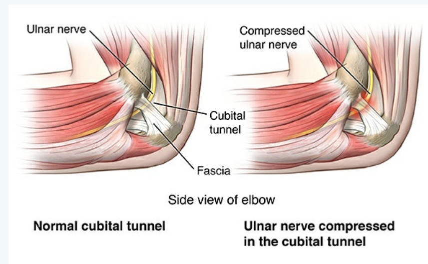
Anatomy



- Medial Elbow
- Elbow flexion stretches and slides ulnar nerve through the tunnel (up to 5mm)
- Flexion can stretch retinaculum - ovoid deformation of cubital tunnel

Causes

- Sustained traction/compression of ulnar nerve (elbow flexion)
- Direct/repetitive trauma (leaning on elbow/soft tissue hypertrophy/osteophytes)
- Recurrent subluxation

Demographics/Risk Factors

- **Sites of compression:** True cubital tunnel
Slightly distal to the tunnel between two heads of FCU (least common)
- Common in athletes baseball, tennis, racquetball players
- Workers who maintain sustained elbow flexion (tool/telephone use)
- "cell phone elbow" - people who lean their elbow against the desk
- Diabetics
- Diminished cubital tunnel volume
- Obesity
- Elbow varus/valgus
- Men more than women (women have layer of fat at medial elbow)
- More common in left side

Presentation

- Paraesthesia/pain extending from medial epicondyle to 4th and 5th digit
- Sensory symptoms present first due motor fibres being more deeper
- Usually progressive
- Night symptoms common
- Can radiate to neck/shoulder
-Advanced cases involve loss of grip strength and fine motor control
- Late stages will show intrinsic muscle wasting
- On palpation, tenderness at posterior aspect of medial epicondyle
- Palpation of ulnar nerve during elbow flexion - feel for subluxation of nerve
- +ve Tinels of ulnar

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Presentation (cont)

- +ve Elbow flexion test
- +ve Froments sign
-+ve Pinch grip/adductor pollicis weakness

Imaging

- Not usually necessary unless
- Trauma
- Failed conservative care
- Suspected bony encroachment (osteophytes/loosebodies/ossification of UCL)
- US is gold standard for ulnar neuropathy
- MRI for suspected ganglions, neuromas and aneurysms of ulnar artery

DDx

- CTS
- Cx disc herniation
- Medial Epicondylitis
- TOS
- SOL
- Pancoast Tumour
- Syringomyelia
- Ulnar nerve entrapment in hand/shoulder

Management

- Activity modification (avoid prolonged flexion/direct pressure)
- Ice
- Nerve mobilisation - outstretched handshake to elbow flexion test position
- Myofascial release
- Splinting (at night)
- Protective pad on the elbow
- Rehab - strengthening flexors and extensors isometrically and isotonically
- Stretching of pronators
- Surgical decompression should be considered if symptoms no better within 3 months, symptoms over 12 weeks, siginificant motor deficit

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