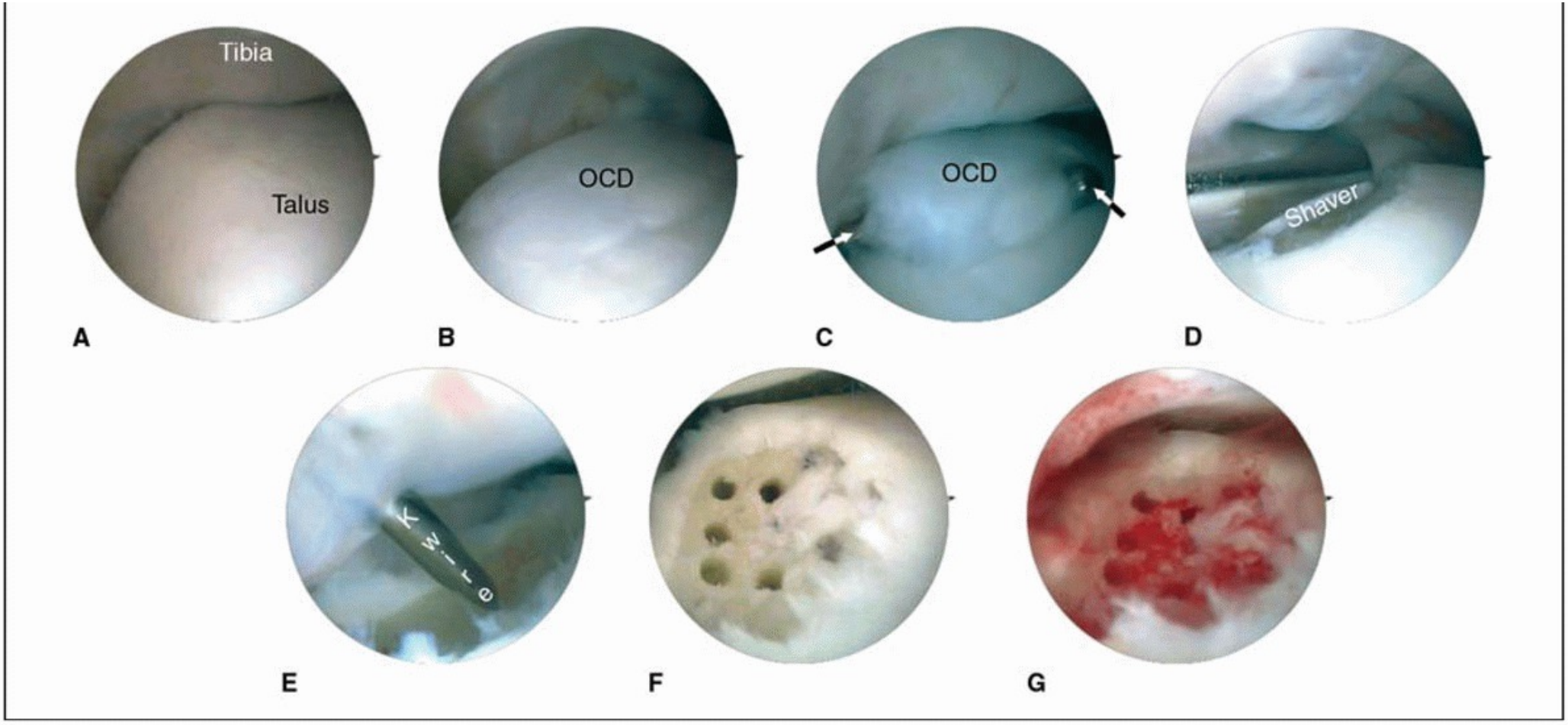
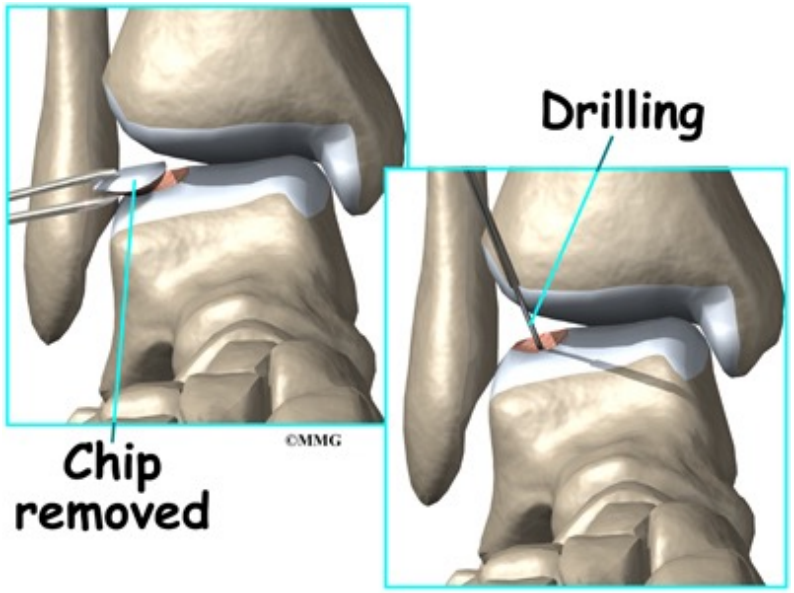
OsteoChondral Defects



OsteoChondral Defects

- Nonsurgical Treatment
  - 45% success
    - Nonsurgical treatment 6 months
- Surgical Treatment
  - 86% good or excellent results in 21 studies
    - Debridement and bone marrow stimulation



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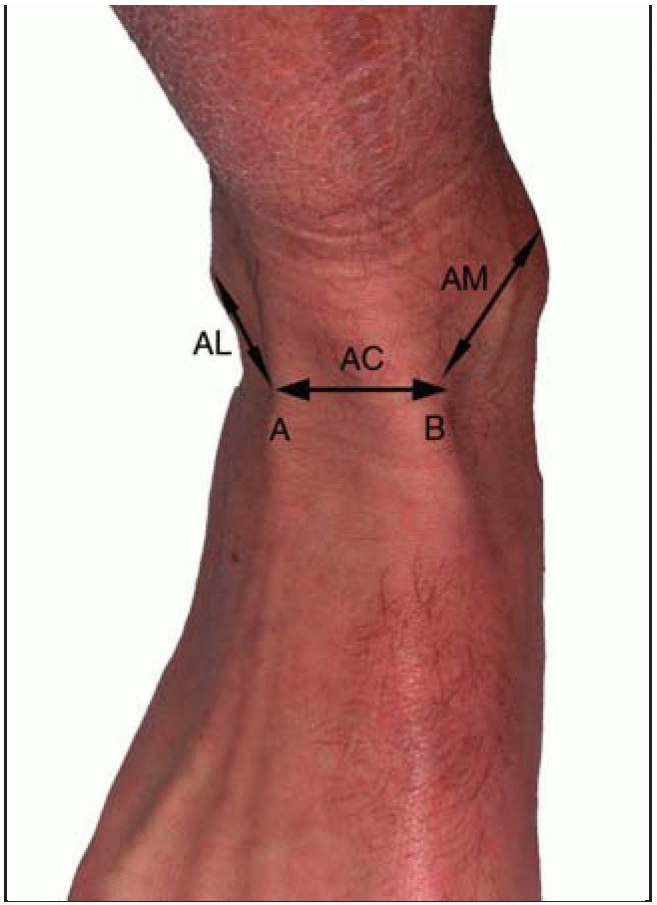
Anterior Ankle Impingement



- Success 76%- 96%
  - High recurrence of osteophytes

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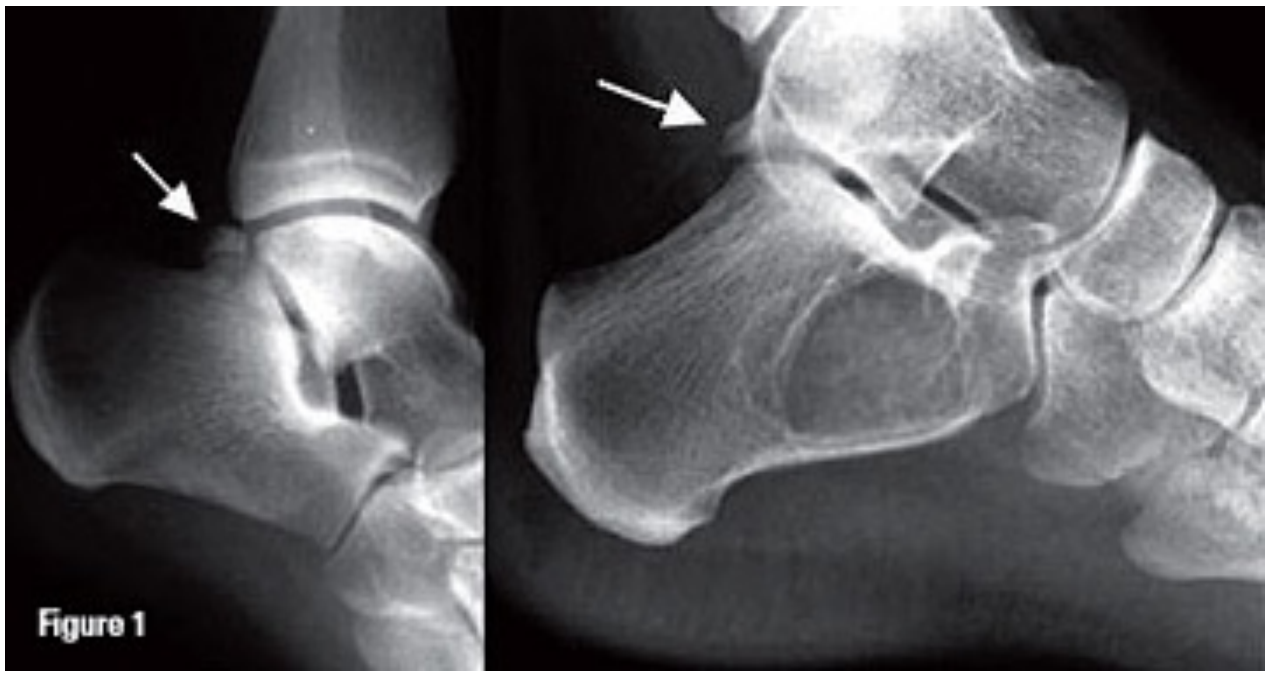
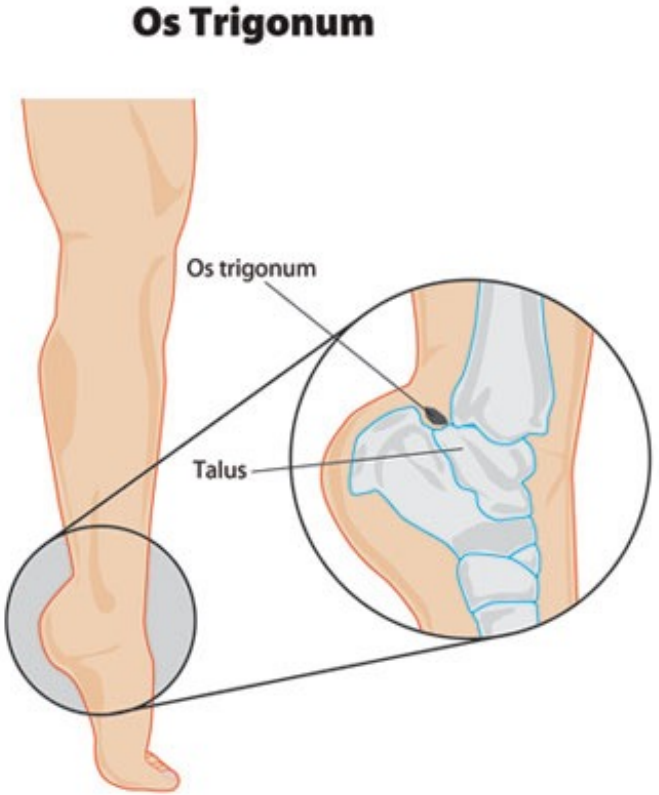
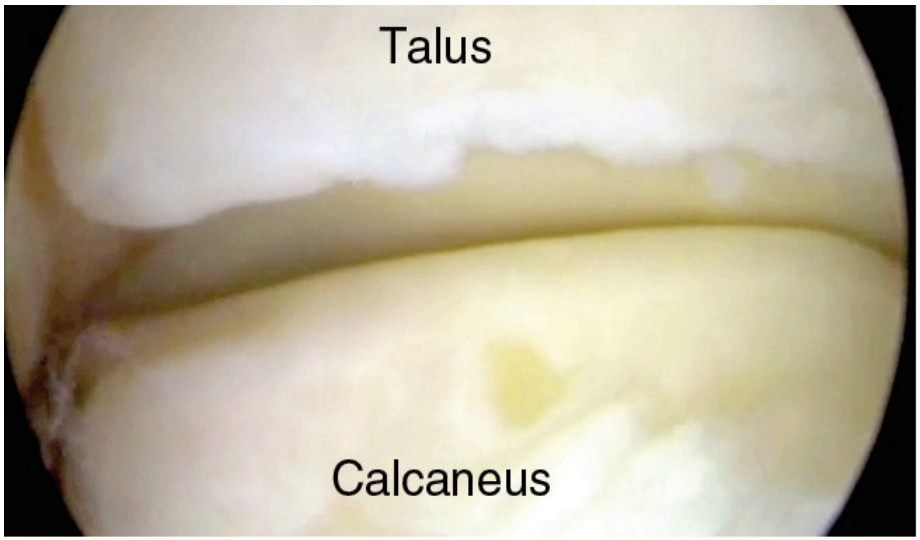
Os Trigonum

- 2 -14% normal people
- Accessory bone/soft tissue found posterior to talus
- May fuse or remain separate

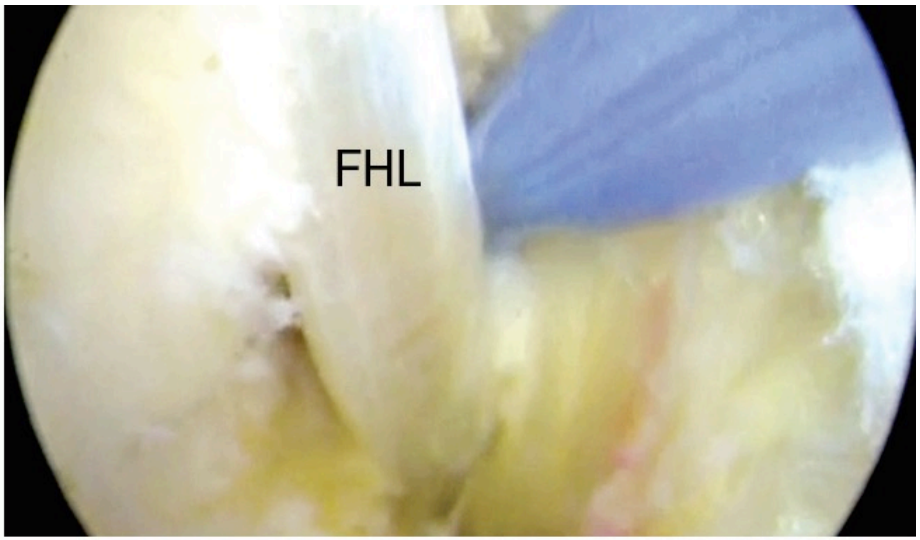




Os Trigonum Excision



A



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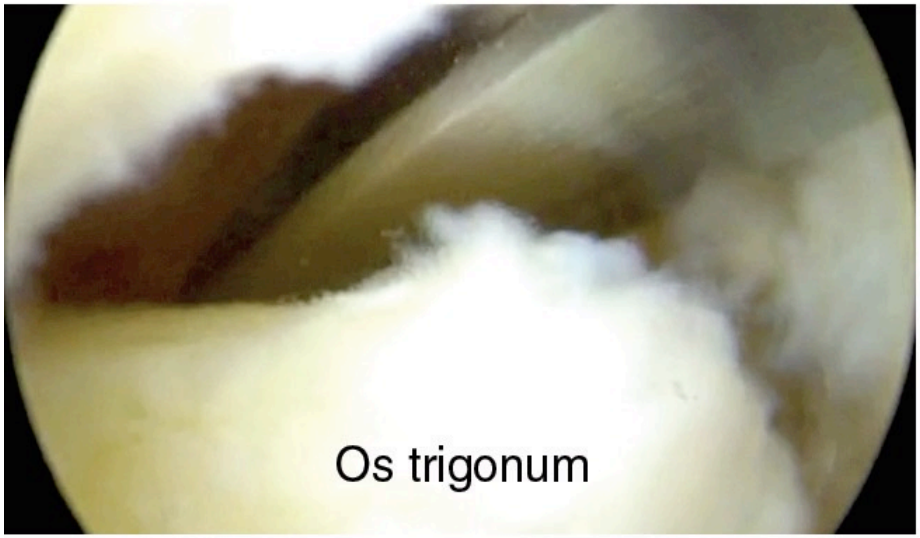

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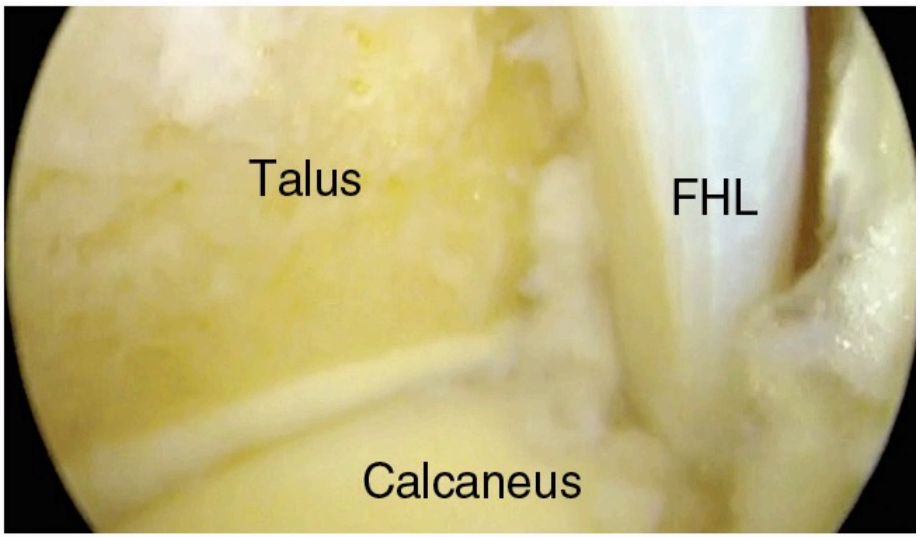

D

Os Trigonum Excision

- Good Outcomes
  - AOFAS ankle-hindfoot score improvements similar to open procedures
  - 6 week to return to sports
- Complications in different studies
  - 1.4% heel pad numbness
  - 3.5% cutaneous nerve injury
  - 3% localized superficial infection

Complications

- 9 - 17% reported
  - Neurologic complications – 50%
    - Neuropraxia most common complication
    - Neurovascular injury from portal placement
      - Anterolateral portal
        - » superficial peroneal nerve
          - most common neurovascular injury
  - Synovial cutaneous fistula
    - Avoid by immobilization to allow portal skin healing

Questions