Lateral Epicondylitis

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Lateral Epicondylitis

- First described in 1873 (Runge), one year before the invention of tennis by Wingfield...
- Commonest cause of elbow pain
- “Tennis elbow”…although only 5% of cases actually occur in tennis players (Cyriax)
- French survey (1976) in tennis teachers: prevalence 35%
Pathophysiology

- Most common cause: «tendinitis» of
  - Common fingers extensor (middle finger)
  - Extensor of the wrist (Ext carpi radialis brevis)

- Radio-humeral joint osteoarthritis
- Radial nerve entrapment
Pathophysiology

- Primary movement of wrist/hand complex: flexion
- To provide stability, co-contraction of the extensors is required
- Classical risk factors:
  - Repetitive twisting or squeezing
  - Repetitive flex/ext movements
Pathophysiology

- Surgical biopsies (*i.e. patients failing to respond to injections)*:
  - Failure of normal repair mechanism
  - Lack of inflammatory cells (*no surprise*)

- MRI + ultrasounds studies:
  - Oedema
  - Ill defined tendon margins
  - Thickening of the tendon + increased signal
Symptoms and signs

- Inspection: visible swelling?
- Movements: ROM usually normal
  - Flexion (biceps guarding possible)
  - Prono-supination
  - Joint play (possibly affected)
Symptoms and signs

- **Resisted contraction**
  - +++
  - ♦ Wrist extensor
  - ♦ Middle finger (Maudsley’s test)

- **Palpation +++**

« Pathognomonic »
Imagery

- Roentgenograms: calcification?
  - 7% of the cases
- Ultrasounds
- MRI
  - Hypersignal in 90%
  - Contralateral: 50%
  - Controls: 14%
Treatment

- First mandatory treatment: joint rest
  - Avoiding activities involving the tendon
    - Tennis
    - Carrying bags…

No!  Yes!
NSAIDs

- Cochrane review:
  « There is evidence that topical NSAIDs are more effective than placebo in the short term »
  « short term benefit from oral NSAIDs »
Injections

- Two techniques:
  - Deep injection: «peppering» of the tendon (Cyriax)
  - Superficial injection on the tendon
- Cochrane group: injections more effective than oral NSAIDs in the short term
- In some studies, injections done by GPs (without training?)
Manual techniques

- Deep massages designed to speed the healing process (Cyriax)
- Manipulation
  - Mill’s manipulation
Manual techniques

- Repeated mobilisation of the elbow in varus/valgus
- Manipulation of the neck
- Recently described technique: «Mobilization with movement»
  (Abbott)
Other conservative techniques

- Rehabilitation
  - Eccentric training of the extensors
- Shock wave therapy: "any conclusion impossible to draw" (Cochrane)
- Acupuncture, Laser, ultrasounds...
- Injections of Botulinum toxin (alternative to surgery?)
Surgery

- 15 different techniques…
- Release of the tendon from the lateral epicondyle region
- Good/excellent results: 70-80% (highly selected patients)
- No RCT
A personal series

- 36 patients treated from 2000 to 2002
- No specific recruitment in Sports Medicine

23 females, 13 males
Mean age: 47.9±5
Right side: 66%
Mean duration: 3.5 months ±3
A personal series: treatment

- NSAIDs: 6 (of whom 3 declined injection)
  - 5 good results
- Injection: 27
  - 3 failures
  - 24 good immediate results but 11 relapses (again treated by injections)
- Others: rest only, 1 antidepressants
Conclusion

Possibly two different populations:

- Younger patients, M>F, practising sports
  - Traumatic event / microrupture of the tendon
  - Treatment: rest, rehab, surgery
- Elder patients, F>M, no sport
  - No traumatic event / inflammation of a degenerated tendon
  - Treatment: NSAIDs, injections
Thank you!