

Ankle Instability and Ankle Arthroscopy



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- Isolation Blends with anterior capsule
- From fibula to just anterior to lat process of talus
- Taught in plantar flexion







- From distal anterior fibula runs posteriorly.
- Inserts just above and behind peroneal tubercle
- Taught in dorsiflexion





Chronic' Ankle sprains

Relevance

- High incidence of persistent symptoms
- grade III ankle sprains: 25-60% of patients are symptom-free 1-4 years after injury
- Not a benign condition

Karlsson, Sports Med. 1997 Nov;24(5):337-46



'It's OK, it's only a sprain! '

Epidemiology Sprains



- Smith and Reischl: 84 college basketball players 56% multiple sprains; 50% residual problems. AJSM. 1986 Nov-Dec;14(6):465-71
- Munk (1995):79 patients 9-13 years after sprain 5% pain, 15% structural instability 6% functional instability. Acta Orthop Scand. 1995 Oct;66(5):452-4







Chronic Ankle Sprain

Chronic instability



 Defined: recurrent giving-way>6 months despite adequate nonsurgical therapy









- Freeman proposed 'Functional' and 'Structural' Instability
- Functional = subjective 'giving way'.
- Structural = abnormal movement of the talus within the ankle mortise
- Not all patients who have functional instability have defineable structural instability, and vice-versa

Pathology: functional instability



- Functional instability without structural stability is the result of proprioceptive defect.
- Arthrogenic muscle inhibition (AMI) is a reflex inhibition of peri articular musculature following distension or damage of that joint.
 Hopkins JT, Ingersoll CD. J Sport Rehabil, 2000;9:135-159.

Predisposing factors



- Hindfoot varus.
- Previous ipsi/contralateral sprain Hiller Clin J Sport Med. 2008 Jan;18(1):44-8.
- Genu varum
- Generalised joint laxity.
- Peroneal weakness.
- Sport!.







Examination



 Anterior draw. Suction sign increase 'draw' 20deg plantar flexion. subtle 30N > 60N. (Not a kung-fu manoeuvre!)

(Tohyama H et al. Am J Sports Med 2003)

 The talar tilt test (ankle plantigrade) : tilting the hindfoot and observing suction sign or asymmetrical movement.





Investigations

- MRI: No indication of stability!. (Useful for associated pathology.)
- Stress radiography : useful but not always definitive
- -anterior draw of 10mm+ or 3mm cf opp side
- -talar tilt of 9° + or 3° > opp side.

Karlsson J et al. Radiographic evaluation of ankle joint stability. CJ 1991b





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Comparative studies



 randomised 42 ankles Chrisman-Snook vs modified Brostrom procedures. Brostrom compared favourably, < complications.

Hennrikus et al AmJSM 1996

Good results: Brostrom in revision ligament reconstruction 15 ankles.

Kuhn et al FAI 2006

Anatomic repair superior to tenodesis: < reops,
 <instability, < stiffness. 106 repairs vs 110 tenodeses
 Krips et al Knee Surg Sports tr Arth 2000



Chronic Instability

- Brostrom-Gould repair.
 anatomical, 'pants over vest' repair lateral ligaments
 less morbidity, stiffness.
- <u>Reconstruction</u>: useful for revision surgery, generalised laxity.











Ankle Arthroscopy

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- Traction.
- Preoperative marking.
- Medial portal: close to medial border tib ant.
- 1cm below joint line.
- White needle.



Insufflate joint.
20 ml saline.
Back-pressure.

• INCISE SKIN ONLY.

 Blunt dissect into distended joint





- Insert sleeve with trocar.
- Remove Trocar.
- Insert scope.



- Lateral portal.
- Preoperative marking sup peroneal nerve.
- Plantar flex ankle and 4th toe.
- Subcutaneous nerve bowstrings.
- Lateral portal either side.
- In Blunt dissection



Questions.

