Wrist and Hand
Orthopedics and Neurology DX 612

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Palmaris Longus

Palpation of Flexor Carpi Radialis Tendon

Palpation of Thenar Eminence

Palpation of Hypothenar Eminence

Dupuytren’s Disease Contracture

- Dupuytren’s disease takes its name from Baron Guillaume Dupuytren, a celebrated French surgeon who first described the condition in 1831.
Dupuytren’s Disease
Contracture

- Commonly found in northern European countries and countries with populations of northern European descent.
- Strong familial tendency
- Some propose that the condition is a result of a single dominant gene.

Palpation of Palmar Aponeurosis

- The first sign of the disease is often a 'lump' or nodule in the palm of the hand, commonly at the base of the ring or little finger.

Dupuytren’s Disease
Contracture

- Another sign may be an indentation in the skin, known as a dermal pit, which occurs due to a contraction of the connective tissue fibers.

Dupuytren’s Contracture

- There is sometimes an association with other soft tissue diseases, trauma or surgery.

Dupuytren’s Contracture

- A longitudinal fibrous band, known as a cord, may form.
- Cord may flex the finger joints
- Process tends to be progressive

Dupuytren’s Disease
Contracture

- Hand function may become compromised as the fingers become more flexed.
Surgical Intervention
Dupuytren's Contracture
- Surgical release of the contracture to regain function should be considered with dysfunction
- There is no cure
- Hand surgeon should be consulted

Trigger Finger
- A trigger finger is a common problem that causes pain and catching.

Trigger Finger
- Flexor tendons slide through a snug tunnel.
- Tendon irritation narrow canal
- Or tendon thickens
- Finger extension become difficult

Trigger Finger
- Unknown cause
- More common in women than men.
- Most frequently between 40 to 60 Y/O
- More common with diabetes and rheumatoid arthritis.

Trigger Finger
- Pain and catching with finger movement
- History, observation and palpation should enable diagnosis
- Radiographs are usually not indicated

Trigger Finger Treatment
- Rest
- Soft tissue treatment
- Stretching
- Moist heat
- OTC NSAIDS for pain
- Finger splints
- Injections
- Surgery.
Annular Pulleys

- Hand surgeons attempt to resolve trigger fingers with cortisone injection or surgical intervention with release of the tendon.

Osteoarthritis of the Fingers
Degenerative Arthritis

- Most commonly inflicts the joints of the hand.

Chronic and progressive articular pathology.
Characterized by deterioration of cartilage along with formation of new bone caused by the disease.

Osteoarthritis of the Fingers
Degenerative Arthritis

- Interphalangeal joints of the hand may show articular space narrowing with marginal osteophytes.

Heberden’s Nodes
Osteoarthritis of Fingers

- Final common pathway for all the afflictions, abuse, and injuries of affected joints.

Heberden’s Nodes or Arthropathy

- This is a common problem.
- Affects roughly half the adult population to some extent.
Osteoarthritis of Fingers

- Routine laboratory tests for inflammation are usually WNL.

Osteoarthritis of the Fingers

- The condition evolves slowly, and is characterized by gradual development of joint pain, stiffness, and limitation of motion.

Radiographic Examination

- AP and lateral radiographic projections of the involved proximal interphalangeal joints are probably the most important diagnostic procedure for this disease.

Degenerative Arthritis or Degenerative Joint Disease

- The terms degenerative arthritis (or degenerative joint disease) may be more precise than osteoarthritis because degeneration of cartilage is the most prominent pathologic change not inflammation of joints.

Surgical Intervention

- Thumb Implant

- If nonsurgical treatments fail

- Arthroplasty may be indicated

Rheumatoid Arthritis

- Destruction of cartilage

- Inflamed joint capsule

- Inflamed synovium

- Synovial fluid
Rheumatoid Arthritis

- A form of arthritis that causes pain, swelling, stiffness and loss of function in your joints.
- It can affect any joint but is common in the wrist and fingers.
- More women than men get rheumatoid arthritis.

Swan-neck Deformity

- It often starts between ages 25 and 55. You might have the disease for only a short time, or symptoms might come and go. The severe form can last a lifetime.


Ulnar Drift

- Drift of the fingers away from the direction of the thumb at the MP joint (ulnar drift).
- Due to tissue damage of capsules, ligaments, and tendons

Rheumatoid Arthritis

- RA is an autoimmune disease
- Unknown causes
- Genes, environment and hormones might contribute

Surgical Interventions

- Arthroscopy, which removes debris or inflamed tissue in a joint through a small lighted instrument.
- Synovectomy, to remove inflamed joint tissue.
- Finger and hand surgeries, to correct joint problems in the hand.
**Cervical Spine**

- What are your diagnoses?

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**Cervical Subluxations Rheumatoid Arthritis**

- Cervical Spine. The anterior edge of the odontoid process (O) is abnormally separated from the posterior margin of the arch of the atlas (A) in this lateral roentgenogram of the cervical spine of a patient with rheumatoid arthritis. Subluxations of the lower cervical vertebral bodies (arrows) are also visible.

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**Surgical Interventions Rheumatoid Arthritis**

- Cervical spine fusion for C1 and C2 instability

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**Treatment and Prognosis Rheumatoid Arthritis**

- Treatments include medications, lifestyle changes and surgery.

  - With proper treatment, a strategy for joint protection and changes in lifestyle, patients may live a long, productive life with this condition.


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**“Boutonniere” Deformity Avulsion of Extensor Digitorum Communis Tendon**

- This is usually due to an injury, although it can develop in inflammatory disorders such as rheumatoid arthritis.

- Some people are born with a mild boutonniere posture of most or all of their fingers.
“Boutonniere” Deformity
Avulsion of Extensor Digitorum Communis Tendon

- Boutonniere deformity is an extensor tendon injury affecting two joints of the finger, the PIP (proximal interphalangeal) joint at the middle of the finger, and the DIP (distal interphalangeal) joint that controls the fingertip.

There is a limited period of time with boutonniere deformity during which treatment of any kind can be effective.

Mallet Finger
Avulsion of Distal Extensor Digitorum Communis

- Mallet finger, also known as baseball finger, is an injury to the fingertip caused by a blow to the end of the finger.

The tendon that straightens the tip of the finger is injured and you may lose the ability to straighten your finger.

Mallet Finger
Treatment

- RICER
- Rest
- Ice
- Compression
- Elevation
- Referral
Paronychia

- Acute paronychia develops over a few hours when a nail fold becomes painful, red and swollen.
- Yellow pus may appear under the cuticle.

Paronychia infections of the nail fold can be caused by bacteria, fungi and some viruses.
- This type of infection is characterized by pain, redness and swelling of the nail folds.

People who have their hands in water for extended periods may develop this condition, and it is highly contagious.

Avoid dishwashing
Should you leave it up to the man of the house?

In order to kill enough germs, hands must be lathered up and rubbed together under running water for at least 20 seconds. If soap and water aren’t available, hands can be cleaned using an alcohol based hand sanitizer.
That's all Folks!