

Lateral Epicondylitis

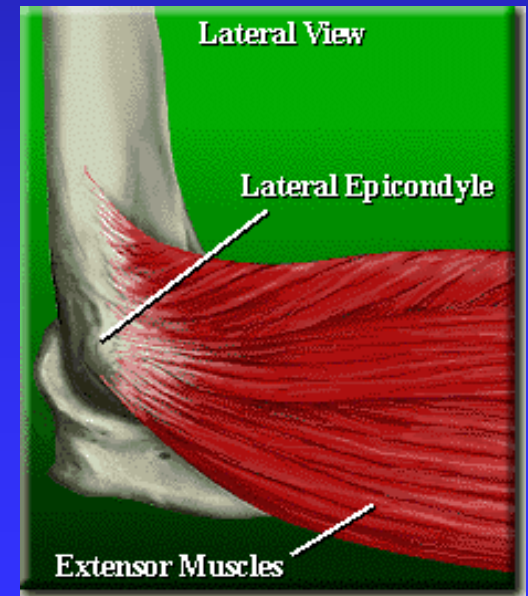
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Lateral Epicondylitis

- 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*
- 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: $47.9_{\pm 5}$

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!