Medicolegal Aspects of Foot and Ankle

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Overview

• Trauma
  – Common injuries
  – Negligence

• Elective
  – Common claims
  – Consent

• Diabetes
  – Ulcers, infection, Charcot
Trauma

• Acute

• Chronic
  – outcomes
  – CRPS
  – Arthritis
  – morbidity

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Trauma; Commonest

• PI

• Ankle fractures
• Pilon Fractures
• Calcaneal fractures
• Lisfranc Fractures

• Negligence

• Achilles
• Ankle fractures
• Pilon
• Lisfranc
• Calcaneal fractures

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Fractures- ankle

• Classifications
  – Weber, Lauge Hansen

• Treatment pop/brace

• surgery
  – ORIF
  – Frame

• 0-6/52 in pop, 4/12 to get life back

• Otbop few problems
  – Rate of OA unknown really

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Bad ankle fractures

- Open
- Posterior fragment
- Lots of bits
- “Pilon”
- High energy
- Plastic surgeons

Acceptable outcomes

- Most do fine
- Infection
  - Antibiotics?
- Stiffness
- Non union
- Malunion
- CRPS/ nerve

Initial management
- Follow-up
- May need revision surgery
- When is a fracture healed?
- Risks of POP and treatment

Outcomes Ankle Fracture

- Most Ok
- Many patients have a residual ache and never normal
  - May need further treatment eg scope, r/o metal
- Arthritis depends on injury
- Osteochondral lesions
  - Have damaged cartilage at the time
Poor outcomes

- May need surgery
- Time buying procedures
- Definitive
  - Ankle fusion
  - Ankle replacement
- Secondary affects
  - Arthritis other joints

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Osteochondral

- Damage to cartilage
- Body can’t mend cartilage
- Outcome decided one millisecond after injury
- Lots of unsuccessful claims
- Only diagnose it on MRI/CT later

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Negligence Problems

- Missed fracture
  - Ottawa, ENPs, X-rays
- Delayed presentation/Rx
  - affect of time???
- Nerve pain (CRPS)
- Other injuries often missed
- “bad surgery”
  - Syndesmosis
  - Reduction
  - pilon

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**Fractured talus**

- Bad bad bad injury
  - Leg losing
- PI Claimants massive pay out
- Negligence hardly ever for treatment
  - Except often missed
- Lesser fractures
  - Osteochondral, process fractures

**Fractures- calcaneum**

- Heel bone (calcaneum)
- Do badly
- Surgery probably no help for most
- Often missed
- Often present late
- Outcomes poor

**Fractured calcaneum**

- End result is a stiff joint
  - Disaster
  - Roofers/scaffolders/hill walkers
- Arthritis
  - “fusion”
- 10% do badly
  - Common complications
  - CRPS
  - Unexplained nerve pain
### Calcaneum fractures

- Misunderstood by patient
- Big disability
- Treatment is unlikely to have been negligent even if missed
  - Were going to badly anyway?
  - Lots of infections/bad outcomes/amputations
  - Diagnosed late but no affect on outcome?

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### “Process” fractures

- Anterior process calcaneum
  - Bad injury. Do badly
- Lat process/medial process/post process talus
  - Hard to diagnose
  - A and E cant scan everyone
  - We don’t know how many there are

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### Sprains slips and trips

- Sprain
  - 99% fine
    - Full recovery
- But may get
  - Pain
  - Instability
  - Crps
  - Missed other injuries
Ankle “Sprains”

- 1 million a year
- Exclude Fracture (break) “ottawa rules”
- Difficult if a GP/A&E
  - If they’ve documented rules is it negligent?
  - Few days delay probably irrelevant other than P & S
- Most sprains resolve with no residual symptoms

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Sprains

- Exclude fractures
  - Ankle
  - 5th MT
  - Talus
  - Syndesmosis
  - Calcaneum
  - Anterior process
  - ACHILLES

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Missed fractures

- Lots of associated injuries
- Difficult to see on xray
- Cases rests on adequate documentation and radiographs and significance
- Many fractures only diagnosed late; not negligent??

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Sprains

- Anterior process
- Difficult
- A&E miss
- Ct/mri
- Poor outcome from innocuous injury
- Patients sue +++
- Usually not negligent just difficult to see

Sprains

- Pain = osteochondral
- Instability= loose body/OC or ligament
- Neither of these can be diagnosed in A&E and even if they were we are unlikely to treat for 3/12

Osteochondral again

- Bone-cartilage
- Body can’t repair cartilage
- Neither can doctors
  - Massive research
- May be asymptomatic or debilitating pain
  - Nobody knows why
- Patients often sue unsuccessful
“sprains”

- Jones fracture
- Bad injury
- No definitive answer/treatment
- Often missed
- Patients sue
  - Ottawa rules
  - X-rays

DON’T FORGET

- ACHILLES
- ACHILLES
- ACHILLES

ACHILLES

- Acute
  - 40 yr old squash
- Usually however
  - "sprain"
  - "ankle went"
  - "Other injury"
  - "run beach"
- SIMMONDS TEST

- CHRONIC
  - KNACKERED TENDON
  - Goes sequentially
  - Never pick it up
achilles

- Acute
- Early treatment = good results
- Late = disaster????
  - Most actually do fine
- Biggest claim frequency

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instability

- Torn ligaments
- Ankle gives way whole time
- Rough ground high heels
- Operation to fix if not resolve 95% success
- EARLIER TREATMENT???

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Midfoot stress fractures

- Rare in civilians
- Can only diagnose scans
- Huge pay outs if wrong
  - Pro footballers
- Army 6% trainees
- Standard of care???
Lisfranc
- Rare?
- Bad outcomes
  - LISFRANC
  - Napoleon’s surgeon
  - Massive swelling
  - Weeks off foot

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Lisfranc
- Outcome bad
- Better if treated early?
  - Fusion best outcome in 1 paper!!!!!!!!
- Usually missed (1/3)
- Difficult
- Common medicolegal case
- Ct/mri
- Gp faced with “normal Xray report”

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Metatarsal fractures
- Usually few sequelae
- Rarely treated
- Unlikely negligent even if shockingly bad
- Difficult to restore if bad outcome initially

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Compartment Syndrome

- Common
- Tibial fractures
- ITU
  - Paralysed/coma
- Monitoring poor
- Outcomes bad

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Compartment syndrome

- Negligence???
  - Notes
  - Frequency
  - Suspicion
  - Common sense
  - Measuring systems
- Many trauma units will release anyway
  - Increased infection
- Dead everything
  - Need surgery to reconstruct
  - Infection
  - Loss of limb

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Crush Injuries

- Do badly whatever you do.
**Trauma and Time to treat**

- Theatre delays
  - Negligence??
- Presentation/diagnosis delays
- Multiple attendance rare fracture
- Resource limitations

  - “helped old lady clear gutter, fell. waited 6 hrs A&E 6 hrs, sent home”
- Notes show “jumped window pissed, punched matron self discharged”

**Elective surgery**

- Infections
- Bad outcomes
- Disasters
- Podiatrists
- Consent

**infections**

- 1-10%
- 40% trauma open
- Diabetic/vascular/poorly
- How diagnose?
  - Often low grade
  - Rheumatoid/immunosuppressed
  - No test absolute
- Laminar flow theatre reserved for clean cases
Infections and antibiotics

• Large meta-analyses in joint replacement proving a/b lower infections
  – Despite this recent bomas majority not using in forefoot!!
  – Podiatry literature shows increased infection!
• Pre op and intravenously
  – Podiatry give oral antibiotics if at all
  – Single shot as good as continued
• Infections come from wards???
• What is the standard of care????????

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Antibiotics and established infection

• Cochrane review
  – No evidence for duration of antibiotics
  – Parachute trial
• Most centres would follow Cierney and Mader regime or Oxford regime
  – 6/52 iv 6/52 oral at least but little if any evidence
• Debridement, foreign material
• Often suppress infections as we know we may not be able to cure

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Diagnosis?

• Difficult ?
  – Case 1. 26 visits over 12 months with fluid pouring out of wound, fevers temperatures and rigors. No tests investigations, wound dressings. Admitted to hospital. Died. Case defended
  – Case 2. Hindfoot op. Slightly red wound. Gp antibiotics. Resolved. 3 months later infected.
Gold Standard

- Admit
- Image MRI
- Sample off antibiotics
- Debride
- Antibiotics iv ++++
- But most don’t
  - What is negligent???

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forefoot

- Wrong site surgery
- Metalwork
- Old operations
- recurrence

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Bad outcomes

- Bunions
  - 10% worse
- Midfoot
  - 40% same/worse
- Plantar fascia
  - 50% of the 50%
    you’ve “cured”
    wouldn’t have it done again

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bunions

- 200 ops
- Infections
- Recurrence 4%
- 10% poor outcome
- Nerve pain
- R/o metal
- Arthritis
- Transfer pain
- Under/over toe

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Bunions gone wrong

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bunions

- Frequent complications
  - Stiff
  - Recurrence
  - Infection
  - Poor outcome
- Rare complications
  - Avn = dead bone
  - Dead sesamoids

Lesser toes

- 10% fail
- 10 toes!
- Adequate consent?
- Morton's neuromas
  - 4% worse
  - "Wrong site"
  - Plantar incision??

midfoot

- Bad surgery
hindfoot

- Non unions – 4 to 40%
- Infections – 1 to 10%
- Not better – 10%
- Ankle replacements – Not much data – 4 back to front

Bad surgery

- When is bad negligent?
- Do outcomes = x-rays – 5 patient negligence

podiatry

- Only country in world except US where non docs can operate
- My unit has surgical podiatrists, fantastic.
- ? trained
- ? audited
- appraised
- antibiotics?
- anaesthesia?
- Xrays?
- How assess negligence?

- regulation?
- responsibility?
- indemnity?
- 15 cases against 1 – 60 on file
CRPS

- Pain
- Syndrome = we haven’t got a clue
- RSD
- Algodystrophy
- Sudecks
- How prove?
- 1:1500

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Consent

- “There’s no such thing as a brave surgeon, just a poorly consented patient”

- Senior colleague
  - “may not work, may be worse, may be a lot lot worse, dead or worse”

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Consent

- Nobody remembers
  - 3 things
  - Usually not relevant
  - Is anyone consented
  - Does anyone decline surgery
- Commonest thing is one specific thing missed out

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Consent

- 1% rule unless serious???
  - Everything can lose leg or kill you
- Everybody knows can go wrong don’t they?
- Give information sheet can they prove it?
- “patient warned of risks and complications”
- In 23 years no one ever cancelled op specific complication risk

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Compliance

- Patients only retain 3 facts
- Poor recollection
- Patient responsibility
  - Smoking
  - Wound care
  - Compliance
    - B&Q

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Other cases

- Steroid injections
  - 8 vials!
- Buying horse fell off, “no idea horses were dangerous”
  - Pro jockey
- Bunion “stress fracture”
  - Hip saw

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Diabetes

- Pandemic
- 7%
- Bad blood supply
- Can't feel leg/foot
- Sugar rich; every bacteria's dream

= ulcers, infection, Charcot

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Ulcers

- 15% diabetics get ulcer. Ulcers pre-exist in 70-90% amputations
- 10% ulcers lose limb. 2/3 die in 5 years
- 30% forefoot amputees end up BKA
- 30% amputees lose other leg

= So get ulcers healed
- Prevention
  - NICE guidelines
- Cure
  - Nice guidelines
- Offloading, casting, in-hospital assessment

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Diabetes and Infection

- Red hot swollen foot
  - Infection
  - Charcot
  - DVT
  - Cellulitis

- NICE guidelines
  - Emergency admission
    - Not practical
- Rapid review and refer
- Hospital
  - NICE guidelines
  - Assess, image, treat

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LOSE LEG
Charcot

- Poorly understood
- Bones dissolve, lose architecture of foot
- Foot prominent bones and ulcerates - infection-bka
- Difficult for GPs
  - Red hot swollen foot

- How tell infection from Charcot
  - Hot
  - Red
  - Swollen
  - Blood tests
  - X-ray changes
  - MRI changes
  - ???????????

- Offload
  - Early surgical fixation or POP months

Offload

Summary

- Not much evidence
- All low grade evidence
- Can’t do a double blind trial in surgery
- Evidence based medicine - prejudice based orthopaedics
- Standard of care
- Surgery is difficult
- Retrospectoscope fantastic instrument
- TBFTGOGGI
Thank you