Clinical Pearls in Dermatology

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

Kimberly S. Salkey, MD
Associate Professor
Department of Dermatology
Psoriasis: To Be or Not To Be

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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?

A. Family history of psoriasis
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).**

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

*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.*
Psoriatic Arthritis

Psoriatic Arthritis

Psoriatic Arthritis
Psoriatic Arthritis

Psoriatic Arthritis Management

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

<table>
<thead>
<tr>
<th>Drug (Mode of Administration)</th>
<th>Dose According to Site</th>
<th>Signs and Symptoms</th>
<th>Structural Modification of Joints</th>
<th>Common Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Joints</td>
<td>Skin</td>
<td>Joints</td>
<td>Skin</td>
</tr>
<tr>
<td><strong>NSAIDs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naproxen (oral)</td>
<td>750–1000 mg/day</td>
<td>Not applicable</td>
<td>Mild response</td>
<td>—</td>
</tr>
<tr>
<td>Diclofenac (oral)</td>
<td>100–150 mg/day</td>
<td>Not applicable</td>
<td>—</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Indomethacin (oral)</td>
<td>100/150 mg/day</td>
<td>Not applicable</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>DMARDs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methotrexate (oral or SC)</td>
<td>15–25 mg/wk</td>
<td>15–25 mg/wk</td>
<td>Mild response</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Leflunomide (oral)</td>
<td>20 mg/day</td>
<td>Not applicable</td>
<td>Mild response</td>
<td>Mild response</td>
</tr>
<tr>
<td>Sulfasalazine (oral)</td>
<td>3–4 g/day</td>
<td>Not applicable</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>Anti-TNF agents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adalimumab (SC)</td>
<td>40 mg every 2 wk</td>
<td>80 mg loading dose, 40 mg 1 wk later, then 40 mg every 2 wk</td>
<td>Very good response</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Certolizumab (SC)</td>
<td>200 mg every 2 wk or 400 mg every 4 wk</td>
<td>Not applicable</td>
<td>Very good response</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Etanercept (SC)</td>
<td>50 mg weekly</td>
<td>50 mg twice/wk</td>
<td>Very good response</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Golimumab (SC, infusion)</td>
<td>50 mg monthly</td>
<td>Not applicable</td>
<td>Very good response</td>
<td>Moderate response</td>
</tr>
<tr>
<td>Infliximab (infusion)</td>
<td>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</td>
<td>Very good response</td>
<td>Excellent response</td>
<td>Moderate response</td>
</tr>
<tr>
<td><strong>Anti-interleukin 17 agents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ixekizumab (SC)</td>
<td>80 mg every 2 wk</td>
<td>80 mg every 2 wk</td>
<td>Very good response</td>
<td>Excellent response</td>
</tr>
<tr>
<td>Secukinumab (SC)</td>
<td>150 mg weekly from 0–4 wk, then monthly</td>
<td>300 mg weekly from 0–4 wk, then monthly</td>
<td>Very good response</td>
<td>Excellent response</td>
</tr>
<tr>
<td><strong>Anti-interleukin 12–interleukin-23 agents: ustekinumab (SC)</strong></td>
<td>45 mg/kg (for body weight of 100 kg or &lt;100 kg) or 90 mg/kg (for body weight of 100 kg) at 0, 4, and 12 wk, then every 12 wk</td>
<td>45 mg/kg (for body weight of 100 kg or &lt;100 kg) at 0, 4, and 12 wk, then every 12 wk</td>
<td>Very good response</td>
<td>Very good response</td>
</tr>
<tr>
<td><strong>PDE4 inhibitor: apremilast (oral)</strong></td>
<td>30 mg twice daily</td>
<td>30 mg twice daily</td>
<td>Moderate response</td>
<td>Mild response</td>
</tr>
</tbody>
</table>

* 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 subcutaneous.
Patient 1

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

A. Family history of psoriasis
B. Chronicity of disease
C. Extent of body surface area
D. Psoriatic arthritis
E. Nail involvement
Patient 1

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

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

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

Which metabolic abnormality is most likely in this patient?

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Necrolytic Acral Erythema


• 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
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

Necrolytic acral erythema without hepatitis C infection

J Cutan Pathol 2009: 36: 355-358
Blackwell Munksgaard. Printed in Singapore

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Journal of Cutaneous Pathology
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

Sarcoidosis

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

Acanthosis Nigricans

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

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

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

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
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Psoriasis and CV Disease

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

Nehal N. Mehta, Rahat S. Azfar, Daniel B. Shin, Andrea L. Neumann, Andrea B. Troxel, and Joel M. Gelfand

doi:10.1093/eurheart/ehp567

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

Association between Psoriasis and the Metabolic Syndrome
A Cross-Sectional Study

A.D. Cohen\textsuperscript{a,b}, M. Sherf\textsuperscript{a,b}, L. Vidovsky\textsuperscript{a}, D.A. Vardy\textsuperscript{a,b}, J. Shapiro\textsuperscript{a}, J. Meyerovitch\textsuperscript{a,c}


\textbf{INVESTIGATIVE REPORT}

Psoriasis and Dyslipidaemia: A Population-based Study

Jacob DREHER\textsuperscript{a}, Dahlia WEITZMAN\textsuperscript{a}, Batya DAVIDOVIC\textsuperscript{a}, Jonathan SHAPIRO\textsuperscript{a} and Azran D. COHEN\textsuperscript{a}
\textsuperscript{a}Scheiner School, Tel Aviv University, Tel Aviv, Israel; \textsuperscript{b}Department of Epidemiology, Faculty of Health Sciences, Ben-Gurion University, Beer-Sheva, Israel; \textsuperscript{c}Department of Dermatology, Rabin Medical Center, Petah Tikva, Israel.

Previous reports demonstrated an association between psoriasis and the metabolic syndrome. The aim of this study was to investigate this association in a population-based sample. The study included 1,000 participants, aged 40-60 years, who were recruited from the general population. The results showed a significant association between psoriasis and the metabolic syndrome. The study also demonstrated that patients with psoriasis were more likely to have high triglycerides and low HDL-cholesterol, which are risk factors for metabolic syndrome.

Psoriasis and Metabolic Syndrome

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

Yes
Psoriasis and Mental Health

- Increased risk of depression, anxiety and suicidality

Psoriasis and Malignancy

• 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
Patient 4

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About 30%
Psoriasis Pearl

• Advise patients of comorbidities
• Screen
• Encourage lifestyle modifications
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