Peroneal Tendon Issues

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Peroneal Tendons

- Anatomy
  - Peroneus brevis
  - Peroneus longus
  - Peroneus tertius
• Function
  – P. Brevis
    • Eversion of STJ and MTJ, P flexion ankle jt.
• Function
  – P. Longus
  • Eversion STJ & MTJ, Pflex Ankle Jt
  Eversion w/ locking effect of the 1st ray stabilizing the medial column of the foot
• **Peroneus Tertius**
  - Not always present
  - Function:
    • Assist dorsiflexion ankle, eversion STJ, MTJ
• Superior Peronal Retinaculum
• Inferior peronal retinaculum
• Common (combined) peroneal tendon sheath
• P. Brevis tendon sheath
• P. Longus tendon sheath
• Sural nerve
• Superficial peroneal nerve
Peroneal Tendon Conditions

• Tendonitis/Tendinopathy
• Tenosynovitis
• Partial or Complete ruptures
• Os Peroneum syndrome
• Subluxing peroneal tendons
Peroneal Tendon Conditions
Causes

- Injury – inversion ankle sprain
  - Chronic lateral ankle instability
- Presence of Peroneus Quartus
- Low lying peroneus brevis muscle
- Pes Cavus foot type
- Pes planus/posterior tibial tendon dysfunction
Causes/Influences

• Osteophytes on lateral malleolus
• Morphology of lateral retromalleolar groove
  – Convex or flat groove postulated to increase risk of injury.
• Peroneus Quartus muscle
  – Present 7-22%
  – Overcrowds retromalleolar groove increasing changes for subluxation and rupture
Tendonitis

- Overuse of the peroneal tendons
- Injury
Tendonitis

• **MRI**
  – If seen can be sensitive and specific
  – However, pathology can often be missed with MRI

• **Ultrasound**
  – Can be sensitive and specific w/ direct hands of eval.
Tendinopathy

• Chronic repeated bouts of tendonitis or injury
  – Degeneration of intrinsic tendon features
  – Leads to spontaneous rupture
Tendinopathy

• Tx
  – Immobilization
  – NSAID’s/corticosteroid
  – P.T.
  – Orthotics/bracing

• Surgery
  – Debridement and repair
  – Coblation tx
Tenosynovitis

- Inflammation of tendon sheath
- Caused from overuse
- Recent trauma
- Rarely encounter isolated tenosynovitis of peroneal tendons
  - Usually associated with underlying pathology to tendon

- **Tx:**
  - Immobilization
    - Cast/bracing
  - NSAID’s/steroids
  - Injection of sheath
  - P.T. (iontophoresis)

- **Sx:**
  - Tenosynovectomy
Ruptures
Ruptures

• Causes
  – Injury
  – Chronic overuse w/ degeneration / tendinopathy

• Tx:
  – Immobilize
    • Cast NWB
    • Cam walker
  – NSAID’s
  – Pain meds
  – Later P.T. rehab
    • Orthotics and bracing
Ruptures

• Repair
Ruptures
Ruptures

• Primary repair with or without grafting
  – End to end repair
  – Retubularization of partial rupture.
Ruptures

- Anastomosis peroneus brevis to longus or vice versa
- FDL tendon transfer
Os Peroneum Syndrome

- Os peroneum – accessory ossicle plantar lateral cuboid within the p. longus tendon
  - Fractured
  - Degenerative
Os Peroneus Syndrome

- Usually associated with P. longus rupture
- Tx:
  - Immobilize, NSAID’s, orthotics, P.T.
  - Sx: excision (usually with repair P. longus or transfer to P. brevis tendon)
Subluxations

- Peroneal tendons sublux out of retromalleolar groove
- Cause: recent or repetitive ankle injury
  - Rupture of superior peroneal retinaculum
  - Retromalleolar groove morphology
    - Flat or convex prone to injury
Subluxations
Subluxations
Subluxations

- Tx: immobilization, bracing, orthotics
- Primary repair with imbrication of Sup. peroneal retinaculum
- Deepening fibular groove
- Fibular osteotomy
Thank You