

# Differential Diagnosis of Arthritis

## Acute Monarthritis

### Inflammatory

- Infection
  - gonococcal (GC)
  - nonGC
- Crystal deposition
  - gout
  - calcium
  - pyrophosphate dihydrate (CPPD)
  - hydroxylapatite (HA)
- Spondyloarthropathies
  - reactive
  - psoriatic
  - inflammatory bowel disease (IBD)
  - Reiters
- Early RA

### Non-inflammatory

- Trauma
- Hemophilia
- Avascular Necrosis
- Internal derangement

## Chronic Monarthritis

### Inflammatory

- Chronic Infection
  - fungal,
  - tuberculosis (TB)
- Rheumatoid arthritis (RA)

### Non-inflammatory

- Osteoarthritis (OA)
- Internal derangement
- Neuropathic joint
- Tumors
- Amyloid deposition

## Acute Polyarthritis

### Inflammatory

- Viral
  - hepatitis
  - parvovirus
  - HIV
- Rheumatic fever
- GC
- CTD (connective tissue diseases)
  - RA
  - systemic lupus erythematosus (SLE)
- Sarcoidosis
- Spondyloarthropathies
  - reactive
  - psoriatic
  - IBD
  - Reiters
- Subacute bacterial endocarditis (SBE)

### Non-inflammatory

- Hypertrophic osteoarthropathy

## Chronic Polyarthritis

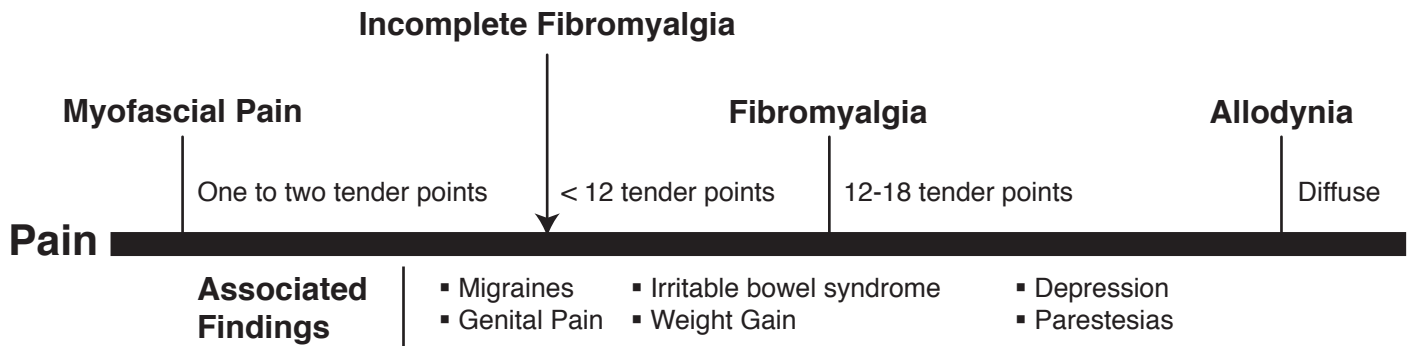
### Inflammatory

- Bony erosions
  - RA/Juvenile rheumatoid arthritis (JRA)
  - Crystal deposition
  - Infection (15%)
  - Erosive OA (rare)
  - Spondyloarthropathies
    - reactive
    - psoriatic
    - IBD
    - Reiters
- No-erosions
  - SLE
  - Rheumatic fever
  - Vasculitis
  - SBE

### Non-inflammatory

- OA
  - primary
  - secondary
- Amyloid deposition
- Hypertrophic osteoarthropathy

# "Pain" Amplification Syndrome



## Regional Pain

### Differential Diagnosis – Myalgias

#### Pain Without Weakness

- Fibromyalgia
- Polymyalgia rheumatica
- Vasculitis
  - Polyarteritis nodosa (PAN)
  - Charpo-Strauss (C-S)
  - Microscopic polyangiitis (MA)
- Polymyositis
- SLE
- Carcinoma
- Musculoskeletal Manifestations (MM)
- Trichinosis
- Hypothyroidism,
- Subacute thyroiditis
- Drug abuse
  - heroin
  - cocaine
- Viral
  - hepatitis
  - HIV
- Parkinson's (early)
- Medication
  - statins
  - azidothymidine (AZT)
- Obstructive sleep apnea

#### Pain With Weakness

- Polymyositis
- Myoglobinuria
- McArdles disease
- Hypothyroidism
- Guillain-Barre

### Pain, Neck

- fibromyalgia
- herniated disk
- DJD
- RA
- ankylosing spondylitis
- metastasic CA
- osteoporosis
- whiplash injury
- temporal arteritis
- local tumors:
  - giant cell tumor
  - hemangioma
  - osteoid osteoma
  - osteochondroma

### Pain, Shoulder

- Impingement syndrome
  - rotator cuff tears
- Calcific tendonitis
- Adhesive capsulitis
- Acromioclavicular arthritis
- Thoracic outlet syndrome
- Shoulder instability
- Arthritis
  - rheumatoid arthritis
  - osteoarthritis
- "Milwaukee" shoulder
- Avascular necrosis
- Reflex sympathetic dystrophy
- Cervical spondylosis
  - C5
  - C6
- Referred pains
  - intrathoracic problems
    - heart
    - lungs
    - diaphragm

## Pain, Hip

### Articular

- Inflammatory joint disease
  - RA
  - spondyloarthropathies,
  - PMR
- Degenerative joint disease
  - OA primary and secondary
- Metabolic Joint diseases
  - gout
  - pseudogout
  - ochronosis
  - hemochromatosis
  - Wilson's disease
  - acromegaly
- Infections
- Tumors
  - Benign
    - PVN
    - osteochondromatosis
  - Malignant
    - synovial
    - sarcoma
    - metastasis
- Hemarthrosis
- In children
  - transient toxic synovitis
  - JAS

### Peri Articular

- Bursitis
  - trochanteric
  - ischiogluteal
  - iliopsoas
- Tendinitis
  - adductor
  - trochanteric
- Acute calcific periarthritis
- Heterotrophic calcifications

### Osseous

- Bone lesions
  - Fxs
  - CA
  - AVN
  - metabolic bone disease
    - Paget's
    - stress
    - Fxs
    - osteomalacia
    - renal
    - osteodystrophy
    - RSD
    - hyperparathyroidism
    - transient migratory osteoporosis
- In children
  - congenital hip dislocation
  - acetabular dysplasia
  - coxa vara
  - slipped capital femoral epiphysis
  - Legg-Perthes disease
  - rickets

## Pain, Hip (cont.)

### Neurologic

- Entrapment neuropathies
  - lateral femoral cutaneous nerve
    - meralgia paresthetica
  - lumbar nerve root compression
    - L2
    - L3
    - L4

### Vascular

- Atherosclerosis of aorta iliac vessels

### Referred Pain

- Thoracolumbar spine
- Intra-abdominal structures
- Retroperitoneal structures

## Pain, Low Back

- abnormal posture
- herniated disk
- DJD
- spondylolysis (rare)
- spondylolisthesis
- osteoporosis
- MM
- CA metastasis
- Paget's disease
- ankylosing spondylitis
- psychogenic
- osteitis condensans ilii
- acute & chronic spinal infection
  - TBC
  - fungal
  - brucellosis
- vertebral epiphysitis
- coccygodynia
- subarachnoid hemorrhage
- herpes zoster
- local tumors
  - neurofibroma
  - osteoid osteoma
  - meningioma
  - hemangioma
- fractures
- idiopathic scoliosis
- referred pain
  - uterus
  - kidney
  - pancreas
  - bowel
  - aorta
  - gallbladder

## Pain, Knee

- Patellofemoral chondromalacia
- Meniscus tears
  - medial
  - lateral
- Tibial tubercle apophysitis
  - Osgood-Schlatter disease
- Bursitis
  - patellar
  - anserine
  - infrapatellar
- Arthritis
  - osteoarthritis
  - rheumatoid arthritis
  - crystal deposition disease
  - spondyloarthropathies
- Avascular necrosis
- Trauma
  - contusions
  - fixtures
- Popliteal cysts
  - Baker's
- Muscle pain
  - quadriceps infatct (diabetics)
- Referred pain
  - hip
  - nerve impingement
    - sciatica
    - anterolateral femoral
  - cutaneous nerve