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Psoriatic Arthritis

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Disclosures

Today's presentation is unbranded and non-promotional, and Dr. Mandelin is solely responsible for its content.

- Dr. Mandelin has served recently as a formulary consultant for CVSCaremark.
- Dr. Mandelin has served recently on speakers' bureaus for Abbott/AbbVie, Bristol Meyers Squibb, Horizon, Lilly, Pfizer, and Sanofi-Genzyme/Regeneron.
- Dr. Mandelin has served recently as a speaker and slide deck content creator for the National Psoriasis Foundation.

Objectives

At the completion of this activity, the participants will be able to:

- Review the CASPAR criteria for psoriatic arthritis
- Describe the typical presentation of psoriatic arthritis
- Briefly discuss some of the common treatment agents for psoriatic arthritis

Typical Presentation of Psoriatic Arthritis

Psoriasis (Ps, or PsO) and Psoriatic Arthritis (PsA)

Skin psoriasis affects about 2 - 3% of the population

Psoriatic arthritis

- 5% to 39% of patients with psoriasis
  - Current consensus is ~25% of psoriasis patients
  - Estimated 1 million cases in the USA
    - This puts PsA about on par with RA!
- 15% of cases in early synovitis clinics

Equal incidence in males and females

Peak onset in late 20s to 30s

PsA: Clinical Features

- Cutaneous disease
  - Psoriatic plaques
  - Guttate / pustular / erythrodermic variants
  - Onycholysis / nail pitting
- Inflammatory polyarthritis
  - Asymmetric
  - Symmetric
  - Axial
- Dactylitis
- Enthesitis
- Rheumatoid Factor Negative

Psoriatic Arthritis: Clinical Types

- 5 clinical subsets described by Moll and Wright

- Distal interphalangeal (DIP) involvement
- Polyarticular arthritis (absence of rheumatoid nodules and presence of psoriasis)
- Arthritis mutilans
- Asymmetric peripheral arthritis
- Axial or Ankylosing Spondylitis-like

Psoriatic Arthritis Presentation

- Skin disease typically precedes joint disease by up to 10 years

  (your established PsO patient presents with a new c/o joint pain and swelling)
- 10% present with joint disease first, skin later
- No correlation between severity of skin and joint disease, although presence of joint disease is more likely with severe skin disease
- Nail findings associated with nearby joint disease?
- Enthesitis and tendonitis are common findings

CASPAR Criteria for PsA

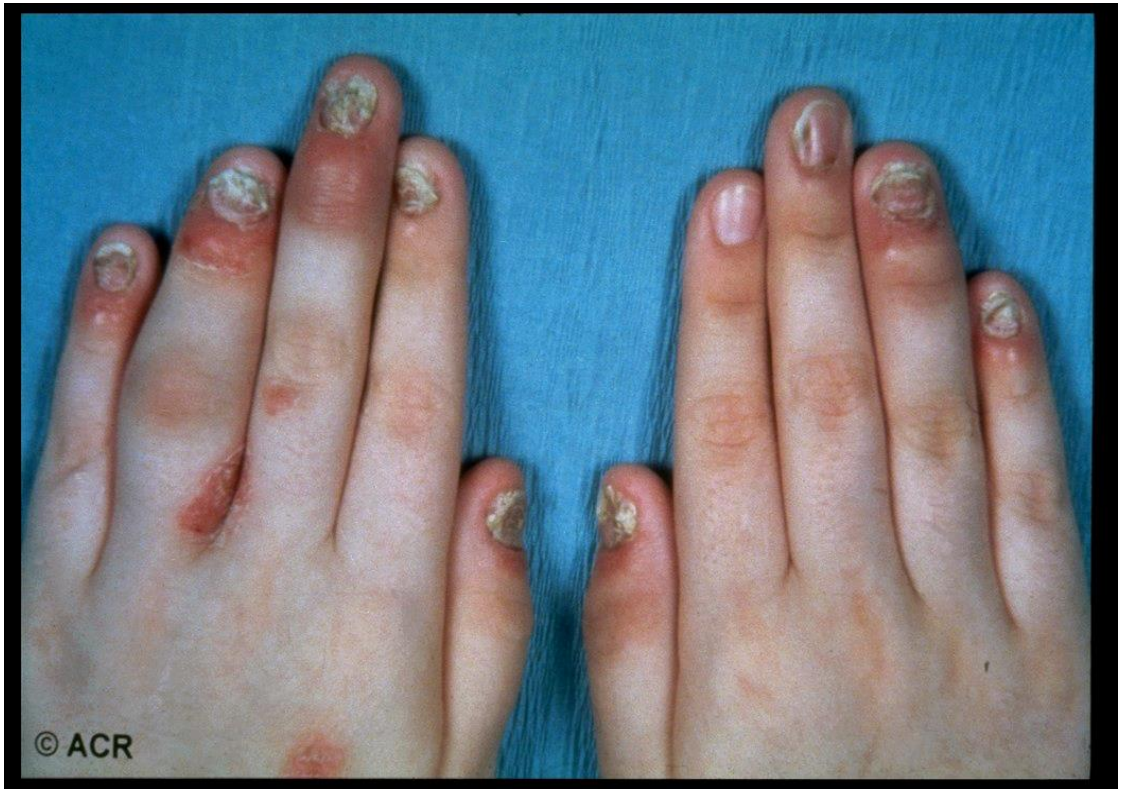
Established inflammatory articular disease (joint, spine, or entheseal) With 3 or more of the following		
1. Psoriasis (A **or** B **or** C)	(a) Current	Psoriatic skin or scalp disease present today as judged by a rheumatologist (score TWO points)
	(b) History	A history of psoriasis that may be obtained from patient, family doctor, dermatologist or rheumatologist
	(c) Family history	A history of psoriasis in a first or second degree relative according to patient report
2. Psoriasis		Typical psoriatic nail dystrophy including onycholysis, pitting and hyperkeratosis observed on current physical examination
3. A negative test for RF		By any method except latex, but preferably by ELISA or nephelometry, according to the local laboratory reference range
4. Dactylitis (A **or** B)	(a) Current	Swelling of an entire digit
	(b) History	A history of dactylitis recorded by a rheumatologist
5. Radiological evidence of juxta-articular new bone formation		Ill-defined ossification near joint margins (but excluding osteophyte formation) on plain x-rays of hand or foot

Taylor WJ, et al. Arthritis Rheum (2006)

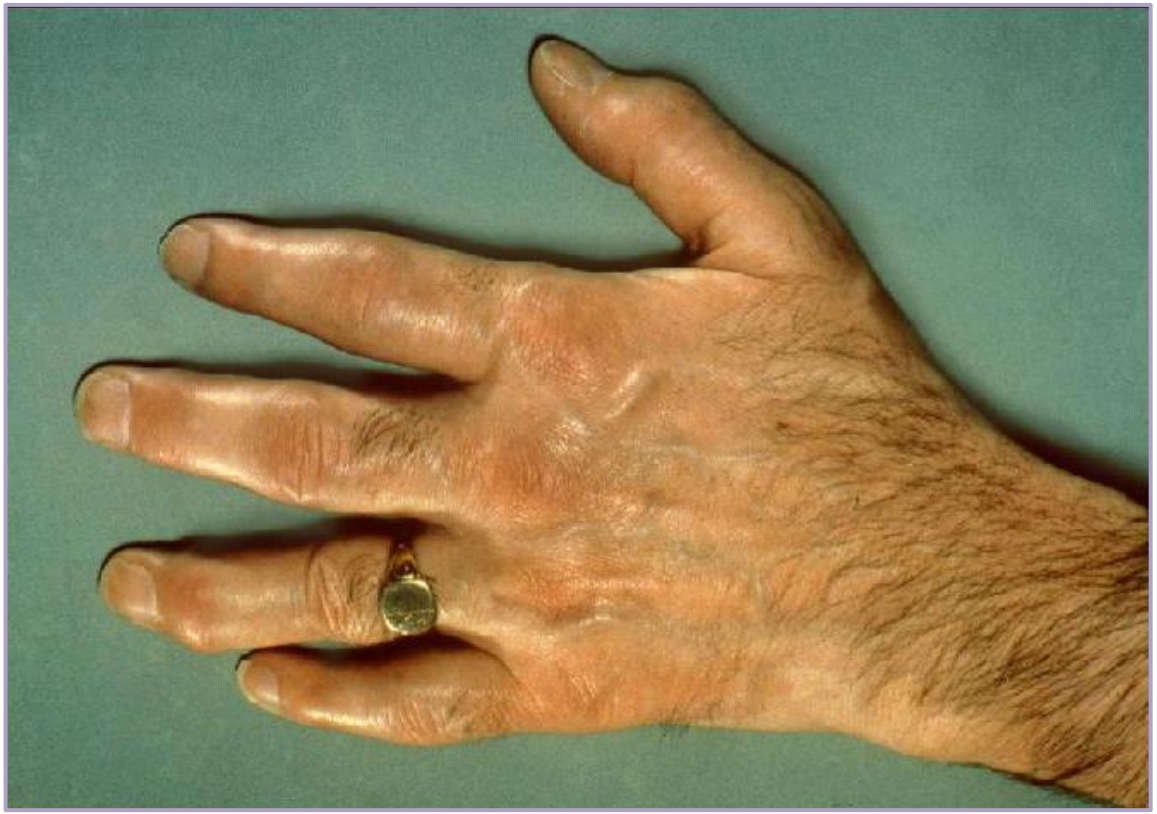
Psoriatic Arthritis Differential Diagnosis

- Osteoarthritis
  - Brief morning stiffness, if at all
  - Bony DIP growth without inflammation
  - Slowly progressive
- Rheumatoid arthritis
  - Symmetrical arthritis
  - Positive rheumatoid factor and/or anti-CCP antibodies
  - Radiographic differences
- Ankylosing Spondylitis
  - Symmetrical bony change in spine

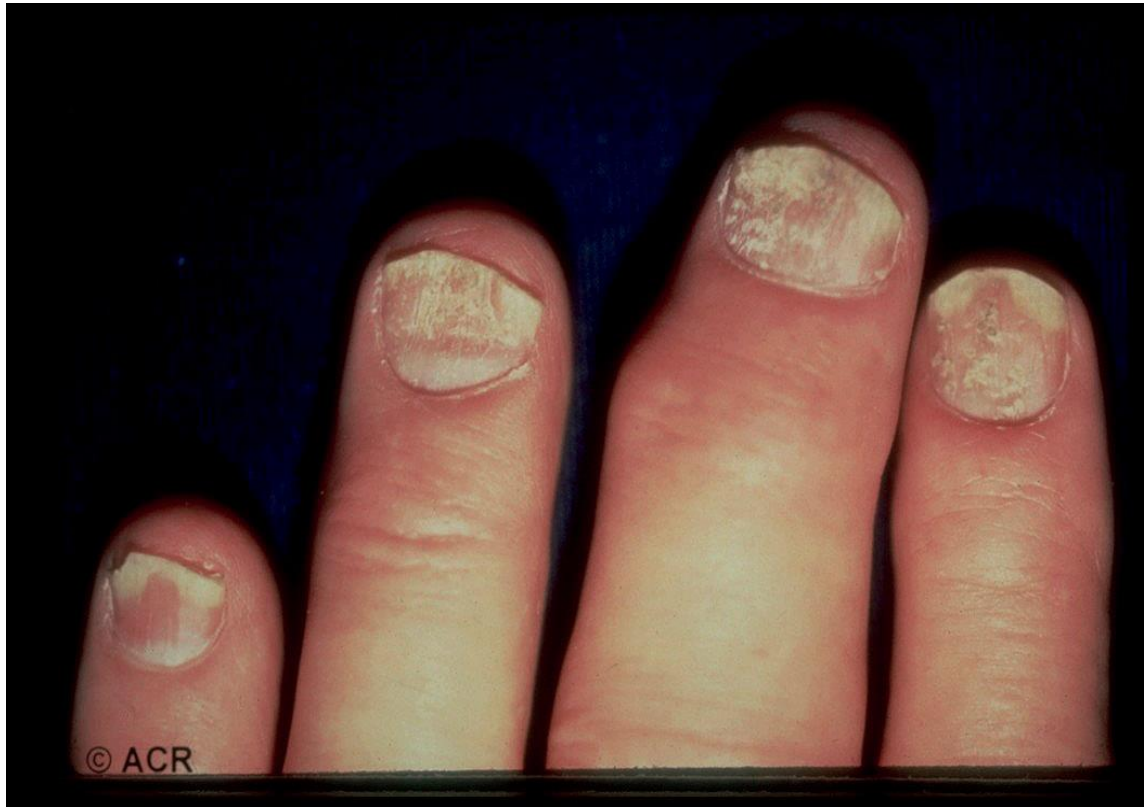
Asymmetric Oligoarthritis



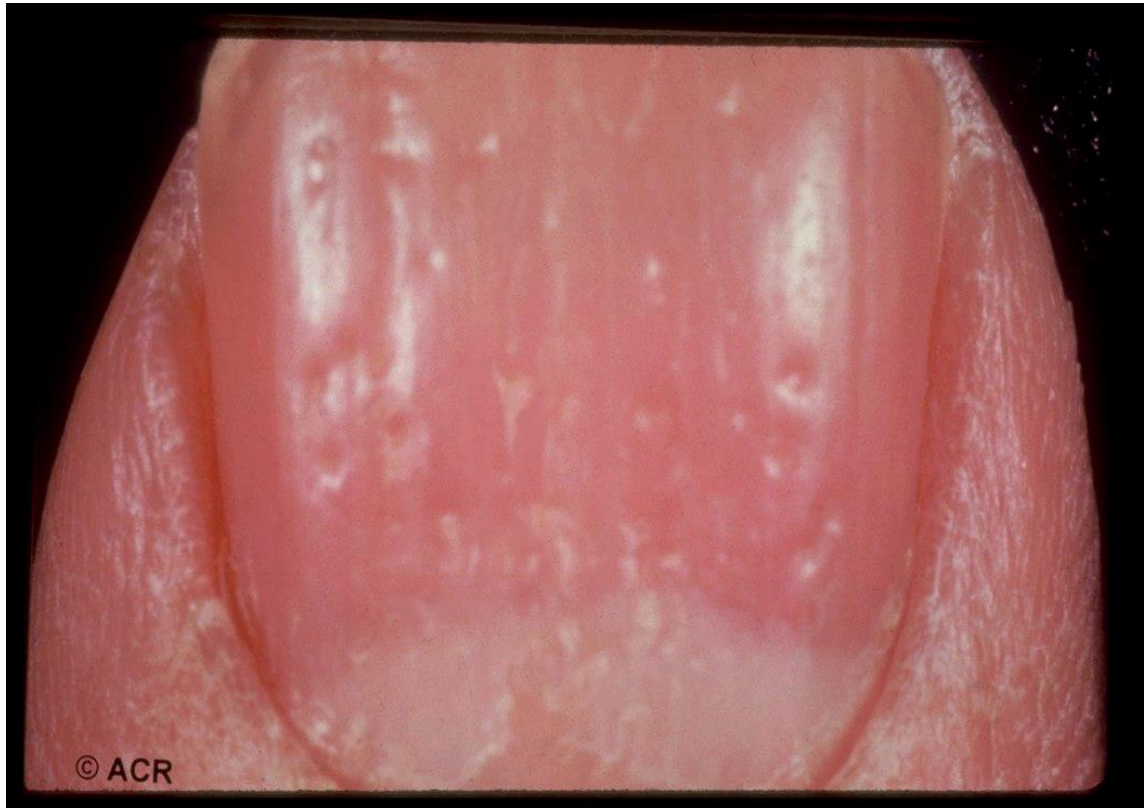
PIP and DIP Synovitis



DIP Synovitis with Nail Changes

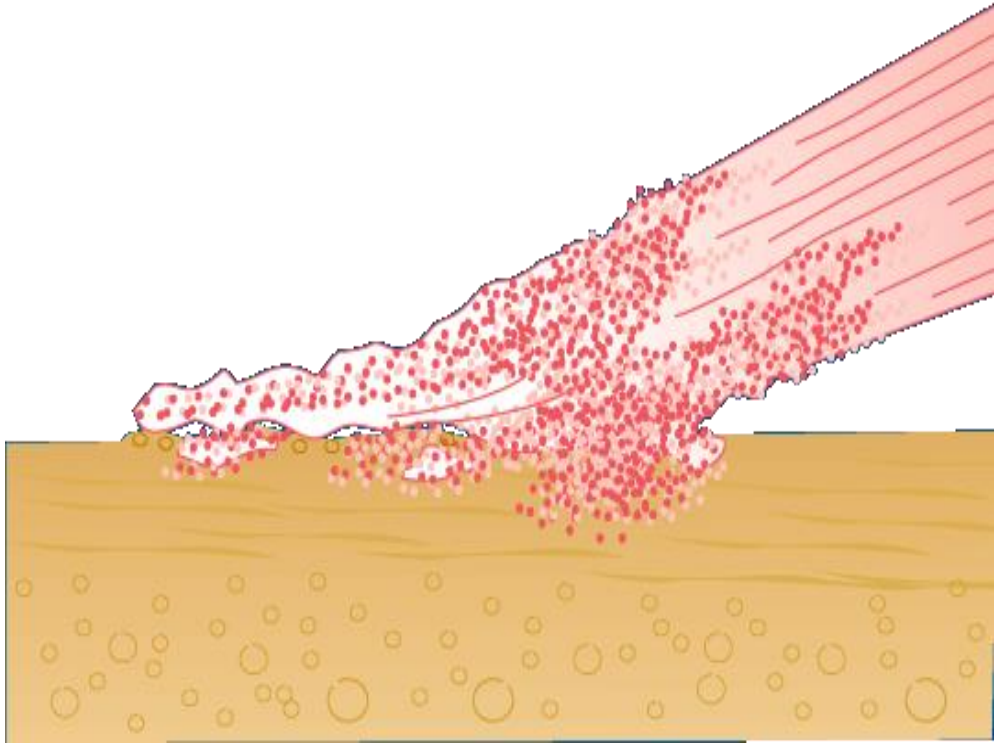


Fingernail Pitting



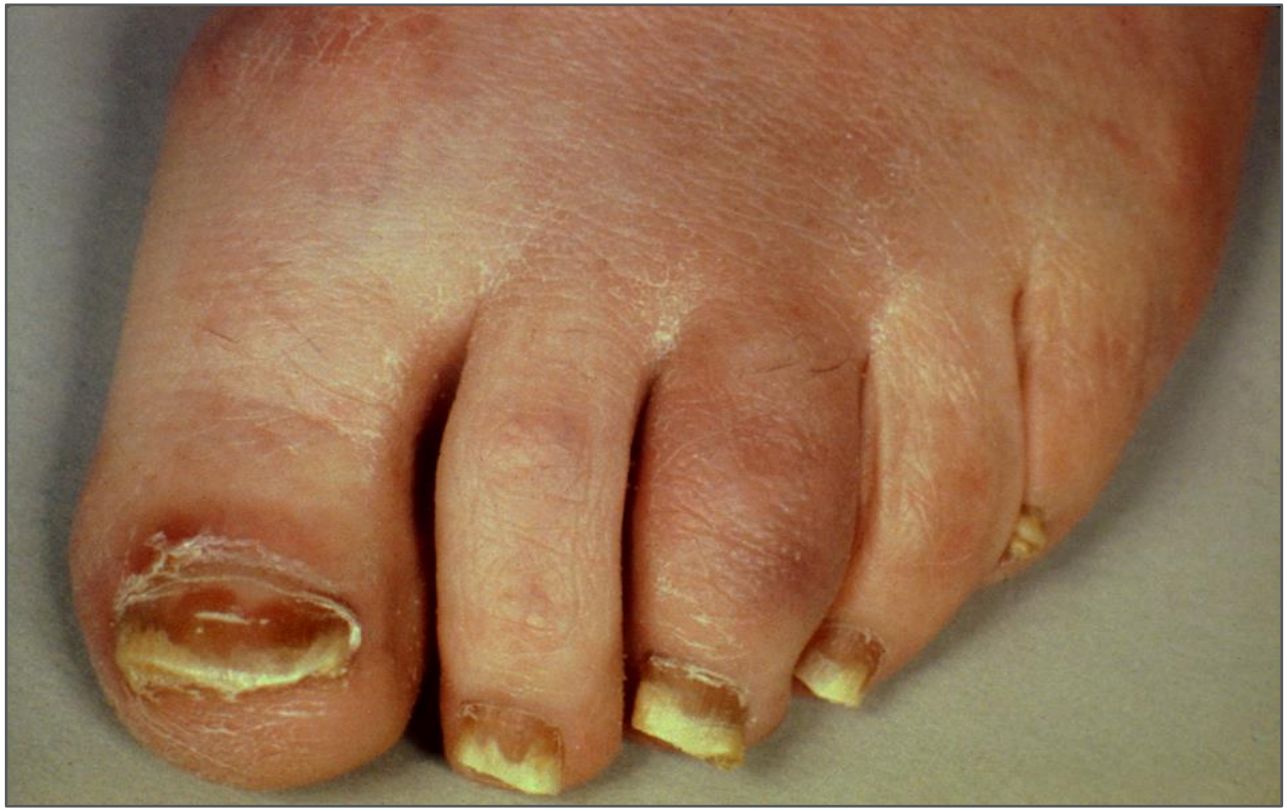
Inflammatory Enthesopathy

- Subchondral bone inflammation and resorption
- Periosteal new bone formation
- May explain nail changes



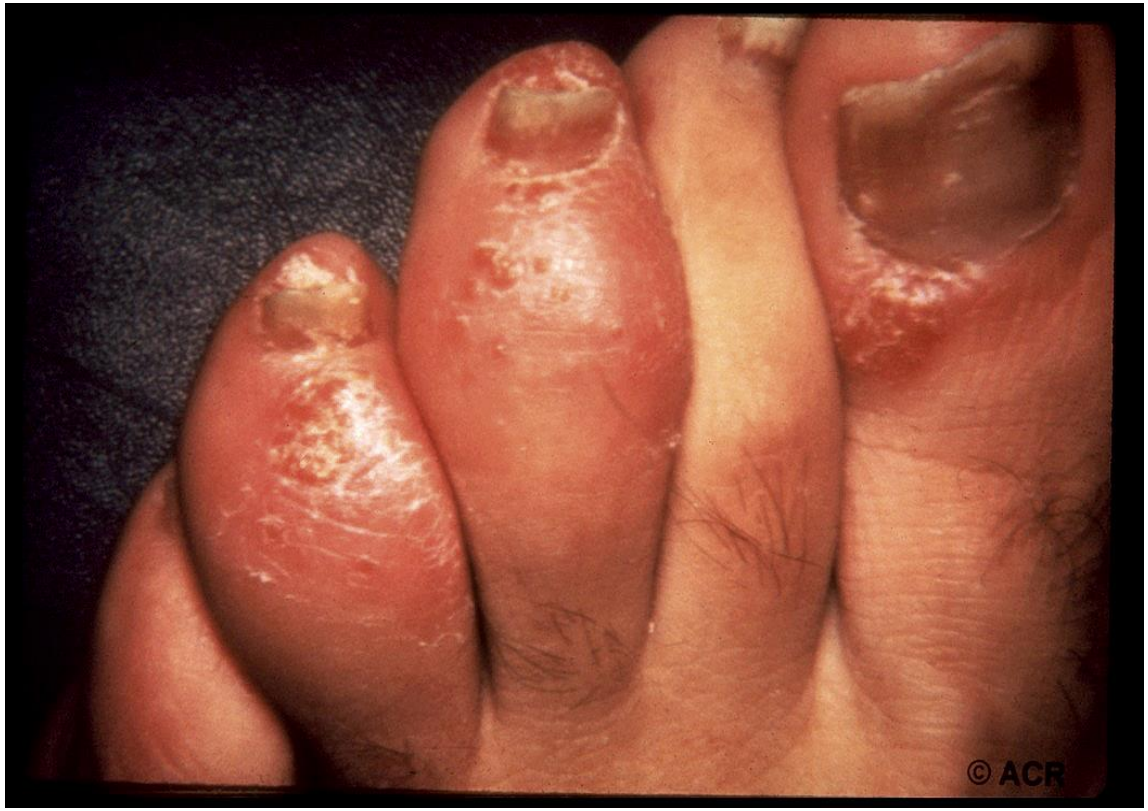
McGonagle D. Arthritis Rheum 1999. 42:1080-1086; Tan AL, et al. *Rheumatology* 2006

Dactylitis

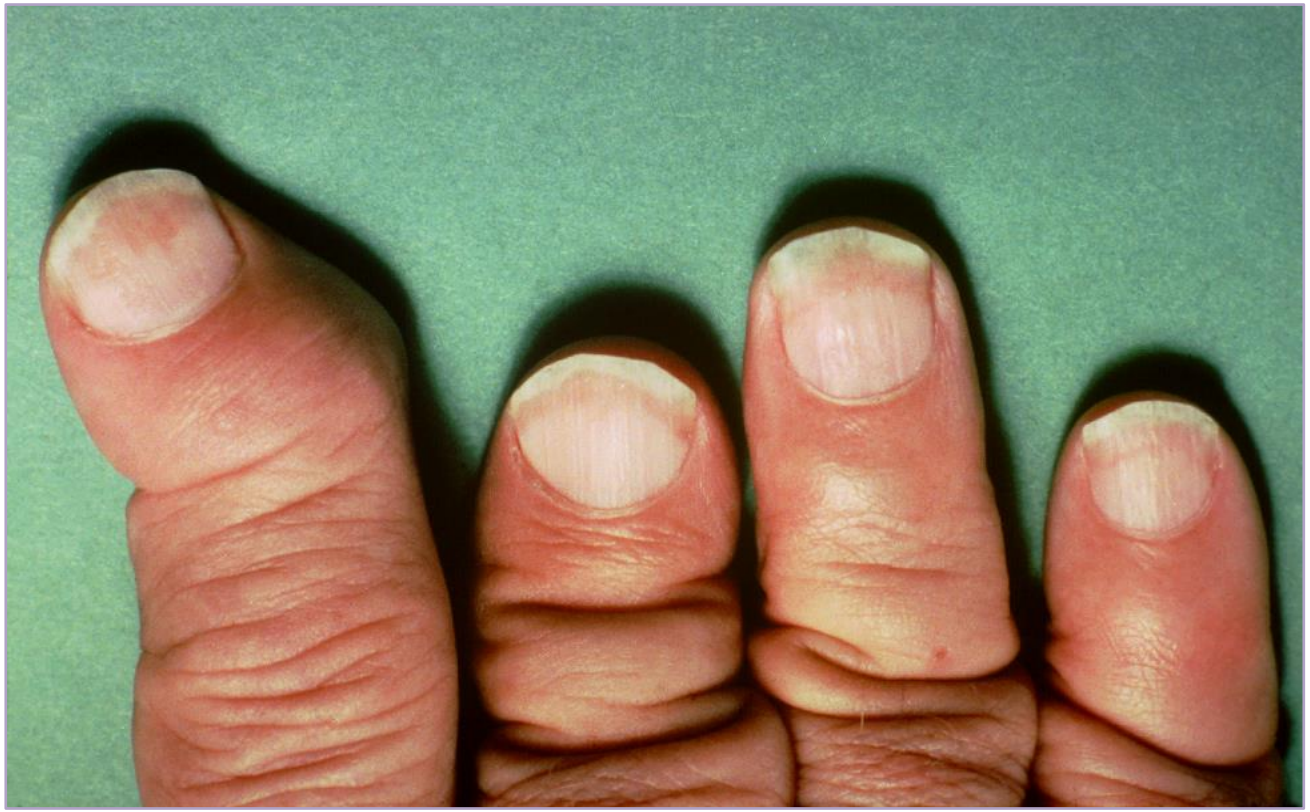


ACR Rheumatology Image Library

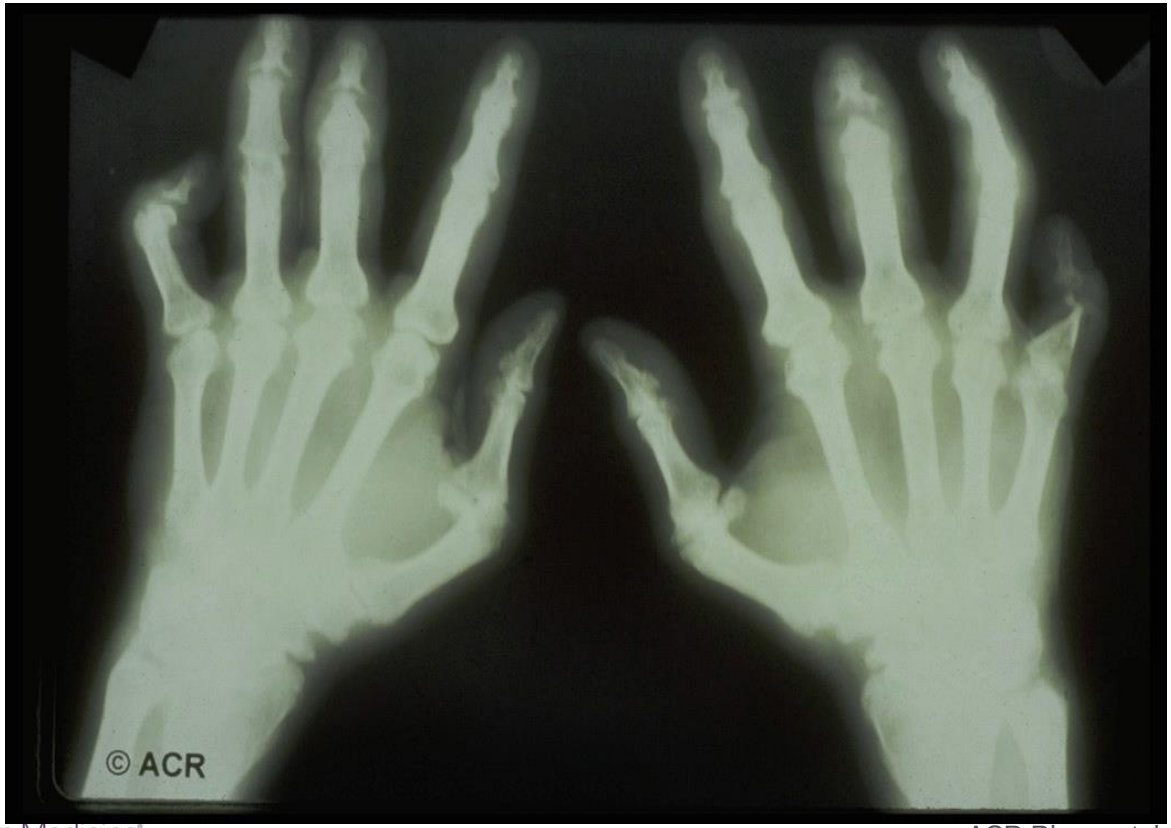
Dactylitis



Arthritis Mutilans



Destructive Arthritis



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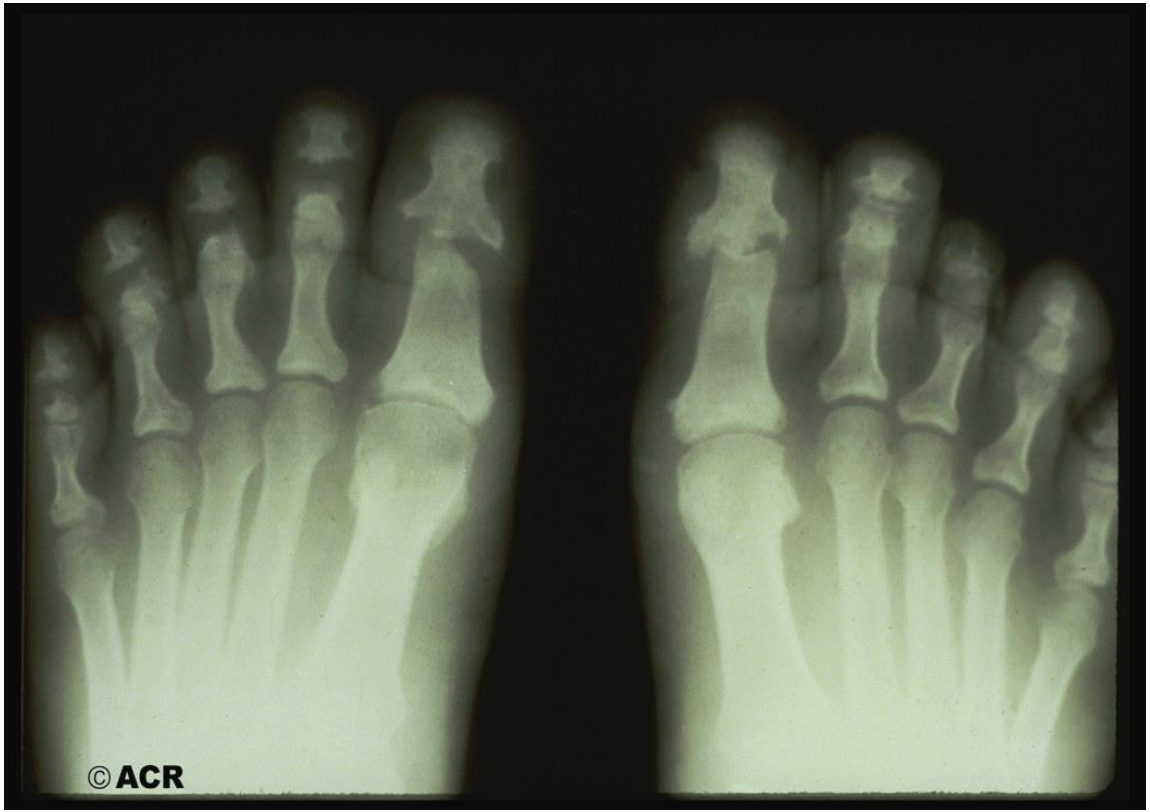
Destructive Arthritis



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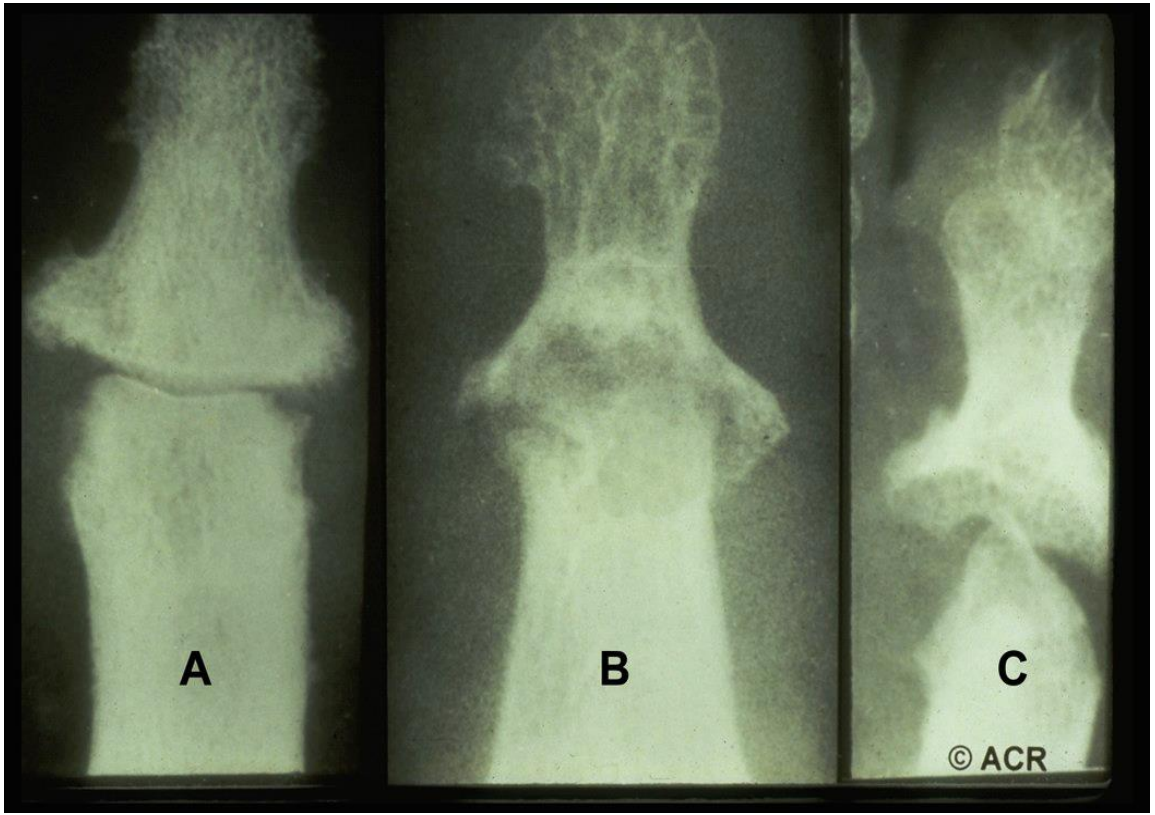
Productive Erosions (Pencil in Cup)



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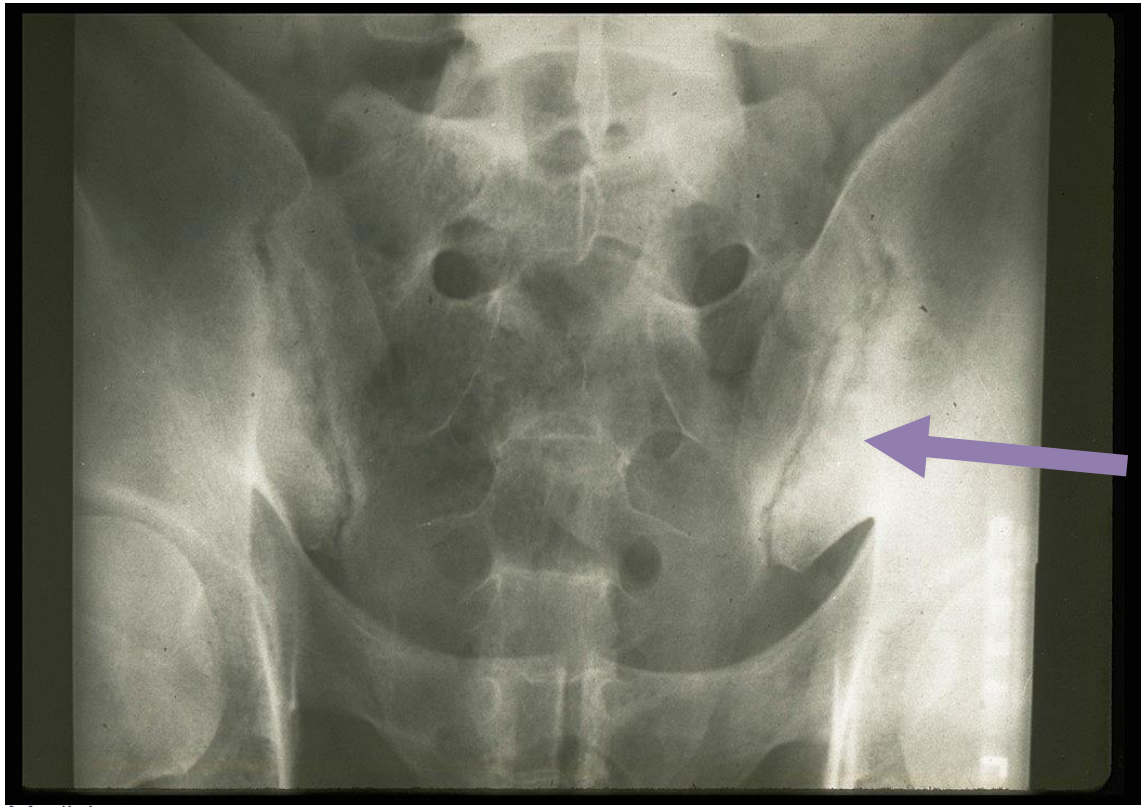
Sacroiliitis



Selection of a Treatment Agent

Selection of a Treatment Agent

Arthritis & Rheumatology
Vol. 0, No. 0, Month 2018, pp 1–28
DOI 10.1002/art.40726

AMERICAN COLLEGE OF RHEUMATOLOGY
EDUCATION • TREATMENT • RESEARCH

SPECIAL ARTICLE

2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis

Jasvinder A. Singh,[1] Gordon Guyatt,[2] Alexis Ogdie,[3] Dafna D. Gladman,[4] Chad Deal,[5] Atul Deodhar,[6] Maureen Dubreuil,[7] Jonathan Dunham,[3] M. Elaine Husni,[5] Sarah Kenny,[8] Jennifer Kwan-Morley,[9] Janice Lin,[10] Paula Marchetta,[11] Philip J. Mease,[12] Joseph F. Merola,[13] Julie Miner,[14] Christopher T. Ritchlin,[15] Bernadette Siaton,[16] Benjamin J. Smith,[17] Abby S. Van Voorhees,[18] Anna Helena Jonsson,[13] Amit Aakash Shah,[19] Nancy Sullivan,[20] Marat Turgunbaev,[19] Laura C. Coates,[21] Alice Gottlieb,[22] Marina Magrey,[23] W. Benjamin Nowell,[24] Ana-Maria Orbai,[25] Soumya M. Reddy,[26] Jose U. Scher,[26] Evan Siegel,[27] Michael Siegel,[28] Jessica A. Walsh,[29] Amy S. Turner,[19] and James Reston[20]

General Comments on Treatment

- There are no “pathways” in the guideline – only pairwise comparisons in each of a number of situations
- There is a lot to learn from the “gotchas” so these should be read and considered

The PsA “Toolbox”

NSAIDs ★

Glucocorticoids

Oral Small Molecules

Methotrexate

Leflunomide

Sulfasalazine

Cyclosporine

TNF alpha inhibitors

Etanercept ★

Adalimumab ★

Infliximab ★

Certulizimab ★

Golimumab ★

Local Glucocorticoid Injections

New MOA therapies

Ustekinimab (IL12/23i)

Apremilast (PDE4i)

Secukinumab (IL17i) ★

Abatacept (CTLA4 Ig)

Ixekizumab (IL17i) ★

Tofacitinb (JAK3)

Guselkumab (IL23i) NEW 7/2020

Upadacitinib (JAK1) NEW 12/2021

Rizankizumab (IL23i) NEW 1/2022

Adjunct Therapy

(limited evidence)

Physical therapy

Occupational therapy

Exercise

Weight Loss

Dietary Changes?

Acupuncture

Omega-3-FA

Patient Education

Social Support

Talk Therapy

★ = option for spondylitis

NSAIDs

- Favored first-line only in peripheral arthritis and axial arthritis
- Not disease-modifying

Injected Corticosteroids

- Favored only in peripheral arthritis and dactylitis

DMARDs

- Includes methotrexate, sulfasalazine, leflunomide
- Strongly favored only in peripheral arthritis
- Can be used in dactylitis, skin (not sulfasalazine), nail disease
- NOT useful in axial disease, enthesitis

Biologics

- Includes inhibitors of TNF, IL-12/23, IL-17
- Favored in all manifestations, with varying levels of primacy

Treatment Modalities Unique to Psoriatic Arthritis

New MOA therapies

- Ustekinimab (IL12/23i)
- Apremilast (PDE4i)
- Secukinumab (IL17i) ★
- Ixekizumab (IL17i) ★
- Guselkumab (IL23i) NEW 7/2020
- Rizankizumab (IL23i) NEW 1/2022

★ = option for spondylitis

Apremilast (Otezla™)

- Oral
- Inhibits phosphodiesterase 4 (PDE4)
- Allows cAMP to accumulate
- Decreases inflammatory cytokines

  TNFa, IFNg, IL-12, IL-23, IL-17, IL-22…

- Warnings for diarrhea (~15%), weight loss, and
- neuropsychiatric effects (depression, suicidal ideation, mood changes)

Ustekinumab (Stelara™)

- SQ
- Inhibits IL12/23 (p40 subunit)
- Affects TH1 and TH17 cells

- Warnings for hypersensitivity, infection (incl TB), Ab formation, malignancy (NMSC), neurotoxicity

Secukinumab (Cosentyx™)
Ixekizumab (Taltz™)

- SQ
- Inhibit IL17

- Warnings for hypersensitivity, infection (incl TB), new or worsening IBD

Guselkumab (Tremfya™)
Risankizumab (Skyrizi™)

- SQ
- Inhibit only IL23 (p19 subunit)
- Affects TH17 cells

- Warnings for hypersensitivity, infection (incl TB), hepatotoxicity (risankizumab in Crohn's)

Lifestyle Treatment Options?

Adjunct Therapy
(limited evidence)

Weight Loss

Dietary Changes?

Omega-3-FA

Lifestyle Treatment Options?

JAMA Dermatology | Review

Dietary Recommendations for Adults With Psoriasis or Psoriatic Arthritis From the Medical Board of the National Psoriasis Foundation

A Systematic Review

Adam R. Ford, BS; Michael Siegel, PhD; Jerry Bagel, MD, MS; Kelly M. Cordoro, MD; Amit Garg, MD; Alice Gottlieb, MD, PhD; Lawrence J. Green, MD; Johann E. Gudjonsson, MD, PhD; John Koo, MD; Mark Lebwohl, MD; Wilson Liao, MD; Arthur M. Mandelin II, MD, PhD; Joseph A. Markenson, MD; Nehal Mehta, MD, MSCE, FAHA; Joseph F. Merola, MD, MMSc; Ronald Prussick, MD; Caitriona Ryan, MD, FAAD; Sergio Schwartzman, MD; Evan L. Siegel, MD; Abby S. Van Voorhees, MD; Jashin J. Wu, MD; April W. Armstrong, MD, MPH

Ford AR, Siegel M, Bagel J, et al. JAMA Dermatol. 2018;154(8):934–950. doi:10.1001/jamadermatol.2018.1412

Lifestyle Treatment Options?

- Systematic review of 55 studies
- Representing 4534 patients
- Findings reviewed and voted upon by the NPF Medical Board

Weight Loss?

- **Strongly Recommend** weight loss via diet for both psoriasis and psoriatic arthritis in BMI ≥25 [level of evidence: A for psoriasis, B for psoriatic arthritis]

Gluten-Free?

- **Strongly Recommend** gluten-free diet for psoriasis (not psoriatic arthritis) in known celiac patients [level of evidence: A]
- **Recommend** a trial of 3 mo gluten-free for psoriasis (not psoriatic arthritis) as an adjunct treatment in patients seropositive for gluten sensitivity [level of evidence: B]
- **Do Not Recommend** universal screening for gluten sensitivity
  - Due to high false-positive rate
  - Screen only those who are symptomatic or have an affected first-degree relative

Mediterranean Diet?

- **Weakly Recommend** a trial of Mediterranean diet for psoriasis (not psoriatic arthritis) [level of evidence: C]

Omega-3 / Fish Oil?

- **Weakly Recommend** a trial of purified omega-3 including eicosapentaenoic
- acid (EPA) and docosapentaenoic acid (DHA) for psoriasis (not psoriatic arthritis) [level of evidence: C]
- **Do Not Recommend** unpurified fish oil for psoriasis nor psoriatic arthritis

Vitamin D?

- **Recommend** a trial of oral vitamin D (0.5 µg alfacalcidol or 0.5-2.0 µg calcitriol daily) as adjunct for psoriatic arthritis [level of evidence: B]
- **Do Not Recommend** vitamin D for psoriasis

Vitamin B12?

- **Do Not Recommend** vitamin B12 for psoriasis

Selenium?

- **Do Not Recommend** selenium for psoriasis
- **Insufficient Data** to comment on selenium in psoriatic arthritis

Open Discussion

Thank You!