

## MRI of the Hand – Dr Ron Shnier MBBS FRANZCR

Today we will concentrate on the hand – from carpometocarpal joint to finger tip

This will arbitrarily be divided where relevant into hand proper and the fingers proper

### Anatomy of the hand

The muscles and neurovascular anatomy of the hand will be described. Covered will be some of the developmental variants

### Vascular lesions of the hand

- 1) Haemangiomas and AVM's
- 2) Hypothenar hammer Syndrome
- 3) Pseudo aneurysms of the hand

### Traumatic lesions of the hand

- 1) Flexor tendon lacerations/ruptures
- 2) Extensor tendon lacerations/ruptures

### Carpometacarpal and metacarpalphalangeal Joints of the Thumb

- 1) Anatomy
- 2) CMC jt ligamentous injury, fracture and dislocation
- 3) Gamekeepers thumb (ulnar collateral ligament injury)
- 4) Radial collateral ligament injury
- 5) Sesamoid abnormalities

### Interphalangeal Joints

- 1) Anatomy including collateral ligamentous complex of the PIP jt and differences with the DIP jt
- 2) Collateral ligament injury
- 3) Volar plate injury
- 4) Pseudoboutonniere Deformity
- 5) Sagittal band injury

### Anatomy of the fingers

- 1) The flexor tendon anatomy and function in conjunction with the pulley system
- 2) Thumb anatomy and pulley system separately which is different to the other fingers
- 3) Extensor tendon anatomy
- 4) Tendon sheath anatomy

### Finger Pathology

- 1) Extensor and flexor injuries including closed injuries, open injuries and lacerations
- 2) Mallet finger – avulsion of the extensor tendon from it's insertion to the distal phalynx
- 3) Boutonniere Deformity – rupture of the central slip of the extensor tendon
- 4) Extensor pollicis longus rupture
- 5) FPL & FCR ruptures

### Arthritis/tenosynovitis

- 1) Infectious synovitis
- 2) Inflammatory arthropathies especially rheumatoid arthritis, gout, CPPD and psoriatic arthritis

### Masses of the hand and fingers

- 1) Vascular tumors
- 2) Bone tumors
- 3) Neurogenic tumors including neurofibroma, glomus tumour
- 4) Foreign body granuloma