Recalcitrant Warty Erythroderma With Severe Pruritus

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DISCLOSURE OF RELEVANT RELATIONSHIPS WITH INDUSTRY

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• Advisory Boards: Cosmoderm, Creabilis, Trevi, Velocity, Pfizer
• Consultant: Eli Lilly, Cosmoderm, Allergen, Tioga Celgene LEO
• Funded: GSK, LEO Foundation
Medical History

A 46 yr old African American male 8-year history of extensive malodorous, symmetric verrucous itchy plaques manifesting as erythroderma

• Itch VAS 9 out of 10
• Works in the meat department at Walmart
• Cannot Sleep due to itch
• No previous dermatologic disease in childhood or congenital Ichtyosis
Medical History

- Mild symmetric joint pain in ankles and hips with no swelling
- Loss of appetite and mild weight loss
- PMH of colon cancer 2 years ago fully resected
- No diarrhea, bloody stools
Previous Work Up Diagnosis and Management

- Previous biopsies Verruca and prurigo nodularis
- Treated with high potency topical steroids
- Wet wraps with minimal improvement
Biopsies
Erythroderma

- Exfoliative dermatitis (ED): scaling erythematous dermatitis involving 90% or more of the cutaneous surface.
Initial Working Diagnosis

- CTCL erythroderma
- Paraneoplastic erythroderma with acquired ichthyosis
- Pityriasis rubra pilaris
- Darier disease
- Verrucous carcinoma
Common Causes of ER-IDSCALP

- Idiopathic - 30%
- Drug allergy - 28%
- Seborrheic dermatitis – HIV 2%
- Contact dermatitis - 3%
- Atopic dermatitis - 10%
- Lymphoma and leukemia - 14%
- Psoriasis - 8%
- Paraneoplastic
Work Up

- Normal CBC, CMP
- HPV PCR negative
- CTCL negative for Gene cell rearrangement
- CT chest and abdomen negative
- GI work up negative including colonoscopy and gastroscopy
- HIV-negative
What is Your Diagnosis?

- Verrucous psoriasis - erythrodermic form
- First reported in Japan in 1994
- Additional cases in US
- Usually responds to acitretin
- DD: Verruca, Verruca carcinoma

Dematopathol 2005
Treatments

- Topical keratolytics with high potency topical
- Steroids- minimal effect
- Acitretin 50 Mg daily no response after 3 months
- MTX up 10 15 mg /weekly no effect for 3 months
- Biologics: etanercept 50 mg weekly for 4 months
- Adalimumab 40 mg every 2 weeks for 3 months
- Infliximab 5mg/kg every 6 weeks for 2 months
  developed AGEP
Treatments for Nocturnal itch

• Mirtazapine 15mg improved nocturnal itch from VAS9 – VAS 4.
• Patient could sleep 8 hours at night
• However erythroderma and warty plaques had not improved
Our Next step
Ustekinumab 45 mg every 12 weeks with significant improvement after 6 weeks
Psoriasis and Itch

- 70% pts with extensive psoriasis itch
- NPF member survey, itch was the second most common symptom, in 79%
- Recent data 97% of Pts have itch
- 43% of pts state Itching the main problem

Br J Dermatol 2001
Arch Dermatol 2001
JAAD 2013
JAAD 2014
Psoriasis and Itch

- Itch extends beyond the area of rash
- No relation with PASI and itch
- Impairs sleep and mood
- Psoriatics reported higher embarrassment associated with itch
- Aggravated by dry skin, sweat.
- More itch in groin and buttocks and scalp
- Associated with genital itch in women
- Itch responds well to biologics faster than the resolution of lesions

Yosipovitch Br J Dermatol 2001
Gottlieb et al. JAAD 2010
Management of Psoriatic Itch Using Biologics
ESTEEM 1: Apremilast for Pruritus Through Week 32\textsuperscript{a,b}

Mean % improvement in pruritus VAS

\textbf{Placebo}  
\textbf{Apremilast 30 mg BID}

\textsuperscript{a}DAO, FAS.
\textsuperscript{b}VAS scores range from 0-100 mm where higher scores correspond with greater severity of pruritus (itch).

Data on File, Celgene.
Management of Psoriasis Itch with Topicals Targeting NGF Receptor

Overview of role of TrkA in the pruritic pathway
CT327 Phase 2b clinical data in Psoriasis *Acta Derm* 2015

- 160 adult patients with at least mild psoriasis (up to 10% BSA)
- CT327 0.05%, 0.1%, 0.5% w/w and vehicle ointment *bid* for 8 weeks
- Study end-points
  - Pruritus VAS - substantial clinically and statistically significant reduction in VAS (up to 60%) in 108 patients with at least moderate pruritus at baseline (‘Pruritic Patients’)

![Graph showing the change in Pruritus VAS over weeks for different treatment groups.](image)