Know It When You See It

Osteoarthritis: Typical hand

- Hard boney enlargements
- Heberden’s nodes at the DIP joints
- Bouchard’s nodes at the PIP joints
- Often have “squared” first CMC joint due to osteophytes at that joint

Know It When You See It

Rheumatoid arthritis

- Soft synovial swelling
- Synovitis and volar subluxation at the MCP joints
- Synovitis of the wrists
- Synovitis of the PIP joints with early swan neck deformities
Rheumatoid Arthritis: Swan Neck and Boutonnière Deformities

- Late-stage findings indicating serious changes in the joints
- Swan neck (digits 2 to 4) PIP extension DIP flexion
- Boutonnière (digit 5) is the reverse; PIP flexion DIP extension

Know It When You See It

Tendon rupture in RA
- Inability to extend fourth and fifth digits
- Due to deformity and inflammation at the wrist causing excess wear of the extensor tendons

Know It When You See It

Psoriatic arthritis
- Inflammation of the DIP joints
- Sausage fingers
- Joint involvement shows radial pattern
- Nail changes
- Psoriatic patches
- Arthritis may start before the skin
Know It When You See It

Psoriatic arthritis
- Sausage toes
- IP joint involvement of a toe suggests a rheumatoid variant
- Psoriatic arthritis and Reiter's disease are the most common causes

Know It When You See It

Reiter's syndrome
- Keratoderma blennorrhagica
- May look like psoriasis or syphilis
- Can occur in patches or as sterile pustules

Reiter's Syndrome (Reactive Arthritis)

Seronegative asymmetric arthritis
- Following:
  - Urethritis or cervicitis
  - Infectious diarrhea
- Often associated with:
  - Inflammatory eye disease
  - Balanitis, oral ulceration, or keratoderma
  - Enthesopathy
  - Sacroilitis
Inflamatory Bowel Disease

- Ulcerative colitis
- Regional enteritis (Crohn's disease)
- ? Whipple's
- ? Behçet's

Know It When You See It

Systemic lupus erythematosus

- Butterfly rash
- Involves cheeks and nose
- Patient also has rash on chin and some telangiectasia

Know It When You See It

Systemic lupus erythematosus

- Interarticular dermatitis
- Also has periungual erythema
- This rash is distinct from that seen in dermatomyositis that occurs over the joints
Know It When You See It

Dermatomyositis
- Scaly rash over the extensor surfaces of the interphalangeal joints

Know It When You See It

Periungual changes
- Seen in lupus erythematosus, dermatomyositis, and scleroderma
- Thickening of capillary loops
- Dropout of capillary loops
- Hemorrhage in the nail fold may also be present

Know It When You See It

Close-up views of periungual changes
- Upper left: Normal
- Upper right: Dilated loops
- Lower left: Dilated loops with dropout
- Lower right: Dilated loops with branching

View with ophthalmoscope and drop of oil
Dermatomyositis

- Mantle or shawl distribution of rash

Linear scleroderma

- Not usually associated with systemic disease

Livedo reticularis

- Appears in a broad-based interrupted pattern in systemic vasculitis, including SLE
- May occur as a fine, connected, lacy pattern in normals
Know It When You See It

Palpable purpura
- Characteristic of dermal vasculitis in Henoch-Schönlein purpura

Know It When You See It

Saddle nose deformity
- Relapsing polychondritis
- May also occur in Wegener’s granulomatosis and syphilis

Know It When You See It

Relapsing polychondritis

Left: Ear changes with inflammation in the cartilage and swelling
Right: Loss of ear cartilage in late stages
Ochronosis
- Deposition of homogentisic acid
- Gray discoloration of the ear and dense pigment on transillumination

Know It When You See It

Gout tophi in the ear a good tip-off if present
- Tophi appear rather late in gout
- Prick the tophus with a needle. Put the drop of material on a slide
- Multiple birefringent crystals will be seen on polarized microscopy

Urate crystal in a tophus
- Top: Seen with ordinary light microscope with condenser racked down and light intensity adjusted
- Bottom: Seen with compensated polarized light, the preferred method
Gouty tophus on finger
- Note the yellow-orange color typical of a tophus
- Patient also has swelling of the PIP of the index and fifth digits

Skin pustule with disseminated gonorrhea
- Usually a few lesions
- Usually found on the extremities

Septic olecranon bursitis
- Swelling of the bursa
- Erythema and tenderness
- If it looks ugly, tap it
Know It When You See It

Septic prepatellar bursitis with cellulitis
- Rubor, calor, dolor over the patella and adjacent tissue
- Lack of joint involvement evident from nontender suprapatellar pouch and popliteal area
- Don’t tap a normal knee through cellulitis

Know It When You See It

Hypertrophic osteoarthropathy
- Clubbing with loss of nail angle
- Full syndrome includes periostitis of ends of long bones
- Associated with
  - Chest malignancies
  - Chronic lung infection
  - Other tumors

Know It When You See It

Amyloidosis
- Shoulder pad sign
- The worst case you are likely to see
- Patient also has macroglossia and purpura
### Know It When You See It

**Hyperthyroidism**
- Acropachy
- Right: Soft tissue swelling between joints
- Left: Periosteal new bone formation

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**Ehlers-Danlos syndrome**
- A true connective-tissue disease
- Left: Hypermobility of joints. Can touch thumb to volar surface of forearm
- Right: Hyperelasticity of skin
- Associated with vascular abnormalities