



Psoriatic Arthritis

Rapid Recap: How Can you Help Andrea and Her 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)
 - **nib:** small molecule kinase inhibitors (eg, tofacitinib and baricitinib)

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
 - Negative test for rheumatoid arthritis
 - Dactylitis
 - Radiographic evidence of juxta-articular new bone formation
- Causes of PsA include a combination of:
 - Genetic factors (eg, mutations to class II MHC alleles)
 - 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:

- Synovitis
- Spine changes, similar to ankylosing spondylitis
- New bone formation (ankylosis and syndesmophytes) often at entheses

Case: Andrea and her Psoriatic Arthritis

- Chief complaint: 34-year-old female with “some fingers and toes that are hurting and swollen”
- Review of systems reveal:
 - General: fatigue, some symptoms disrupt sleep
 - Dermatologic: rash on upper extremities and feet
- Differential diagnosis includes:
 - Osteoarthritis
 - Rheumatoid arthritis
 - Gout
 - Ankylosing spondylitis
 - Psoriatic arthritis
 - Other arthritis
 - Non-rheumatic condition
- PsA diagnostic criteria met:
 - Evidence of psoriasis (current and family history)
 - Psoriatic nail dystrophy
 - Dactylitis
- Laboratory or radiographic tests to request
 - Complete blood count (CBC)
 - Comprehensive metabolic panel
 - Sedimentation rate (ESR) and C-reactive protein (CRP)
 - Plain films
- Treatment options include
 - Non-pharmacologic
 - Pharmacologic
 - NSAIDs
 - Apremilast
 - Conventional DMARDs vs TNF inhibitors



Resources

- Benjamin O, Bansal P, Goyal A, et al. Disease Modifying Anti-Rheumatic Drugs (DMARD) [Updated 2020 Feb 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507863/>.
- Smolen JS, Aletaha D, Barton A, et al. Rheumatoid Arthritis. Nat Rev Dis Primers. 2018;4:18001. doi: 10.1038/nrdp.2018.1.
- Taylor W, Gladman D, Helliwell P, Marchesoni A, Mease P, Mielants H. Classification criteria for psoriatic arthritis: development of new criteria from a large international study. Arthritis Rheum 2006; 54:2665-73.
- Ritchlin CT, Colbert RA, Gladman DD. Psoriatic Arthritis. N Engl J Med. 2017; 376(10):957-970.
- Coates LC, Kavanaugh A, Mease PJ, et al. Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 20165 Treatment Recommendations for Psoriatic Arthritis. Arth Rheumatol. 2016;68(5):1060-1071.
- Singh JA, Guyatt G, Ogdie, et al. 2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis. Arth Rheumatol. 2019; 71(1):5-32.
- Ward MM, Deodhar A, Gensler LS, et al. 2019 Update of the American College of Rheumatology/Spondylitis Association of America/Spondylarthritis Research and Treatment Network Recommendations for the Treatment of Ankylosing Spondylitis and Nonradiographic Axial Spondylarthritis. Arth Rheumatol. 2019; 71(10):1599-1613.