

# **Psoriatic Arthritis**

Rapid Recap: How Can you Help Jeff with His Psoriatic Arthritis?

## Disease Modifying Antirheumatic Drugs MOA

- Disease modifying antirheumatic drugs (DMARDs) are generally separated into groups depending on how long they have been available and mechanism of action
  - Conventional DMARDs were the first generation of DMARDs, with wide range of MOAs that block inflammatory pathways
  - Biological DMARDs are second generation treatments with targeted MOAs
    - TNF blockade
    - IL-17A blockade
    - CTLA4-Ig inhibition
    - IL-12 and IL-23 blockade
    - IL-1 blockade
    - B-cell reduction
    - IL-6 blockade
  - Small molecule DMARDS are also second-generation treatments with target-specific MOAs
    - PDE4 inhibition
    - Janus kinase inhibition
- Biologic and small molecule DMARDs can be identified by suffix
  - **cept:** receptor drug which prevents a ligand from binding to its receptor (eg, etanercept and abatacept)
  - **ximab:** chimeric monoclonal antibody (eg, infliximab and rituximab)
  - **zumab:** humanized monoclonal antibody (eg, certolizumab, tocilizumab, and ixekizumab)
  - **umab:** fully human monoclonal antibody (eg, adalimumab, golimumab, and ustekinumab)
  - **ra:** receptor antagonist (eg, anakinra)
  - o nib: small molecule kinase inhibitors (eg, tofacitinib and baracitinib)

### Pathophysiology

- Although most patients (85%) present with psoriasis first, then PsA, 15% may present with joint symptoms first or may present with skin and joint symptoms simultaneously
- Classification Criteria for Psoriatic Arthritis (CASPAR) include the following:
  - Evidence of psoriasis (current, personal history, and/or family history)
  - Psoriatic nail dystrophy
  - o Negative test for rheumatoid arthritis
  - o Dactylitis
  - o Radiographic evidence of juxta-articular new bone formation
- Causes of PsA include a combination of:
  - o Genetic factors (eg, mutations to class II MHC alleles)



- o Environmental factors (eg, obesity, severe psoriasis, scalp, genital, or inverse psoriasis)
- Immune modulators include T cells, IL-17, IL-23, and TNF
- Clinical manifestations include:
  - o Synovitis
  - o Spine changes, similar to ankylosing spondylitis
  - New bone formation (ankylosis and syndesmophytes) often at enthesis

#### Case: Jeff and His Psoriatic Arthritis

- Chief complaint: 28-year-old male with "lower back pain, and I haven't injured myself"
- Review of systems reveal:
  - o Dermatologic: rash on scalp since late teen years
- Differential diagnosis includes:
  - o Osteoarthritis
  - o Rheumatoid arthritis
  - o Gout
  - o Ankylosing spondylitis
  - o Psoriatic arthritis
  - o Other arthritis
  - o Non-rheumatic condition
- PsA diagnostic criteria met:
  - Evidence of psoriasis (current and family history)
  - Laboratory or radiographic tests to request
    - Complete blood count (CBC)
    - o Comprehensive metabolic panel
    - Sedimentation rate (ESR) and C-reactive protein (CRP)
    - o HLA-B27
    - o Plain films
- Treatment options include
  - Non-pharmacologic (physical therapy)
  - o Pharmacologic
    - NSAIDS
    - TNF inhibitors

#### Resources

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