

Fractures of the Carpus

15d - Fractures of the Carpus

Fractures of scaphoid bone:

- Due to direct dorsiflexion force to the hand

Classification:

- Scaphoid tubercle fracture (distal end) – extra articular fracture heals well
- Proximal end fracture – poor blood supply – heal nonunion or avascular necrosis
- Fracture of the body – most often, according to Russ, it's divided into:

1. Horizontal
2. transverse
3. vertical

clinical picture & diagnosis:

- clinically evident pain on the foveola radialis and the pressure in the long axis of the thumb
- X-Ray AP, wrist in dorsiflexion and in ulnar deviation (navicular quartet)
- The fracture may not be evident immediately after the accident (if you insist on a negative finding further pain (diagnosed as distorse wrist), repeat X-ray even after 2-3 weeks of immobilization)
- The most reliable diagnosis is CT

Treatment:

- Conservative:

1. For nondislocated fracture, immobile with plaster from elbow to metacarpal bone with wrist in ulnar deviation, and abduction thumb for at least 6 weeks
2. Then X-ray – if not healed, extend the immobilization to 8-12 weeks

- Operaton:

1. If fracture of proximal and central part
2. Use osteosynthesis Herbert screw

Complication:

- Avascular necrosis of the fragment
- Nonunion – surgically treated by:
 1. osteosynthesis compression,
 2. cortico-cancellous graft from iliac crest
 3. palliative resection of processus of styloid radii
- Radiocarpal joint arthrosis