Ankle Arthroscopy: Update & Pearls

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Purpose

• Quick way to wash out a septic joint
• Ankle fracture
  – Remove loose body from an ankle fracture
  – Debride medial gutter
  – Document cartilage damage
• Traumatic OCD
• AAAF
Portals

Ankle Arthroscopy: I. Technique and Complications

Stetson, William B. MD; Ferkel, Richard D. MD

Author Information

Set up

• Usually use a thigh post for counter traction
• Not necessary for ankle fractures that are unstable
Anterior
  Deltoid ligament
  Medial gutter
  Medial talus
  Central talus and overhang
  Lateral talus
  Trifurcation of the talus, tibia, and fibula
  Lateral gutter
  Anterior gutter
Central
  Medial tibia and talus
  Central tibia and talus
  Lateral tibiofibular or talofibular articulation
  Posterior inferior tibiofibular ligament
  Transverse ligament
  Reflection of the flexor hallucis longus
Posterior
  Posteromedial gutter
  Posteromedial talus
  Postero-central talus
  Posterolateral talus
  Posterior talofibular articulation
  Posterolateral gutter
  Posterior gutter

21 point examination

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Complications

• 612 cases
  – Overall complication rate of 9%.
    • Neurologic complications were the most common
      – SPN 56%
      – Sural 22%
      – Saphenous 18%
      – DPN 4%

Ankle fractures

- Osteochondral lesions of the talus (OLT) can occur in up to 70% of acute ankle sprains and fractures
  - Lesions of the cartilage were found in 228 ankles (79.2%), more often on the talus (69.4%) than on the distal tibia (45.8%), the fibula (45.1%), or the medial malleolus (41.3%).


Arthroscopic findings in acute fractures of the ankle

B Hintermann, P Regazzoni, C Lampert, G Stutz, A Gächter
Arthrodesis

• Approach
  – Trans-fibular
  – Mini-arthrotomy
  – **Arthroscopic**

• Joint preparation
  – Flat cuts
  – Feathered articular surfaces

• Two or three screw configuration
Position of arthrodesis

- Neutral flexion
- $5^\circ$ hindfoot valgus
- $5^\circ - 10^\circ$ external rotation of foot
  - Buck, 1987
Fusion success rates

- Open technique fusion rate
  - 65-100% union

- Arthroscopic fusion rate
  - 74-97% union
Pearls

• Try not to have ankle on tension for more than 45 minutes at a time.

• Use needle to localize portal before making
  – Portal placement is essentially everything

• If joint is too tight, don’t force scope over the dome of talus -> may scuff cartilage

• Stay away from fat over anterior joint. This will bleed if you shave too much.
Questions?