Approach to Patients with Polyarthralgia
Scott Vogelgesang, MD

Definitions
- Arthralgia – joint pain with no evidence of inflammation
- Arthritis – joint inflammation (usually with joint pain)
- Myalgia – muscle pain with no evidence of inflammation
- Myositis – muscle inflammation; usually with weakness

General Principles
- History & Physical Exam are Critical
  - Identify urgent situations
    - Monoarticular arthritis with a fever
    - Severe Systemic illness (weight loss, respiratory failure)
  - Identify Inflammatory Conditions
    - AM stiffness > 60 minutes (beware fibromyalgia)
    - Stiffness better with activity, worse with rest
    - Observed joint swelling…
  - Exclude fibromyalgia as a cause of pain and evaluate for common causes such as osteoarthritis

Laboratory Tests:
- support a clinical Impression
- Identify occult organ system involvement
- ESR/CRP Nonspecific

Indications for additional testing…
- Rheumatoid Factor and/or CCP: Clinical suspicion for Rheumatoid Arthritis
- ANA - Clinical suspicion for SLE, Sjögren's Syndrome or Scleroderma
  - Sm/RNP – Clinical suspicion for SLE and ANA is positive
  - DsDNA – Clinical suspicion for SLE and ANA is positive
  - SSA/SSB – Clinical suspicion for SLE or Sjögren's Syndrome
  - SCL-70 – Clinical suspicion for diffuse Systemic Sclerosis (Scleroderma)

Polymyalgia
- Polymyalgia Rheumatica
  - Ages 50 – 80 (F > M) w Shoulder, neck > Thigh pain
  - Beware giant cell arteritis (headache, jaw claudication, scalp tenderness, vision)
  - Elevated ESR/CRP; CK not elevated

- Polymyositis
  - Ages 30-60
  - Proximal weakness with no pain
  - CK elevated; ESR/CRP may be normal
- Fibromyalgia
  - Ages 20-60 (any age)
  - Diffuse musculoskeletal pain (muscle, joint, bone)
  - Sleep abnormalities (awaken feeling tired)
  - Strength (and CK) normal; ESR normal
  - Differential diagnosis: Sleep apnea, Depression/anxiety, Thyroid dysfunction, Hyperparathyroidism

Infection:
- Usually monoarticular
- Patients look sick
- Knee is most common location
- Beware Disseminated GC
  - Young, sexually active patient
  - Tenosynovitis
  - Rash (small papules – patient may not know)
  - Migratory joint complaints

Malignancy:
- Systemic features
- Night pain
- X-ray abnormalities
  - Periosteal elevation
  - Focal destructive lesions
- Osteodystrophy
  - Dependent pain
  - Periosteal elevation (Xray)
- Metastatic Disease:
  - Usually monoarticular
- Carcinomatous Polyarthritis
  - Spares PIPs, MCPs
- Leukemia
  - Children – asymmetric polyarticular