A Review of the Proximal Interphalangeal Joint

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February 6, 2015

Note: I will post a PDF copy of the Powerpoint slide presentation on www.handtherapyhub.com shortly before February 6, 2015.

Following engaged listening, members of the audience will be able to:
1. Describe the pathomechanics of a boutonniere deformity
2. Describe the pathomechanics of a swan neck deformity
3. Describe common fracture patterns seen at the PIP joint
4. Describe fracture management strategies for fixation of PIP joint fractures and fracture dislocations
5. Describe the Digit Widget external fixation device and the basics of post-application rehabilitation

Outline

Ⅴ Anatomy of the Proximal Interphalangeal (PIP) Joint
   o Bony Anatomy
   o Ligamentous Anatomy
     β Proper Collateral Ligament (PCL)
     β Accessory Collateral Ligament (ACL)
     β Volar Plate
     β Critical Corner

Ⅴ Extensor Mechanism Review
   o Intrinsic contribution
     β Lumbrical muscle
     β Interosseous muscle
   o Sagittal bands
   o Transverse fibers
   o Oblique fibers
   o Transverse retinacular ligament
   o Triangular ligament
   o Central slip
   o Terminal tendon

Ⅴ Flexor Side
   o Flexor Digitorum Profundus muscle
   o Flexor Digitorum Superficialis muscle
   o Pulley system
   o Vincular system
Patterns of deformity
  - Swan neck deformity
  - Boutonniere deformity
  - Pseudo-boutonniere deformity

Soft Tissue Reconstruction Procedures
  - Sublimis tenodesis
  - Proximal Fowler
  - Distal Fowler

Osteoarthritis of the PIP Joint

Rheumatoid Arthritis of the PIP joint

Fractures, dislocations and fracture-dislocations about the PIP joint
  - Extension block splinting
  - Screw fixation
  - K-wire fixation
  - Volar plate arthroplasty
  - Hemihamate autograft
  - Cerclage wire
  - Volar plate arthroplasty (VPA)

PIP joint Arthroplasty
  - Silicone Implants
  - Surface Replacement Arthroplasty (SRA)
  - Pyrocarbon Implants

Dynamic Skeletal Traction

Digit Widget
  - Indications
  - Mechanics of the device
  - Tips and tricks for patients

PIP Joint Stiffness
  - Extension Contracture
  - Flexion Contracture
  - Interosseous Muscle Contracture

PIP Joint Arthrodesis

Implications of Flexor Pulley Incompetence
  - PIP joint flexion contracture
  - PIP joint extensor power deficits


Curtis RM. Management of the stiff proximal interphalangeal joint.


Giddens GEB. The non-operative management of hand fractures.


