



Osteochondritis Dissecans of the Ankle

Introduction

- Incidence and Presentation
- Etiology and Mechanism of Injury
- Pathoanatomy
- Classification
- Imaging
- Treatment and Results

Incidence and Presentation

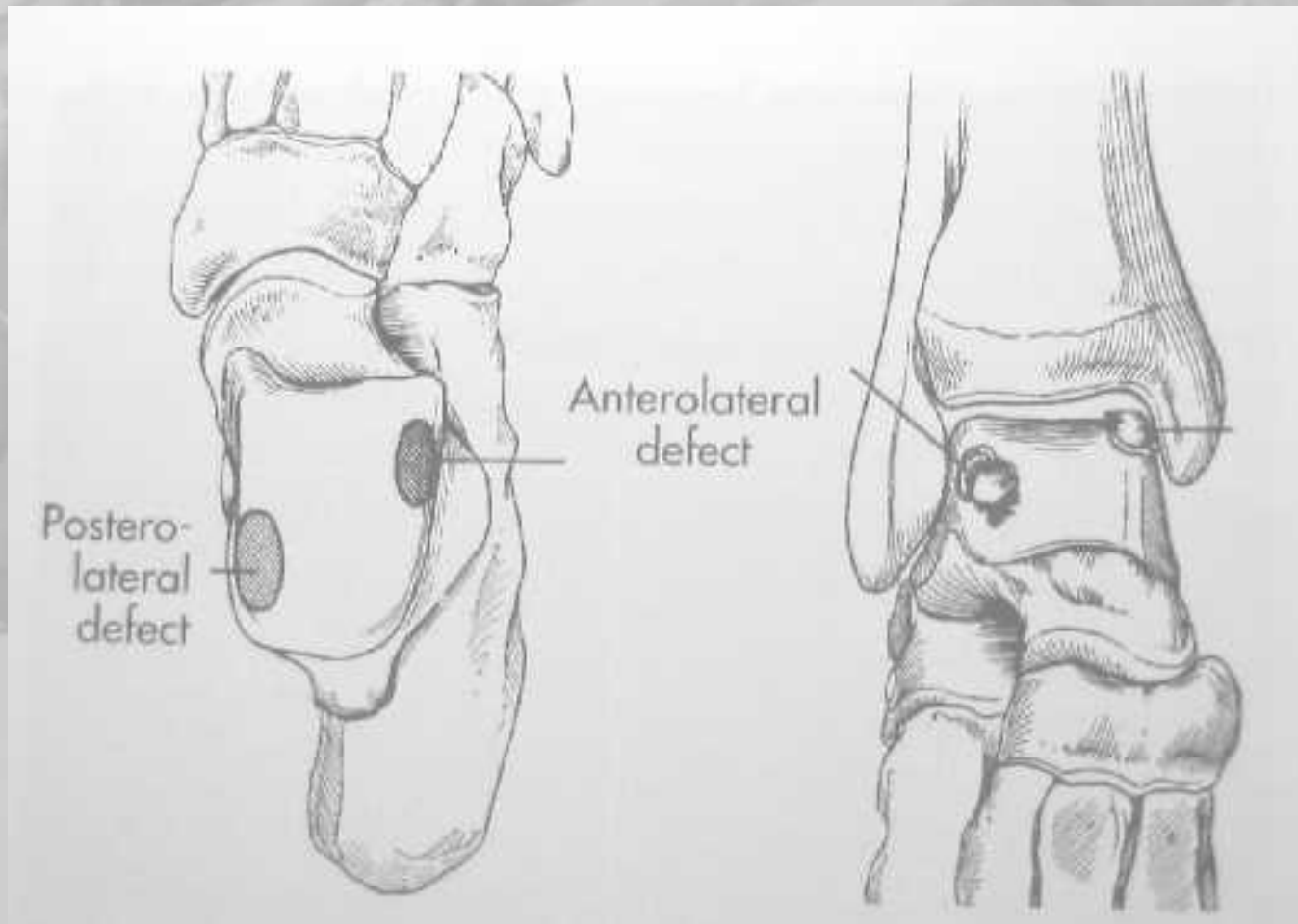
- Osteochondral fracture of the Talar Dome
- Males avg 25 years
- Presents with ankle sprain
- Initially missed (75%)
- 2-6% of all ankle sprains

Incidence and Presentation

- “ankle sprain not improving”
- Stiffness, pain, effusion
- Localized tenderness
- Locking if loose fragment

Etiology and Mechanism of Injury

- Inversion injury
- Lateral lesion, dorsiflexion, impacts and shears against fibula
- Medial lesion, plantar flexed, posterior tibial plafond

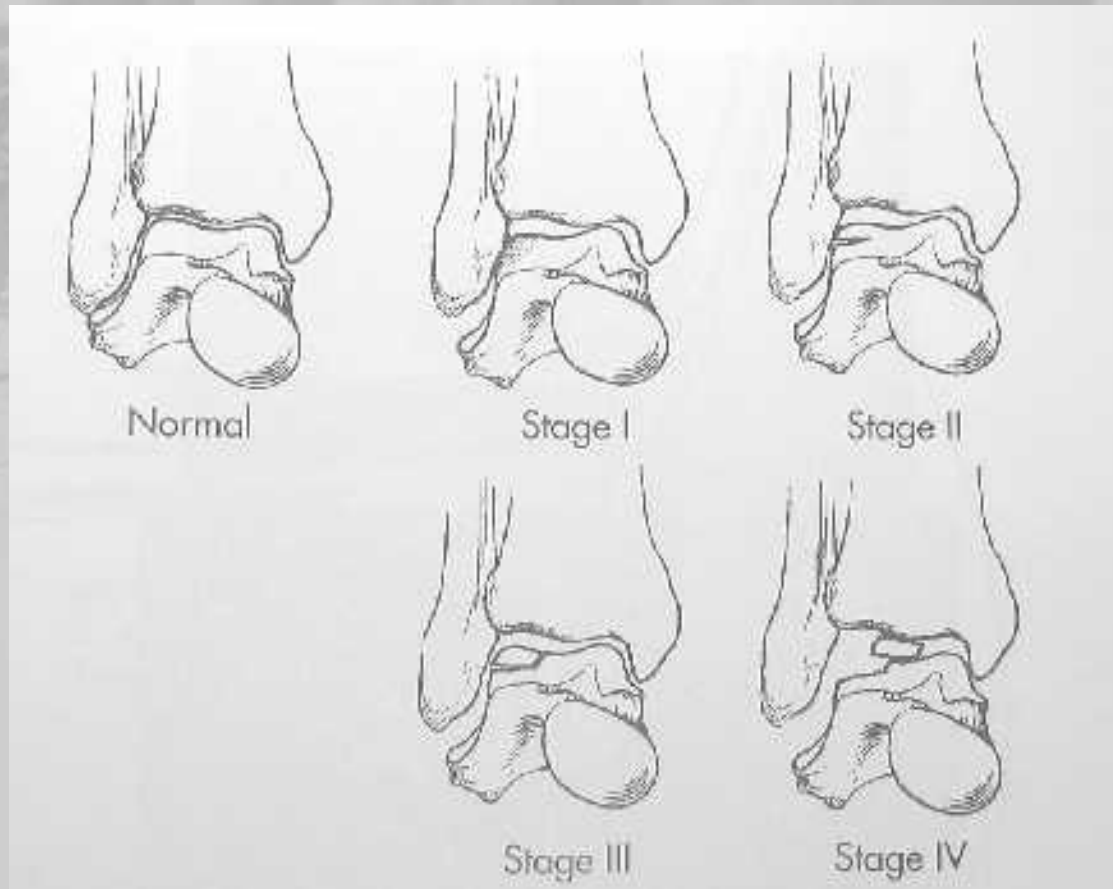


Pathoanatomy

- Once thought to be non-traumatic/AVN
- Most agree now is traumatic
- Osteochondral fragment is disrupted
- If stable, new capillaries may cross fracture and revascularize fragment
- If not stable or displaced, AVN and fragmentation

Classification

- Burndt and Hardy (1959)
- Many new MRI classifications



Imaging

- 70% seen on plain films
- Bone scan, CT are all used but MRI superior
- Assess cartilage, stability

Imaging



Imaging



Imaging



Treatment

- Stage 1 - rest, cast, non-operative
- Stage 2 – same for 6 weeks, 90% good results
- Stage 3 - lateral, definitely surgical – medial, more conservative
- Stage 4 - surgical

Surgical Treatment

- Acute 3 or 4 should have an attempt at repair
 - Peg, countersunk screws
- Necrotic, fragmented, or small fragments
 - Excision, drill base

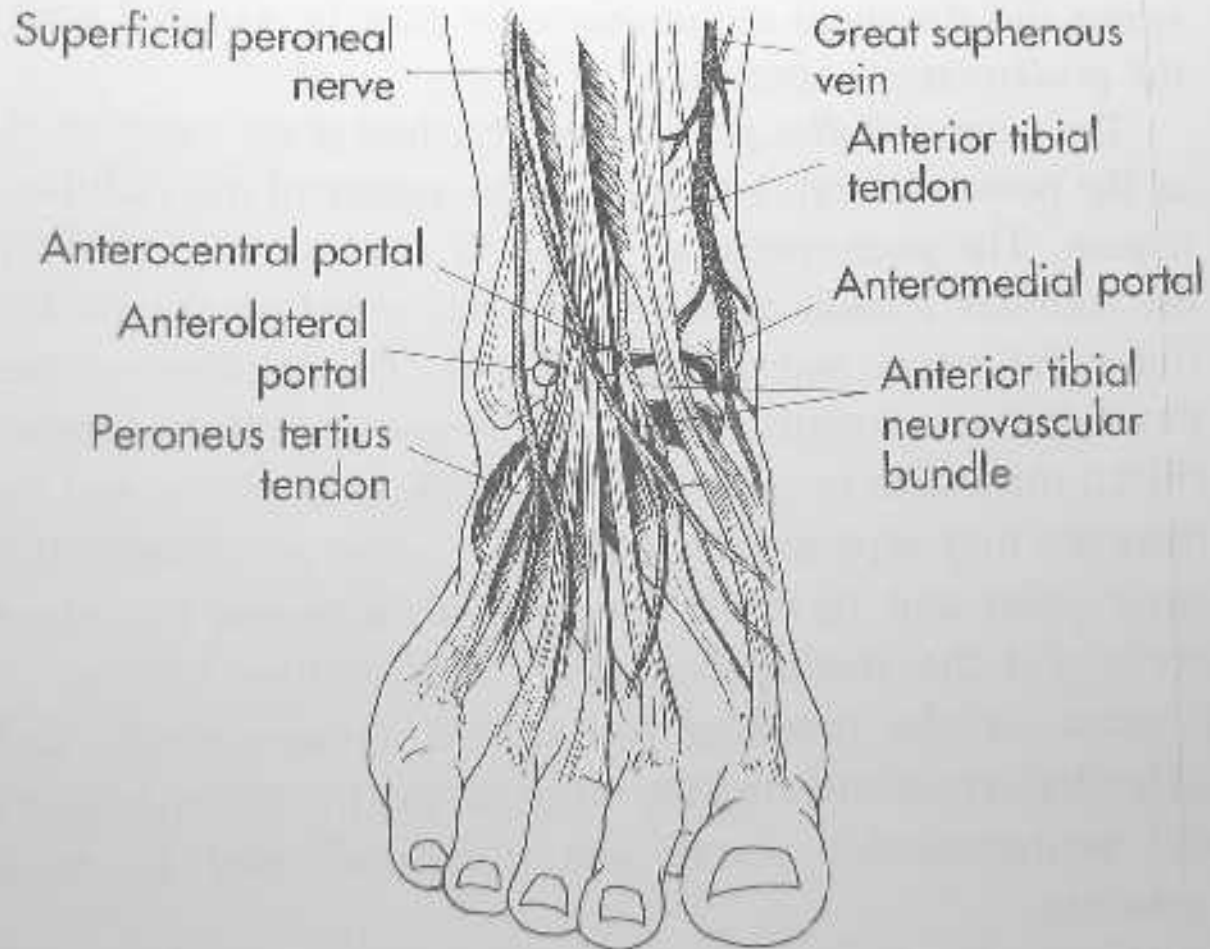
Surgical Treatment

- Non-responding 1 and 2
 - Drill but attempt to preserve articular surface

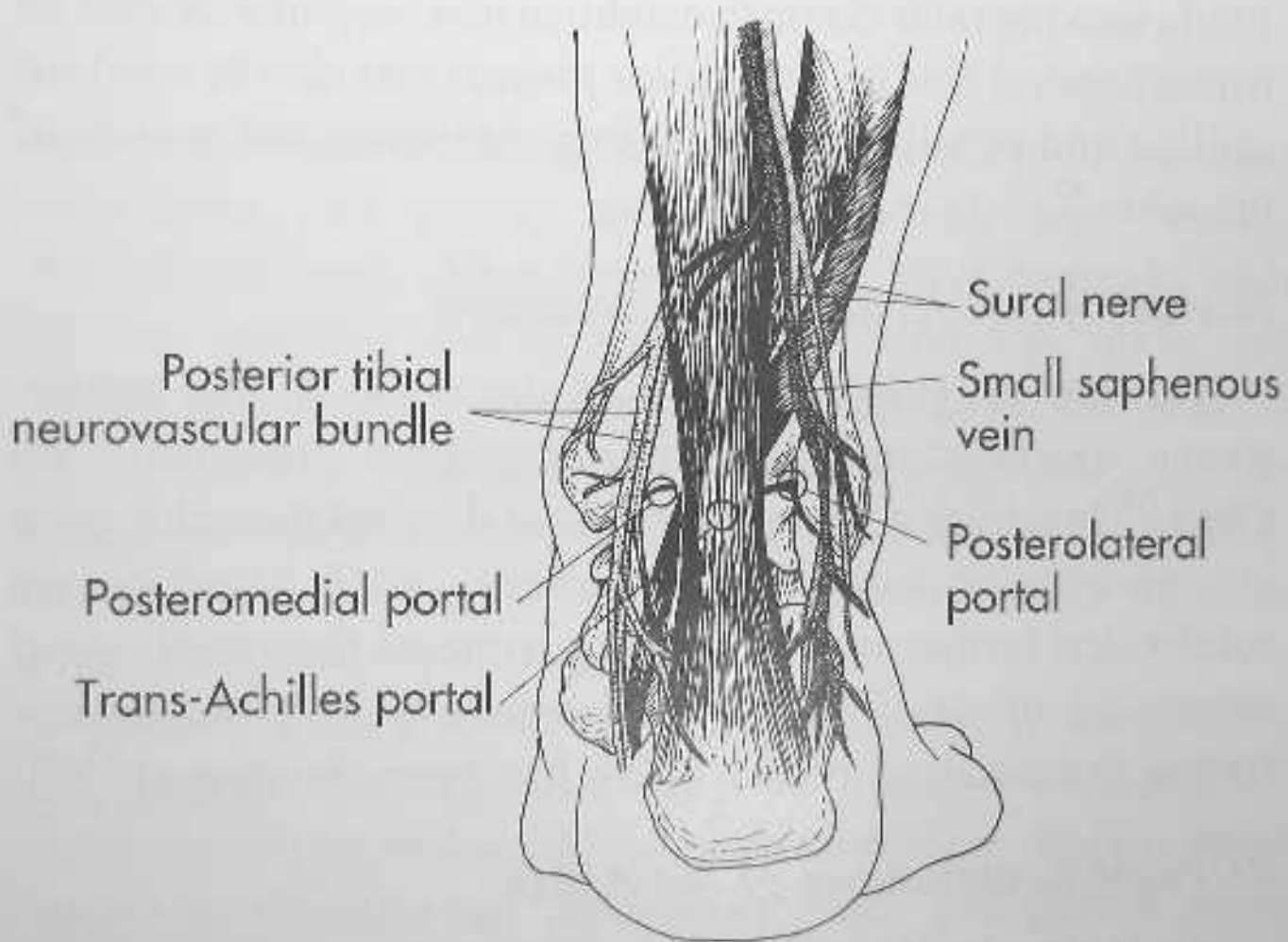
Surgical Treatment

- Most can be done arthroscopically
 - +/- traction
- Medial malleolar osteotomy may be necessary

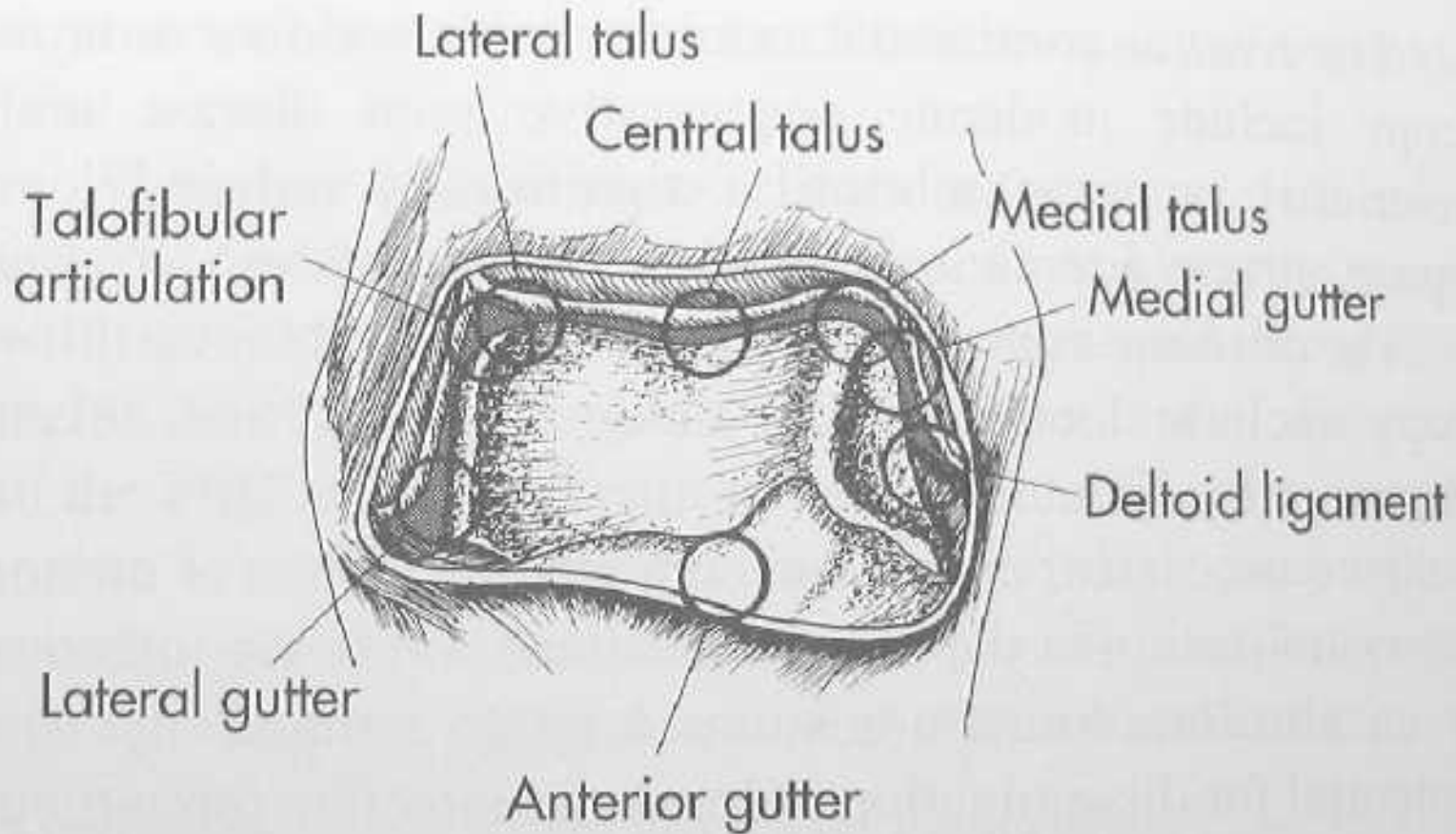
Arthroscopy



Arthroscopy

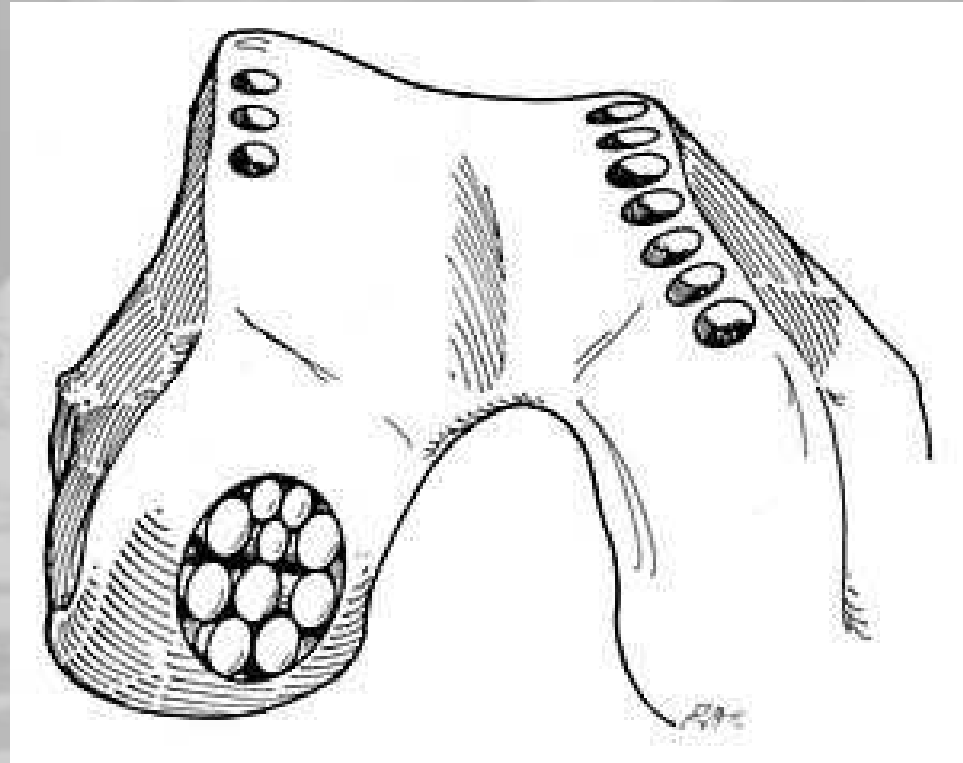
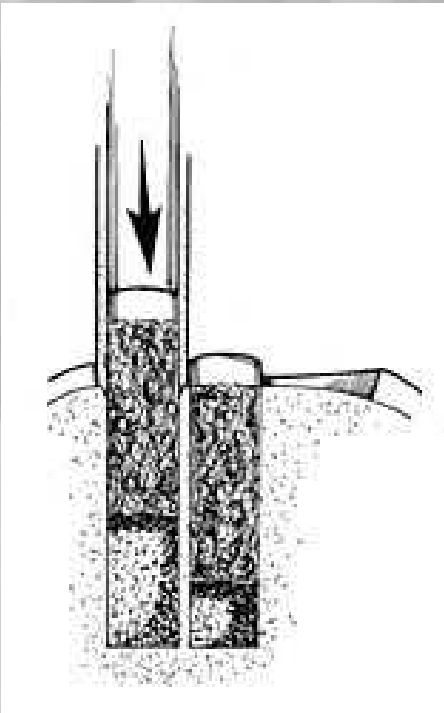


Arthroscopy





Surgical Treatment Mosaicplasty



OCD Long term

- 88% good – excellent early
- Best if < 1 year between injury and treatment
- Lower grades do best

OCD Long term

- Do poorly over time
 - Jensen et al.
 - After 9 years
 - 60% of patients had pain and stiffness
 - 90% mild arthrosis on radiographs

Conclusions

- Ankle sprain that does not get better
- MRI best
- Non-surgical then surgical
- Arthroscopically
- Great early then poor long term prognosis