Pediatric Skin of Color Symposium

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Pediatric Skin of Color Symposium
Disclosure

I have no conflicts of interest
Vitiligo - Learning Objectives

- Review current and emerging treatments for pediatric patients
- Recognize the ways in which vitiligo patients with darker pigmented skin are affected in terms of managing their skin
Vitiligo

- Autoimmune disease in which cutaneous depigmentation occurs
- Existing therapies are inadequate and limited
Vitiligo- workup in children

- Other autoimmune diseases and endocrinopathies
  - Further testing may be necessary in patients with suggestive signs or symptoms to rule out an underlying condition
  - Thyroid disease, diabetes mellitus, pernicious anemia, Addison disease, alopecia areata
Conventional Treatments

- Corticosteroids (TCs)
- Calcineurin inhibitors (TCIs)
- Systemic corticosteroids (SCs)
- Phototherapy
Unconventional Therapy

- Melagenina
- Alcoholic extract of human placenta
- Said to produce proliferation of melanocytes and enhance melanogenesis in vitiligo skin

Psychosocial Impact - Indian patients

- Semi-structured interviews conducted in 50 patients with vitiligo

- Aim: determine the beliefs about causation, aspects of the disease that cause concern, effects of disease on the patient’s life

Vitilgo - Range of Concerns

- Physical appearance
- Progression onto exposed skin/whole body
- Ostracism
- Social rejection
- Dietary restrictions
• Difficulty in getting jobs

• Significant barrier to getting married

Psychosocial Impact - Vitiligo
Indian patients

• The condition was perceived to be a serious illness
• Multiple medical consultations were frequent
• Stigma and suicidal ideation was reported
• Problems perceived to be more severe in women

Psychological Considerations

- Camouflaging cosmetics
- Depigmentation therapies
- Covermark
- Dermacolor
- Keromask
- Veil
- Vichy (Dermablend)

https://vitiligosociety.org/skin-camouflage
Depigmentation Therapies for Vitiligo

- Monobenzyl ether of hydroquinone (MBEH)
- Phenol 88%
- 4-methoxphenol (4MP, mequinol, p-hydroxyanisol)
- Physical therapies (cryotherapy and lasers)

Emerging Therapy

- Ruxolitinib (JAK1/JAK2 inh) *both adolescent and adults
- Ritlecitinib (PF-06651600) (JAK3/TEC inhibitor)
- Brepocitinib (PF-06700841) (TYK2/JAK1 inhibitor)
- Cerdulatinib (t JAK/Syk inh)
Non-segmental Vitiligo Studies

- Phase 2b (NCT03715829) evaluating the safety and efficacy of ritecitinib and brepocitinib
- Randomized, double blind, parallel group, multi center, dose-ranging study
- Partially blinded extension period
A Final Note - on Access

- About 45% of children nationally (higher in some states) are on Medicaid plans (under CHIPS Act)

- Despite the fact that vitiligo has a QoL impact greater than many systemic diseases, it is rarely considered by third-party payors who tend to treat vitiligo as a cosmetic rather than a medical issue, thereby disproportionately impacting persons of color

Personal communication Lionel Bercovitch, MD
Vitiligo Support

- Vitiligo Research Foundation
- “Famous Vitiligans”
Atopic Dermatitis - Learning Objectives

• Review current and emerging AD treatments for pediatric patients

• Recognize the ways in which pediatric AD patients with SOC are affected in terms of managing their condition
Disclosures

- Regeneron and Sanofi Genzyme - Speaker
- Pfizer - Speaker and SOC advisory board
Atopic Dermatitis

• A chronic, relapsing, inflammatory condition

• 18 million Americans

• 9.6 million children (~15% of children in USA)

• Sleep disturbance (47-60%) increased reports of suicidal ideation among adolescents with AD
AD: Psychosocial Impact

- AD can negatively impact QoL of both the child and family
- Sleep disruption, poor mood
- Low self esteem
- Parental self-blame and guilt

Atopic Dermatitis

• AD disproportionately affects Black children

• Among US children, more likely to suffer from AD and more likely to seek medical care for AD

• More disfiguring in SOC patients (hypo/hyper-pigmentation)

• Challenges in diagnosing and treating in pediatric SOC patients

Delzell, E. Everything you need to know about eczema in skin of color. National Eczema Association 2020
Pityriasis Alba
Pityriasis Alba

- Common benign condition
- Seen in children with atopic dermatitis
- Good counseling
- Reassurance not vitiligo
- Sensitive to culture
Pityriasis Alba

DDx: Vitiligo, PIH secondary to AD, TV, ash leaf macules, CTCL, Hansen’s disease, psoriasis, PR or tinea corporis

Tx: emolliation, mild TS, CI, photoprotection
Papular Atopic Dermatitis
AD: Acute Flare
AD: Chronic
AD: Pathogenesis

Complex, multifactorial, poorly understood

Endogenous factors:

- Genetic predisposition
- Defective skin barrier
- Abnormal innate immunity
- Immunologic abnormalities

Interaction with exogenous factors
Immune Response

- Acute AD characterized by Th2 immune response
- IL-4, IL-13
- Drives IgE synthesis
Atopic Dermatitis Treatment Overview

Step 1: Education, bathing, gentle skin care, moisturizing, avoidance of triggers

Step 2: Topical steroids (TCs), Calcineurin inhibitors (TCIs), phosphodiesterase-4 inhibitor

Step 3: Higher potency topical steroids, wet dressings, oral antihistamines, evaluate and treat for secondary infection

Step 4: Phototherapy, SCs, systemic immunomodulators
Therapies for recalcitrant AD

- Phototherapy
- Cyclosporin
- Azathioprine
- Mycophenolate mofetil
- Methotrexate
Periocular Involvement

Photo Courtesy Anna Bruckner, MD
Topical Calcineurin Inhibitors (TCIs)

- Topical immunosuppressive agents that inhibit T cells
- Pimecrolimus cream 1%
- Tacrolimus ointment 0.03% and 0.1%
- Approved for treatment of AD in patients at least 2 years of age
Phosphodiesterase-4 Inhibitor

- FDA approved December 2016
- Non-steroidal
- Crisaborole ointment 2%
- Approved for treatment of mild-moderate AD in patients 3 months of age and older
Side Effects

- Common side effects: burning, stinging
- Does NOT cause: atrophy, telangiectasia, hypopigmentation
Infection triggers AD flares and makes AD more difficult to treat
AD: Treating Infection

- Culture (Bacterial, Viral DFA)

Bacterial

- Topical: mupirocin, ozenoxacin
- Liquid: Cephalexin
- Pills: Cephalexin or Dicloxacillin
- Clindamycin, Sulfamethoxazole-Trimethoprim, Doxycycline if concerned about MRSA
- Treat 7-14 days
- Continue to treat skin as well!
Dupilumab

- Currently, only one systemic biologic drug FDA approved
- Targets IL-4 and IL-13
- Dupilumab injection 200mg and 300mg
- First biologic approved for children aged 6 years and older with uncontrolled moderate to severe AD
On the Horizon

- Tralokinumab (12-17 years) Phase 3 clinical trial
- Upadacitinib
- Abrocitinib
- Ruxolitinib (12 years and older)
- Baricitinib (ages 2 and up)
5 year old female with pustules on scalp
T. Alopecia - Clinical Findings

- Short, thinning hair at frontal hairline or between braids
- Papules
- Perifollicular erythema & Pustules (traction folliculitis)

Tinea capitis with pustules
Tinea capitis with kerion
Traction Alopecia

- African American Females
- Induced by tight braids held with elastic bands
- Outermost hairs of braid usually affected
Traction Alopecia

- Vellus hairs remain, loss of terminal hair
- Early disease…reversible
- Late disease…permanent hair loss
Traction Alopecia

- Increasing prevalence with age demonstrated
- Study of 1042 school children (ages 6 to 21 years) in South Africa
  - 9% in girls First year of school (age 6 to 7 years)
  - 22% in girls Last year of high school (17 to 21 y)

Traction Alopecia

- In women, favors frontotemporal area
- May be lag of years between insult and hair loss
- Biphasic hair loss: initially non-cicatricial with regrowth possible, as progresses becomes permanent
Prevention
Treatment

Early-stage

- Loosen braids or pony-tail
- Topical minoxidil
- Local corticosteroids
- Oral antibiotics

Late-stage

- Cosmetic camouflage
- Hair transplantation