Evolving Issues and New Treatment Approaches to Psoriasis: What the PCP Needs to Know

Thursday, February 5, 2015
10:30 am – 11:45 am
Ft. Lauderdale, Florida
Session 3: Evolving Issues and New Treatment Approaches to Psoriasis: What the PCP Needs to Know

Learning Objectives

1. Incorporate therapeutic strategies that manage the systemic manifestations and comorbidities associated with psoriasis.
2. Assess the risk-benefit profiles of conventional and emerging treatments for psoriasis to assist in therapeutic decision making.
3. Recognize the physiological and psychological impacts of psoriasis, counsel patients accordingly, and incorporate care coordination and active patient engagement to improve outcomes in patients with psoriasis.

Faculty

Michael T. Borenstein, MD, PhD
Director
Gardens Dermatology and Cosmetic Surgery Center
Palm Beach Gardens, FL

Michael T. Borenstein, M.D., Ph.D. is a Board-Certified Dermatologist who specializes in Medical and Surgical Dermatology, as well as the latest techniques in laser treatments and Cosmetic Dermatology. Dr. Borenstein received his Bachelor of Arts degree from Columbia University and his medical degree from the University of Miami School of Medicine. Dr. Borenstein joined Gardens Dermatology after completing his internship in Internal Medicine and residency in Dermatology and Cutaneous Surgery at the University of Miami School of Medicine. Dr. Borenstein completed his Ph.D. in Molecular and Cellular Pharmacology at the University of Miami. Dr. Borenstein is an active member of the American Medical Association, American Academy of Dermatology, Florida Society of Dermatology, the Florida Society of Dermatologic Surgeons, and the Palm Beach County Dermatology Society.

Amit Garg, MD
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North Shore LIJ Health System
Manhasset, NY

Amit Garg, MD, FAAD, is an associate professor and the founding chair in the department of dermatology at the Hofstra School of Medicine and the North Shore LIJ Health System. He received his medical degree from the University of Massachusetts Medical School and completed his postgraduate training in dermatology at the University of Illinois at Chicago. Dr. Garg is a thought leader in psoriasis and psoriatic arthritis and also works with cutaneous lupus, dermatomyositis, and vasculitis. His research interests include assessing outcomes in psoriasis and psoriatic arthritis and characterizing gene expression in cutaneous lupus. Dr. Garg develops teaching strategies for training and educational outcomes in medical education. He also works to promote skin cancer examination in high-risk patient groups, detection of suspicious pigmented lesions, and integration of skin cancer exams into physical exams. Dr. Garg is a leader in several professional organizations and has authored several articles and book chapters. Dr. Garg has served on editorial boards and is editor-in-chief of the *Rheumatic Skin Diseases* in the *Clinical Medicine* series.
Paul S. Yamauchi, MD, PhD, practices at the Dermatology Institute and Skin Care Center and is on staff at St. John's Hospital in Santa Monica and the Ronald Reagan Hospital at the UCLA Medical Center. He is a clinical assistant professor of medicine at the David Geffen School of Medicine at UCLA and adjunct associate professor at the John Wayne Cancer Institute. Dr. Yamauchi serves as a principle investigator in several studies of psoriasis, skin cancer, rejuvenation, rosacea, eczema, and acne. He is a key opinion leader in psoriasis and speaks extensively on new advances in the treatment of psoriasis and other dermatologic conditions. He has written several articles on the use of botulinum toxins and fillers for rejuvenation and other indications as well as advances in laser treatment. Dr. Yamauchi serves on the editorial board of the Scientific World Journal and has authored numerous publications. He has published extensively on new advances in the treatment of psoriasis as well as on topics of acne, eczema, skin manifestations associated with rheumatologic conditions, and hyperhidrosis.

Planning Committee and Faculty Financial Disclosure Statements
The planning committee reported the following:

Alan Menter, MD: Advisory Board for AbbVie, Allergan, Amgen, Boehringer Ingelheim, Genentech, Janssen Biotech, Inc., LEO Pharma and Pfizer, Consultant for AbbVie, Allergan, Amgen, Convoy Therapeutics, Inc., Eli-Lilly, Janssen Biotech, Inc., LEO Pharma, Novartis, Pfizer, Syntrix, Wyeth and XenoPort, Investigator for AbbVie, Allergan, Amgen, ApoPharma, Boehringer Ingelheim, Celgene, Convoy Therapeutics, Eli-Lilly, Genentech, Janssen Biotech, Inc., LEO Pharma, Merck, Novartis, Pfizer, Symbio/Maruho, Syntrix and Wyeth and Speaker for AbbVie, Amgen, Janssen Biotech, Inc., LEO Pharma and Wyeth.

The presenting faculty reported the following:

Michael T. Borenstein, MD, PhD: Speakers Bureau for Allergan, Celgene and Galderma as well as Medical Advisory Board for Janssen.

Amit Garg, MD: Medical Advisory Board for AbbVie, Eli-Lilly and Pfizer.

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Education Partner Financial Disclosure Statement
The content collaborators at Vindico Medical Education have reported the following: No relevant financial relationships to disclose.

Suggested Reading List


Evolving Issues and New Treatment Approaches to Psoriasis: What the PCP Needs to Know

SPEAKERS
Michael Borenstein, MD, PhD
Amit Garg, MD
Paul Yamauchi, MD, PhD

Presenter Disclosure Information
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► Michael T. Borenstein, MD, PhD, serves on the speakers Bureau for Allergan, Celgene and Galderma as well as Medical Advisory Board for Janssen.
► Amit Garg, MD, is a Medical Advisory Board member for AbbVie, Eli-Lilly and Pfizer.
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Off-Label/Investigational Discussion
► In accordance with pmICME policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.

Defining the Need for a Systemic Treatment for a Systemic Disease

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Disclosures
• Consultancies: Abbott Laboratories, Amgen, Inc., Eli Lilly, Pfizer
• No stock ownership or Board Membership on any Pharmaceutical or Biotechnology company

Objectives
• Incorporate therapeutic strategies that manage the systemic manifestations and comorbidities associated with psoriasis
  – Psoriasis: Pathology, comorbidities, psoriatic arthritis
  – Lack of treatment and undertreatment
Psoriasis (sō-rī′ā-sīs) [Gr., an itching]

A common, genetically-determined dermatosis most commonly consisting of discrete red erythematous plaques with a characteristic layered silvery scale.

An inflammatory arthritis is associated with psoriasis in approximately 30% of patients.

Epidemiology and Genetics

- Affects 2-3% of US population
  - More commonly seen in Caucasians.
  - Less common among Asians and African Americans.
- More than 40 genes discovered in psoriasis, but less than a handful of genes have been identified.
  - Class I region of the major histocompatibility locus antigen cluster (MHC) is a consistently identified locus

Age of Onset

- Two peaks of occurrence
  - One at 20-30 years
  - One at 50-60 years
- 75% have onset before age 40
- Psoriasis in children
  - 0.5% to 1.1% in children ≤16 years
  - Mean age of onset: 8-12.5 years

Immunopathogenesis

- A change in epidermal differentiation and growth that results in plaques on the skin
- An underlying cellular immune response involving activated myeloid dendritic cells and T-cells which produce key cytokines that drive epidermal growth and structural changes.

Types of Psoriasis

**Plaque psoriasis**
Well demarcated, erythematous plaques with silvery scale

**Inverse psoriasis**
Erythematous patches and plaques in the skin folds

**Erythrodermic psoriasis**
Confluent erythematous patches and plaques involving large body surface areas

**Pustular psoriasis**
Psoriasis presenting as pustules on the trunk and acral regions

**Guttate psoriasis**
Numerous, confetti-like erythematous patches on the trunk and extremities

**Nail psoriasis**
Psoriasis involving the nail matrix and bed, manifesting as onycholysis, hyperkeratosis, and other nail dystrophy
Plaque Type Psoriasis

- Most common phenotype (80%)
- Well demarcated plaques with varying degrees of
  - Erythema (pink to red)
  - Scale (desquamation)
  - Induration (thickness)

Making the Diagnosis

- Awareness of Phenotypes
- Demarcation
- Type of Scale
- Distribution
- Hidden places

Psoriasis-associated Comorbidities

1. Psoriatic Arthritis
2. Obesity/Metabolic Syndrome
3. Cardiovascular Disease
4. Cancer/Lymphoma
5. Psychiatric Diseases
6. Increased Mortality

All statistically validated


Associated Comorbidities

7. Personal Behaviors, e.g. Smoking
8. Autoimmune Diseases
9. NASH
10. COPD
11. Sleep Apnea

All statistically validated


Risk of Cardiovascular Disease in Patients with More Severe Psoriasis

Clinical Significance:

1. Increased risk of MI, stroke, cardiovascular death, diabetes, chronic kidney disease
2. 5 years of life lost
3. 10-year risk of major CV event attributable to psoriasis = 6%
4. Risk of cardiovascular disease in patients with severe psoriasis similar to risk conferred by diabetes

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<td>MACE</td>
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<tr>
<td>Diabetes</td>
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Cardiovascular Risk Factors/Disease in Psoriasis – Summary

- Systemic inflammation is a risk factor for developing cardiovascular disease
- Psoriasis is a systemic (inflammatory) disease
- Psoriasis is associated with multiple cardiovascular risk factors
- Psoriasis itself appears to be an independent risk factor for MI


Comorbidities: Cardiovascular Disease

Psoriasis: An Opportunity to Identify Cardiovascular Risk

- Risk factor evaluation and interventions:
  - Obesity
  - Hypertension
  - Diabetes
  - Smoking
  - Dyslipidemia
  - Cardiovascular Disease

- Other factors to consider:
  - Excess alcohol consumption
  - Homocysteine levels
  - Markers of Inflammation, e.g. fibrinogen
  - Insulin levels and resistance
  - Influence of treatment
  - Atherothrombotic markers: Fibronectin, platelets

Psoriatic Arthritis

- An inflammatory arthritis in approx 30% of patients with psoriasis
- Temporal relationship between Pso and PsA:
  - 70% have Pso prior to onset of PsA
  - 20% have PsA before Pso
  - 10%-15% report simultaneous onset
- Severity of psoriasis is not predictive of severity of PsA

Psoriatic Arthritis

- A potentially aggressive disease
- 27% with early PsA (sxs < 1yr) have ≥1 erosion at presentation
- Up to 47% developed erosive disease w/in 2 yrs
- Up to 55% have ≥5 deformed joints after 10 yrs
- Up to 40% have enthesal disease
- Up to 20% with PsA have disease related disability

Psoriasis: Unmet Needs and Undertreatment

The CASPAR Criteria for Psoriatic Arthritis

<table>
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<tr>
<th>Inflammatory articular disease that may involve joint, enthesal or axial manifestations (not otherwise defined)</th>
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<tr>
<td>Current psoriasis</td>
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<tr>
<td>Personal or family Hx of psoriasis</td>
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<tr>
<td>No psoriasis</td>
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<td>+ 1 of the following</td>
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<td>+ 2 of the following</td>
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<tr>
<td>+ 3 of the following</td>
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- Erythema
- Dactylitis
- Psoriatic nail dystrophy
- A negative test for rheumatoid factor
- Radiological evidence of juxta-articular new bone formation

National Psoriasis Foundation (NPF) Survey Results (2003-2011)

- N=5604 patients with psoriasis and PsA
  - 9.4% and 23.6% of patients with severe and moderate psoriasis, respectively, received no treatment
  - 52.3% and 45.5% of patients with psoriasis and PsA, respectively, were dissatisfied with their current therapy


Patient Satisfaction with Treatment

- NPF Study\(^1\)
  - Physician unwillingness to prescribe systemic therapy was the 3\(^{rd}\) most common reason why patients were on topical monotherapy
- Netherlands study (N=1293)\(^2\)
  - Patients receiving biologic therapy were most satisfied and those receiving topical treatment were least satisfied of all groups


Psoriasis Treatment, Inflammation, and Comorbidities

- With inflammation as a common link, systemic treatment of psoriasis may also mitigate comorbidities
  - MTX and anti-TNF therapy may decrease CV morbidity and mortality
- Understanding risks → better treatment decisions → better disease management → improved QOL and outcomes

MTX: Methotrexate, CV: Cardiovascular, TNF: Tumor Necrosis Factor, CVD: Cardiovascular Disease, QOL: Quality of Life

Case: Overview

- 56 year-old female
- Height: 5 ft 3in, Weight: 179 lbs
- BMI = 31.7 kg/m\(^2\)
- History of psoriasis since age 22 yrs, treated with triamcinolone cream 0.1%
- Family history of psoriasis: Paternal grandmother, father, 2 daughters
- Family history of cancer
  - Leukemia: Mother
  - Colon cancer: Father

**Case: History**

- The patient also complains of aching of her hands as well as occasional redness, swelling, and tenderness of her left knee for the past 2 years.
- She attributes her symptoms to working “all day like crazy” as a waitress in a busy diner.
- Her pain is worst in the beginning of her day and it improves a bit throughout the day. However she is uncomfortable throughout the day.
- She achieves some relief with an OTC regimen of ibuprofen 600mg TID.

**Case: Evaluation**

- This patient with psoriasis has experienced redness, swelling and tenderness, which would suggest an inflammatory arthritis, for at least 2 years.
  - 27% with early PsA (sx ≤ 1yr) have ≥1 erosion at presentation
  - Up to 47% developed erosive disease w/in 2 yrs
  - Up to 55% have ≥5 deformed joints after 10 yrs
  - Up to 20% with PsA have disease related disability
- A plain film can be helpful in identifying structural damage to joints.
- To be continued…

**Examining the Risk-Benefit Profiles of Current and Emerging Treatments**

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**Disclosures**

- Consultant: AbbVie, Amgen, Baxter, Janssen-Ortho, Inc., Novartis, Pfizer, Inc.
- Speaker: AbbVie, Amgen, Galderma USA, Janssen-Ortho, Inc., Leo Pharma, Inc., Novartis Pharmaceuticals Corporation
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- Advisory Board: Lilly ICOS, LLC

**Objectives**

- Assess the risk-benefit profiles of conventional and emerging treatments for psoriasis to assist in therapeutic decision making
  - Safety concerns with conventional treatments
  - Biologics and their place in management
  - Novel agents
  - Biosimilars

**Treatment Overview**

- Topical agents
- Phototherapy
- Oral systemic agents
- Biologics
  - Anti-TNF agents
  - IL-12/23 antagonists
  - IL-17 antagonists
- New therapies
  - JAK kinase inhibitors
  - IL-23 antagonists
  - Biosimilars
**AAD Recommendations: Psoriasis Management**

Psoriasis +/- psoriatic arthritis  
Anti-TNF +/- MTX  
UVB/PUVA  
Systemic Biologic  
Topicals/targeted phototherapy  
Lack of effect

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**Topical Therapy**

- High efficacy: safety ratio  
- May be used as adjunctive therapy to ultraviolet, systemic, or biologic therapy  
- Inappropriate candidates for topical monotherapy:  
  - Extensive disease  
  - Limited, recalcitrant disease

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**Topical Steroids: Adverse Events**

- Tachyphylaxis  
- Skin atrophy  
- Telangiectasias  
- Striae  
- Discoloration  
- HPA axis suppression

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**Phototherapy**

- Phototherapy  
  - Ultraviolet light B (UVB)  
    - Broadband  
    - Narrowband  
  - PUVA (drug psoralen plus ultraviolet light A)  
  - Home light boxes

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**When to Initiate Systemic or Biologic Therapy**

Reasons for Systemic Treatment  
- Poor or no response to topicals, UVB, PUVA therapy  
- Received maximum “safe” cumulative PUVA dose  
- Psoriasis covers > 10% BSA  
- More inflammatory forms of psoriasis  
- Localized/recalcitrant disease  
- Physical restrictions  
- Negative impact on QOL  
- Status of disease  
  - (PASI > 10, BSA > 10, DLQI > 10)
Oral Systemic Therapy

- How well do our non-biologic systemic therapies fare?
- PASI Scores?
- Remissions?

Systemic Agents
- Methotrexate (MTX)
- Cyclosporine (CSA)
- Acitretin
- Apremilast

Methotrexate: Efficacy/Safety

Efficacy
- Most commonly prescribed traditional systemic agent globally for psoriasis
- Dramatically effective, even in the most severe cases
- Can be used in combination with all approved biologics for psoriasis, especially the anti-TNFs
- Can be used to suppress anti-drug antibodies against adalimumab and infliximab

Safety
- Pregnancy issues
- Clinical efficacy relative to biologics
- Drug interactions
- Polymorphisms
- Liver biopsies and amino-terminal propeptide of type III collagen (PIIINP)
- Bone marrow suppression
- Lifetime dose restriction

Cyclosporine: Efficacy/Safety

Efficacy
- One of the most effective interventional therapies
- Rapid response in 80-90% of patients
- Induces rapid remission in patients with severe flares
- Can prevent rebound flares in patients discontinuing systemic steroids

Safety
- Irreversible nephrotoxicity/hypertension with continued usage
- Malignancy – rare
- Dyslipidemia and metabolic issues
- Infections, including TB – rare
- Use limited to 1 year in the U.S. due to nephrotoxicity

Conventional Agents: End-Organ Toxicity

- End-organ toxicity is a major concern common to conventional systemic therapy
- Toxicities of individual agents can be decreased by rotating from one conventional agent to another
- Biologics have decreased the incidence of end-organ toxicity
  - Use of biologics has decreased the need for rotational therapy

Acitretin: Efficacy/Safety

Efficacy
- Least effective as monotherapy
- Often used with UVB or PUVA phototherapy
- Acitretin may be effective in patients with palm-sole psoriasis
- Not immunosuppressive and can be used in combination with biologics

Safety
- Teratogenicity
- Limits use
- High doses associated with mucocutaneous effects, including hair loss
- Hyperlipidemia

Current and Emerging Biologics

<table>
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<th>Drug Class</th>
<th>Agent</th>
<th>Indication (Psoriasis, PsA)</th>
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<td>Anti-TNF</td>
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<td>Infliximab</td>
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<td>Adalimumab</td>
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<td>IL-12/23 antagonist</td>
<td>Ustekinumab</td>
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<td>IL-17 antagonist</td>
<td>Secukinumab</td>
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<td>Brodalumab</td>
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<tr>
<td></td>
<td>Ixekizumab</td>
<td>In Phase III for Psoriasis and PsA</td>
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</table>

TNF: Tumor Necrosis Factor, IL: Interleukin, PsA: Psoriatic Arthritis

References:
**Trends in Biologic Use in Psoriasis in the United States**

- "Step therapy"
  - Phototherapy
  - Then systemics
  - Then biologics

Both AAD and NPF support the use of biologic as a first-line agent for moderate to severe patients

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**Treatment Goals: Transitioning Therapy**

- Oral → biologic
- Oral overlaps biologic
- Oral maintained with biologic
- Temporary addition of oral to biologic
- Biologic I → Biologic II

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**Transitioning from Oral Systemic to Biologic Agent in Psoriasis**

- Examples of circumstances
  - Lack of efficacy of oral medications
  - Toxicity or intolerance
- To overlap or sequentially substitute one drug for another?
- If no overlap, what is the risk of flare?
  - Lack of tapering of the previous medication may lead to exacerbation of disease (e.g., cyclosporine)
  - Slow onset of action of the new medication

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**When a Patient is on a Biologic Agent**

- Avoid administering live vaccines
  - Intranasal flu vaccine, herpes zoster, varicella, measles/mumps/rubella, oral polio, rotavirus, yellow fever, rabies, BCG, typhoid
- Inactivated or subunit vaccines are generally considered safe but efficacy may be compromised
- Monitor for signs or symptoms of infection
  - Opportunistic fungal infections
  - Reactivation of latent TB, underlying hepatitis B/C, shingles
- What if a patient becomes pregnant?
- Surgery

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**Biologic Agents: Safety Profile Considerations in Psoriasis**

- Key considerations
  - Infections: Bacterial, viral, mycobacterial
  - Malignancy (Solid tumors and non-melanoma skin cancer)
- Other considerations
  - Infusion/injection-site reactions
  - Contraindications/cautions
    - Tuberculosis
    - Hepatitis B (TNF inhibitors)
    - Demyelinating diseases (TNF inhibitors)
    - Congestive heart failure (TNF inhibitors)

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**Prior to Initiating a TNF-α Biologic Agent**

- Ensure patient is up-to-date on all vaccinations
- Verify negative TB test
- Assess underlying cancer risk
- Verify absence of demyelinating disease
- Verify absence of current infection
- Screen for Hepatitis B and C viral infections
- Use caution in patients with active CHF

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Current and Emerging Oral Therapies

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<th>Agent</th>
<th>Indication (Psoriasis, PsA)</th>
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<td>Phase 3, Psoriasis, PsA</td>
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<td>LY3009104</td>
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<td>Phase IIb Psoriasis</td>
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<tr>
<td>PDE-4 inhibitor</td>
<td>Apremilast</td>
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Psoriatic Arthritis Treatment

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<tr>
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*Based on data from ankylosing spondylitis trials (used as surrogate for PsA spondylitis)

In Addition to Psoriasis...

If a patient tells you that he/she has morning stiffness lasting longer than 45 minutes and has a persistently swollen toe, would that change your management?

Case Presentation

Case 1 Continued: Treatment decision

- The plain films show bony erosions and periostitis involving DIP and PIP joints of the hands. There are no erosions involving the knee. There is no osteophyte formation.

Case 1 Continued: Summary

- Longstanding history of psoriasis treated with topical steroids
- Two year history of joint pain of the hands and left knee, also with redness and swelling of the knee
- Inadequate symptom relief with OTC ibuprofen
- Evidence of structural damage to small joints of the hands by plain films
Biologics for Joint Damage

- FDA approved biologics for psoriatic arthritis to treat signs and symptoms
  - Etanercept
  - Adalimumab
  - Infliximab
  - Certolimumab
  - Golimumab
  - Ustekinumab (IL-12/23 inhibitor)
- Only TNF inhibitors have the indication for inhibiting structural joint damage
- Apremilast also has an indication for psoriatic arthritis but not for structural joint inhibition
- Methotrexate relieves signs and symptoms of psoriatic arthritis but does not inhibit progression

Incorporating Shared Decision Making With Patients

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Disclosures

- Speakers Bureau: Allergan, Celgene, Galderma
- Medical Advisory Board: Janssen

Objectives

- Recognize the psychological impacts of psoriasis, counsel patients accordingly, and incorporate care coordination and active patient engagement to improve outcomes in patients with psoriasis
  - Review the psychosocial impacts of psoriasis
  - Identify adherence-improving methods
  - Coordination of care and referrals

Psoriasis and Quality of Life (QOL)

- Psoriasis causes physical and mental disability comparable with that found in chronic illnesses such as:
  - Cancer
  - Arthritis
  - Hypertension
  - Heart disease
  - Diabetes
  - Depression

What Role Do Quality-of-Life Issues Play in the Decision-making Process before Initiating a Plan of Treatment?
Current Systemic Treatments For Psoriasis

• Quality-of-Life Issues
  – How frequently do primary care physicians do QOL estimations in clinical practice?
  – Does the inability to wear a black jacket or shorts/short sleeves make systemic treatment more feasible?
  – Do problems with loved ones/peers make systemic treatment logical?
  – Does co-existent PsA make systemic treatment essential?

PsA: Psoriatic Arthritis, QOL: Quality of Life

National Psoriasis Foundation (NPF) Patient Survey

• A survey assessing impact of moderate to severe psoriasis
• 17,488 patients with psoriasis responded; 39% of these had severe psoriasis (i.e., > 10% of BSA affected)
  – 56% Women; 44% Men
  – Median Age: 54 Years
  – 94% White; 2% Native American
  – 73% had some college education
  – Median family income: $64,000
  – Average age of symptom onset: 31 years

Social Impact of Psoriasis

Psoriasis Mistaken as Contagious
Psoriasis Mistaken as Other Disease
Trouble Receiving Equal Treatment in Service Establishments

Percentage of Respondents

Patient Perception of Treatment

Frustrated With Treatment
Only Somewhat / Not at All Satisfied With Treatment
Treatment Not Aggressive Enough

Percentage of Respondents

Emotional Impact of Psoriasis

Concern That Disease Would Worsen
Feelings of Embarrassment
Feelings of Unattractiveness
Depression
Contemplation of Suicide

Percentage of 18- to 34-Year-Old Respondents

5.5% of psoriasis population have reported suicidal ideation (up to 10% in patients < 35 years). In the general medical patient population, this figure is at 2.4%-3.3%. 2

Factors Involved in Treatment Decisions

Treatment is designed to meet the patient’s individual needs

Summary: Psoriasis Challenges and Quality-of-Life Issues

- We have many challenges!
- We must consider QOL issues at each visit.
- We owe it to our psoriasis patients and our colleagues to use systemic therapies appropriately!
- We must consider the full list of comorbidities at each visit, including PsA evaluation.

Current and Future Management of Psoriasis

Management of psoriasis begins by identifying the extent of cutaneous disease. However, a holistic, contractual approach to treatment is encouraged, with particular reference to psychosocial disability and quality of life issues. The use of new treatments should not be a substitute for a detailed evaluation and discussion with patients to ascertain their expectations.

Adherence and Adherence Improving Methods

The Problem of Non-adherence

- Maintenance therapy is required for long-term treatment success
- Discontinuation rates for conventional systemic and phototherapy range from 15%-25%\(^1\)
- First-year attrition rates for biologics range from 10%-15%\(^1\)
- Patients most likely to be non-adherent tend to be: Men, unmarried patients, those who are unemployed, patients who drink or smoke, and patients with more severe disease\(^2\)


The Most Common Reasons Cited for Discontinuation

- Etanercept: “It worked well at first but stopped working well”
- Adalimumab: “It did not work well enough”
- Infliximab, MTX, acitretin, CSA: Non-life-threatening side effects
- UV-B: Inconvenience and “psoriasis improved and prefer not to be on continuous treatment”
- Loss of efficacy is the predominant reason for discontinuing anti-TNF therapy


Improving Adherence

“Improving our understanding of the patient’s views on treatment discontinuation is essential to integrate patient needs more fully in shared decision-making and to optimize effective, patient-centered care with the goal of successful long-term psoriasis control.”

Comorbidities and Patient Expectations

• One study found treatment expectations varied by comorbidity (N = 163)
  – PsA patients cared most about treatment benefit
  – Patients with CV disease were most concerned about side effects
  – Patients with depression focused more on treatment duration and cost
• Patient preferences need to be integrated into the decision-making process

Practical Strategies to Improve Adherence

• Schedule a follow-up visit shortly after treatment initiation
• Ask patients about preferred vehicle for topical therapy
  – Gels and creams vs ointments
• Build patient trust by:
  – Being empathetic, listening to the patient, physically examining their skin, practicing good communication skills
• Clarify treatment goals in the context of patient expectations
• Provide cues to medication administration (e.g., setting a phone reminder, environmental cues, behavioral cues)

Practical Strategies to Improve Adherence

• Educate patients about psoriasis as a disease state
• Provide information about diagnosis, drug dosing, and treatment duration
• Provide an in-office demonstration showing how to properly apply/administer the prescribed medication
  – Assure patient understanding by asking them to repeat back treatment instructions
• Provide information about alternative treatment options

Coordination of Care

• Involve other healthcare providers in the education, follow-up, and long-term care of patients
• Study was conducted on patients with psoriasis or eczema
  – Patients randomized to standard of care or receiving an additional session with a dermatology specialist nurse immediately after their physician consultation
  – At 6 weeks:
    ▪ Both groups showed similar improvement in QOL
    ▪ Patients who saw the nurse:
      ♦ Had significantly more knowledge about treatment duration* 
      ♦ Knew how to obtain a repeat prescription* 
      ♦ Knew who to contact for support**

When to Refer to a Dermatologist

• Defined treatment goals are not met
• Patient dissatisfaction with treatment outcomes
• Discomfort with treating moderate to severe disease
• Psoriasis patients with multiple comorbidities

Case Presentation
### Case: Palmoplantar Psoriasis

- 66-year-old male
- History of psoriasis since age 51 years
- Comorbidities:
  - Depression (currently on lithium)
  - Hyperlipidemia
  - Asthma
  - Hay fever
- Affected areas:
  - Significant involvement of palms and soles
  - Face, scalp, genitalia, groin

### Case: Prior Therapies

- Scalp and genital area responded well to topical agents:
  - Corticosteroids
  - Tacrolimus
- Palmoplantar areas were recalcitrant to topicals and photochemotherapy. Examples of agents tried:
  - Corticosteroids
  - Vitamin D₃
  - Combination topical treatment, including occlusion
  - Topical PUVA

### Case: Physical Exam

- Erythematous, scaly, and fissured hyperkeratotic psoriatic patches and plaques
- 40% of both palmar and plantar aspects affected
- Significant impact on patient’s quality of life, i.e., pain when walking and limitation of the use of his hands

### Case: Treatment Decision

- Acitretin was initiated at dose of 25 mg daily; moderate degree muco-cutaneous side effects noted
- Acitretin dose reduced to 25 mg on alternate days
  - Improvement maintained with reduction in cheilitis
- Recommended discussion with psychiatrist about possible alternative anti-depression medication (on lithium)

### Treatment Decisions

Within 2 months of commencing treatment, the patient reports substantial improvement in both his palms and soles, as well as in his QOL.

### Case: Treatment Decision

- Lowering the dose of lithium exacerbated the patient’s depression. His psychiatrist was unwilling to explore other therapeutic options
- The patient remains on low-dose acitretin with intermittent courses of topical PUVA, plus use of pulse topical corticosteroid under occlusion – he remains 60% clear

**Question:** Would adding a biologic agent now be helpful?


QOL: Quality of Life