POLYARTHRITIS
Polyarthritis definition

• Inflammation of more than 4 joints
Patient

- 35-year old women
- 2 months history of fatigue, lack of appetite, low grade fever, muscle and joint aches, and stiffness.
- Muscle and joint stiffness most notable in the morning and after periods of inactivity.
Major complaint: pain in joints

- Both wrists
- All metacarpophalangeal (MCP) joints
- 9 proximal interphalangeal (PIP) joints
- Both ankles
- Morning stiffness 1.5 h
Physical examination - joints

- Tenderness in both wrists, 4 MCP joints, and 6 PIP joints, both ankles
- Swelling in one (left) wrist, two MCP and 4 PIP, one (left) ankle
• No history of a similar problem
• No recent infection or triggering event
• The patient smokes 15 cigarettes/day
Acute polyarthritis - differential diagnosis (I)

- Viral infections:
  - Rubella
  - Mumps
  - Human parvovirus B19
  - Enteroviruses

- Usually resolves within 6 weeks without sequela
Acute polyarthritis - differential diagnosis (II)

• Other infectious diseases:
  
  ➢ Prodrome symptoms of hepatitis B infection (HBsAG positive)
  
  ➢ Infection with Borrelia burgdorferi (Lyme disease) (a history of tick bite or a typical rash on patient’s skin)
Persistent and chronic polyarthritis

- Joint pain and swelling lasting longer than 6 weeks
Persistent and chronic polyarthritis – differential diagnosis (I)

- Usually patients under 50 years of age

  - Rheumatoid arthritis
  - Psoriatic arthritis
  - SLE
  - Other seronegative spondyloarthropathies
Persistent and chronic polyarthritis – differential diagnosis (II)

• Patients over 50 years of age

  ➢ Osteoarthitis

  ➢ Crystal induced synovitis

  ➢ MOSS syndrome
Diagnosis

- Detailed history and physical examination

- The onset and progression of symptoms
- The distribution of joints affected
- A history of psoriasis in the patient or a family member
- A history of iritis or inflammatory bowel disease
- A recent episode of infectious diarrhea or genitourinary infection
- Photosensitive or malar rash, alopecia or pleurisy
- A history of acute episodes of arthritis or gout
- Tender or swollen joints
- Limited movement
- Laboratory tests
Rheumatoid arthritis

- Pain, swelling and stiffness for > 6 weeks
- Swelling and tenderness, especially in wrists, MCP, MTP joints
- Rheumatoid factor positive in about 70% of patients
- Anty-CCP antibodies positive in about 30% of patients
- Symmetry of joint changes
- Joint erosion on X-ray films
Psoriatic arthritis and spondyloarthropathies

- Pain, tenderness and swelling in joints and tendon and ligament attachment sites
- Tenderness at sites of tendon attachments, dactylitis
- Blood tests usually are not helpful
- Possible sacroiliitis, spondylitis, plantar fascitis, DIP arthritis, nail pitting, onycholysis
- History of psoriasis in patient or family member
- History of iritis or inflammatory bowel disease
SLE

• Symptoms of multisystem involvement, photosensitivity
• Often more joint tenderness than swelling
• ANA tests always positive, ENA, anty-DNA antibodies commonly present, cytopenia, normal CRP, usually elevated ESR
• Nonerosive joint inflammation
MOSS

- Pain swelling, stiffness of joint (usually sudden onset in patients over 60 years of age)
- Wrists and shoulder commonly affected
- RF and ANA negative, ESR ↑
- Look for malignancy
Polyarticular gout

- History of episodic monoarthritis for years before polyarticular disease
- Any joint can be affected
- Tophi are usually present
- Marked increase in serum uric acid
- Urate crystals in joint fluid
- Patients are often on diuretics, drink alcohol to excess, family history of the disease
- Prevalence higher in men
Osteoarthritis with inflammation

- Pain and tenderness in DIP, PIP and CMC, as well as weight-bearing joints
- Affected joints can be tender and swollen
- Heberden and Bouchard’s nodes palpable
- Laboratory tests usually not helpful
- X-ray films show osteoarthritis
- Often symmetric
- Onset common in perimenopausal women
Lab tests

- Complete blood count
- ESR
- RF
- ALT and AST
- Creatinine level
- Urinalysis
- ANA
- Synovial fluid analysis
Other tests

• Radiographs of affected joints
• Ultrasound
• MRI
The case

- RF 1:640
- ESR 60 mm/h
- CBC normal
Appropriate treatment

- Education
- Physical rehabilitation
- Pharmacotherapy with NSAIDS and MTX