



# **Common Upper Extremity Problems in Primary Care**

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\*Nothing to disclose

# Case 1

- Hx
  - 46 year old stylist
  - 6 months left lateral elbow pain
  - Started after vacation: heavy luggage
  - Now hurting with work and ADL's
- PEx
  - Elbow FROM
  - TTP lateral elbow
  - Pain resisted wrist extension
  - Strength 5/5
  - Sensory exam is normal

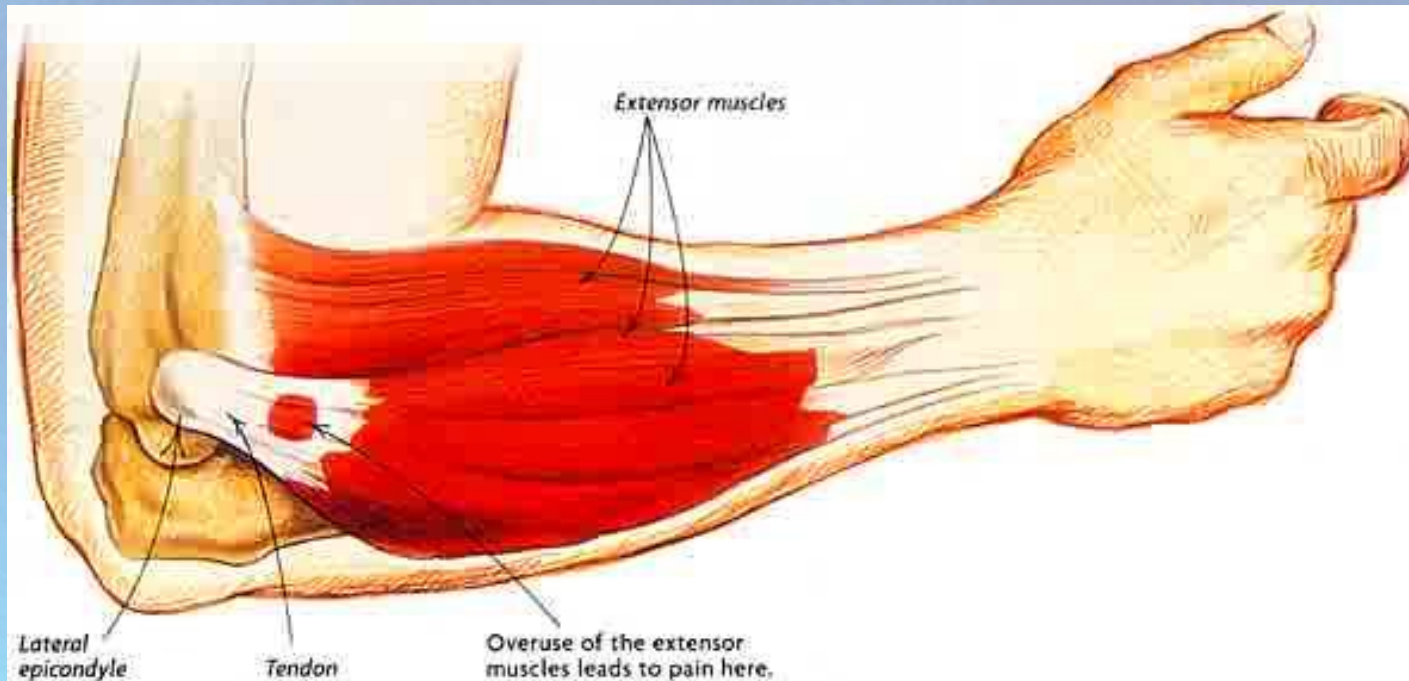


## Elbow series



# Lateral Epicondylitis

- Tennis Elbow
- Lateral Elbow Tendinosis



# Lateral Epicondylitis

- Pathophysiology
  - Overuse of the hypovascular zone
  - Tendinosis: vascular hyperplasia and unstructured collagen
- Epidemiology
  - Prevalence 2%
  - M=F
  - Age 45-54



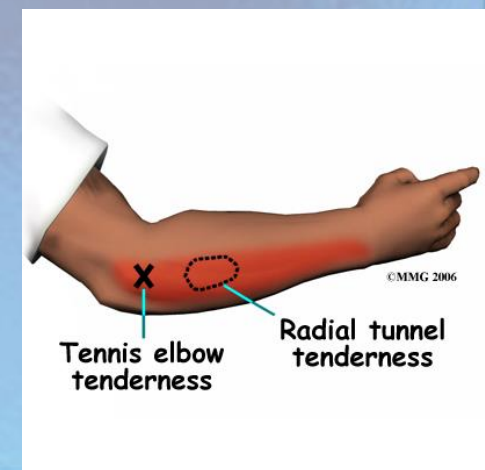
# Lateral Epicondylitis

- Biomechanics
  - Microtrauma to Extensor carpi radialis brevis (ECRB)
  - Prolonged gripping/wrist extension
  - Rec>Pro tennis
  - Tennis technique
    - Two-handed backhand
    - Smaller racquet



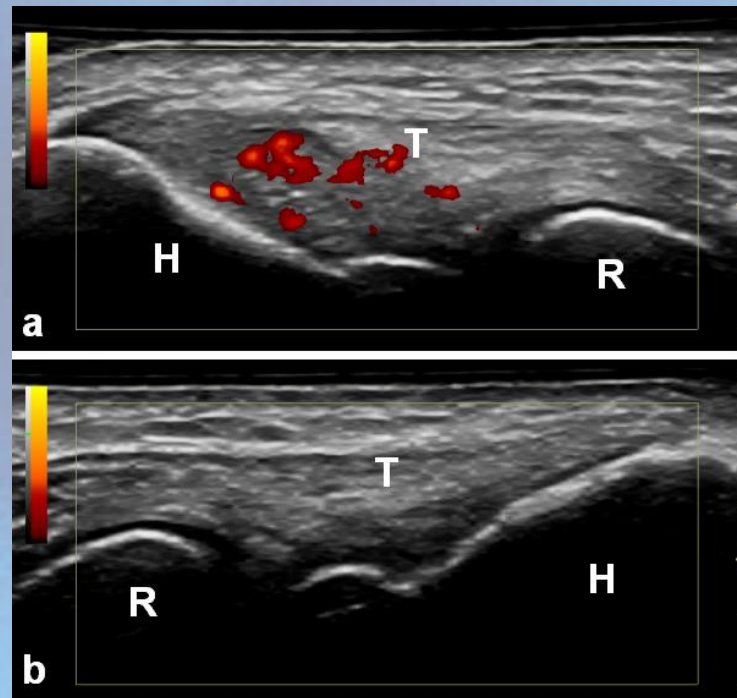
# Lateral Epicondylitis: Diagnosis

- Hx
  - Lateral elbow pain
  - Worse with gripping/wrist extension
  - Absence of numbness
- Pex
  - TTP lateral epicondyle/distal
  - Painful resisted wrist/long finger extension
- DDx
  - Radiculopathy
  - Nerve entrapment
    - PIN-motor
    - Radial tunnel-sensory
  - Arthrosis



# Lateral Epicondylitis

- Imaging
  - Rarely needed
  - Xrays: AP/Lat
  - Ultrasound
  - MRI
  - EMG/NCV



# Lateral Epicondylitis: Treatment

- Relative Rest
  - Decrease offending activity
- Ergonomics/equipment
  - Tennis
    - Doubles
    - Grass surface
    - Tennis pro
    - 2 handed backhand
- Splinting
  - only severe
  - 1-2 weeks
- Analgesics
  - Tylenol
  - NSAIDS
- Ice
- Braces
  - Short term/occupational



# Lateral Epicondylitis: Treatment

- Injections
  - Corticosteroid
    - Excellent short term (90% redux sx's)
    - Long term not much
- Physical Therapy
  - Best long term Tx
  - Eccentric exercise
  - Less pain than injx at 3 and 6 months
- Shock Wave/Laser Tx
  - Probably not
- Blood/Platelet rich
  - Promising
- Sclerotherapy
  - promising
- Surgery 8%
  - ECRB release
  - Excision and repair



## Case 2

- 30 year old mother
- 4 weeks wrist pain
- Pain breastfeeding 4 month old and picking up toddler
- Pain picking up pot off stove
- No injury
- Dorsal/radial wrist ttp
- Pain with thumb resistance
- Pain with ulnar deviation
- Xrays normal

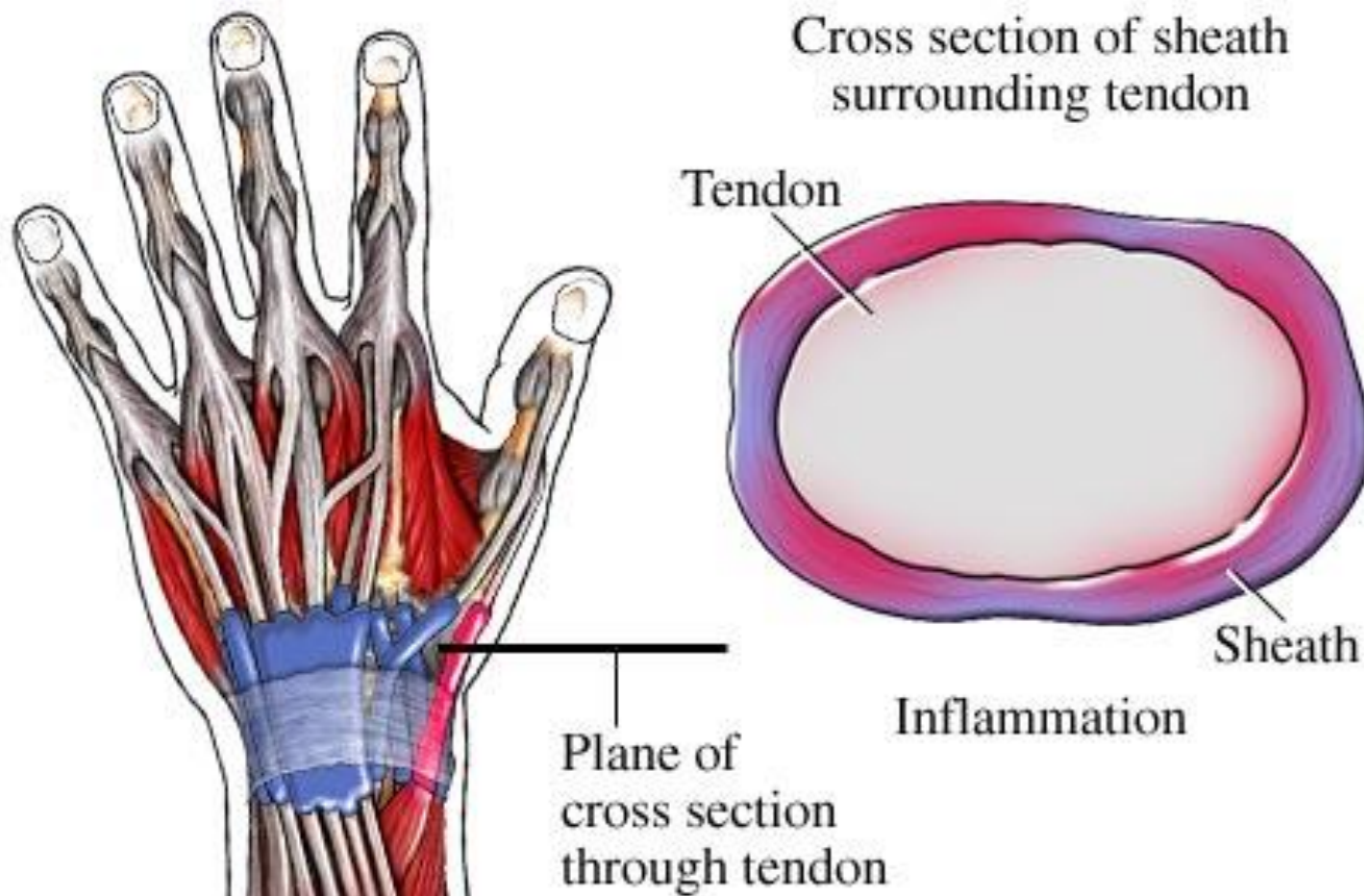


# De Quervain Tenosynovitis

- Stenosing tenosynovitis 1st wrist compartment
- Radial styloid tenosynovitis-ICD9
- Pain from resisted gliding of APL and EPB tendons
- Fritz de Quervain described in 1895
- Most common tendon disorder of the wrist

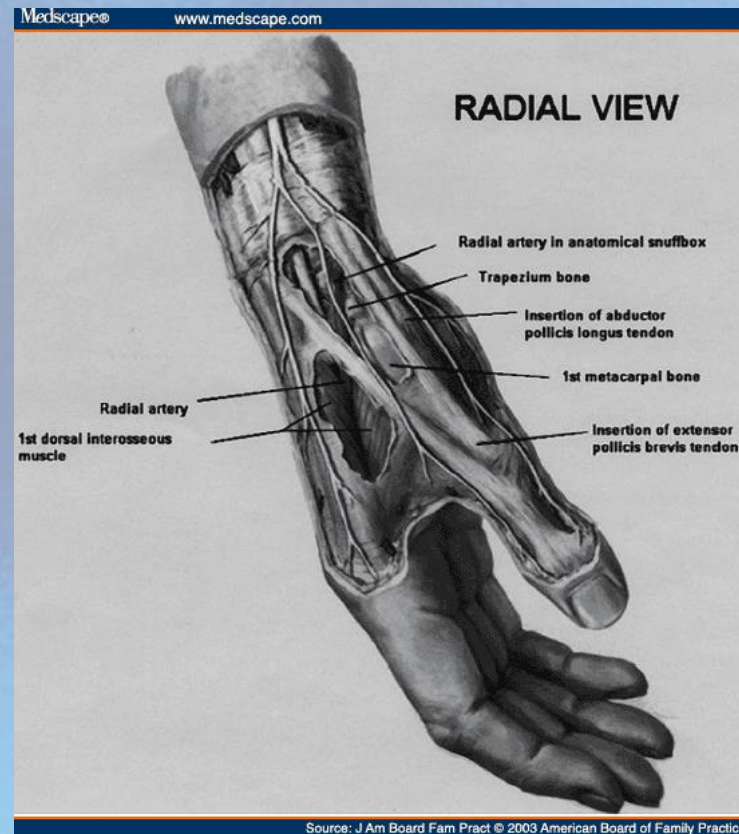


# De Quervain Tenosynovitis Anatomy



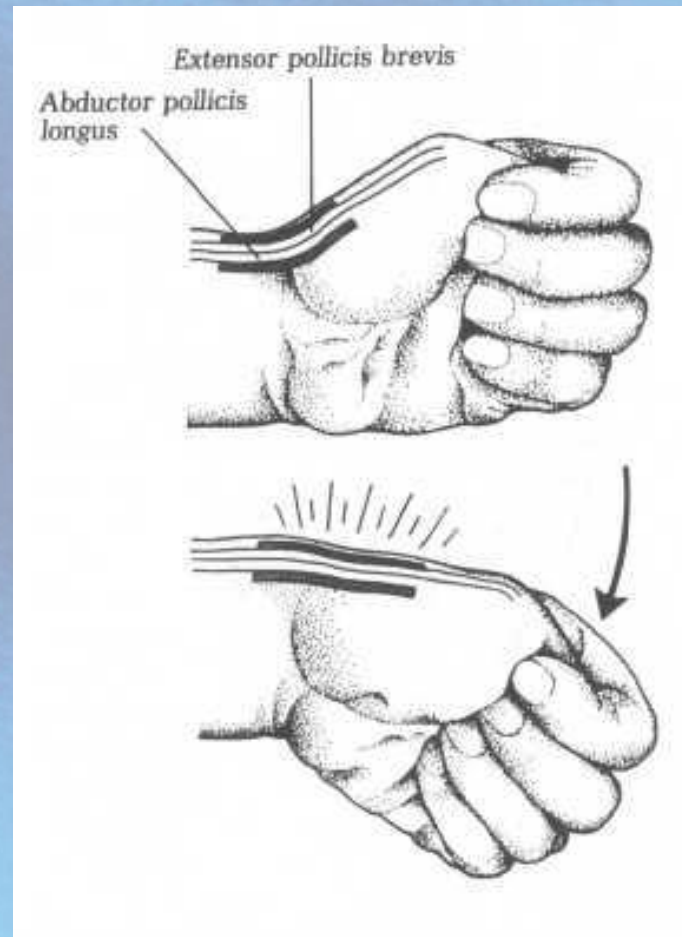
# De Quervain Tenosynovitis

- Adults 30-50
- Women >> Men
- Risk factors
  - Repetitive lifting
  - Breastfeeding
  - Bowling, racquet sports



# De Quervain Tenosynovitis

- Hx
  - Pain near radial wrist
  - Radiate radial side of forearm
  - Aggravated by lifting/thumb movement
- Pex
  - TTP APL/EPB tendons near radial styloid
  - Pain with resisted thumb extension/abduction
  - Finkelstein +



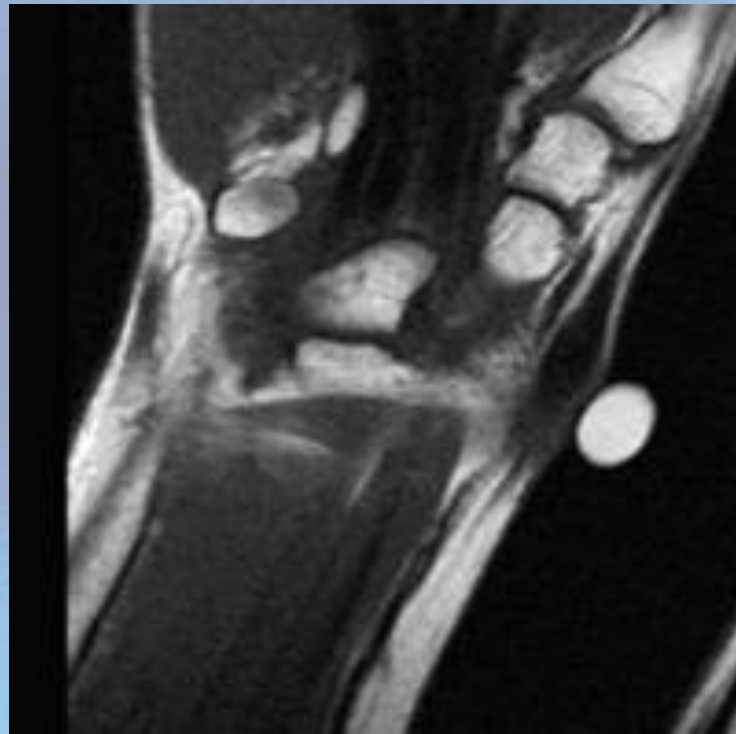
# De Quervain Tenosynovitis

- DDx
  - Trigger thumb
  - Thumb carpometacarpal OA
    - Base of thumb ttp
    - Squaring base of thumb
  - Fracture



# De Quervain Tenosynovitis

- Imaging
  - Not needed
  - Xrays
  - MRI



# De Quervain Tenosynovitis

- Treatment
  - Ice
  - Analgesics
  - Thumb spica splint
  - Injection
  - Surgery



# De Quervain Tenosynovitis

- Corticosteroid Injection
  - most effective
  - Curative in up to 83% (level A)
  - 1ml lidocaine
  - 1ml steroid
    - Dexamethasone
    - Triamcinolone
    - Methylprednisolone
    - Betamethasone



# Case 3

- 44 yo Female with Type 1 DM
- 6 months pain in palm with grip
- Few weeks of waking up with ring finger “stuck”
- No injury/trauma
- Well controlled DMT1 for 30 years
- Stopped golfing due to pain
- Pex
  - FROM
  - TTP ring finger nodule near MCP-moves with finger flexion
- HbA1c 6.7
- TSH 2.35
- Xrays normal



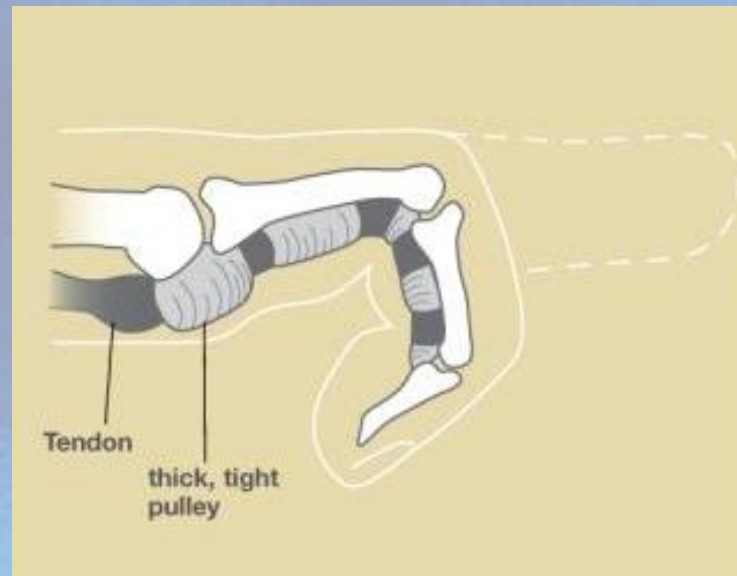
# Trigger Finger

- Epidemiology
  - Stenosing tenosynovitis
  - Prevalence 3%
  - Diabetes 10%
  - Peak ages 40-60
  - Kids <8yo trigger thumb 0.2%
  - Women>Men
  - Ring finger, Thumb most common digits
  - OA, Hypothyroid, Gout, RA, Renal Failure



# Trigger Finger

- Pathophysiology
  - Chronic repetitive friction between flexor tendon and enclosing sheath
  - reactive intratendinous nodule
  - Restriction at A1 pulley which is often thickened (rarely A2 or A3)

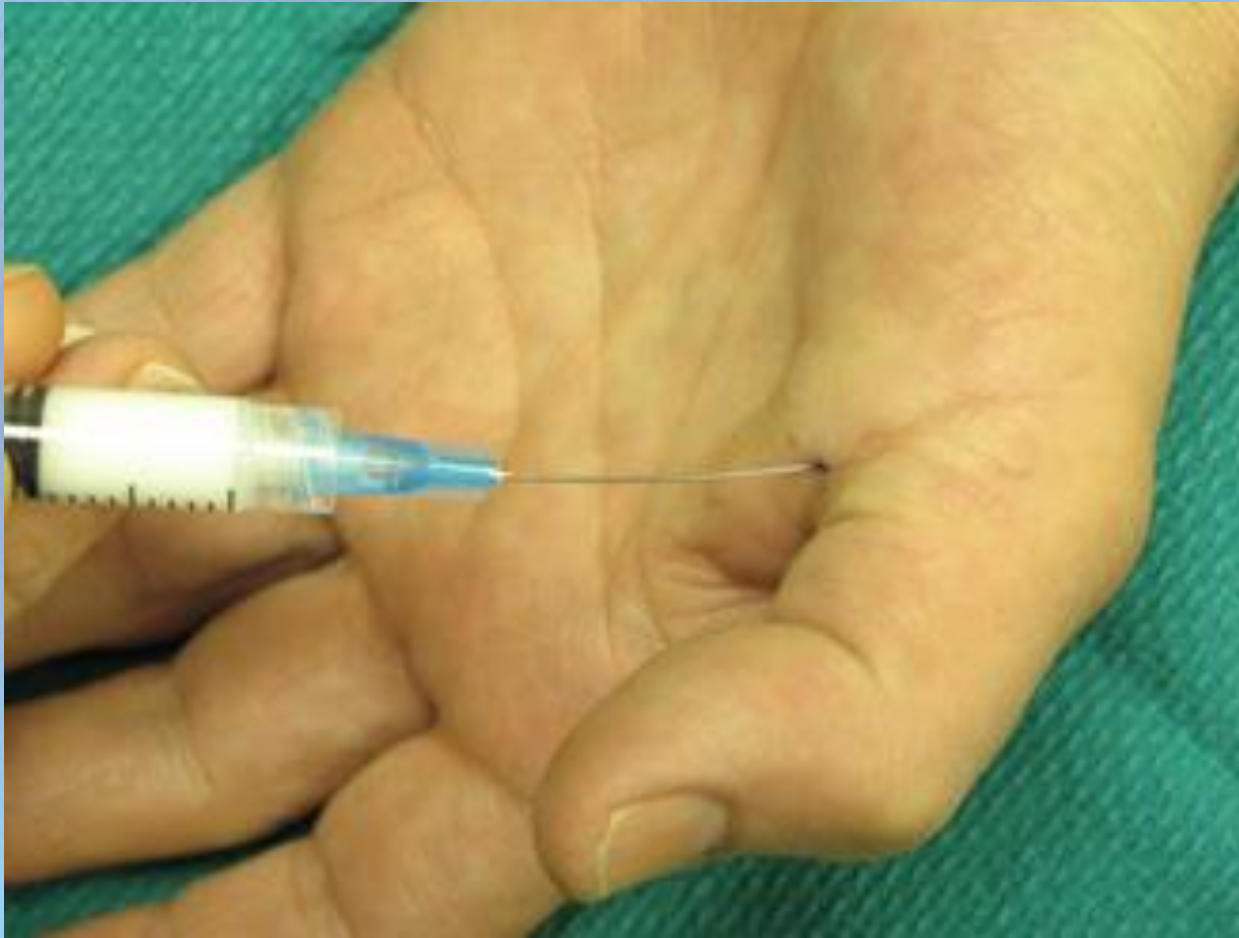


# Trigger Finger

- Treatment
  - NSAIDS/analgesia
  - Splinting 6 weeks 50-70% resolution
  - Steroid injection
    - 38-93% success
    - Highest success with large palpable nodule and thumb
    - 2nd injx with 1/2 efficacy of 1st injx
    - Injx into SQ A1 pulley may be better than into tendon sheath



# Trigger Finger-Injection



# Trigger Finger

- Treatment
  - Percutaneous A1 pulley release
    - 90% success
  - Surgical A1 pulley release
    - 60-97% success



# References

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