VCU School of Medicine

Clinical Pearls in Dermatology

ACP Virginia Chapter- Annual Meeting and Clinical Update
March 8, 2019

Kimberly S. Salkey, MD
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Department of Dermatology

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Psoriasis: To Be or Not To Be

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

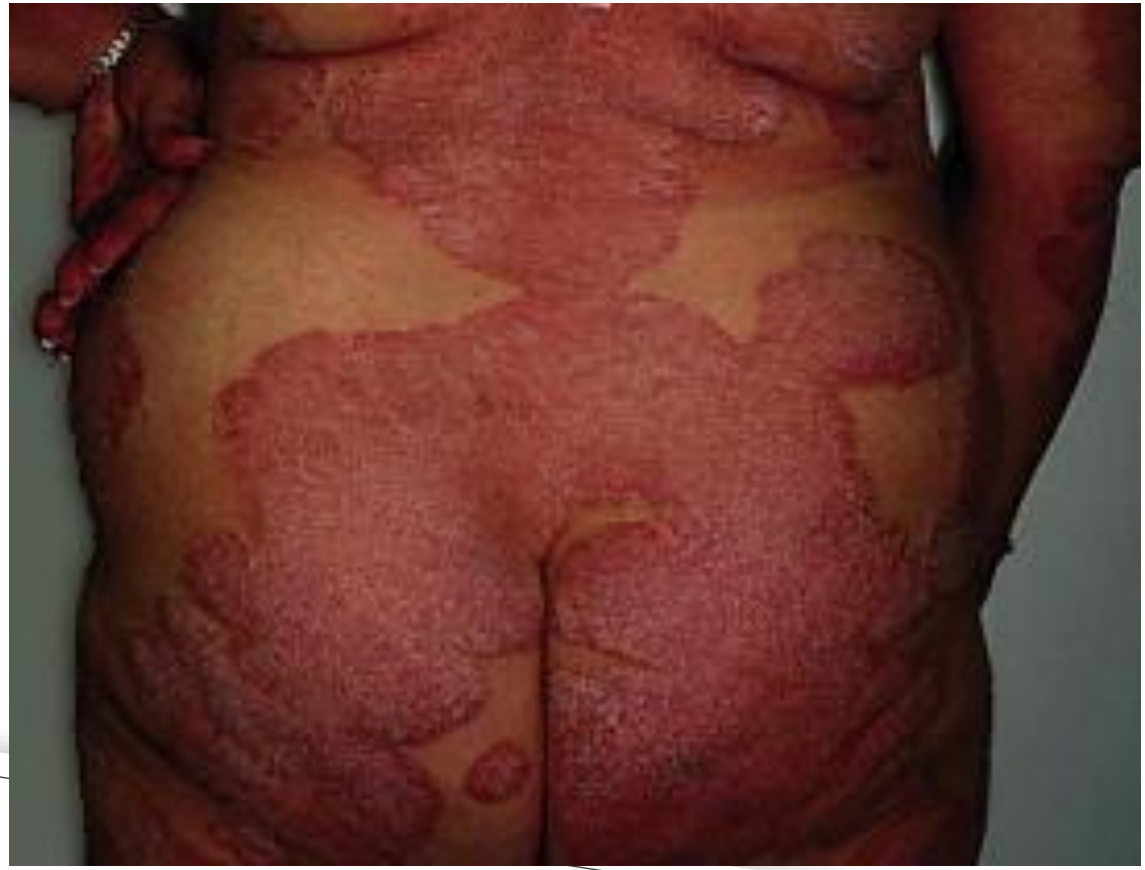
Kimberly S. Salkey, MD

Common Challenges in Hair and Nail Disorders

DISCLOSURES

I do not have any relevant relationships with industry.

Patient 1



Patient 1

49yo woman with a family history of psoriasis presents with a 30 year h/o chronic, stable, plaque psoriasis involving 70% of her BSA. She has asymmetric oligoarthropathy and dystrophic fingernails and toenails.

Which factor in the patient's history is an independent indication for systemic therapy?

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B. Chronicity of disease
C. Extent of body surface area
D. Psoriatic arthritis
E. Nail involvement

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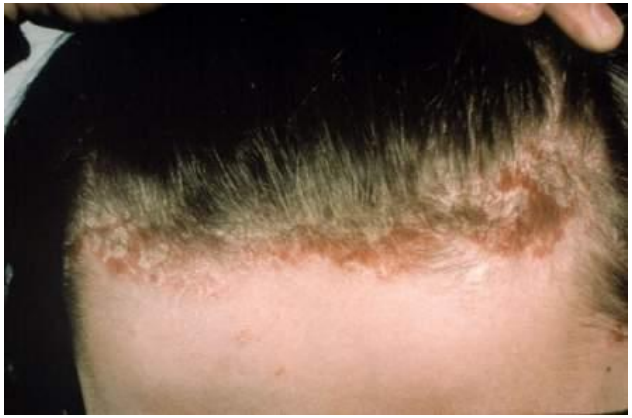
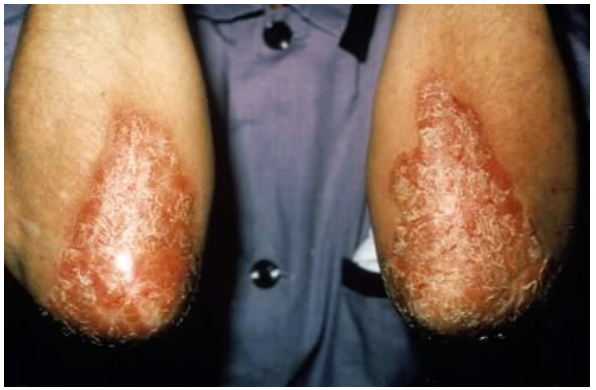
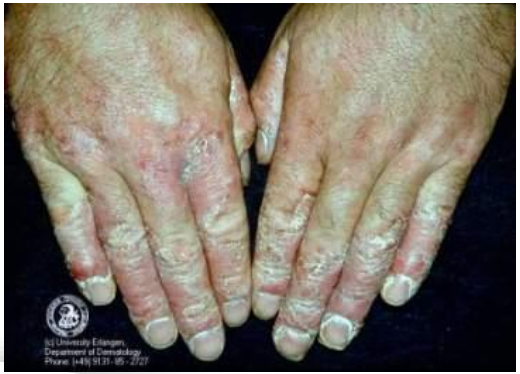
Chronic Plaque Psoriasis







Psoriatic Arthritis

Table 1. Classification Criteria for Psoriatic Arthritis (CASPAR).*

Criterion	Explanation	Points
Evidence of psoriasis		
Current psoriasis	Current psoriatic skin or scalp disease as judged by a dermatologist or rheumatologist	2
Personal history of psoriasis	History of psoriasis according to the patient or a family doctor, dermatologist, or rheumatologist	1
Family history of psoriasis	History of psoriasis in a first- or second-degree relative according to the patient	1
Psoriatic nail dystrophy	Typical psoriatic nail dystrophy (e.g., onycholysis, pitting, or hyperkeratosis) according to observation during current physical examination	1
Negative test for rheumatoid factor	Based on reference range at local laboratory; any testing method except latex, with preference for ELISA or nephelometry	1
Dactylitis		
Current dactylitis	Swelling of an entire digit according to observation on current physical examination	1
History of dactylitis	According to a rheumatologist	1
Radiographic evidence of juxtaarticular new bone formation	Ill-defined ossification near joint margins (excluding osteophyte formation) on plain radiographs of hand or foot	1

* Psoriatic arthritis is considered to be present in patients with inflammatory musculoskeletal disease (disease involving the joint, spine, or enthesis) whose score on the five criteria listed in the table totals at least three points; the "evidence of psoriasis" criterion can account for either one point or two points. The criteria have a specificity of 98.7% and a sensitivity of 91.4%. ELISA denotes enzyme-linked immunosorbent assay.

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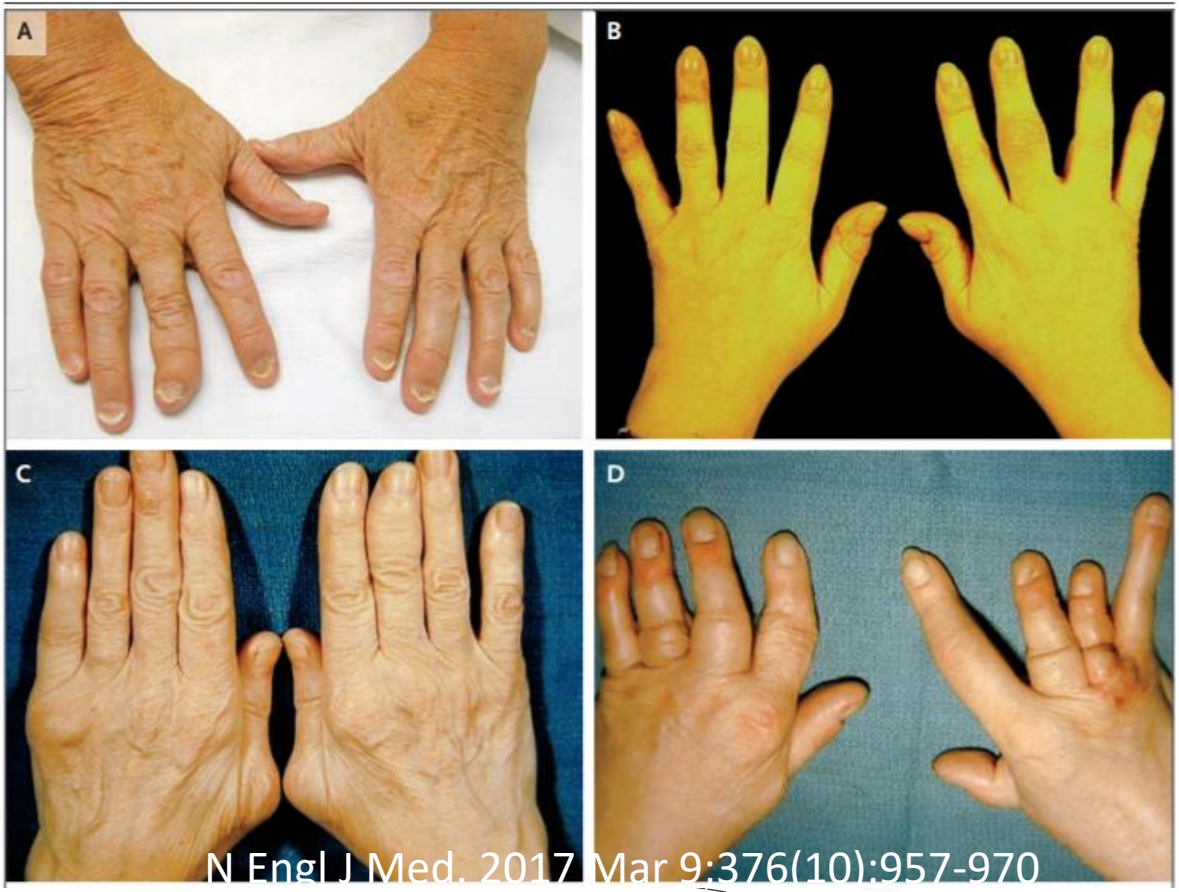
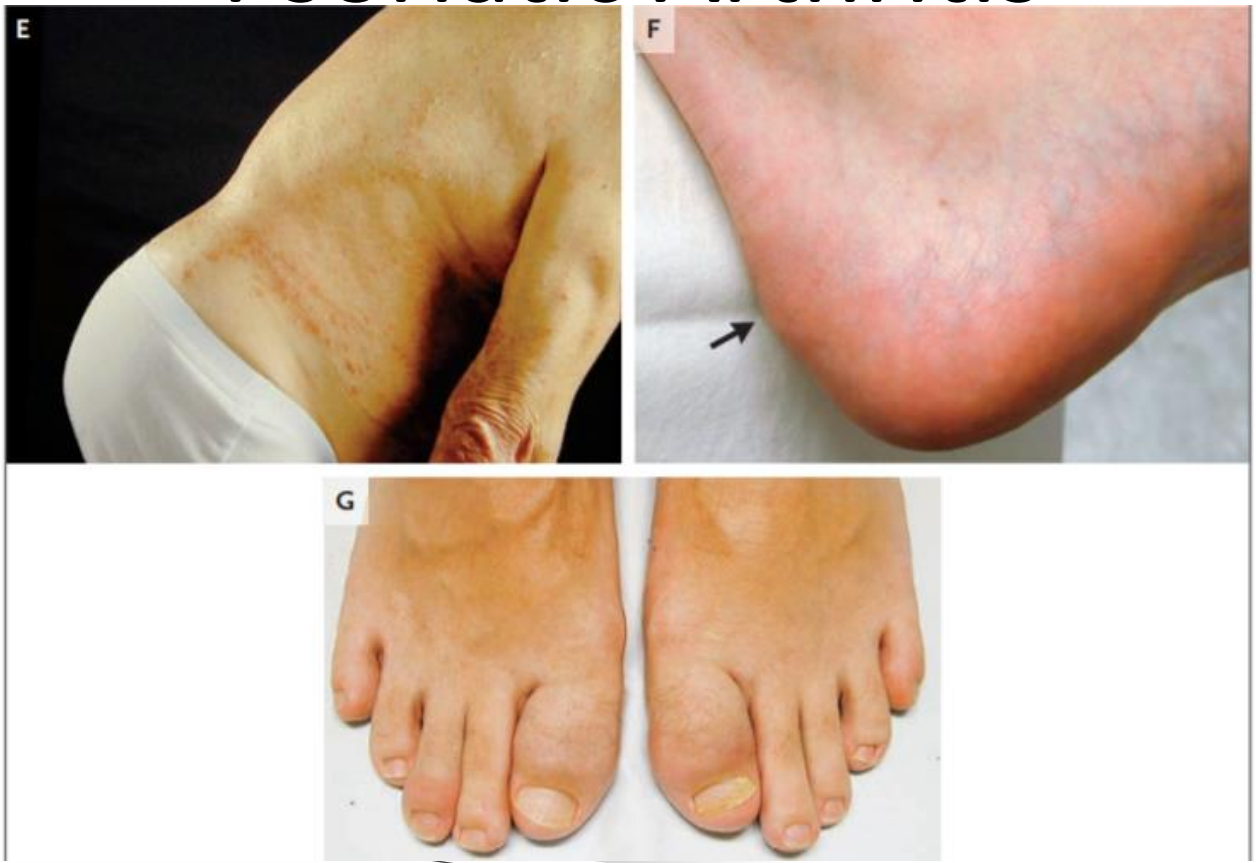
N Engl J Med. 2017 Mar 9;376(10):957-970

Psoriatic Arthritis



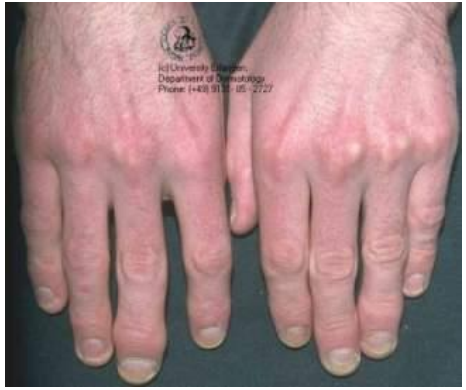
N Engl J Med. 2017 Mar 9;376(10):957-970

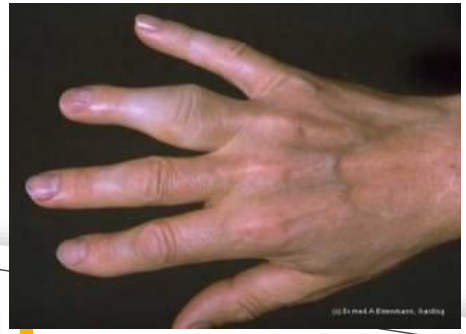
Psoriatic Arthritis

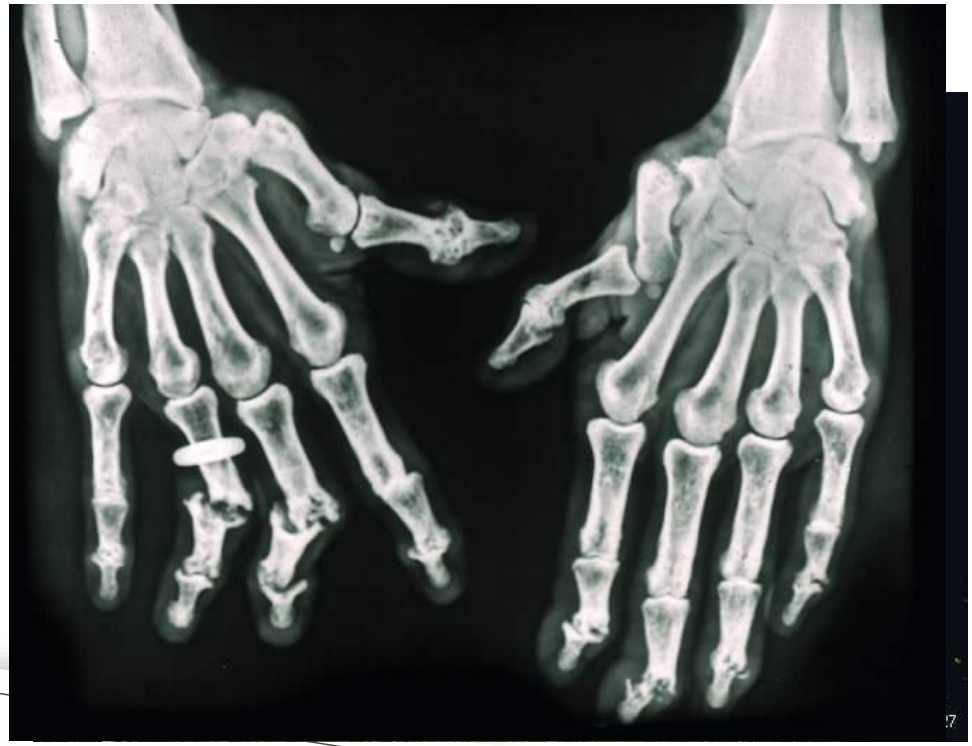


N Engl J Med. 2017 Mar 9;376(10):957-970

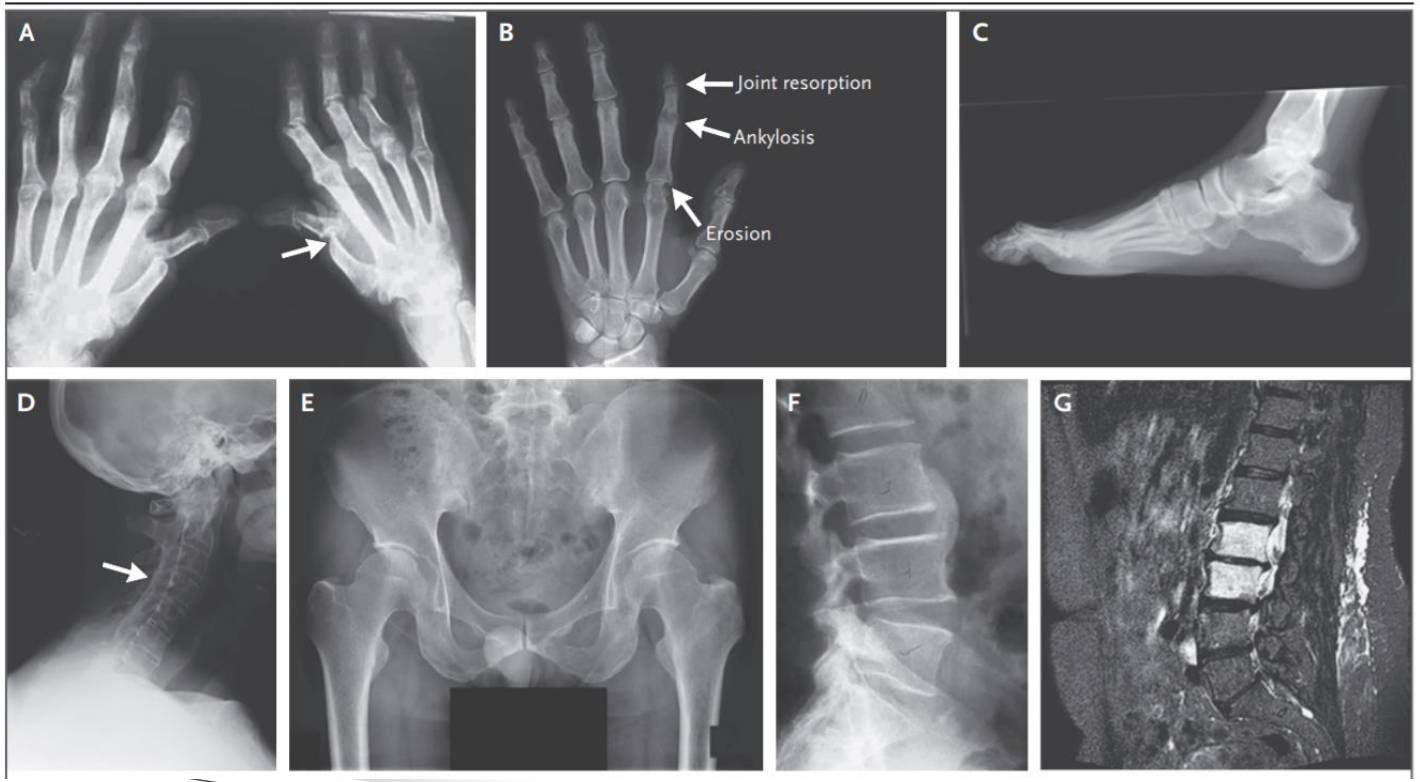
Psoriatic Arthritis







Psoriatic Arthritis



N Engl J Med. 2017 Mar 9;376(10):957-970

Psoriatic Arthritis Management

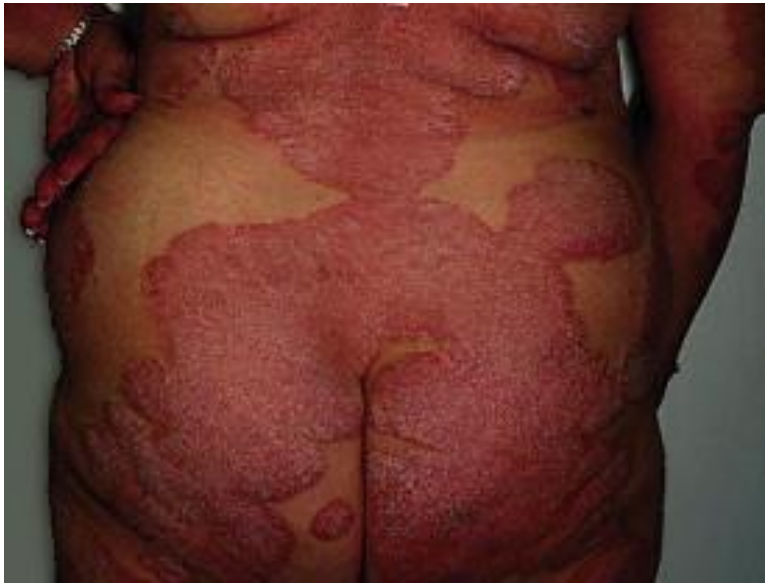
Table 4. Efficacy and Side Effects of Drugs for the Treatment of Psoriatic Arthritis.

Drug (Mode of Administration)	Dose According to Site		Signs and Symptoms		Structural Modification of Joints*	Common Side Effects
	Joints	Skin	Joints	Skin		
NSAIDs			Mild response	—	Not assessed	
Naproxen (oral)	750–1000 mg/day	Not applicable				Gastrointestinal effects
Diclofenac (oral)	100–150 mg/day	Not applicable				Cardiac effects
Indomethacin (oral)	100/150 mg/day	Not applicable				Renal effects
DMARDs						
Methotrexate (oral or SC)	15–25 mg/wk	15–25 mg/wk	Mild response	Moderate response	Not assessed	Hair loss, nausea, hepatic effects
Leflunomide (oral)	20 mg/day	Not applicable	Mild response	Mild response	Not assessed	Diarrhea, renal effects, hair loss
Sulfasalazine (oral)	2–3 g/day	Not applicable	—	—	Not assessed	Neutropenia, diarrhea
Anti-TNF agents						
Adalimumab (SC)	40 mg every 2 wk	80 mg loading dose, 40 mg 1 wk later, then 40 mg every 2 wk	Very good response	Moderate response	Moderate response	Injection-site reactions, infections
Certolizumab (SC)	200 mg every 2 wk or 400 mg every 4 wk	Not applicable	Very good response	Moderate response	Moderate response	Injection-site reactions, infections
Etanercept (SC)	50 mg weekly	50 mg twice/wk	Very good response	Mild response	Moderate response	Injection-site reactions, infections
Golimumab (SC, infusion)	50 mg monthly	Not applicable	Very good response	Mild response	Moderate response	Injection-site reactions, infections
Infliximab (infusion)	5 mg/kg of body weight at 0, 2, and 6 wk, then every 8 wk	5–10 mg/kg at 0, 2, and 6 wk, then every 8 wk	Very good response	Excellent response	Moderate response	Infusion reactions, infections
Anti–interleukin-17 agents						
Ixekizumab (SC)	80 mg every 2 wk	80 mg every 2 wk	Very good response	Excellent response	Mild response	Candida infections
Secukinumab (SC)	150 mg weekly from 0–4 wk, then monthly	300 mg weekly from 0–4 wk, then monthly	Very good response	Excellent response	Mild response	Candida infections
Anti–interleukin-12–interleukin-23 agent: ustekinumab (SC)	45 mg/kg (for body weight of <100 kg) or 90 mg/kg (for body weight of ≥100 kg) at 0, 4, and 12 wk, then every 12 wk	45 mg/kg (for body weight of <100 kg) or 90 mg/kg (for body weight of ≥100 kg) at 0, 4, and 12 wk, then every 12 wk	Very good response	Very good response	Mild response	Injection-site reactions, infections
PDE4 inhibitor: apremilast (oral)	30 mg twice daily	30 mg twice daily	Moderate response	Mild response	Not assessed	Weight loss, diarrhea

* Recent trials of these agents involved patients with little disease progression, resulting in a smaller effect on structural modification as compared with earlier trials, which involved patients with more severe disease and more progression. For drugs that were not assessed with respect to structural modification of joints, observational data suggest no response. Dashes indicate that there was no appreciable response. DMARDs denotes disease-modifying antirheumatic drugs, NSAIDs nonsteroidal antiinflammatory drugs, PDE4 phosphodiesterase 4, SC subcutane-

N Engl J Med. 2017 Mar 9;376(10):957-970

Patient 1



Which factor in the patient's history is an independent indication for systemic therapy?

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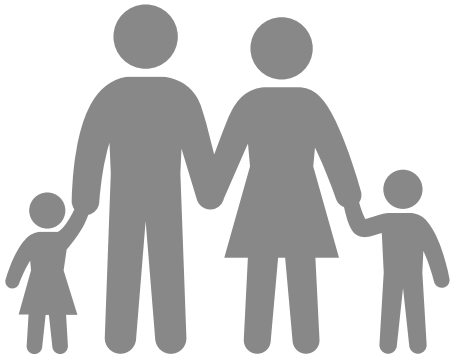
Patient 1

- Multi-genetic disease
- Wide range of patients with affected family



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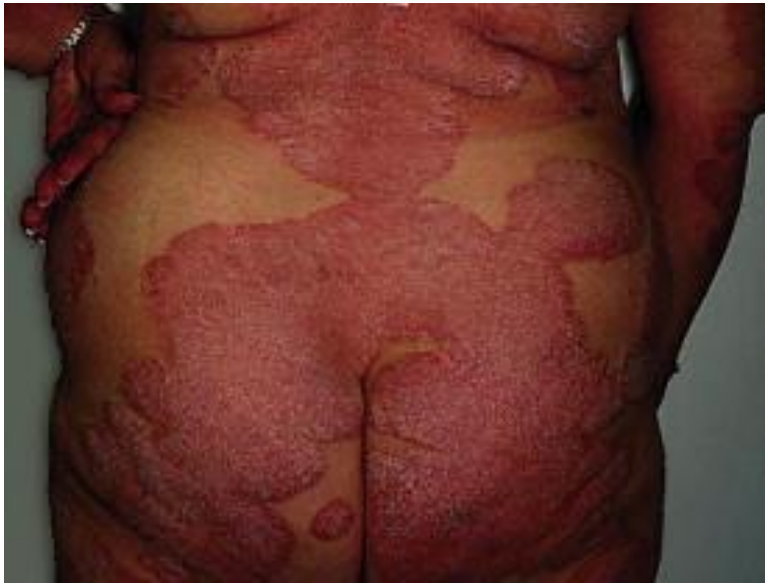

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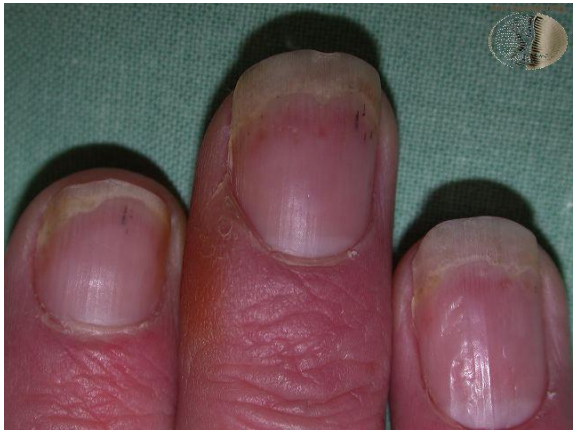

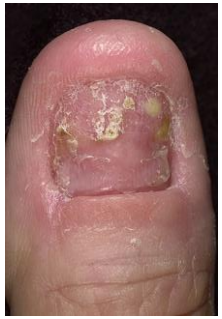

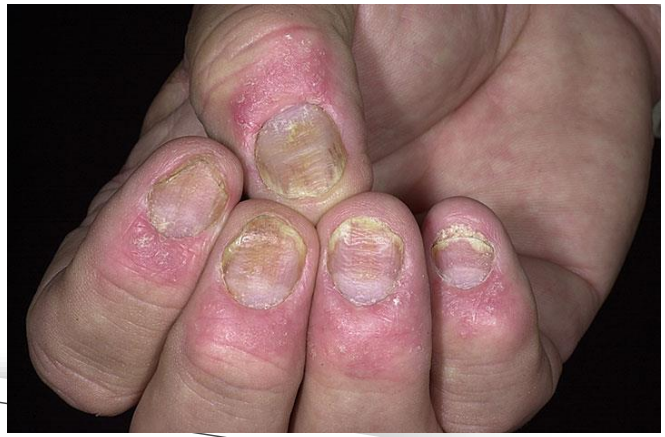

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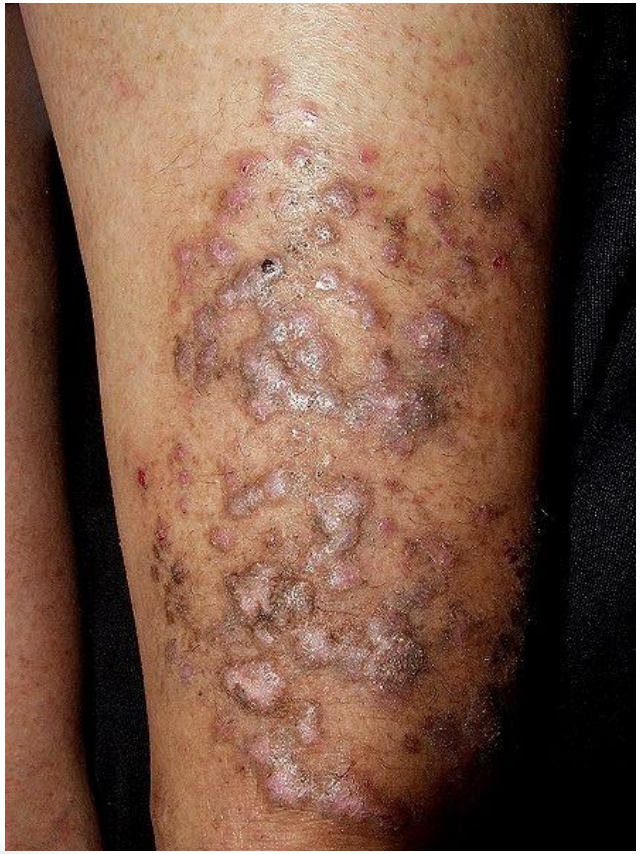
Psoriatic Arthritis Pearl

- Multiple patterns of involvement
  - Asymmetric oligoarthropathy
- 30% of all patients with psoriasis
- Independent indication for systemic therapy

Patient 2

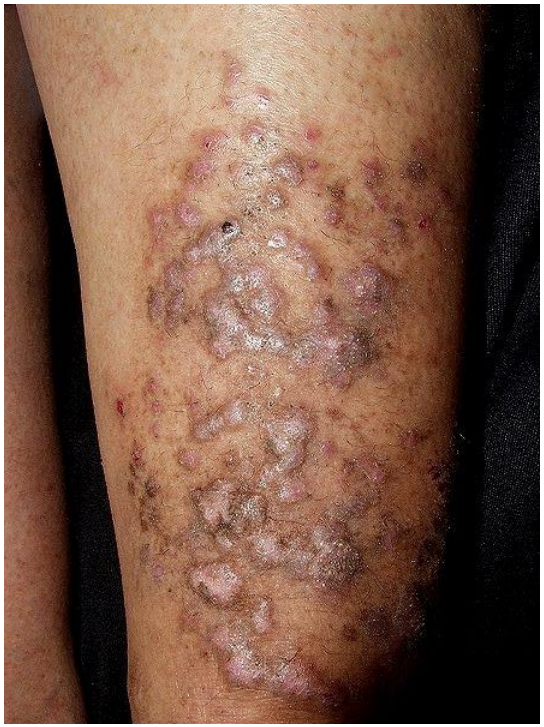
- 68yo woman with a 3 year history of these very pruritic papules and nodules.



Patient 2

Which of these infectious diseases is most likely to be present in this patient?

A. Hepatitis B
B. Hepatitis C
C. HIV
D. Human herpes virus 6 (HHV 6)
E. Syphilis



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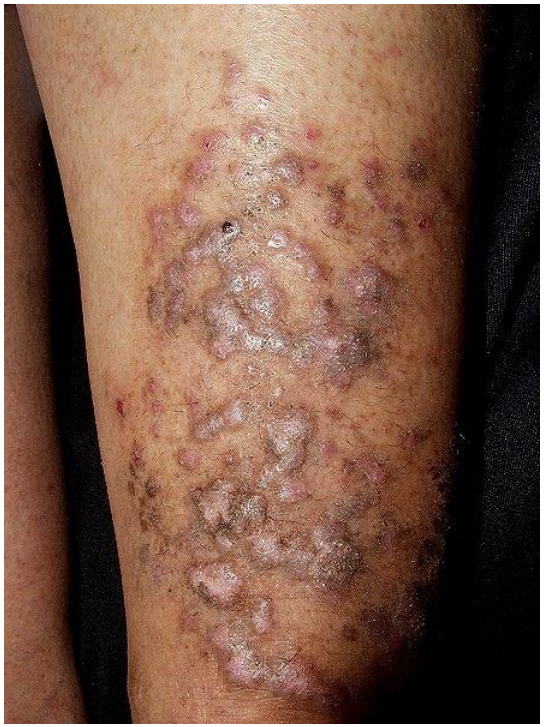
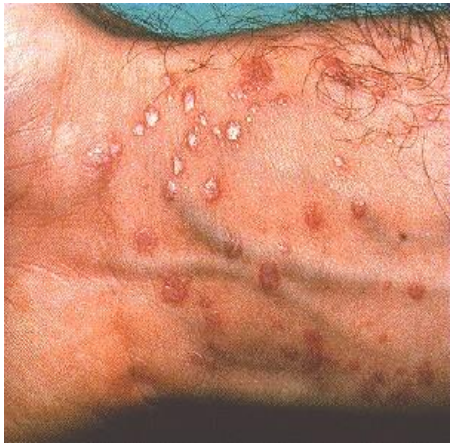
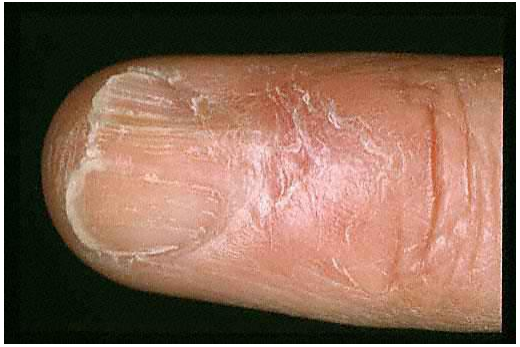


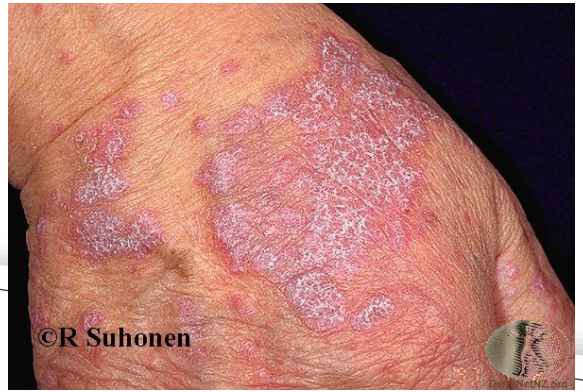
Lichen Planus

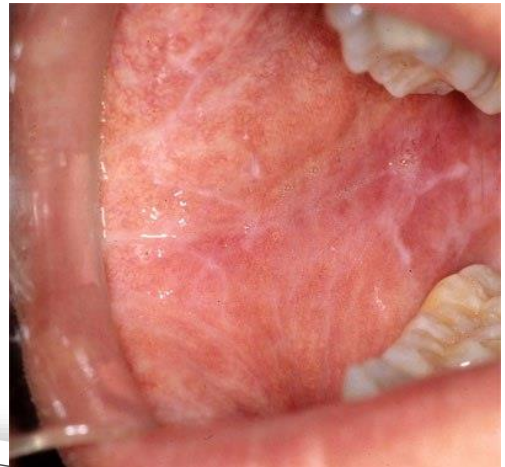
- Purple polygonal pruritic papules and plaques
- Distinguish from psoriasis
  - Morphology
  - Distribution
  - Associated findings

Lichen Planus

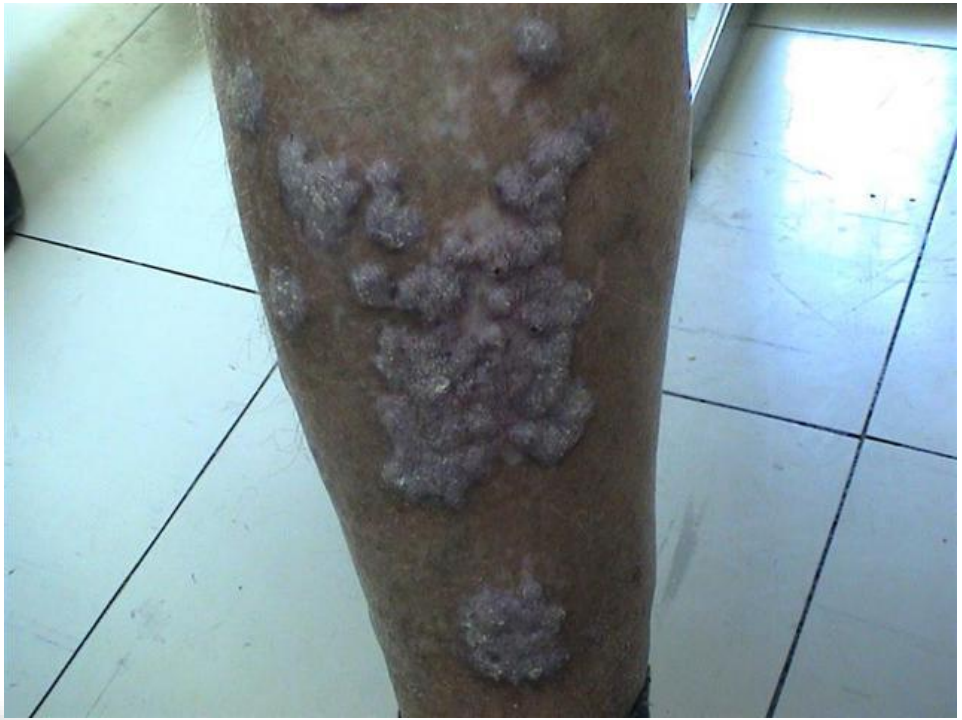




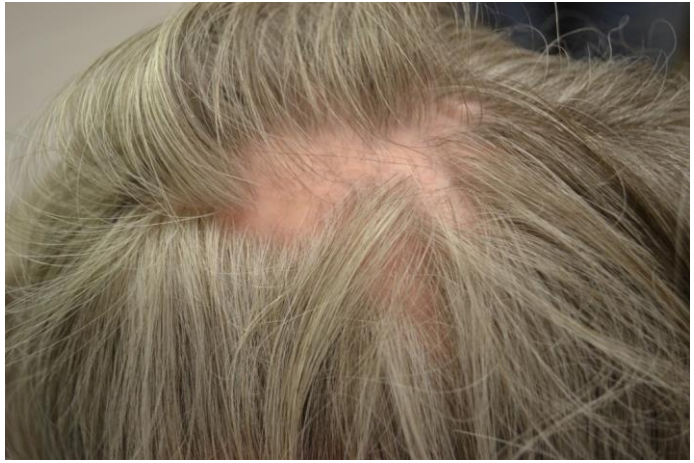


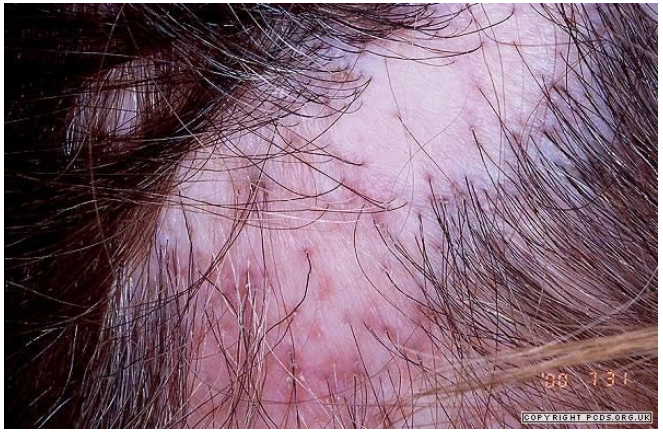


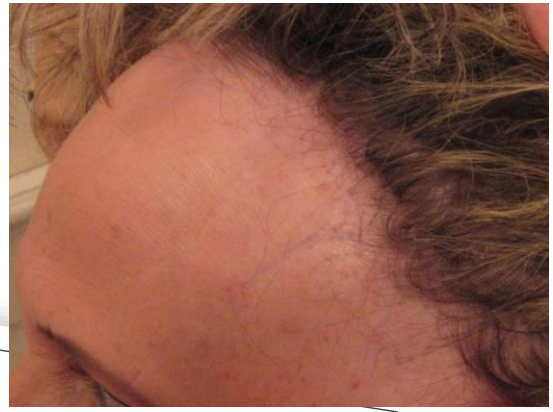
Hypertrophic Lichen Planus



Lichen Planopilaris







Lichen Planus and Hepatitis C

- Those with HepC are more likely to have LP
- Those with LP are not more likely to have HepC
- Screening guidelines are not set

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Arch Dermatol. 2009;145(9):1040-1047

Patient 2

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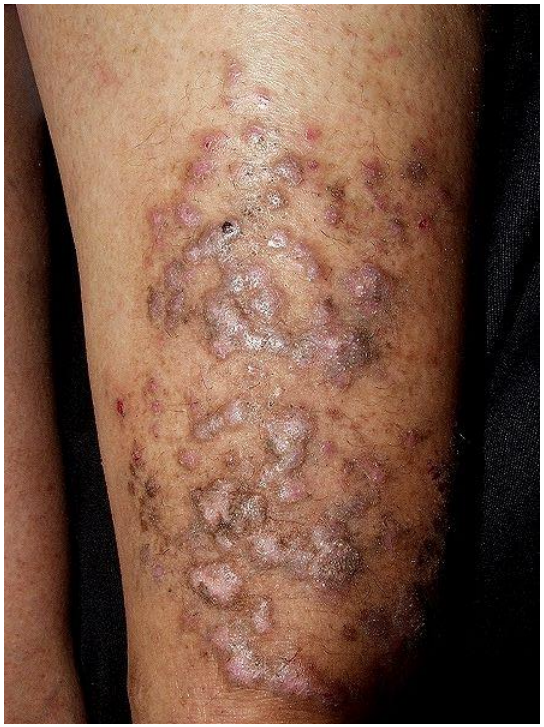
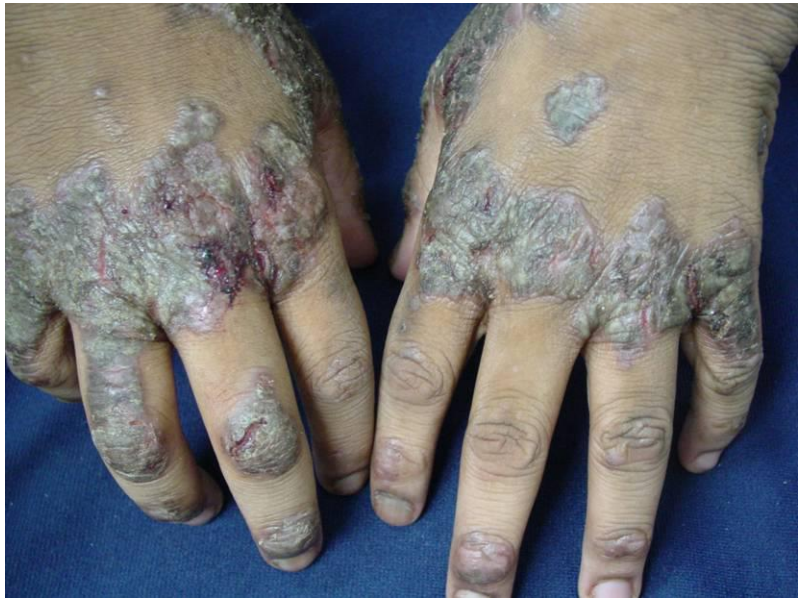
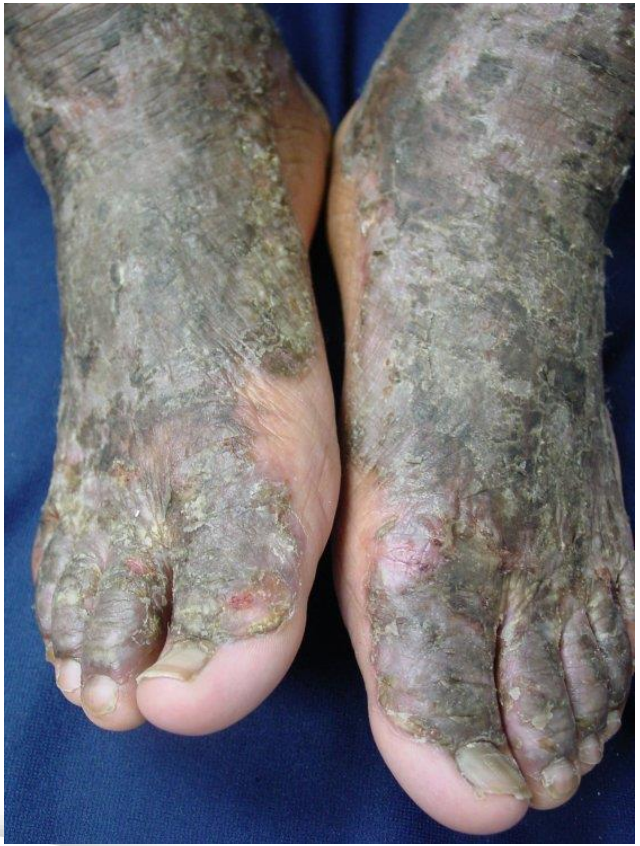


Lichen Planus Pearl

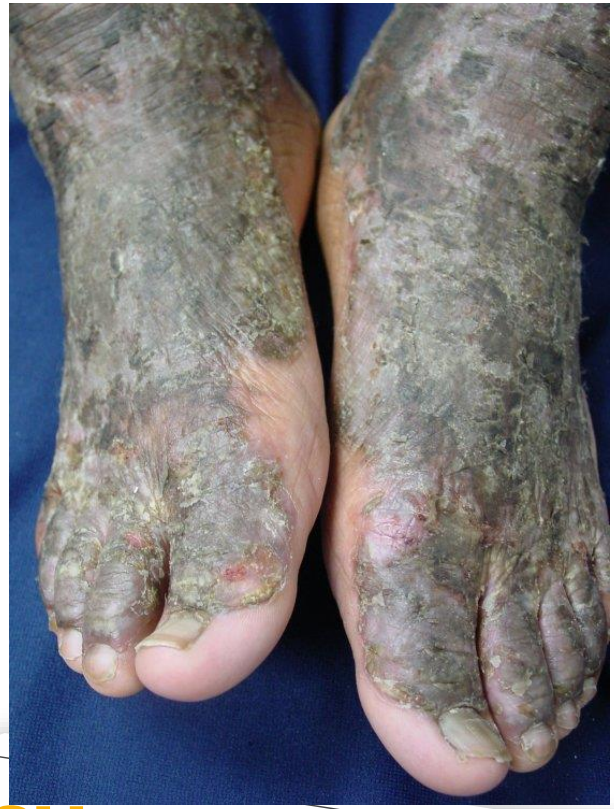
- Unique skin findings
  - Severe pruritus
  - Nail changes
  - Scarring alopecia
- Hepatitis C association

Patient 3





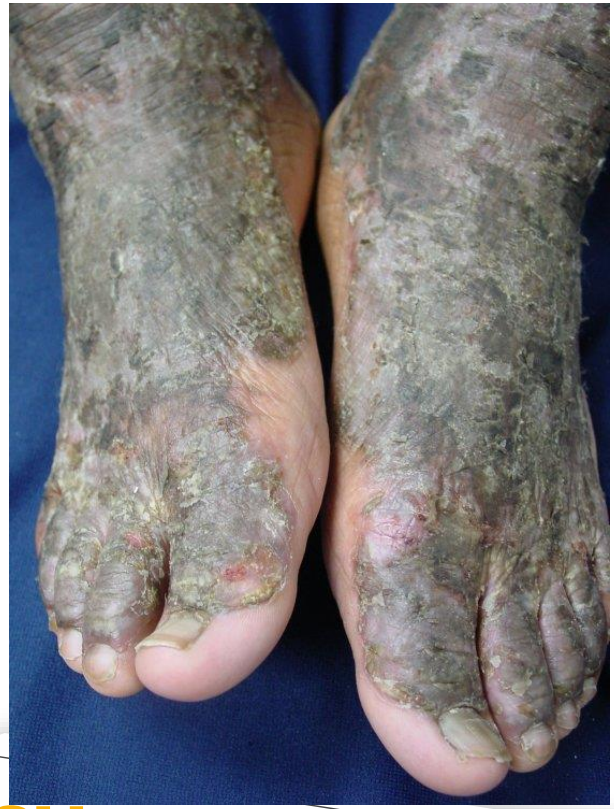
Patient 3



Which metabolic abnormality is most likely in this patient?

A. Elevated serum calcium
B. Elevated serum glucose
C. Low vitamin B3
D. Low vitamin D
E. Low zinc

Patient 3



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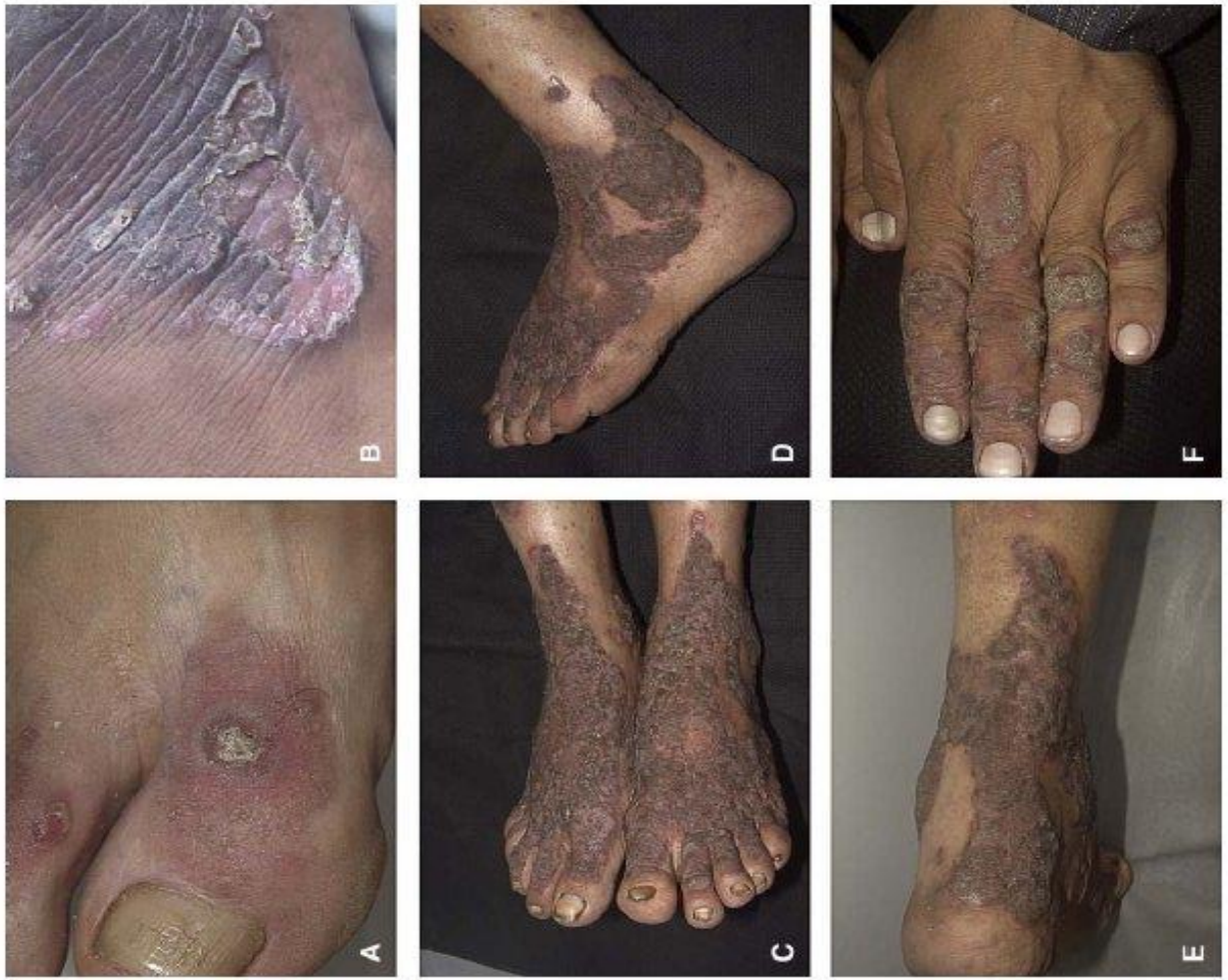
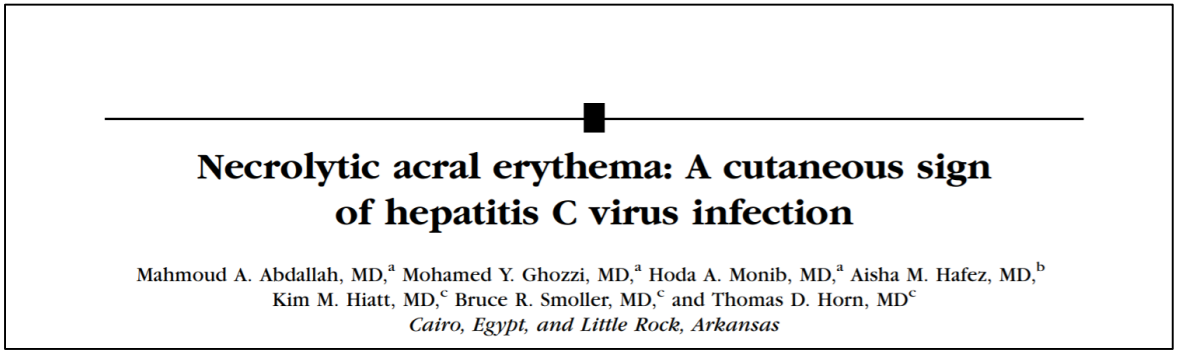
Necrolytic Acral Erythema

- **El Darouti M, Abu el Ela M. Necrolytic acral erythema: a cutaneous marker of viral hepatitis C. *Int J Dermatol*. 1996;35:252-6.**
- 7 patients described, all with hepatitis C
  - Dusky plaques on dorsal feet
    - Erythema, bullae, hyperkeratosis
  - Histologically similar to other necrolytic erythemas
    - Necrolytic migratory erythema, pellagra, acrodermatitis enteropathica



J Am Acad Dermatol 2005:53:247-51.

Necrolytic Acral Erythema



Necrolytic acral erythema: A cutaneous sign of hepatitis C virus infection

Mahmoud A. Abdallah, MD,[a] Mohamed Y. Ghozzi, MD,[a] Hoda A. Monib, MD,[a] Aisha M. Hafez, MD,[b]
Kim M. Hiatt, MD,[c] Bruce R. Smoller, MD,[c] and Thomas D. Horn, MD[c]
Cairo, Egypt, and Little Rock, Arkansas

2005

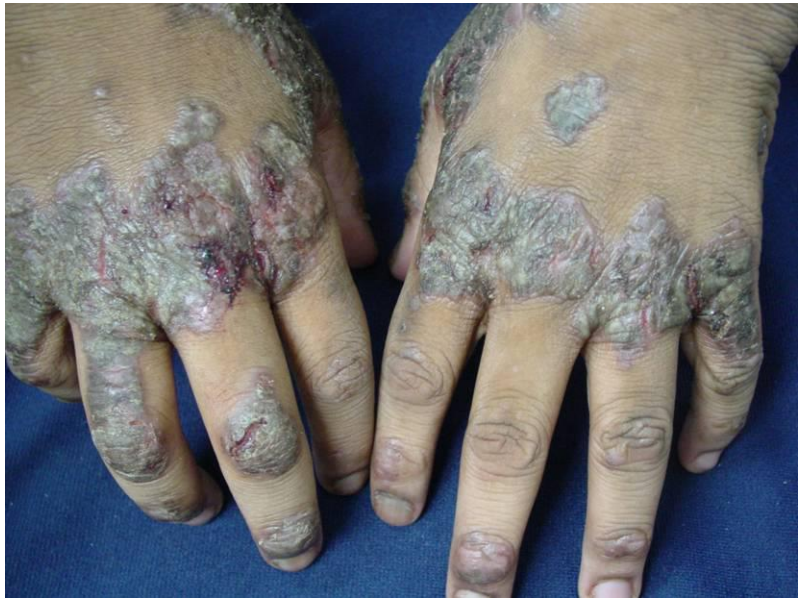
J Cutan Pathol 2009: 36: 355–358
doi: 10.1111/j.1600-0560.2008.01037.x
Blackwell Munksgaard. Printed in Singapore

Journal of Cutaneous Pathology

Necrolytic acral erythema without hepatitis C infection

2009

Patient 3



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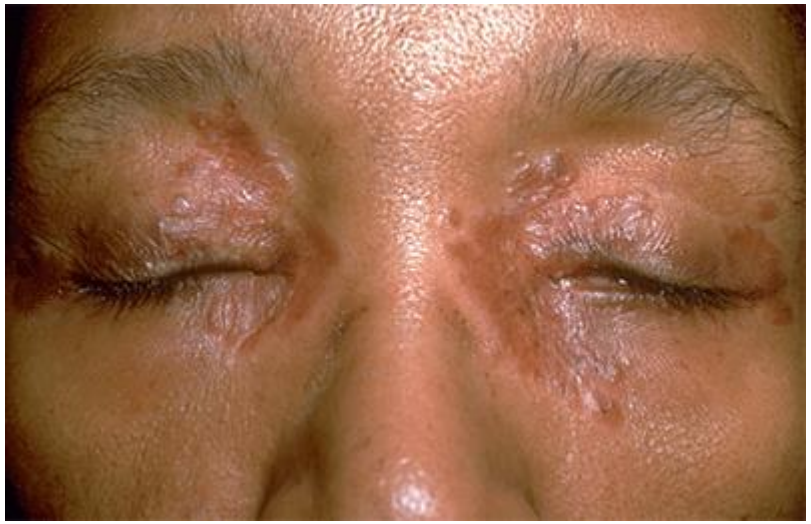
Patient 3

Sarcoidosis



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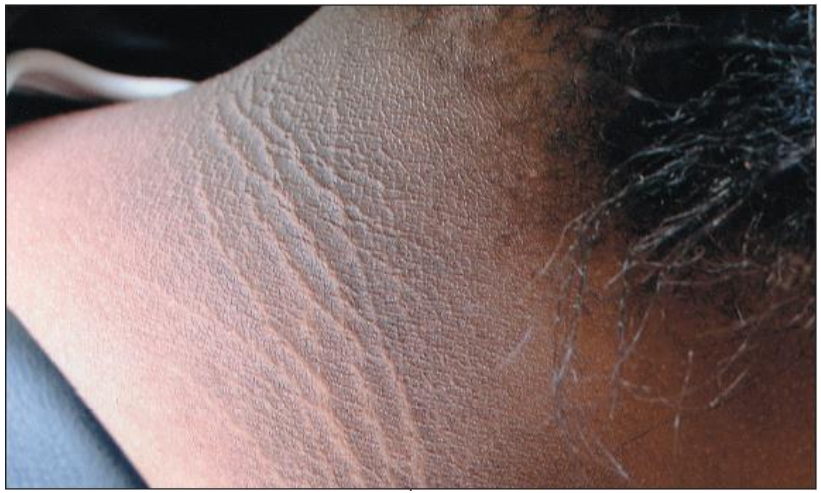
Patient 3

Acanthosis Nigricans



Which metabolic abnormality is most likely in this patient?

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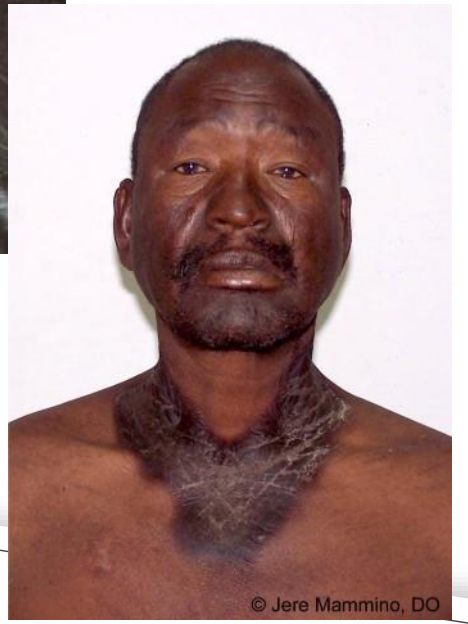
Patient 3

Pellagra

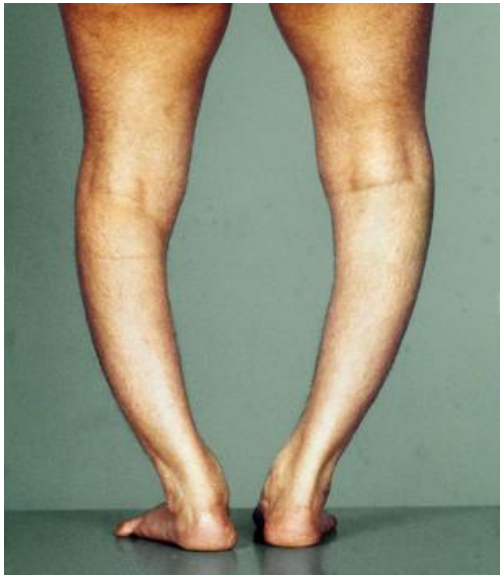


Which metabolic abnormality is most likely in this patient?

A. Elevated serum calcium
B. Elevated serum glucose
C. Low vitamin B3
D. Low vitamin D
E. Low zinc

Patient 3

Rickets

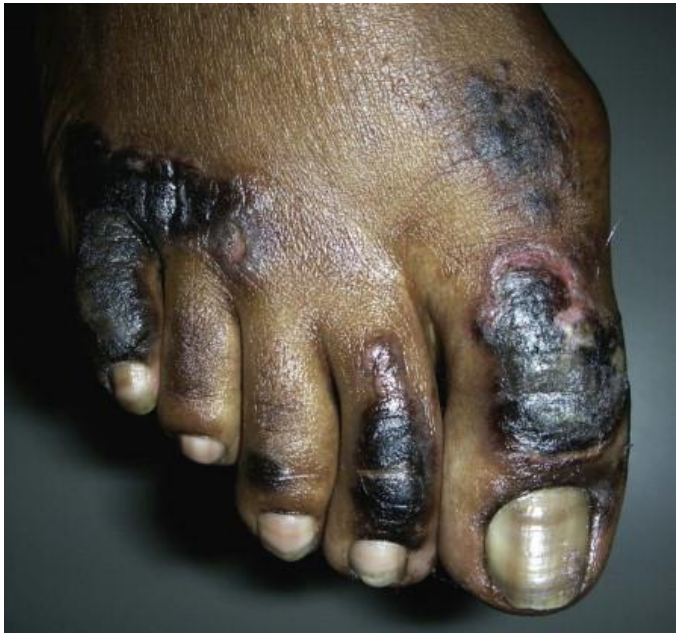


Which metabolic abnormality is most likely in this patient?

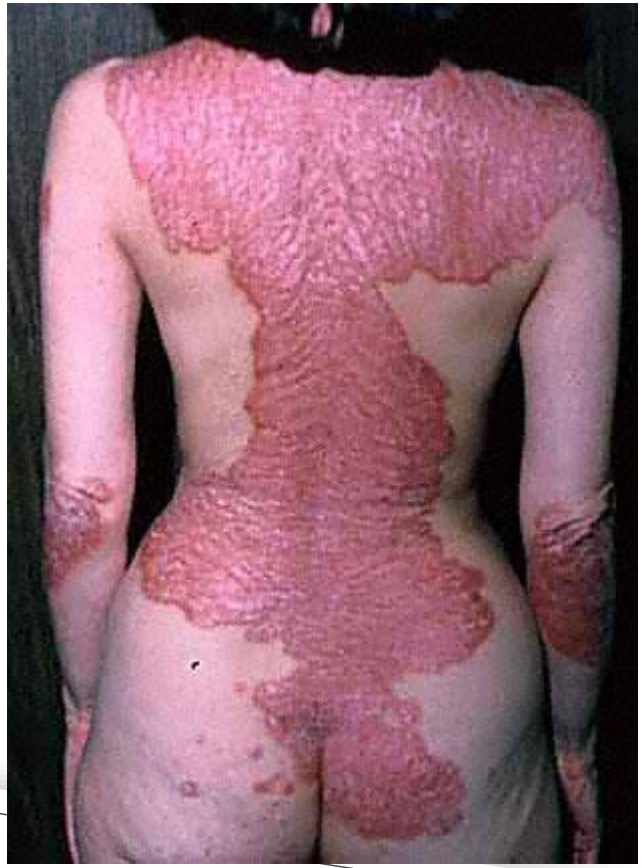
A. Elevated serum calcium
B. Elevated serum glucose
C. Low vitamin B3
D. Low vitamin D
E. Low zinc

Necrolytic Acral Erythema Pearl

- Initially associated with hepatitis C virus infection
  - Subsequent reports support zinc dysregulation
- Clinically characteristic findings
  - Dorsal feet and toes
  - Nails, palms and soles are spared
- Check Hepatitis C and zinc levels



Patient 4



Patient 4

Which of the following is true regarding comorbidities in patients with psoriasis?

A. Psoriasis is an independent risk factor for cardiovascular mortality
B. They are three times as likely as their age matched counterparts to have metabolic syndrome
C. Rates of depression and anxiety are similar to those in the general public
D. Patients with more extensive psoriasis are at greater risk for development of non-melanoma skin cancer than patients with more limited psoriasis
E. The majority of patients with psoriasis also have psoriatic arthritis

VCU

Patient 4

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E. The majority of patients with psoriasis also have psoriatic arthritis

VCU

Psoriasis and CV Disease

European Heart Journal (2010) **31**, 1000–1006
doi:10.1093/eurheartj/ehp567

CLINICAL RESEARCH
Prevention

Patients with severe psoriasis are at increased risk of cardiovascular mortality: cohort study using the General Practice Research Database

Nehal N. Mehta[1,3], Rahat S. Azfar[2,3], Daniel B. Shin[2], Andrea L. Neimann[5], Andrea B. Troxel[3,4], and Joel M. Gelfand[2,3]*

[1]Cardiovascular Institute, University of Pennsylvania School of Medicine, Philadelphia, PA, USA; [2]Department of Dermatology, University of Pennsylvania School of Medicine, One Convention Avenue 1471 Penn Tower, Philadelphia, PA 19104, USA; [3]Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, PA, USA; [4]Department of Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, PA, USA; and [5]Division of Dermatology, Department of Medicine, Albert Einstein School of Medicine, New York, NY, USA

Received 25 October 2009; revised 14 November 2009; accepted 23 November 2009; online publish-ahead-of-print 27 December 2009

Psoriasis and Metabolic Syndrome

Dermatology

Short Communication

Dermatology 2008;216:152–155
DOI: 10.1159/000111512

Received: January 17, 2007
Accepted: June 28, 2007

Association between Psoriasis and the Metabolic Syndrome

A Cross-Sectional Study

A.D. Cohen[a, b] M. Sherf[a, b] L. Vidavsky[a] D.A. Vardy[a, b] J. Shapiro[a] J. Meyerovitch[a, c]

Acta Derm Venereol 2008; 88: 561–565

INVESTIGATIVE REPORT

Psoriasis and Dyslipidaemia: A Population-based Study

Jacob DREIHER[1,2], Dahlia WEITZMAN[3], Batya DAVIDOVICI[4], Jonathan SHAPIRO[5] and Arnon D. COHEN[2,6]
[1]Southern District, Clalit Health Services, [2]Siaal Research Center for Family Medicine and Primary Care, [3]Department of Epidemiology, Faculty of Health Sciences, Ben-Gurion University, Beer-Sheva, [4]Dermatology Unit, Kaplan Medical Center, Rehovot, [5]Dermatology Department, Rabin Medical Center, Petah-Tikva and [6]Research and Health Planning Department, Health Planning and Policy Wing, Clalit Health Services, Tel-Aviv, Israel

Previous reports demonstrated an association between psoriasis and the metabolic syndrome. The aim of this

or phototherapy is reserved for patients with moderate to severe psoriasis (1).

VCU Dermatology. 2008;216(2):152-5. Acta Derm Venereol. 2008;88:561-565.

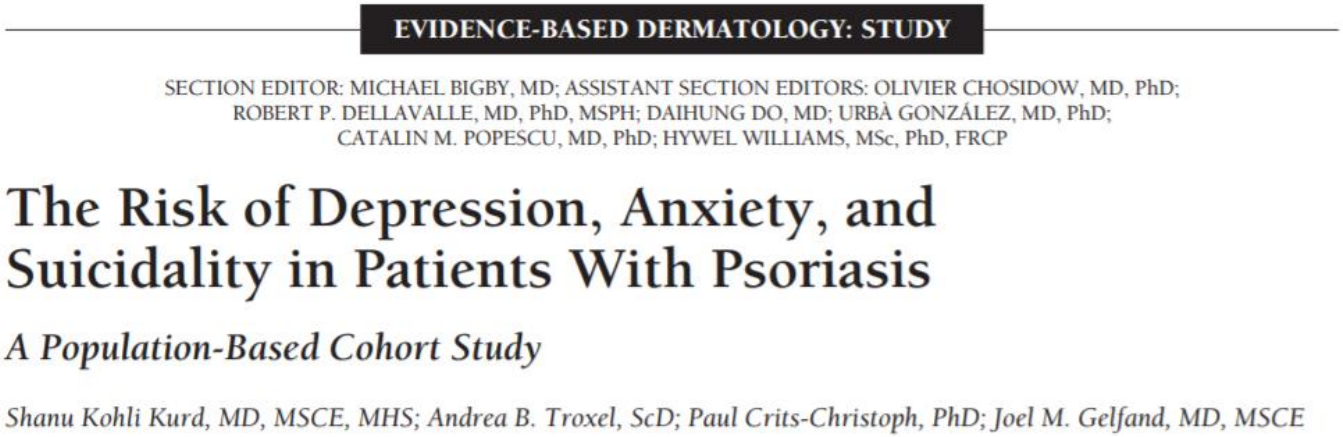
Psoriasis and Metabolic Syndrome

- Does weight loss reduce the severity and incidence of psoriasis or psoriatic arthritis in obese individuals?

Yes

Cureus 2018. 10(10): e3491.
Br J Dermatol. Accepted Author Manuscript. doi:10.1111/bjd.17741 (Feb 6, 2019)

Psoriasis and Mental Health



EVIDENCE-BASED DERMATOLOGY: STUDY

SECTION EDITOR: MICHAEL BIGBY, MD; ASSISTANT SECTION EDITORS: OLIVIER CHOSIDOW, MD, PhD; ROBERT P. DELLAVALLE, MD, PhD, MSPH; DAIHUNG DO, MD; URBÀ GONZÁLEZ, MD, PhD; CATALIN M. POPESCU, MD, PhD; HYWEL WILLIAMS, MSc, PhD, FRCP

The Risk of Depression, Anxiety, and Suicidality in Patients With Psoriasis

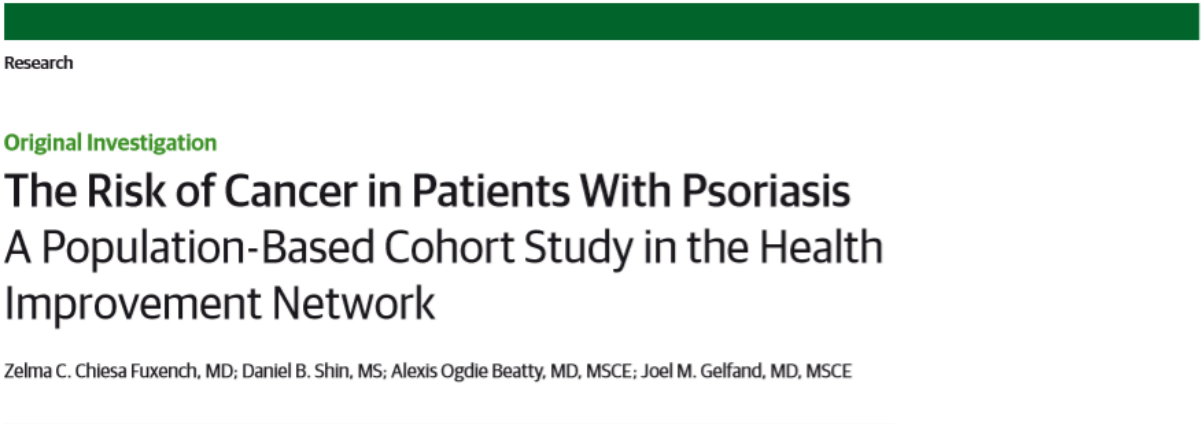
A Population-Based Cohort Study

Shanu Kohli Kurd, MD, MSCE, MHS; Andrea B. Troxel, ScD; Paul Crits-Christoph, PhD; Joel M. Gelfand, MD, MSCE

- Increased risk of depression, anxiety and suicidality

Arch Dermatol. 2010;146:891-895.

Psoriasis and Malignancy



Research

Original Investigation

The Risk of Cancer in Patients With Psoriasis
A Population-Based Cohort Study in the Health Improvement Network

Zelma C. Chiesa Fuxench, MD; Daniel B. Shin, MS; Alexis Ogdie Beatty, MD, MSCE; Joel M. Gelfand, MD, MSCE

- Overall risk is increased, specifically for non-melanoma skin cancer, lymphoma and lung cancer
- Risk does not appear to correlate with extent of skin disease

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Patient 4

Which of the following is true regarding comorbidities in patients with psoriasis?

A. Psoriasis is an independent risk factor for cardiovascular mortality
B. They are three times as likely as their age matched counterparts to have metabolic syndrome
C. Rates of depression and anxiety are similar to those in the general public
D. Patients with more extensive psoriasis are at greater risk for development of non-melanoma skin cancer than patients with more limited psoriasis
E. The majority of patients with psoriasis also have psoriatic arthritis

VCU

Patient 4

Which of the following is true regarding comorbidities in patients with psoriasis?

A. Psoriasis is an independent risk factor for cardiovascular mortality

B. They are ~~three times~~ TWICE as likely as their age matched counterparts to have metabolic syndrome

C. Rates of depression and anxiety are similar to those in the general public

D. Patients with more extensive psoriasis are at greater risk for development of non-melanoma skin cancer than patients with more limited psoriasis

E. The majority of patients with psoriasis also have psoriatic arthritis

VCU

Patient 4

Which of the following is true regarding comorbidities in patients with psoriasis?

A. Psoriasis is an independent risk factor for cardiovascular mortality

B. They are three times as likely as their age matched counterparts to have metabolic syndrome

C. Rates of depression and anxiety are ~~similar to~~ Greater than those in the general public

D. Patients with more extensive psoriasis are at greater risk for development of non-melanoma skin cancer than patients with more limited psoriasis

E. The majority of patients with psoriasis also have psoriatic arthritis

VCU

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Which of the following is true regarding comorbidities in patients with psoriasis?

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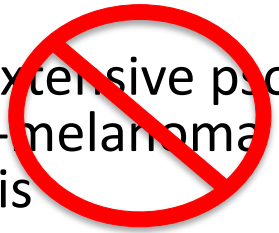

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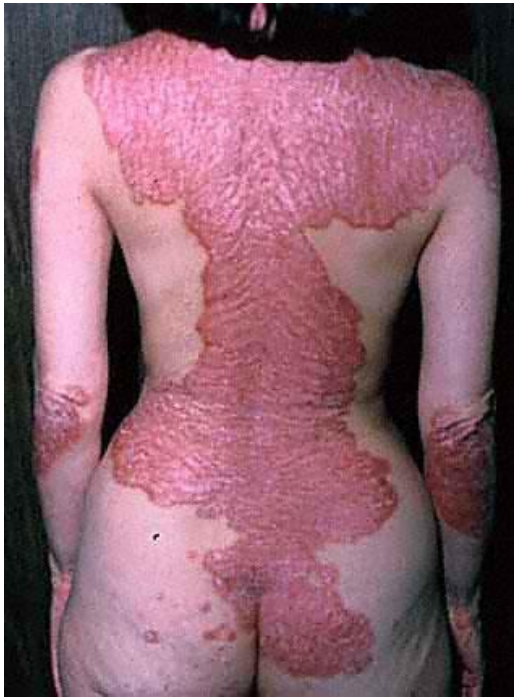
E. ~~The majority~~ of patients with psoriasis also have psoriatic arthritis

About 30%

Psoriasis Pearl

- Advise patients of comorbidities
- Screen
- Encourage lifestyle modifications



VCU School of Medicine

Clinical Pearls in Dermatology

ACP Virginia Chapter- Annual Meeting and Clinical Update
March 8, 2019

Kimberly S. Salkey, MD
Associate Professor
Department of Dermatology