SOCS
skin of color society

15th Annual Scientific Symposium – February 28, 2019

Scientific Summary

INVITED SPEAKER

Crystal Aguh, MD, FAAD | Director, Ethnic Skin Program, Assistant Professor, Department of Dermatology, Johns Hopkins School of Medicine | "*Updates in Our Understanding of CCCA*"

Summary provided by: Ahuva Cices

- CCCA is the most common scarring alopecia in black women.
- The commonly held belief that CCCA is linked to hairstyling practices is overemphasized. The exact role is not clear. Importantly, CCCA is not self-induced.
- There is a genetic component of CCCA: autosomal dominant, with partial penetrance. Genetically susceptible individuals have exaggerated response to inflammatory triggers.
- At the molecular level, CCCA is different than other forms of scarring alopecias. Exemplified by preservation of PPARgamma and sebaceous glands.
- CCCA is a fibroproliferative disorder along with keloids, atherosclerosis, and fibroids which disproportionately affect African Americans. Increased fibroproliferative genes (MMPs, PTEN, VEGF) are significantly higher in CCCA and overlap with fibroids and idiopathic pulmonary fibrosis. CCCA has genetic overlap with atherosclerosis and hepatic sclerosis.
- CCCA is not just a cosmetic issue, it is associated with systemic diseases including diabetes, bacterial scalp infections, and fibroids.
- 5x increased odds of uterine fibroids in black women with CCCA compared to age/sex/race matched controls.
- Hot off the press: recent study published in NEJM found PADI3 variations affecting hair shaft formation in 24% of CCCA patients vs 3% in the general black population.
- PRP promising future treatment for CCCA.

Reference:

Variant PADI3 in Central Centrifugal Cicatricial Alopecia

Malki L., Sarig O., Romano M.-T., et al.|*N Engl J Med* 2019; 380:833-841

Michael Alberto Bell | Department of Dermatology, Johns Hopkins University School of Medicine | "*Racial and Ethnic Disparities in Access to Emerging and Frontline Therapies in Common Dermatological Conditions: A Cross-Sectional Study*"

Summary provided by: Stephen Ansah-Addo

This cross-sectional study looked at patients diagnosed with acne, atopic dermatitis, and psoriasis at Johns Hopkins from 2013-2018. Analysis showed that for acne, African Americans are 75% less likely to be prescribed isotretinoin than Caucasians, blacks were 60% less likely to be prescribed dapsone than Caucasians and

Hispanics were 25% less likely to be prescribed the latter. For atopic dermatitis, Crisaborole and Dupilumab were 60% less likely to be prescribed for African Americans compared to Caucasians. For psoriasis, Secukinumab was 50% less likely to be prescribed to blacks compared to Caucasians and Hispanics were 70% less likely to be prescribed this medication compared to Caucasians.

This study is significant as one of the objectives of the ACA was to increase access to new medications. However, the disparity is not only in emerging therapies but also in old therapies as is shown in the difference in isotretinoin prescription for blacks and Caucasians. The type of health insurance strongly influences medication use, and increasing coverage can help to decrease the racial and ethnic disparities. There is a growing interest in using biosimilars to help contain cost and hence increase access. More studies are needed to help elucidate and combat the reasons minorities face a higher barrier to access than non-minorities.

Leandra A. Barnes | Stanford University School of Medicine | "*Dyspigmentation in Hidradenitis Suppurativa: Clinical and Pathologic Findings from a Xenograft Mouse Model*"

Summary provided by: Ahuva Cices

- Higher prevalence of HS in African American females
- No existing mouse model for HS
- In this NSG-SGM3 mouse model there was depigmentation and spontaneous disease regression in HS xenografts suggesting skin pigmentation may relate to disease pathophysiology and the observed disease regression
- Potential role of supporting cells such as Th17/Treg ratio as well as signaling molecules such as IL-6 and IL-2

INVITED SPEAKER

Eliot F. Battle, Jr., MD | CEO & Co-Founder |Cultura Dermatology & Laser Center | "*How to Start and Sustain a Successful Cosmetic Dermatology Practice*"

Summary provided by: Stephen Ansah-Addo

Sustaining a successful cosmetic practice can be very challenging. The key to having a thriving practice is branding, differentiating oneself from the competition, and having a profitable model. Furthermore, evolving to stay relevant as the times change is salient to withstanding new demands and trends in the world of cosmetology. A cosmetic practice has to be run as a business crucial to be successful. The dermatologist can gain business skills by taking classes, reading books or getting someone who can help with learning and understanding business.

The four steps to be successful in running a cosmetic practice are a feasibility study, financial analysis, conceptual design development, and design of the cosmetic practice. Feasibility study helps in determining if a cosmetic practice is possible and worth the effort. Location of the practice, demographics, market analysis, operational analysis are some of the fundamental things one has to take into consideration. The design space is also vital to running a successful cosmetic practice. Rooms have to be just the right size, if they are too big, it feels empty, and if it is too small, it appears cheap. The practice must be constructed to provide optimum privacy for clients.
The staff has to have essential skills such as good communication, excellent interpersonal skills, knowledge of products, great work ethic, and be good at time management. Innate service

personalities are priceless. Incentivize staff to help keep them motivated. Incentives can be done weekly, monthly, quarterly, and yearly based on both individual and group performance.
Treat patients as if they are family and always thank them for choosing ones practice. Apart from patients providing a direct source of income, they are also a source of referrals that can help increase client base. Furthermore, their good online reviews can help bring in more customers.

Amy H. Huang, BA | Johns Hopkins University School of Medicine | "*Racial Disparities in Mycosis Fungoides: A Retrospective Cohort Study*"

Summary provided by: Ahuva Cices

- Distinct presentation of mycosis fungoides in skin of color
- Mycosis fungoides in blacks compared to Caucasian populations:
    - Female predominance
    - Higher stage at time of diagnosis (less likely to be diagnosed in stage 1)
    - Younger age at time of diagnosis
    - Higher BSA at time of diagnosis
    - Lower survival and poorer prognosis
    - Mycosis fungoides in blacks has an earlier onset and more aggressive

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INVITED SPEAKER

Vincent A. DeLeo, MD | Clinical Professor of Dermatology, Keck School of Medicine at USC, Professor Emeritus Icahn School of Medicine at Mount Sinai | "*Contact Dermatitis in Skin of Color*"

Summary provided by: Stephen Ansah-Addo
Decreased access to dermatology in general and more specifically to patch testing among persons of color has caused a paucity of data in assessing the differences in contact allergy among racial/ethnic groups. Analyzing the limited data shows that there are no differences in the rate of diagnosing contact or irritant dermatitis in Caucasian and blacks who are tested. Positive patch test to specific allergens appears to be the same among Caucasians and African Americans, and a typical example is nickel allergy. However, there are some specific allergens that blacks are more likely to test positive than Caucasians and vice versa. Blacks are more likely to have a positive test to paraphenylenediamine and rubber accelerators than Caucasians, whereas Caucasians are more likely to be found allergic to formaldehyde and related preservatives, textile resins, and fragrances. The exact reasons for these specific differences are unknown, but it is more likely due to differences in usage patterns among these racial groups. Most studies have focused on the differences between blacks and Caucasians. Future studies should include patch test evaluations among Hispanics, Asians, and Pacific Islanders.

Abigail Cline, MD, PhD | Wake Forest Baptist Health | "*Multi-Ethnic Training in Dermatology Residency*"

Summary provided by: Stephen Ansah-Addo
By 2060 more than half of all Americans will belong to minority groups. Individuals with skin of color make up a majority of the world's population. Dermatological care must evolve to address this trend.

Prior studies had cited the need for an increase in diversity in dermatological education, exposure, and training.

The purpose of this study was to evaluate whether dermatology residency programs skin of color curriculum was adequate. A 10-question survey was sent to 109 dermatology residency programs across the country, and 43 dermatology residents responded. The first question asked where in the country the resident's training was, and it was almost evenly split among these five regions, Northeast (NE), Southeast (SE), Midwest (MW), Southwest (SW) and Northwest (NW). Overall 72% of residents agreed they saw a diverse patient population. Regionally, NE, SE, and SW (all over 85%) overwhelmingly agreed that they saw a diverse patient population. However, only 58% and 50% of residents in the MW and NW, respectively, agreed to taking care of a diverse patient population. When asked whether a dedicated multi-ethnic skin clinic is essential for residents to become competent in treating skin of color, only 35% agreed overall. In terms of regions, 57% in SE, 42% in MW, 25% in SW, 63% NW and 0% in NE agreed a dedicated multi-ethnic skin clinic would be necessary for residents to become competent in treating skin of color. In general, 26% of respondents agreed, when asked whether a dedicated rotation is vital for residents to become competent in treating skin conditions affecting skin of color. None of the respondents in the NE agreed, 29%, 25%, 25% and 38% in the SE, MW, SW, and NW, respectively, agreed.

These responses show that residents training in less diverse regions were more likely to agree that dedicated clinics and rotations are essential to gain competence than those in more diverse regions. Residents believed that dedicated lectures and textbook chapters are more important than dedicated clinics or rotations. However, residents in less diverse areas believed dedicated multi-ethnic skin clinics and faculty may be more critical for assuring an adequate residency experience. Future studies should compare program directors and residents' perceptions of skin of color training and assess patients' perceptions of skin of color training.

INVITED SPEAKER

Emma Guttman-Yassky, MD |Professor, Icahn School of Medicine at Mount Sinai | "*Racial /Ethnic Variations in Atopic Dermatitis*"

Summary provided by: Ahuva Cices

- Asian atopic dermatitis has features of psoriasis:
  - Clinically more distinct lesions
  - Histology with hyperplasia and parakeratosis
  - Pathogenic contribution of TH17 / IL-17
  - Targeted therapeutics for Asian phenotype of atopic dermatitis
- Higher prevalence of atopic dermatitis and "treatment resistant" disease in skin of color
- African American atopic dermatitis also has unique features:
  - Increased role TH2 and TH22, with attenuated TH1 skewing
  - Greater infiltration of FcER1 dendritic cells
  - Higher correlation between IgE and severity of atopic dermatitis
  - Lacks filaggrin down regulation, with loricrin down regulation
- Multiple atopic dermatitis phenotype, all include TH2 activation
- Findings in African American atopic dermatitis argues against pathogenic role of TH1 skewing in atopic dermatitis

- Molecular phenotypic studies can help develop targeted therapeutics for more personalized approach to atopic dermatitis treatment.

Reference:

Atopic dermatitis in diverse racial and ethnic groups—Variations in epidemiology, genetics, clinical presentation and treatment

Kaufman BP, Guttman-Yassky E, Alexis AF. | Experimental Dermatology 2018; *Exp Dermatol*. 2018;27:340–357

Maggi Ahmed Refat, MD | University of Massachusetts Medical School | "*The Success of Melanocyte Keratinocyte Transplantation in Vitiligo and Pigmentary Disorders is Influenced by Their Immunological Profiles*"

Summary provided by: Ahuva Cices

- Melanocyte keratinocyte transplantation for treatment of recalcitrant but stable disease
- Procedure: take uninvolved skin from donor, create single cell suspension, laser or manually remove epidermis and transplant cells
- Better response in segmental vitiligo compared to non-segmental disease
- CD8 are culprit cells which remain in clinically stable lesions and affect response to melanocyte keratinocyte transplantation
- Higher CD8 cells correlates with lower long term re-pigmentation. Can be used to determine who will be non-responder prior to melanocyte keratinocyte transplantation

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INVITED SPEAKER

Ginette A. Okoye, MD Professor & Chair |Department of Dermatology, Howard University College of Medicine | "*Management of Hidradenitis Suppurativa in Skin of Color*"

Summary provided by: Stephen Ansah-Addo

Hidradenitis Suppurativa (HS) is an inflammatory disorder of the hair follicles, and it is 2-3 times more prevalent in African Americans than Caucasians. HS is a systemic inflammatory disease associated with inflammatory bowel disease, pyoderma gangrenosum, and cardiovascular disease. Furthermore, it is often correlated with low socioeconomic status, obesity, and smoking. Quality of life scores is less than that of psoriasis.

HS can present in a variety of ways; deep-seated inflammatory nodules can make it difficult for patients to sit or walk, ulcerated lesions, purulent lesions with odor soils clothing and is embarrassing to patients.

The HS treatment continuum consists of medical and surgical management, wound care, lifestyle modifications and psychosocial support. Treatment should be individually tailored, taking into consideration the severity, aggravating and ameliorating factors, impact, and cost. It is salient to involve the patient in the plan of care to enhance adherence to therapy. Concerning treatment, start with the basics and add on. Furthermore, multiple therapies are needed as monotherapy is less likely to be effective in treating HS. Topical antimicrobials and cleansers such as clindamycin 1% lotion, gel or solution, bleach baths, chlorhexidine 4% wash, and benzoyl peroxide 10% wash can be applied

daily to lesional areas. Oral antibiotics twice daily for 2-3 months can be effective in managing HS. Doxycycline or minocycline 100mg twice daily is a common antibiotic regimen. Hormonal therapy can be added if needed; using metformin 1,500-2000mg/day or finasteride 1-5mg/day. Pregnancy is a contraindication for finasteride and care should be taken in using metformin in individuals over 65 years due to a potential risk of lactic acidosis. For recalcitrant HS, methotrexate, and biologics such as Adalimumab, infliximab can be effective in managing HS. Nd:YAG laser is effective in managing HS. A randomized control trial showed 50%-75% reduction in disease activity in Hurley Stage II & III disease.

Wound care is of utmost importance in managing HS. Goals of wound dressings are to decrease clothing soilage, decrease the frequency of dressing changes, and decrease malodor. Simple products such as regular gauze, infant diaper, and sanitary napkin are effective in decreasing clothing soilage. Silver impregnated hydrofiber, and calcium alginate are absorbent dressings that help manage purulent drainage. Lifestyle changes such as smoking cessation and weight loss can help decrease the inflammatory process. Offer counseling and support and refer for psychosocial support if need be, as HS can be psychologically and emotionally devastating.

Jessica Dawson | University of Washington School of Medicine | "*Diagnosing Cellulitis in Skin of Color: A Comparison Between Dermatology Residents and Faculty at Howard University and the University of Washington*"

Summary provided by: Ahuva Cices

- Compared diagnostic accuracy and confidence in dermatology faculty / residents at Howard University and University of Washington
- Overall 95% correct diagnosis of cellulitis, however, when broken down by skin type, 97% in Caucasians skin vs 81% in skin of color, we see that visual diagnosis in skin of color remains a challenge.
- No difference in confidence despite different levels of exposure to skin of color (>75% patient population at Howard vs <10% at UW)
- Faculty and residents agree on the importance of exposure to patients with skin of color in residency training.

Uzoamaka J. Okoro, BA | Warren Alpert Medical School of Brown University | "*Skin of Color in Preclinical Medical Education: A Cross-Institutional Comparison*"

Summary provided by: Stephen Ansah-Addo

This study compared skin of color in preclinical dermatology lectures among three US medical schools. Inclusion criteria were lecture presentation slides and additional material from 2015-2016 dermatology course. Data was extracted from anonymized lectures by two independent coders from different institutions. An analysis looking at the percent of patients of color in clinical images, conditions of importance to skin of color patients and discussion of clinical and epidemiological differences in skin of color was done. Percentage of skin of color photos among the institutions were 23.6 in institution 1, 11.2 in institution 2 and 10.2 in institution 3. The number of skin of color diseases discussed was 16%, 11% and 9% in institution 1, 2 and 3 respectively. Discussion of clinical and epidemiological differences in skin of color was 10%, 4% and 7% in institution 1, 2 and 3, respectively.

Overall out of a total of 1,812 photos in all the lectures only 16% were of skin of color patients. Institution 3 had no photos of skin of color patients in acne, psoriasis, and cutaneous malignancy. Institution 1 had no skin of color photos in the malignancy lecture. Lectures discussing atopic dermatitis, infectious diseases, and benign cutaneous neoplasms were more likely to have images of skin of color patients. Throughout the dermatology course at all three institutions, 23 differences between skin of color and non- skin of color patients were identified out of a total of 2,945 lecture slides. Most of the differences were described epidemiologically but only once were explanations to clarify the underlying mechanisms of these differences included. Text was the most commonly used method in describing the differences in skin of color, and only on 5 occasions were images used in describing the differences.

The above demonstrates that skin of color is underrepresented in the dermatology curriculum. Instructors should include more photos of patients of color or explain potential differences when a photo is unavailable, and there should be more emphasis on how patients of color can be affected differently by common dermatological conditions. Further steps should include, enhancing dermatology curricula at various medical schools and reevaluating efficacy of curricular changes. Furthermore, dermatology lectures across other medical schools should be compared to get a better picture of this issue.

INVITED SPEAKER

Prof. Ncoza Dlova Head of Dermatology, Dean and Head of School |Nelson R. Mandela School of Clinical Medicine, University of KwaZulu Natal, Durban, South Africa | "*The State of Dermatology in Africa*"

Summary provided by: Ahuva Cices

- African Society of Dermatology and Venereology (ASDV) founded in 2016 with the goal of advancing the field of dermatology in Africa. Biannual meetings, upcoming in Kenya 2020
- Shortage of dermatologists in Africa - need more clinicians
- 1 dermatologist: 1,000,000 population in sub-Saharan Africa
- There are countries in Africa with NO dermatologists
- As expected, access limited to urban areas
- General dermatology with few subspecialists
- In most countries, predominance of private dermatologists
- Many opportunities available for those who are looking to get more involved with advancing dermatology in Africa, eager for collaboration, and additional training opportunities.