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JDD

DRUGS • DEVICES • METHODS

SKIN OF COLOR UPDATE

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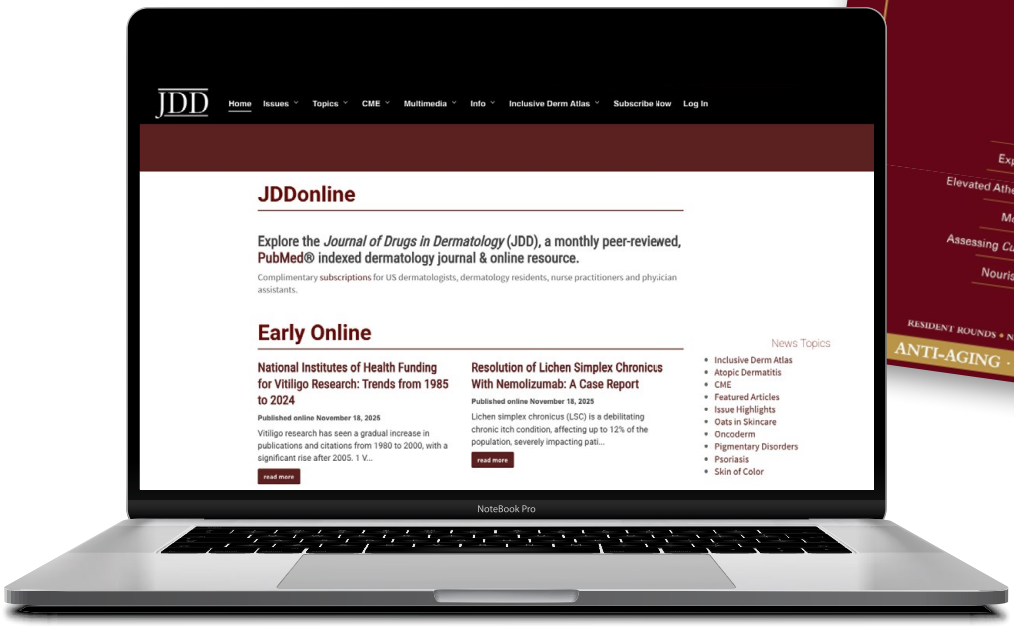

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FOREWORD By Andrew F. Alexis MD MPH

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Weill Cornell Medicine, New York, NY

It is my distinct honor to introduce this special supplement to the *Journal of Drugs in Dermatology (JDD)* featuring abstracts presented at the 2025 Annual Skin of Color Update (SOCU) meeting in New York City. As a cochair for this conference, I continue to be impressed each year by the depth and breadth of posters that are presented, and this past year's program was particularly exceptional. Admiring the remarkable posters that line the long halls of our conference venue, I have long wished that they could be memorialized and shared with the broader dermatologic community. To now have more than 70 accepted abstracts compiled and published in this special issue of the JDD is deeply gratifying, and I hope that readers will find this collection to be a valuable resource.

Over the past two decades, the Skin of Color Update meeting has been dedicated to delivering continuing medical education to dermatologic audiences that highlights best practices and evolving trends in the management of dermatologic disorders across the spectrum of diverse patient populations with skin of color (SOC). During this time, we have witnessed extraordinary progress in clinical and translational research that has paved the way for meaningful therapeutic advances in conditions that are highly prevalent or present with unique considerations among patients with SOC. The abstracts presented here reflect that progress and underscore the growing sophistication of scholarship in this area.

The breadth of topics represented in this supplement reflects the range of dermatologic concerns relevant to our increasingly diverse patient population. It includes conditions for which research has been historically limited. The topics are grouped into 8 broad categories: alopecia areata - adults and children; aesthetic dermatology; acne and rosacea; equity and diversity in dermatology; inflammatory skin conditions (acne/rosacea, atopic dermatitis, eczema, psoriasis); keloids; pediatric dermatology; and pigmentary disorders (melasma, vitiligo, hyperpigmentation, photodamage). Collectively, these contributions offer new clinical insights, therapeutic data, and a deeper understanding of nuances across specific patient populations with SOC.

Equally inspiring is the diversity of contributors. The supplement includes work from seasoned dermatologic leaders, early-career faculty, residents, fellows, and medical students. Contributors span academic centers and community practice and include both investigator-initiated projects and industry-supported research. By curating these abstracts in an enduring, citable format, this supplement extends the reach of the contributors' work beyond the live meeting and into the broader dermatologic community.

It is my hope that this supplement will not only serve as an enduring record of the scholarly work presented at the 2025 SOCU meeting but also stimulate new questions and foster further advancement in research that ultimately improves outcomes for our patients.

SKIN OF COLOR UPDATE

ALOPECIA AREATA - ADULTS & CHILDREN S1

UNIQUE ID: AA_01: An Analysis of TSH Levels in Patients with Nonscarring Alopecia: A Single-Center Retrospective Comparative Study
Simona A. Alomary BA, Nicole J. Baker BS, Nicholas Schell BA MCIT, Temitayo Ogunleye MD, Susan Taylor MD, Heather Milbar MD
UNIQUE ID AA_02: Risk of Lab Abnormalities in Non-Scarring Alopecia on Low Dose Oral Minoxidil: A TriNetX Cohort Study
Nicole J. Baker BS, Simona A. Alomary BA, Temitayo Ogunleye MD, Susan Taylor MD
UNIQUE ID AA_04: Transforming Aesthetic Care for Patients of Color With Hair Loss Through Integrating Cosmetic Science and Cultural Awareness
Kelly Frasier DO MS, Grace Herrick BA, Rachel Aronov BS, Kelly Centeno BA, Atekana Nyamaa BS, Jared S. Kahn MD MS, Raman K. Madan MD FAAD

AESTHETIC DERMATOLOGY S5

UNIQUE ID AD_03: Hair Care Practices, Management, and Post - Transplantation Recommendations in Afro-Textured Hair
Rachel Lubinga DO, Chinenye Onejeme MD, Achiamah Osei-Tutu MD
UNIQUE ID AD_04: The Influence of Colorism on Skincare Product Use Amongst South Asian Adolescents in Western Countries
Neha Iska BS, Shivani Nagamalla BS, Christeena Jojo BS, Emily Uh BS, Kashika Bharol BA, Sara Omari BS, Haily Fritts BS, Julia Vinagolu-Baur MS MBA, Kelly Frasier DO MS
UNIQUE ID AD_05: Pigment Dropout in Cosmetic Tattooing Procedures Amongst Southeast Asian Women Undergoing Microblading
Julia Vinagolu-Baur MS MBA, Robert Adler BA, Aymen Arain MS, Mikaela Nueva MS, Emily Garelick BS, Sophia Khan MD, Sara Omari BS, Kelly Frasier DO MS
UNIQUE ID AD_06: Long-Term Safety and Efficacy of Injectable Fillers in Lupus Erythematosus Profundus: A Case Report of 12 Years of Treatment
Maria Vazquez-Machado BS, Cheryl Burguess MD FAAD

ACNE & ROSACEA S7

UNIQUE ID AR_01: Efficacy and Safety of Fixed-Dose Clindamycin Phosphate 1.2%/Adapalene 0.15%/Benzoyl Peroxide 3.1% Gel in Asian Participants With Moderate to Severe Acne
George Han MD, Andrew F. Alexis MD MPH, Neal Bhatia MD, Valerie D. Callender MD, Hilary Baldwin MD, Eric Guenin PharmD PhD MPH, Linda Stein Gold MD
UNIQUE ID AR_02: Rhinophyma in Skin of Color: Clinical Challenges and Treatment Considerations
Nicole Werpachowski DO, Karan Lal DO

EQUITY AND DIVERSITY IN DERMATOLOGY S9

UNIQUE ID ED_01: Barriers to Dermatologic Care and Healthcare Utilization Patterns Among Patients Without Insurance at a Free Clinic
Robert Adler BA, Preston Gross MPH, Jalen Knight BA, Claire O'Laughlin BA, Mojdeh Yadollahikhales MD, Justin Marson MD, Katerina Svigos MD, Edward Heilman MD FAAD
UNIQUE ID ED_02: Social Determinants of Health in Melanoma Incidence and Mortality: A County-Wide Analysis of the United States
Robert Adler BA, Melody Eckert BM, Manan Mehta MD, Emily Cowen MD, Katerina Svigos MD, Justin W. Marson MD
UNIQUE ID ED_03: UV Index Exposure by Zip Code and Photoprotection Education in Children with Skin of Color in New York State
Robert Adler BA, Alex Silberzweig BA, Alexander Velaoras BS, Isha Gandhi BS, Rachel Aronov BS, Kelly Frasier DO MS, Pooja R. Shah MD
UNIQUE ID: ED_04: Psychological Burden of Dermatological Conditions in Patients Without Insurance
Navid Ashrafi MPH, Robert Adler BA, Justin W. Marson MD, Jeffrey A. Feola MD, Jessica L. Feig MD PhD
UNIQUE ID ED_05: Skin of Color Representation Among Common Search Engine Images
Robert Adler BA, Kateryna Karpoff BS, Manan Mehta MD, Emily Cowen MD, Katerina Svigos MD, Justin Wu Marson MD, Jessica Lori Feig MD PhD
UNIQUE ID ED_08: Improving Clinical Recognition of Mycosis Fungoides in Skin of Color
Kaitlyn Miner BS, Neena Edupuganti DO, Kelly Frasier DO MS, Alina G. Bridges DO FAAD
UNIQUE ID ED_09: Analyzing Biased Dermatologic Terminology in Medical Education Materials for Skin of Color
Lily Khabie BA, Alex Silberzweig BA, Lynn Fadel BS, Atekana Nyamaa BS, Rachel Breidbart BS, Claudia Rodriguez BA, Kelly Frasier DO MS, Raman K. Madan MD
UNIQUE ID ED_10: Cultural Sensitivity in Alopecia Care for Head-Covering Women Across Religious and Ethnic Communities
Alex Silberzweig BA, Alexander T. Velaoras BS, Rachel Aronov BS, Julia Vinagolu-Baur MS MBA, Kelly Frasier DO MS, Jared S. Kahn MD MS, Sarah Ahmed MD
UNIQUE ID ED_11: Behind the White Coat with Representation and Resources for Skin of Color Care
Alexander T. Velaoras BS, Rachel Aronov BS, Haily Fritts BS, Julia Vinagolu-Baur MS MBA, Alex Silberzweig BA, Kelly Frasier DO MS, Jared S. Kahn MD MS, Raman K. Madan MD FAAD
UNIQUE ID ED_13: US Ban on Import and Sale of Mercury-Containing Skin Bleaching Products with Penalties for Retailers
Hafsa Hassan BS, Haily Fritts BS, Kelly Frasier DO MS, Alina G. Bridges DO FAAD
UNIQUE ID ED_14: Underrepresented and Underprepared: Skin of Color in Clinical Vignettes on USMLE and COMLEX Exams
Haily Fritts BS, Kelly Frasier DO MS, Alina G. Bridges DO FAAD
UNIQUE ID ED_18: Cultural Taboos, Shame, and Diagnostic Avoidance in Vulvar Dermatoses Among Women with Skin of Color
Grace Herrick BA, Daniela Rizzo BS, Harleen K. Multani BS, Kiratpreet Sraa BS, Neena Edupuganti DO, Kathleen Click DO, Stuti Prajapati DO MS, Kelly Frasier DO MS
UNIQUE ID ED_19: Invisible Protection, Visible Exclusion: Why Sunscreen Ads and Packaging Alienate Skin of Color Populations
Grace Herrick BA, Alyssa Forsyth BS, Neena Edupuganti DO, Sriya Kakarla BA, Bret-Ashleigh Gray DO, Kiratpreet Sraa BS, Stuti Prajapati DO MS, Kelly Frasier DO MS
UNIQUE ID ED_20: Cultural Barriers to Sunscreen Use Amongst Afro-Caribbean Immigrants and Implications for UV-Induced Dermatoses
Grace Herrick BA, Lynn Fadel BS, Jesse Salas BS, Zubair Shabbir BS, Coral Martes-Villalobos BS, Bruna Pino MD, Sarah Mazurovsky BS, Kelly Frasier DO MS
UNIQUE ID ED_21: Assessing the Performance of Skin Cancer Screening Apps in Detecting Atypical Lesions in Melanated Skin
Vivian Ho Sang MD, Stefany Acosta Caldwell DO, Michael Sun BS, Joy Xie BA, Alexa Sokhon BS, Ochuwa Precious Imokhai MHSc, Haily Fritts BS, Julia Vinagolu-Baur MS MBA, Kelly Frasier DO MS
UNIQUE ID ED_22: Leprosy in Pediatric Patients in the Dominican Republic: Clinical Presentations and Epidemiologic Trends, 2014–2024
Vivian Ho Sang MD, Lina Pichardo Di Vanna MD, Delza Canto MD, Juan Periche MD, Miguel Lora MD
UNIQUE ID ED_24: Representation of Skin Tones in Images Depicting Cutaneous Autoimmune Diseases in Current Medical Education Texts
Felicia Hung, MPH, Gabriela V. Seto, BM, Sarah Shehata BA, Harjas Jassal BS, Rehana Ahmed-Saucedo MD PhD
UNIQUE ID ED_28: Impact of the Globalization of Clinical Trials on Conditions Commonly Seen in Skin of Color
Sanjana Kurup MD, Zaria Franklin BA, Cheri Frey MD
UNIQUE ID ED_31: Underrepresentation of Skin of Color in Dermatology Teaching Materials in Brazilian Medical Training
Italo Silva, Lora-Barraza MD, Katleen da Cruz Conceição MD

EQUITY AND DIVERSITY IN DERMATOLOGY (CONTINUED) S9

UNIQUE ID ED_32: Improving Central Centrifugal Cicatricial Alopecia
Stephanie M. McDonald DO, Avva Saniee DO, Shivani S. Ambardekar MD, Sanaa Tasneem MD, Joan Marie Neptune-Rosa MD, Kelly Frasier DO MS, Alina G. Bridges DO FAAD

UNIQUE ID ED_33: A Review of Evaluating the Efficacy and Safety of Glutathione-Based Interventions for Aging Dark Skin and in Facial Rejuvenation Surgery
Precious Ochuwa Imokhai BS MHSc, Sarah Kazemeini BS, Chelsea Barrows BS, Nureen Sayed BS, Shivani Nagamalla BS, Naif Hebo MS, Lauren Amoo BS, Raiya Patel, Maha Alhodai, Jenny Zhang BS, Katelyn Dunmore BS, Olivia Hall BS, Amanda Brooks PhD

UNIQUE ID ED_34: Beauty, Colorism, and Algorithms: How Social Media Propagates Colorism, Skin Bleaching, and Unhealthy Beauty Ideals in People of Color
Sara Omari, Sumra Dina, Mashal Zaide, Sreshta Jannu, Radhika Misra, Daniel Thompson, Stuti Prajapati

UNIQUE ID ED_40: Dermatologic Indicators of Nutritional Deficiency in Displaced Populations with Skin of Color: Addressing Diagnostic Gaps and Public Health Equity
Alyssa Sayegh BS, Jackleen S. Marji MD PhD

UNIQUE ID ED_41: Barriers, Behaviors, and Beliefs: Examining Sunscreen Use and Photoprotection Practices in South Asian Populations
Sarina Shah BS MBA, Mark Hanna BA, Rebecca Fliorent DO

UNIQUE ID ED_42: Advanced Basal Cell Carcinoma in a Safety-Net Hospital: THRIVE Framework Identifies Social Determinants Driving Delays and Outcomes
Ashley Slack MD, Sahni Debjani MD

UNIQUE ID ED_43: Melanoma Patient Education: A Scoping Review of Interventions for Non-Hispanic Blacks, Non-Hispanic Asians, and Hispanics
Michael Sun BS, Emily G. Uh BS, Julia Vinagolu-Baur MS MBA, Harrison Smith BS, Jacob Chacko BS, Alexander G. Garcia BS, Debora Vargas BS, Joyce Farah MD FAAD, Ramsay-Sami Farah MD FAAD

UNIQUE ID ED_45: Recognizing the Absence of Phototype Representation for Asian Populations in Dermatology
Julia Vinagolu-Baur MS MBA, Sara Omari BS, Lynn Fadel BS, Travis Jackson BS, Debora Vargas BS, Kelly Frasier DO MS

UNIQUE ID ED_46: Investigating Delays in Diagnosis of Hidradenitis Suppurativa in Women of Color
Julia Vinagolu-Baur MS MBA, Asha Thuraisamy MS, Keziah Crossley MS, Kasey Smith DO MBS, Neena Edupuganti DO, Kelly Frasier DO MS

UNIQUE ID ED_47: Medicaid and Medicare Reimbursement for Dermatologist-Patient Racial Concordance in Pigmentary Disorders
Nicole Werpachowski DO, Mary Grace Hash MS, Kelly Frasier DO MS, Alina G. Bridges DO FAAD

INFLAMMATORY SKIN CONDITIONS (ACNE/ROSACEA, ATOPIC DERMATITIS, ECZEMA, PSORIASIS) S24

UNIQUE ID IS_01: A Pattern Analysis of Race, Comorbidities, and Treatments in Atopic Dermatitis
Robert Adler BA, Michael Kozlov BA, Isha Gandhi BS, Jessica Lori Feig MD PhD

UNIQUE ID IS_02: Clinical Presentations of Cutaneous Lupus Erythematosus in Patients With Skin of Color: A Systematic Review (2005-2025)
Amber Sun, Gabriella Khaldarov BS, Hasret Gunduz MD, Mehmet Fatih Atak MD

UNIQUE ID IS_04: High-Intensity Focused Ultrasound (HIFU) as a Novel Therapy for Granuloma Annulare
Grażyna Bodalska, Natalia Sauer M.Pharm, Jacek Calik PhD

UNIQUE ID IS_05: Impact of a Simplified, Visual Educational Intervention on Caregiver Understanding of Pediatric Atopic Dermatitis: A Clinic-Based Randomized Study
Jacob Chacko BS, Teja Buddhavarapu BS, Patrick McMahon MD

UNIQUE ID IS_08: Delayed Diagnosis of Cutaneous Lupus Erythematosus in Fitzpatrick V and VI Skin Due to Atypical Erythema Presentation and Absence of Telangiectasia
Caitlyn Babi BS, Anisha Venkatesh MS, Jeffrey Cruz MS, Keiddys Hidalgo MD, Tiffany Kim BS, Haily Fritts BS, Kelly Frasier DO MS

UNIQUE ID IS_09: Fox-Fordyce Disease After Laser Hair Removal: A Hidden Consequence of Cosmetic Procedures
Gaity Wahab BS, Daphne Pate BA, Navneet Dhanoa BA, Aaliyah Sanders BS, Sabrina Bubis BA, Danny Lee MD, Alex Guerrero, Jacob Chacko

UNIQUE ID IS_20: An Evaluation of the Effects of Traditional Hair Greasing Practices on Follicular Occlusion Disorders in Black Women with HS
Udokama Ezekwe BS, Yazmin Williams BA, Stephanie Casagrande BS, Lejla Hodzic BS, Shivani S. Ambardekar MD, Esther Nwozo BS, Julia Vinagolu-Baur MS MBA

UNIQUE ID IS_22: The SCALE-UP Study: Real-world Patient-Reported Effectiveness of Upadacitinib-Treated Adults With Atopic Dermatitis by Fitzpatrick Skin Type and Race
Nada Elbuluk MD MSc FAAD, Brian M. Calimlim DRPH MS, Chesahna Kindred MD MBA FAAD, Andrew F. Alexis MD MPH, Arielle G. Bensimon PhD, Jiaxuan Liu PhD MPH, Katherine Altman DO MS, Chao Li PhD, Bang Truong PhD MS, Christopher G. Bunick MD

UNIQUE ID IS_23: Skin Clearance and Itch Relief in Black or African American Patients with Moderate-to-Severe Atopic Dermatitis Treated with Upadacitinib: 140-Week Outcomes from Integrated Phase 3 Measure Up 1 and 2 Studies
Andrew F. Alexis MD MPH, Adam Friedman MD FAAD, Nada Elbuluk MD MSc FAAD, Karan Lal DO MS FAAD, Mona Shahriari MD FAAD, Chesahna Kindred MD MBA FAAD, Chibuzo Obi PHARMD, Michael Lane MA MS, Brian M. Calimlim DRPH MS, Ayman Grada MD MS, Seemal Desai MD FAAD

UNIQUE ID IS_26: Dupilumab Monotherapy in Patients With Skin of Color and Moderate-to-Severe Atopic Dermatitis: Results: From a Phase 4, Open-Label Study
Andrew F. Alexis MD MPH, Orit Markowitz MD, Tiffany Mayo MD, Valerie D. Callender MD, Noah A. Levit MD PhD, Changming Xia PhD, Stephane Levy MD, Joseph Zahn MD, Zhixiao Wang PhD, Mike Bastian PhD, Brad Shumel MD

UNIQUE ID IS_27: Dupilumab Monotherapy Improves Dyspigmentation and Xerosis in Patients with Skin of Color and Moderate-to-Severe Atopic Dermatitis
Andrew F. Alexis MD MPH, Orit Markowitz MD, Tiffany Mayo MD, Valerie D. Callender MD, Noah A. Levit MD PhD, Changming Xia PhD, Chien-Chia Chuang PhD, Zhixiao Wang PhD, Christopher Hartford MPH

UNIQUE ID IS_28: Post-Inflammatory Pigmentation Reductions in Patients with Atopic Dermatitis with Skin of Color Treated with Dupilumab Monotherapy
Andrew F. Alexis MD MPH, Orit Markowitz MD, Tiffany Mayo MD, Valerie D. Callender MD, Noah A. Levit MD PhD, Changming Xia PhD, Stephane Levy MD, Brad Shumel MD, Kwinten Bosman MD, Joseph Zahn MD

UNIQUE ID IS_29: Improvements in Patient-Reported Outcomes and Quality of Life with Dupilumab Monotherapy in Patients with Skin of Color and Moderate-to-Severe Atopic Dermatitis
Andrew F. Alexis MD MPH, Orit Markowitz MD, Tiffany Mayo MD, Valerie D. Callender MD, Noah A. Levit MD PhD, Changming Xia PhD, Stephane Levy MD, Joseph Zahn MD, Zhixiao Wang PhD, Kwinten Bosman MD, Brad Shumel MD

UNIQUE ID IS_30: Systemic Treatment Outcomes for Pediatric Atopic Dermatitis in Minority Groups: PEDISTAD 4-Year Results
Amy S. Paller MD, Lawrence F. Eichenfield MD, Lara Wine Lee MD, Joel C. Joyce MD, Marie-Louise A. Schuttelaar MD PhD, Lin Ma MD, Mercedes E. Gonzalez MD, Rajan Gupta PhD, Adriana Mello PharmD PGCB, Marius Ardeleanu MD, Annie Zhang MD

UNIQUE ID IS_31: Dupilumab Safety and Efficacy Up to 3 Years Across Racial Subgroups in Pediatric Patients Aged 6 Months to 11 Years With Atopic Dermatitis
Elaine C. Siegfried MD, Michael J. Cork PhD, Mercedes E. Gonzalez MD, Roland Aschoff MD, Andrew F. Alexis MD MPH, Lakshi M. Aldredge MSN ANP-BC DCNP, Zhen Chen MD PhD, Randy Prescilla MD, Tien V. Nguyen MD

INFLAMMATORY SKIN CONDITIONS (ACNE/ROSACEA, ATOPIC DERMATITIS, ECZEMA, PSORIASIS) (CONTINUED) S24

UNIQUE ID IS_32: Real-World Effectiveness of Dupilumab in African American Patients with Atopic Dermatitis: 3-Year Data From the PROSE Registry
Eric L. Simpson MD MCR, Ruifeng Chen PhD, Kwinten Bosman MD, Andrew Korotzer PhD

UNIQUE ID IS_33: Dupilumab Reduces Total and Allergen-Specific IgE Levels in Patients With Skin of Color and Moderate-to-Severe Atopic Dermatitis: Results From a Phase 4, Open-Label Study
Andrew F. Alexis MD MPH, Orit Markowitz MD, Tiffany Mayo MD, Valerie D. Callender MD, Noah A. Levit MD PhD, Changming Xia PhD, Stephane Levy MD, Joseph Zahn MD, Mike Bastian PhD, Brad Shumel MD

UNIQUE ID IS_34: Dupilumab Monotherapy vs Topical Corticosteroids in Prurigo Nodularis: Impact on Signs and Symptoms in the PRIME/PRIME2 Studies
Gill Yosipovitch MD, Pedro Mendes-Bastos MBA, Shawn G. Kwatra MD, Elke Weishaar MD, Yozo Ishiuji MD, Amy H. Praestgaard MS, Joseph Zahn MD, Simmi Wiggins PhD

UNIQUE ID IS_36: Kyrle Disease: Cutaneous Manifestation of Systemic Disease
Sung, Jung Hyun MS, Samlaska Curt MD

UNIQUE ID IS_38: Quantifying Erythema Misrepresentation in Skin of Color Using Multispectral Imaging Across Fitzpatrick IV to VI
Julia Vinagolu-Baur MS MBA, Supriya Muppala BS, Jasky Karem BS, Nithisha Cheedalla BA, Brian A Moreno DO MMS, Ochuwa Precious Imokhai MHSc, Kelly Frasier DO MS

KELOIDS S39

UNIQUE ID K_01: Racial Differences in Keloid and Hypertrophic Scar Treatment Patterns
Robert Adler BA, Michael Kozlov BA, Isha Gandhi BS, Jessica L. Feig MD PhD

PEDIATRIC DERMATOLOGY S41

UNIQUE ID PD_01: Systemic Therapies for Pediatric Hidradenitis Suppurativa: Stratified Assessment of Efficacy, Adverse Profiles, and Age-Specific Considerations
Rachel Aronov BS, Bijoy Shah BS, Alex Silberzweig BA, Rachel Breidbart BS, Claudia Rodriguez BA, Kelly Frasier DO MS, Pooja R. Shah MD

UNIQUE ID PD_07: Representation of Infantile Hemangiomas in Educational Resources: A Content Analysis
Ugwumsinachi D. Nwaubani MSc MIB, Kelita Waterton MD MPH, Sharon Glick MD MS

PIGMENTARY DISORDERS (MELASMA, VITILIGO, HYPERPIGMENTATION, PHOTODAMAGE) S42

UNIQUE ID PDS_05: Multifactorial Causes of Periorbital Hyperpigmentation in Skin of Color
Claudia Rodriguez BA, Travis Jackson BS, Julia Vinagolu-Baur MS MBA, Sabah Iqbal BS, Kelly Frasier DO MS, Jared S. Kahn MD MS, Raman K. Madan MD FAAD

UNIQUE ID PDS_06: HPV-Related Postinflammatory Hyperpigmentation in Melanin-Rich Skin
Rachel Breidbart BS, Kelly Centeno BA, Haily Fritts BS, Rachel Aronov BS, Lily Khabie BA, Kelly Frasier DO MS, Raman K. Madan MD FAAD

UNIQUE ID PDS_07: Approaches to Managing Post-Inflammatory Hyperpigmentation in Genital Herpes
Haily Fritts BS, Kelly Frasier DO MS, Jared S. Kahn MD MS, Sarah Ahmed MD, Raman K. Madan MD FAAD

UNIQUE ID PDS_08: Environmental Racism and Chemical Exposure in Hyperpigmented Skin Disorders
Haily Fritts BS, Priya Koundinya BS, Toan Vu BS, Gabriela Soto-Canetti MPH, Sabah Iqbal BS, Kelly Frasier DO MS

UNIQUE ID PDS_09: The Role of Melanin in Modulating Cutaneous Microbiome Profiles in Individuals with Skin of Color
Grace Herrick BA, Travis Jackson BS, Melody Ho BS, Rebecca Metellus BS, Shaina Gagadam MS, Isha Gandhi BS, Amandeep Kaur BS, Kelly Frasier DO MS

UNIQUE ID PDS_10: The Rise of 'Functional Sunscreens' in Skin of Color Beauty Culture
Grace Herrick BA, Neena Edupuganti DO, Mary Grace Hash MS, Sriya Kakarla BA, Alyssa Forsyth BS, Harleen K. Multani BS, Stuti Prajapati DO MS, Kelly Frasier DO MS

UNIQUE ID PDS_11: Culturally Relevant Visual Scales for Measuring Post-Inflammatory Hyperpigmentation Severity in South Asian Skin Types
Travis Jackson BS, Julia Vinagolu-Baur MS MBA, Zahraa Rabeeah MD, Sabah Iqbal BS, Stuti Prajapati DO MS, Kelly Frasier DO MS, Sarah Ahmed MD

UNIQUE ID PDS_12: Clinical Evaluation of Thiamidol-containing Formulations for the Visual Management of Facial Hyperpigmentation
Seemal R. Desai MD, Edward (Ted) Lain MD, Nada Elbuluk MD, Cheri Frey MD

UNIQUE ID PDS_13: Clinical Evaluation of a Thiamidol-containing Regimen Compared With Photoprotection for the Visual Management of Facial Hyperpigmentation
Susan Taylor, Pearl E. Grimes

UNIQUE ID PDS_14: Thiamidol: A Breakthrough Innovation in the Treatment of Hyperpigmentation
Cheri Frey MD, Pearl Grimes MD, Valerie D. Callender MD, Andrew F. Alexis MD MPH, Hilary Baldwin MD, Nada Elbuluk MD, Patricia Farris MD, Susan Taylor MD, Seemal R. Desai

UNIQUE ID PDS_18: Skin Tone-Adjusted Dermoscopic Criteria for Lichen Planus Pigmentosus in Indian and Middle Eastern Populations
Alyssa Sayegh BS, Mehraeil Zaki BS, Zahraa Rabeeah MD, Mariam Tinawi BS, Sara Omari BS, Julia Vinagolu-Baur MS MBA

UNIQUE ID PDS_19: Vaccine- and Immunotherapy-Induced Vitiligo: Clinical Features, Mechanisms, and Implications for Skin of Color
Sara Omari BS, Sreshta Jannu BS, Mashal Zaide BS, Sumra Din BS, Radhika Misra BS, Daniel N. Thompson BS, Stuti Prajapati DO

UNIQUE ID PDS_21: Hemispheric Asymmetry of Facial Melasma in Hijab-Wearing South Asian Women and the Association with Lateralized UV Exposure
Gabriela Seto BM, Sabah Iqbal BS, Selina Chang BS, Tala Maya BS, Leena Jamal BS, Sara Omari BS, Julia Vinagolu-Baur MS MBA

UNIQUE ID PDS_22: Reframing Melasma Management Guidelines for South Asian Women Based on Regional UV Index and Cultural Practices
Felicia Hung MPH, Sonam Mistry BS, Rehet Chugh BS MS, Roban Shabbir BA, Sarina Shah BS, Julia Vinagolu-Baur MS MBA, Kelly Frasier DO MS

UNIQUE ID PDS_23: A Novel Investigator Developed Regimen for Treatment and Prevention of Post-Inflammatory Hyperpigmentation in Skin of Color
Kayla Zafar BA, Margaret Kabakova BS, Lucie Joerg BA, Jared Jagdeo MD MS

ALOPECIA AREATA - ADULTS & CHILDREN

UNIQUE ID: AA_01

An Analysis of TSH Levels in Patients with Nonscarring Alopecia: A Single-Center Retrospective Comparative Study

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Keywords: non-scarring alopecia, TSH, alopecia

ABSTRACT

Background: Both hypothyroidism and hyperthyroidism have been linked to diffuse hair shedding and structural hair changes.[1] Clinicians often screen nonscarring alopecia (NSA) patients for thyroid dysfunction, but the relevance of subtle TSH variations within the euthyroid range remains unclear. Prior studies have speculated that even high-normal TSH levels may play a role in hair loss pathogenesis.[2,3] This study aims to explore whether TSH levels within the euthyroid range differ across NSA subtypes: alopecia areata (AA), telogen effluvium (TE), and androgenetic alopecia (AGA).

Objective: To compare TSH levels across NSA subtypes (AA, TE, and AGA) to evaluate whether patterns of high normal (>2.5 - 4.5 mIU/L) or low normal (≤2.5 mIU/L) values differ after excluding overt thyroid dysfunction.

Methods: A retrospective chart review was conducted on patients diagnosed with AA, TE, or AGA at a single academic dermatology department between August 2017 and August 2024. TSH values were drawn within three months of the initial visit, and patient demographics were extracted from the electronic medical record. Patients with frank thyroid dysfunction (TSH < 0.5 or > 4.5 mIU/L) or documented thyroid disease (via ICD-10 codes) were excluded. TSH values within the euthyroid range were stratified into low-normal (≤2.5 mIU/L) and high-normal (>2.5 - 4.5 mIU/L) categories. Descriptive statistics, Kruskal-Wallis tests, and Bonferroni-corrected pairwise comparisons were performed.

Results: A total of 1,411 patients with NSA were identified as part of the primary analysis: 362 with AA, 417 with TE, and 632 with AGA (Table 1). Nearly all patients' TSH levels (91.5%) were within the euthyroid range (0.5 - 4.5 mIU/L). Patients identifying as Black or African American had lower TSH levels than White patients in both AA (Black: 0.37–5.76 mIU/L; White: 0.02–15.4 mIU/L; *P*<0.001) and TE (Black: 0.15–5.22; White: <0.01–15.67; *P*=0.002), with no racial differences observed for AGA (Black: 0.43–4.29; White: <0.01–9.15; *P*=0.49). There was no overall difference in TSH levels across all three NSA subtypes (*P*=0.09). After excluding patients with frank thyroid dysfunction or documented thyroid disease, 1,291 patients remained as part of a secondary analysis: 588 patients with AGA, 330 with AA, and 373 with TE (Table 2). Among these patients, there was no significant difference in the distribution of alopecia subtypes across the euthyroid range (*P*=0.94). Racial differences in TSH levels persisted: Black or African American patients had lower mean TSH than White patients in AA (1.48 vs1.85, *P*=0.0003) and TE (1.59 vs 1.99, *P*=0.003), with no difference in AGA (*P*=0.82).

Exploratory analyses stratifying by gender and use of AGA as a control group showed no significant differences across subtypes. Among the 8.5% of patients with abnormal TSH values, there were no statistically significant differences across NSA subtypes as part of a tertiary analysis. Based on patient counts, AGA accounted for the largest number of hypothyroid patients (n=24), while TE accounted for the largest number of hyperthyroid patients (n=21). When proportions were calculated relative to each NSA subtype cohort size TE patients showed slightly higher rates of hyperthyroidism (5.0%) and hypothyroidism (5.5%) than AGA (3.2% and 3.8%) or AA (4.7% and 4.1%).

Conclusions: These findings suggest that variation across the euthyroid spectrum is not significantly associated with development of NSA. Notably, even in the primary analysis, which included both hyperthyroid and hypothyroid patients, TSH levels in TE did not differ significantly from AA or AGA, despite TE being the hair-loss pattern most often considered in the context of thyroid dysfunction. In addition, patients identifying as Black with AA or TE consistently had lower mean TSH levels that White counterparts. While the clinical significance of this difference is not yet fully un-

Table 1. Demographic Information and TSH Levels Across All NSA Patients (n=1,411)

Demographic Characteristics	Alopecia Areata (n=362)	Telogen Effluvium (n=417)	Androgenetic Alopecia (n=632)	Total (n=1,411)
Age in years, mean ± SD	42.04 ± 15.16	48.00 ± 17.92	43.96 ± 16.77	44.66 ± 16.87
Sex, n				
Male	128	22	382	532
Female	250	395	250	879
Race/Ethnicity, TSH mean ± SD (n)				
American Indian or Alaskan Native	1.95 ± 0.87 (2)	1.90 ± 0.68 (3)	2.52 ± 0 (1)	2.02 ± 0.63 (6)
Asian	2.18 ± 1.31 (41)	1.82 ± 1.16 (32)	1.91 ± 1.13 (72)	1.97 ± 1.19 (145)
Black	1.53 ± 0.89 (87)	1.63 ± 1.06 (52)	1.88 ± 0.97 (62)	1.66 ± 0.97 (201)
Native Hawaiian or Other Pacific Islander	2.34 ± 0 (1)	2.18 ± 0 (1)	1.29 ± 0 (1)	1.94 ± 0.57 (13)
Hispanic Latino Black	0 ± 0 (0)	0 ± 0 (0)	1.53 ± 0 (1)	1.53 ± 0 (1)
Hispanic Latino White	1.67 ± 0 (1)	0 ± 0 (0)	0 ± 0 (0)	1.67 ± 0 (1)
White	2.10 ± 1.74 (182)	2.20 ± 1.66 (297)	1.99 ± 1.18 (432)	2.08 ± 1.47 (911)
Other	1.77 ± 0.88 (18)	2.01 ± 0.61 (13)	2.07 ± 0.79 (24)	1.96 ± 0.78 (55)
Unknown	1.77 ± 1.26 (28)	2.19 ± 0.96 (17)	2.04 ± 1.00 (36)	1.98 ± 1.09 (81)
Declined	1.57 ± 0.98 (2)	2.50 ± 0.46 (2)	1.07 ± 0.55 (3)	1.62 ± 0.84 (7)

Table 2. TSH Analysis in NSA Patients Without Overt Thyroid Disease (n = 1,291)

NSA Subtype	Mean TSH +/- SD	% Subclinical Hypothyroid (TSH > 2.5-4.5 mIU/L)	% Normothyroid (TSH ≤ 2.5 mIU/L)	TSH Level (Black or African American Patients)	TSH Level (White Patients)	*P*-Value (Black vs. White)
AA	1.80 ± 0.84	21.0% (70/333)	79.0% (263/333)	1.50 ± 0.68	1.85 ± 0.82	0.0007
TE	1.94 ± 0.88	22.1% (81/366)	77.9% (285/366)	1.61 ± 0.76	2.00 ± 0.92	0.004
AGA	1.88 ± 0.85	21.8% (114/523)	78.2% (409/523)	1.85 ± 0.96	1.88 ± 0.86	0.49
A11	--	21.7% (265/1,222)	78.3% (957/1,222)	--	--	--

SKIN OF COLOR UPDATE

derstood, prior endocrinologic studies have reported similar population differences. Although variation in TSH levels within the euthyroid spectrum has been considered clinically meaningful in other areas of medicine, such as reproductive endocrinology, this was not observed in patients with NSA. Overall, these results support an individualized approach to screening for thyroid disease in patients with NSA, and clinical suspicion based on patient symptoms and disease severity should be utilized to guide decision-making. The limitations of this study include the retrospective design, as well as the potential for incomplete or biased medical records.

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Risk of Lab Abnormalities in Non-Scarring Alopecia on Low Dose Oral Minoxidil: A TriNetX Cohort Study

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ABSTRACT

Background: Low Dose Oral Minoxidil (LDOM), is commonly used off-label as a treatment option for male and female patients with non-scarring alopecia.[1] Reported adverse effects of low dose oral minoxidil include hypertrichosis, lightheadedness, fluid retention, tachycardia, and pericardial effusion.[2,3] A recent expert consensus statement recommended that in the absence of precautions, baseline laboratory and electrocardiogram evaluation results are not routinely indicated (90.7% and 93% agreement, respectively).[1] In the presence of relative precautions, 74% of experts agreed that baseline lab evaluation may be considered in consultation with a specialist.[1] However, currently no large cohort-based studies exist evaluating the risk of laboratory abnormalities in patients prescribed LDOM. Given the increase in LDOM prescribing, there is a need to determine best practices for management and monitoring to limit adverse effects and unnecessary laboratory monitoring (Sanfillipo & Friedman, 2024). This study aims to evaluate whether patients initiated on LDOM for alopecia are at an increased risk

Figure 1. Propensity score matching.

Cohort 1 (N=10,527) and Cohort 2 (N=92,767) characteristics before propensity score matching

Cohort		Demographics	Mean ± SD	Patients	% of Cohort	*P*-Value	Std Diff.
1 2	AI	Age at Index		10,527 92,767	100% 100%	<0.0001	0.131
1 2	2106-3	White	48.6 +/- 17.3	7,279 60,550	69.1% 65.3%	<0.001	0.118
1 2	F	Female	46.2 +/- 19.4	6,938 69,600	67.9% 73.3%	<0.001	0.118
1 2	2054-5	Black or African American		1,237 11,999	11.8% 13.0%	0.0006	0.036
1 2	2186-5	Not Hispanic or Latino		7,946 71,481	77.8% 75.3%	0.0019	0.032
Cohort		**Diagnosis**	**Mean ± SD**	**Patients**	**% of Cohort**	***P*-Value**	**Std Diff.**
1 2	I10	Essential (primary) hypertension		2,886 28,569	27.42% 30.8%	<0.0001	0.075
1 2	N18	Chronic kidney disease (CKD)	--	429 4,541	4.08% 4.89%	0.0002	0.0396
1 2	E08-E13	Diabetes mellitus		1,099 11,232	10.44% 12.11%	<0.0001	0.053
1 2	I25	Chronic ischemic heart disease		558 5,579	4.075% 4.895%	0.0033	0.031
Cohort		**Medication**	**Mean ± SD**	**Patients**	**% of Cohort**	***P*-Value**	**Std Diff.**
1 2	C03	DIURETICS	--	3,576 22,800	33.97% 24.58%	<0.0001	0.208

Cohort 1 (N = 10,527) and Cohort 2 (N = 10,527) characteristics after propensity score matching

Cohort		Demographics	Mean ± SD	Patients	% of Cohort	*P*-Value	Std Diff.
1 2	AI	Age at Index		10,527 10,527	100% 100%	0.747	0.0044
1 2	2106-3	White	48.6 +/- 17.3	7,279 7,273	69.15% 69.09%	0.9287	0.006
1 2	F	Female	48.7 +/- 17.4	6,938 6,971	67.9% 68.2%	0.620	0.0012
1 2	2054-5	Black or African American		1,237 1,235	11.75% 11.73%	0.9658	0.0006
1 2	2186-5	Not Hispanic or Latino		75.63% 75.73%	75.63% 75.73%	0.8597	0.0024
Cohort		**Diagnosis**	**Mean ± SD**	**Patients**	**% of Cohort**	***P*-Value**	**Std Diff.**
1 2	I10	Essential (primary) hypertension		2,886 2,872	27.42% 27.28%	0.829	0.0030
1 2	N18	Chronic kidney disease (CKD)	--	429 371	4.08% 3.52%	0.037	0.029
1 2	E08-E13	Diabetes mellitus		1,099 1,106	10.44% 10.51%	0.875	0.002
1 2	I25	Chronic ischemic heart disease		558 503	5.301% 4.778%	0.0831	0.024
Cohort		**Medication**	**Mean ± SD**	**Patients**	**% of Cohort**	***P*-Value**	**Std Diff.**
1 2	C03	DIURETICS	--	3,576 3,537	33.97% 33.60%	0.569	0.0078

*Cohort 1: Nonscarring Alopecia with history of LDOM (2.5 or 5 mg) – outcomes 1 month after initiation to anytime
**Cohort 2: Nonscarring Alopecia without history of any minoxidil use

Figure 2. Outcome analysis.

Lab Abnormality	N=10,345 Patients with outcome/Risk	Risk Difference 95% CI	Risk Ratio 95% CI	Odds Ratio 95% CI
Hypernatremia OR Sodium >145 (ICD10 E87.0 OR Na >145)	Cohort 1: 156/1. 508% Cohort 2: 579/5.597%	-4.089% (-4.59%, -3.588%) *P*<0.0001	0.269 (0.226, 0.321)	0.258 (0.216, 0.309)
Hyponatremia OR Sodium <135 (ICD10 E87.1 OR Na <135)	Cohort 1: 996/9.628% Cohort 2: 1,670/16.143%	-6.515% (-7.424%, -5.606%) *P*<0.0001	0.596 (0.554, 0.642)	0.553 (0.509, 0.602)
Thrombocytopenia OR Platelets <100 10*3 (ICD10 D69.6 OR Platelets <100 10*3/uL)	Cohort 1: 120/1.16% Cohort 2: 341/3.296%	-2.136% (-2.537%, -1.735%) *P*<0.0001	0.352 (0.286, 0.433)	0.344 (0.279, 0.425)
Leukopenia (Decreased white blood cell count, unspecified) OR Leukocytes (<4 10*3/uL) (ICD10 D72.82 OR Leukocytes <4 10*3/uL)	Cohort 1: 644/6.225% Cohort 2: 1,059/10.237%	-4.012% (-4.759%, -3.265%) *P*<0.0001	0.608 (0.554, 0.668)	0.582 (0.526, 0.645)
Abnormal LFTs OR ALT OR AST (ICD10 R74.01 OR ALT >40 OR AST >40)	Cohort 1: 1,070/10.343% Cohort 2: 1,946/18.811%	-8.468% (-9.423%, -7.513%) *P*<0.0001	0.55 (0.513, 0.589)	0.498 (0.46, 0.54)
BNP ((BNP) >300)	Cohort 1: 28/0.271% risk Cohort 2: 84/0.812%	-0.541% (-0.741%, -0.341%) *P*<0.0001	0.333 (0.218, 0.511)	0.332 (0.216, 0.509)
Lymphocytes (<1.0 10*3/uL)	Cohort 1: 743/7.182% Cohort 2: 1,393/13.069%	-5.887% (6.705%, -5.069%) *P*<0.0001	0.55 (0.505, 0.598)	0.515 (0.469, 0.565)
Abnormal Renal Function (GFR <60, Cr >1.3)	Cohort 1: 1,231/11.899% Cohort 2: 2,014/19.47%	-7.569% (-8.555%, -6.583%) *P*<0.0001	0.611 (0.572, 0.653)	0.559 (0.517, 0.603)

*Cohort 1: Nonscarring Alopecia with history of LDOM (2.5 or 5 mg) – outcomes 1 month after initiation to anytime n=10,345
**Cohort 2: Nonscarring Alopecia without history of any minoxidil use n=10,345

of lab abnormalities including changes in complete blood count (CBC), basic metabolic panel (BMP), B-type natriuretic peptide (BNP), and liver function tests (LFTs) to inform future monitoring practices.

Objective: To compare laboratory values in patients with non-scarring alopecia taking low dose oral minoxidil versus those who have never taken minoxidil.

Methods: We conducted a retrospective cohort study (queried on 07/30/2025), using TrinetX including ~130 million U.S. patients. Patients with >2 diagnoses of nonscarring alopecia > 1 year apart were included. Nonscarring alopecia is defined by ICD-10 codes: Androgenetic Alopecia (AGA) (L64.0, L64.8, L64.9), Chronic Telogen Effluvium (L65.0), Alopecia areata (L63.0-L63.9), and Nonscarring hair loss (L65.9). Cohort 1 included 10,528 patients with nonscarring alopecia who have been prescribed LDOM (2.5 mg or 5 mg) on or after diagnosis. Cohort 2 included 94,240 patients with nonscarring alopecia and no history of minoxidil use. Propensity score matching (1:1 nearest neighbor, n=10,527 per group) balanced covariates including, age, race, diabetes, CKD, hypertension, cardiovascular disease, and diuretic use (Figure 1). Measures of association analysis were performed to determine the risk, risk difference between cohort 1 and 2, risk ratio between the two cohorts, and odds ratio for the following outcomes at least one month after initiation of LDOM in cohort 1 or Alopecia diagnoses in cohort 2: hypernatremia, hyponatremia, thrombocytopenia, leukopenia, abnormal LFTs, elevated BNP, lymphocytes, renal function abnormalities.

Results: We conducted an outcomes analysis to compare the risk of laboratory abnormalities between patients treated with LDOM and untreated controls (Figure 2). LDOM users had significantly lower risk of lab abnormalities vs untreated controls. Hypernatremia: 1.51% vs 5.60% (RR: 0.269, *P*<0.0001). Hyponatremia: 9.63% vs 16.14% (RR: 0.596, *P*<0.0001). Thrombocytopenia: occurred in 1.16% vs 3.30% (RR: 0.352, *P*<0.0001). Leukopenia was present in 6.23% vs 10.24% (RR:0.608, *P*<0.0001). Abnormal LFTs: 10.34% vs18.81% (RR: 0.55, *P*<0.0001). Elevated BNP: 0.27% vs 0.81%, (RR: 0.333, *P*<0.0001). Lymphopenia: 7.18% vs 13.07% (RR: 0.55, *P*<0.0001) and abnormal renal function: 11.90% vs 19.47% (RR: 0.611, *P*<0.0001).

Conclusions: In this large, retrospective cohort study of non-scarring alopecia patients, LDOM was associated with a significantly reduced risk of common laboratory abnormalities. The reduction in risk in patients with LDOM could partially be attributed to prescribing bias, where healthier patients are more likely to be selected for LDOM.[4] The findings suggest that in appropriately selected patients without significant comorbidities or contraindications, baseline and follow-up laboratory monitoring solely due to LDOM initiation may not be necessary. Limitations include lack of data on medication adherence, dosing, and frequency of lab monitoring, and unmeasured confounding variables. Future studies should investigate reasons for increased risk of lab abnormalities in the untreated cohort and help refine lab monitoring recommendations for patients treated with LDOM for non-scarring alopecia.

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SKIN OF COLOR UPDATE

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Transforming Aesthetic Care for Patients of Color With Hair Loss Through Integrating Cosmetic Science and Cultural Awareness

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ABSTRACT

Background: Alopecia areata in patients with skin of color presents aesthetic and dermatologic challenges inadequately addressed by conventional interventions. Individuals with Fitzpatrick types IV-VI are more susceptible to post inflammatory hyperpigmentation, hypertrophic scarring, and keloid formation following cosmetic procedures. Standard solutions like lace-front wigs, scalp tattoos, and concealers for lighter phototypes often fail to achieve pigment fidelity, scar minimization, or cultural relevance. Aesthetic strategies must be redesigned to address pigment stability, textural integration, and follicular preservation in the context of scar biology and cultural norms.

Objective: To analyze aesthetic innovations that provide culturally informed, biologically compatible approaches to alopecia areata in patients with skin of color, focusing on safety, efficacy, and psychosocial impact.

Methods: Recent advancements were reviewed across five categories: scalp micropigmentation, concealers and hair fibers, bioengineered wigs, therapeutic headwraps, and dermablend products. Evaluation centered on pigment durability, scar avoidance, color-matching for deeper tones, adaptability to textured hair, and alignment with protective styling traditions.

Results: Scalp micropigmentation now uses stable pigments with improved retention and minimized risk of hyperpigmentation. Concealers and keratin hair fibers have expanded shade ranges and undertone-adjusting technologies for improved integration with textured hair and darker skin. Bioengineered wigs made from lightweight polymers reduce follicular stress and avoid traction in regions prone to mechanical alopecia. Therapeutic headwraps infused with anti-inflammatory botanicals provide scalp protection while respecting cultural styling preferences. Dermablend formulations designed for the scalp and eyebrows demonstrate resistance to humidity, sweat, and sebum, offering consistent coverage across diverse skin tones.

Conclusions: Aesthetic rehabilitation of alopecia areata in deeply pigmented skin requires interventions informed by pigment biology, scarring potential, and hair texture. Micropigmentation must use photostable pigments applied at controlled dermal depths to prevent migration and hyperpigmentation. Dermablend products should include iron oxides for undertone correction and undergo sebum and humidity durability testing. Traction-free, protective wigs must accommodate patterns such as marginal alopecia and occipital thinning while minimizing friction. Concealers and hair fibers should span undertones from red-gold to blue-olive and adhere to coiled hair. Headwraps must offer both cultural alignment and anti-inflammatory benefits. Precisely engineered aesthetic interventions restore scalp aesthetics and support culturally specific hair practices while improving self-perception in patients of color with alopecia areata.

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AESTHETIC DERMATOLOGY

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Hair Care Practices, Management, and Post-Transplantation Recommendations in Afro-Textured Hair

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ABSTRACT

Background: The expression of hair through the beauty of various hairstyles has been a part of life for every person of color. From a young age, children learn the importance of their hair and how they represent themselves as a direct reflection of their parents or caregiver regarding hair care practices and styling.[1] Some of these hair styling techniques can be traumatic to the hair shaft and follicle causing hair damage leading to hair loss. Amongst people of African descent there has been a rise in patients seeking medical attention and guidance for hair loss within the United States and around the world. Afro-textured hair, characterized by its fragility and spiral structure, tends to exhibit slower growth compared to other hair types. This unique attribute may have implications for regrowth post-hair transplant and after care management.[2]

Methods: A primary literature research was conducted using PubMed and Google Scholar to identify peer-reviewed articles that focused on afro-textured hair loss, patient candidacy, transplant procedure options, transplant aftercare, and long-term management published from 1990 to present time.

Results: With a review of 22 articles, there were no formal educational guidelines in educating afro-textured individuals assessing their potential candidacy for hair transplantation, standard aftercare management, and regrowth expectations.

Conclusions: The responsibility for hair transplantation candidacy evaluation, post-transplantation aftercare, and explaining post-procedure expectations is left to the physician's discretion. This absence of a standardized approach is particularly relevant for individuals with skin of color, due to the unique nature of their hair structure and the historical difference in hair care practices.[3] This further emphasizes the subjective nature of patient candidacy in afro-textured patients, post-transplantation aftercare, underscoring the need for personalized guidance and a tailored approach in the management of hair care practices for these individuals.We propose recommendations for hair transplant providers to consider when treating afro-textured hair patients with hair loss regarding transplant candidacy, procedural aftercare, and long-term management.[4]

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The Influence of Colorism on Skincare Product Use Amongst South Asian Adolescents in Western Countries

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ABSTRACT

Background: Colorism exerts a profound influence on skincare product selection and usage patterns amongst South Asian adolescents in Western contexts, where lighter skin is often equated with social capital, desirability, and class mobility. Ideals shaped by family, media, and Eurocentric beauty marketing are internalized by adolescents navigating bicultural pressures. Many adopt skin-lightening routines using products labeled "fairness" or "whitening," often containing harmful, unregulated agents like hydroquinone or steroids. Social and aesthetic pressures also promote over-cleansing, avoidance of radiance-enhancing products, and preference for white-cast cosmetics to align with Western beauty norms.

Objective: To evaluate the impact of colorism on skincare product selection, usage patterns, and dermatologic behaviors among South Asian adolescents living in Western countries.

Methods: A narrative review and thematic analysis of qualitative studies and community health reports were conducted on South Asian youth in North America and Europe. PubMed and Google Scholar were searched using terms such as "colorism," "South Asian adolescents," and "skin-lightening." Grey literature, social media content, and youth advocacy resources provided cultural and peer-contextual insights into dermatologic behaviors.

Results: Review findings revealed a consistent pattern of early adoption of skin-lightening products among South Asian adolescents, often framed under euphemistic marketing terms such as "brightening" or "glow-enhancing." Colorism-related pressures were reinforced by both familial expectations and peer dynamics in school and social media environments. Adolescents reported feelings of shame or self-consciousness related to deeper skin tones and a perceived need to conform to Eurocentric beauty ideals. Product behaviors included frequent use of imported or unregulated creams, avoidance of moisturizing agents to prevent perceived darkening, and reliance on white-cast sunscreens or makeup. These practices were frequently linked to adverse dermatologic outcomes such as barrier disruption, pigmentary instability, and corticosteroid misuse. Across studies, there was a lack of culturally sensitive dermatologic guidance, with many adolescents reporting distrust or dismissal in clinical settings when disclosing product use or aesthetic concerns.

Conclusions: Health messaging in Western countries rarely accounts for the cultural nuances of colorism, and dermatologic counseling often misses the psychosocial drivers of product use in South Asian youth. This disconnect contributes to poor adherence, misuse of skin agents, and underreporting of concerns shaped by stigma. Acknowledging colorism's impact on skincare behavior enables more culturally responsive care that supports diverse skin tones while addressing the physical and psychological consequences of lightening practices.

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The authors report no conflicts of interest.

SKIN OF COLOR UPDATE

UNIQUE ID AD_05

Pigment Dropout in Cosmetic Tattooing Procedures Amongst Southeast Asian Women Undergoing Microblading

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ABSTRACT

Background: Pigment dropout following cosmetic tattooing procedures, particularly microblading, is an underrecognized complication disproportionately affecting Southeast Asian women. Fitzpatrick IV to V skin types present specific challenges in pigment retention and healing dynamics. Microblading, a semi-permanent technique that deposits pigment into the papillary dermis to simulate eyebrow hair, often yields inconsistent results in this population due to multiple intersecting biological and procedural factors. Increased melanin density alters the skin's optical properties, causing implanted pigments to appear cooler or more desaturated over time, while heightened melanocyte activity and inflammatory response may contribute to pigment dilution, dispersion, or accelerated metabolic breakdown. Thicker dermal collagen bundles and a higher tendency toward post-inflammatory hyperpigmentation or scarring may interfere with uniform pigment settling, leading to patchy results or complete dropout in treated areas.

Objective: To investigate the contributing factors to pigment dropout in Southeast Asian women undergoing cosmetic tattooing procedures, with a focus on skin physiology, pigment formulation, and procedural technique.

Methods: A comprehensive review was conducted to examine pigment retention challenges in cosmetic tattooing in individuals of Southeast Asian descent. Search terms included "microblading," "cosmetic tattooing," "pigment dropout," "Southeast Asian skin," and "skin of color" across databases such as PubMed and Google Scholar. Articles were reviewed for data on pigment chemistry, healing kinetics, dermal collagen density, and inflammatory responses in Fitzpatrick IV-V skin. Findings were synthesized to propose evidence-informed recommendations for enhancing pigment retention.

Results: Pigment formulations themselves are frequently designed for lighter phototypes and may not be optimized for visibility or stability in melanated skin, often resulting in grayish or bluish undertones after healing. The use of suboptimal needle depth, inconsistent pressure, or improper aftercare recommendations are often based on guidelines developed for lighter skin and can exacerbate pigment loss and reduce procedural longevity. Client dissatisfaction is compounded by limited practitioner training in color theory for darker skin tones, poor representation in technician portfolios, and a lack of informed consent regarding pigment dropout risk in skin of color.

Conclusions: Accurate pre-procedure counseling, formulation of pigments with warmer undertones and reduced titanium dioxide content, and technique adjustments such as shallower needle penetration, slower stroke application, and extended healing time recommendations tailored to Southeast Asian skin physiology are necessary to improve pigment retention and achieve consistent, culturally congruent cosmetic outcomes in microblading.

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UNIQUE ID AD_06

Long-Term Safety and Efficacy of Injectable Fillers in Lupus Erythematosus Profundus: A Case Report of 12 Years of Treatment

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ABSTRACT

Background: Lupus erythematosus panniculitis (LEP) is a rare subtype of cutaneous lupus characterized by deep, tender subcutaneous nodules and associated lipoatrophy.[1] Diagnostic delays, can lead to irreversible disfigurement, affecting patients' psychosocial well-being. Many patients with LEP seek cosmetic interventions, particularly injectable fillers, to address facial lipoatrophy. However, the use of these treatments in patients with autoimmune diseases is controversial due to concerns regarding safety and efficacy.[2] The absence of established guidelines for cosmetic interventions in LEP has led to hesitance among dermatologists regarding appropriate treatment options. Current literature on the long-term outcomes of dermal fillers in this population is limited. Therefore, a comprehensive understanding of the implications of dermal fillers in LEP patients is crucial for guiding clinical practice.

Objective: This case report aims to evaluate the long-term safety and efficacy of injectable filler treatments (IFT) in managing facial lipoatrophy resulting from LEP, focusing on patient outcomes and satisfaction.

Methods: A 56-year-old woman with a 26-year history of LEP presented in 2011 after an 8-year delay in diagnosis. With visible lipoatrophic areas on the right temple and cheek, the patient expressed a strong desire for IFT to improve her appearance. She underwent 21 cosmetic interventions over 12 years, receiving 27 vials of poly-L-lactic acid (PLLA), 19 syringes of hyaluronic acid (HA), and 1.5 syringes of calcium hydroxyapatite (CaHA). Comprehensive records were maintained, including details on the types of fillers used, injection techniques, and patient responses.

Results: Throughout the treatment period, the patient tolerated all procedures without experiencing major complications or disease reactivation. Significant improvement in her facial appearance was noted, contributing to enhanced self-esteem and quality of life. Follow-up assessments confirmed sustained satisfaction with the cosmetic outcomes, with no adverse events reported

Conclusions: This case represents the first documented use of three different types of dermal fillers for managing LEP-associated facial lipoatrophy, with 21 treatment sessions over 12 years, without adverse events or disease reactivation. It highlights the potential for safe cosmetic interventions in this patient population while calling for the development of evidence-based clinical guidelines. Such guidelines would facilitate standardized practices for managing cosmetic concerns in LEP, ultimately improving patient access to effective treatments and enhancing their quality of life.

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ACNE & ROSACEA

UNIQUE ID AR_01

Efficacy and Safety of Fixed-Dose Clindamycin Phosphate 1.2%/Adapalene 0.15%/Benzoyl Peroxide 3.1% Gel in Asian Participants With Moderate to Severe Acne

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ABSTRACT

Background: Acne vulgaris is a common skin condition with significant clinical impact in Asian patients, for whom treatment may involve unique considerations. Clinical presentation and sequelae of acne can vary by race; for instance, Asian individuals with darker skin phototypes may be at increased risk of postinflammatory hyperpigmentation.[1] Topical clindamycin phosphate 1.2%/adapalene 0.15%/benzoyl peroxide 3.1% (CAB) gel is the only fixed-dose, triple-combination formulation approved for acne. In phase 2 and 3 clinical trials of participants with moderate to severe acne, CAB gel was more efficacious than vehicle (treatment success: ~50% vs 8-25%; IL/NL reductions: 71-80% vs 46-60%) with good safety/tolerability.[2,3]

Objective: To determine the efficacy, safety, and tolerability of CAB gel in Asian participants.

Methods: In two phase 2 (NCT03170388, NCT04892706) and two phase 3 (NCT04214652, NCT04214639) double-blind, 12-week trials, 1115 enrolled participants aged ≥9 years (≥12 in NCT04892706) with moderate to severe acne were randomized to once-daily CAB or vehicle gel; additional randomization arms are not included here. Efficacy endpoints included treatment success (≥2-grade reduction from baseline in Evaluator's Global Severity Score and clear/almost clear skin) and least-squares mean percent change from baseline in IL/NL counts at week 12. Treatment-emergent adverse events (TEAEs) and cutaneous safety/tolerability were also assessed. Data were pooled and analyzed post hoc in participants who self-identified as Asian.

Results: The analysis included 96 Asian participants (n=47 CAB; n=49 vehicle gel). At week 12, significantly more Asian participants treated with CAB gel achieved treatment success than vehicle (66.5% vs 23.4%; P<0.001). CAB-treated participants experienced >80% reductions in IL/NL counts (87.7% and 80.3%, respectively), significantly greater compared with vehicle (58.3% and 55.7%; P≤0.001, both). TEAEs in CAB-treated Asian participants occurred at a rate similar to those in the overall study populations (27.7% vs 24.6%-36.2%), with the majority categorized as mild or moderate. There were no reports of serious AEs and only 1 discontinuation due to AEs in the CAB-treatment group. Hyperpigmentation mean scores stayed below baseline value (0.7; 1=mild) at all time points.

Conclusions: In Asian participants with moderate to severe acne treated with CAB gel, 66.5% achieved treatment success and acne lesion counts were reduced by >80% by week 12, with favorable safety and tolerability. These improvements are even greater than the substantial results seen in the overall study populations. Given its high efficacy and favorable tolerability, triple-combination CAB gel is well suited for the treatment of acne in Asian patients.

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Rhinophyma in Skin of Color: Clinical Challenges and Treatment Considerations

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ABSTRACT

Background: Rhinophyma, a severe, progressive manifestation of phymatous rosacea, can cause cosmetic disfigurement and functional impairment.[1] Although it is more commonly described in lighter skin types, diagnostic challenges in patients with skin of color (SOC) may contribute to underrecognition, delayed diagnosis, and more advanced disease at presentation.[2-4] Despite these disparities, there remains a significant paucity of literature evaluating the therapeutic outcomes and management strategies of rhinophyma in SOC populations.[5,6]

Objective: The purpose of this review is to systematically summarize the existing literature on the management of rhinophyma in patients with SOC to identify gaps in current knowledge and highlight areas for future investigation.

Methods: PubMed, Ovid MEDLINE, and CINAHL with Full Text databases were searched for relevant articles reporting the treatment of rhinophyma in patients with skin of color. A scoping literature review was subsequently conducted, and relevant findings were reported.

Results: The current literature on rhinophyma management in skin of color remains limited. From the database search, 14 unique studies met inclusion criteria, comprising 34 patients with skin of color treated for rhinophyma.[7-20]

Conclusions: Treatment strategies for rhinophyma in patients with skin of color remain underexplored, underscoring a critical gap in the literature. Although clinical experience suggests that most therapeutic modalities are broadly applicable across skin types, laser- and light-based interventions may pose a higher risk of dyschromia in darker skin.[19,21] A more comprehensive understanding of rhinophyma in diverse populations is essential to guide future research and support more equitable, evidence-based dermatologic care.

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EQUITY AND DIVERSITY IN DERMATOLOGY

UNIQUE ID ED_01

Barriers to Dermatologic Care and Healthcare Utilization Patterns Among Patients Without Insurance at a Free Clinic

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ABSTRACT

Background: Patients without insurance are at higher risk of missing routine skin cancer screening and follow up appointments. Additionally, low socioeconomic status is linked with higher risk for more advanced dermatologic conditions. As a free student-run clinic for uninsured patients, the Brooklyn Free Clinic (BFC) provides essential services to patients with lack of access to adequate healthcare. Understanding the dermatologic needs of patients seen at the BFC can provide insight into what resources may be needed to prevent advancement of disease. Furthermore, analysis of these needs can guide needed implementations for higher quality care.

Method: Seventy-two (72) BFC patients seen between February and May 2025 were asked to complete a cross-sectional survey on skin health habits, health information sources and utilization, barriers to care, and skin condition history. Results: were collected and analyzed.

Results: Among participants, 16% were FP2, 12.5% were FP3, 22% were FP4, 25% were FP5 and 16% were FP6. 16% of participants knew how to look for skin cancer, 10% had an immediate family history of melanoma, 15% have had a mole that recently changed in shape, size or color, 77% have never had a skin cancer screening in the past, with 5/7 having a screening more than 2 years ago. 11% of participants had trouble affording sunscreen, 11% endorsed barriers to obtaining skincare products, 33% reapplied sunscreen during the day, and 21% having had a discussion about sunscreen with their care provider.

Seven (7) participants had a history of Psoriasis, of which 71% had barriers to seeing a dermatologist, and 16 a history of eczema, of which 75% had a barrier to seeing a dermatologist. Most participants cited online resources as their primary source of skin health. For patients with a family history, 0/7 2 years or more to derm. Only 1/11 has seen derm in the past 2 years among those with changing moles.

Fifty-six percent (56%) participants had never seen a dermatologist, with 33% additional participants having not seen one within more than 2 years. 56% of participants cited lack of insurance as preventing them from seeing a dermatologist, with 37.5% citing a lack of ability to pay. 75% of participants did not have any provider for treating skin disorders. 66% of participants wanted dermatologic care as part of their clinic appointment.

Discussion: Our results highlight the complexities and burdens faced by patients without insurance in a primarily underserved, urban free clinic. Barriers to care play a significant role in patient reluctance and delays to care, which can impact disease burden and treatment patterns. Encouraging local interventions can help increase care utilization and promote safe skin practices.

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Social Determinants of Health in Melanoma Incidence and Mortality: A County-Wide Analysis of the United States

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ABSTRACT

The Social Determinants of Health (SDH) play a large role in disease burden and mortality, including skin disease. We sought to classify the burden of SDH in melanoma. Melanoma incidence and mortality data was derived as a 5-year average from the National Cancer Institute's SEER and NPCR datasets, using the most recent data (2017–2021) available. Data was stratified by ethnicity and age to include non-Hispanic Whites and >65 population. Social Determinants of Health metrics and county rankings for the same years were collected from the University of Wisconsin County Health Rankings & Ratings Lab, which collates publicly collected data on the county level and averaged. In general, counties with poorer health metrics were negatively associated with incidence but positively associated with mortality. This could be explained by a lack of providers to diagnose melanoma at early, curable stages, as evidenced by the primary care physician rate. Smoking and obesity rates were also observed to have a negative correlation with incidence (-.31, -.26) and positive correlation with death (.29, .22). Most notably, there was a strong correlation between the proportion of the county that was rural and melanoma death rates (.57). Our findings suggest a critical healthcare gap in rural and health shortage areas in the aggregate and how various lifestyle factors influence melanoma incidence and mortality.

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UV Index Exposure by Zip Code and Photoprotection Education in Children with Skin of Color in New York State

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Keywords: equity, photoprotection, education, pediatrics

ABSTRACT

Background: Children with skin of color (SOC), including those with Fitzpatrick skin types IV-VI, face unique risks from ultraviolet (UV) exposure, such as postinflammatory hyperpigmentation, melasma, uneven skin tone, and delayed skin cancer detection. Despite these risks, sun safety is often deprioritized in SOC-targeted health messaging. In New York (NY) state, UV index levels peak in downstate and coastal areas during warmer months. The extent to which school-based education reflects regional UV risk and the specific needs of children with SOC remains poorly characterized, particularly at the elementary level when lifelong sun-habits begin to form.

Objective: To assess photoprotection education in primary school curricula across NY state school districts serving predominantly SOC students and examine whether regional UV index variation influences institutional sun safety priorities.

Methods: School districts across NY state were selected using zip code-linked average summer UV index data provided by the National Oceanic and Atmospheric Administration (NOAA). Districts were eligible if ≥ 50% of students identify as Black, Hispanic/Latino, Asian, or multiracial. District administrators and health curriculum coordinators were contacted to assess in-

SKIN OF COLOR UPDATE

clusion of sun protection topics in health education for grades K–5. Topics assessed included sunscreen use, UV index awareness, protective clothing, and outdoor activity policies. Information was also collected on whether sun safety guidance was adapted for children with darker skin tones or culturally tailored in any way. Publicly available curricula and health plans were reviewed when accessible.

Results: Schools located in regions with higher average UV indices did not demonstrate more frequent inclusion of photoprotection education compared to schools in lower UV index areas. Most districts reported minimal or no dedicated sun safety instruction at the primary level, and content, when present, was often limited to generalized health units without dermatologic specificity. No district reported adaptation of sun safety education to address the particular dermatologic concerns associated with skin of color. Commonly cited barriers included the absence of statewide curricular standards on sun safety, limited classroom time, and the perception that SOC populations are at lower risk for sun damage.

Conclusions: Photoprotection education remains inconsistently addressed in NY state primary schools serving children with skin of color, regardless of regional UV exposure levels. Institutional priorities appear shaped more by mandates and perceived relevance than by environmental UV risk or dermatologic factors. Integrating dermatologic education that reflects the needs of SOC populations into elementary school health curricula may support early adoption of photoprotective behaviors and improve long-term skin health outcomes.

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The authors have no conflicts of interest.

UNIQUE ID: ED_04

Psychological Burden of Dermatological Conditions in Patients Without Insurance

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ABSTRACT

Background: There has been long-standing research on the chronic effects of skin disease. Dermatologic conditions have been associated with a variety of comorbidities, including an increased mental health burden. Multiple free clinics have attempted to integrate dermatology care as a component of care for those who are at highest risk. However, it is unknown if the burden of skin disease extends to mental health among these patients. The Brooklyn Free Clinic currently screens all patients for anxiety and depression, and refers those with a high mental health risk.

Methods: PHQ9 and GAD7 screener surveys were collected from 30 patients with Skin Health Concerns and 156 Controls who visited the Brooklyn Free Clinic from 01-01-2024 to 01-01-2025. Demographic information, total scores and individual question responses were collected, as was dermatology referrals, health seeking behavior, and total scores (Table 1). Psychiatry patients were excluded from analysis. A Pearson's Chi-squared test was performed to test for the significance of the differences across the dermatology and non-dermatology groups.

Results: PHQ9 results revealed non-significant differences in depression between dermatology and non-dermatology patients, or those with a presenting skin condition and those without a skin condition. GAD7 results similarly revealed non-significant differences. Additionally, while both groups reported similar levels of depression and anxiety, it was found that a larger proportion of patients not coming in for a problem-focused dermatologic issue expressed interest in stress management resources and received psychiatry referrals than patients coming in for skin focused visits, which indicates a potential gap in accessing mental health services for dermatology patients.

Conclusions: Continued uptake of PHQ-9 and GAD-7 screening is essential for recognizing mental health burden among high-risk patients. For at risk, patients, professional mental health care is recommended to alleviate the burden of depression and anxiety. It is encouraged that other clinics with high-risk populations uptake screening and offer resources to their patients to address mental health burden, including among their dermatology patients.

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Table 1.

Variable n (%)	Dermatology n = 30	Non-Dermatology n = 156	*P*-value
Race			
White	13 (43.3)	18 (11.5)	<0.001
Black	10 (33.3)	82 (52.6)	0.05
Hispanic	6 (20.0)	32 (20.5)	0.95
Asian	1 (3.3)	13 (8.3)	0.47
Gender - Female	18 (60.0)	49 (31.4)	0.004
Stress Management	5 (19.2)	31 (19.9)	0.38
Psychiatry Referral	2 (6.7)	11 (7.1)	1.00
Dermatology Referral	9 (30.0)	0 (0.0)	<0.001
Rash	10 (33.3)	0 (0.0)	<0.001
Other	13 (43.3)	0 (0.0)	<0.001
Skin check	8 (26.7)	0 (0.0)	<0.001
PHQ9 Categories			
None or Minimal	17 (56.7)	116 (74.4)	0.17
Mild	9 (30.0)	26 (16.7)	
Moderate	3 (10.0)	9 (5.8)	
Moderate Severe	1 (3.3)	5 (3.2)	
Severe	0 (0.0)	0 (0.0)	
GAD7 Categories			
Minimal	22 (73.3)	130 (83.3)	0.34
Mild	6 (20.0)	16 (10.3)	
Moderate	1 (3.3)	7 (4.5)	
Severe	1 (3.3)	3 (1.9)	

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Skin of Color Representation Among Common Search Engine Images

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ABSTRACT

Analysis of Google search results have previously found under-representation of Skin of Color (SOC).[1] Since then, Google has attempted to increase the representation of SOC in their search results. We sought to assess whether there were tangible increases in the representation of SOC in Google results since 2021, and compare it to other search engines Yahoo, Bing, and DuckDuckGo. The first 50 images for 74 search terms, reflecting the conditions studied in Kurtti et al. were assessed.1 Images were categorized as light (Fitzpatrick I-IV), dark (Fitzpatrick V or VI), or inconclusive. Across four search engines, 5.88% of images displayed dark skin. Google contained the most proportion of dark skin among the top 50 (6.81%) and 10 (7.03%) images. Google had the least amount of conditions with no dark skin (19), compared to Yahoo (31), Bing (32), and DuckDuckGo (26). The amount of skin conditions meeting a 12% target was greater for Google in 2024 (11) compared to the other search engines (Yahoo 9, Bing 10, DuckDuckGo 9), though the improvement was minimal. Despite Google's commitment to increase SOC representation among search engine results, we found the improvement in representation to be minimal. Even with differing search engines and image website sources, under-representation was still present. While there is still significant under-representation, we remain hopeful that future results can further inclusivity of all skin tones.

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UNIQUE ID: ED_08

Improving Clinical Recognition of Mycosis Fungoides in Skin of Color

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Keywords: cutaneous T-cell lymphoma, skin of color, mycosis fungoides, dermatologic disparities

ABSTRACT

Background: Mycosis fungoides (MF), the most common form of cutaneous T-cell lymphoma, is characterized by the progression of patches to infiltrative plaques and eventual tumors. Early MF presents as erythematous, scaly patches that can mimic other papulosquamous dermatoses, traditionally appearing on the buttocks, breasts, trunk, and proximal extremities. As the disease progresses to the plaque stage, lesions become raised and may develop a characteristic horseshoe pattern with an asymmetric distribution that extends to the face or scalp. In the tumor stage, lesions continue to enlarge, forming nodules. Misdiagnosis is common due to early disease stages closely resembling other skin conditions and the lack of a gold standard diagnostic test. Definitive diagnosis requires a biopsy with histopathologic and immunohistochemical analysis demonstrating CD4+ T-cell infiltrates. MF predominantly affects older adults and occurs more frequently in males and Black individuals. However, there is a notable lack of dermatologic literature and diagnostic images illustrating its presentation in skin of color (SOC). Differences in presentation of MF in SOC can further exploit the gap in delayed diagnosis for this patient population, potentially leading to more advanced disease at the time of diagnosis.

Objective: To characterize the clinical presentation of mycosis fungoides in patients with SOC and identify common diagnostic challenges that contribute to misdiagnosis.

Methods: A literature review was performed using PubMed and Google Scholar databases to identify studies describing the clinical presentation of MF in SOC. The review also examined patterns of misdiagnosis, focusing on dermatoses that share overlapping clinical features.

Results: Studies reporting retrospective analyses of MF in SOC mostly involved individuals with Fitzpatrick Skin Types IV-VI. In these patients, MF can present with an atypical morphology and distribution, affecting classic sites as well as distal extremities, palms, and soles. Lesions may appear as hypopigmented patches mimicking vitiligo, lichen planus pigmentosus, or progressive macular hypomelanosis, while polymorphic hyperpigmented lesions may be misdiagnosed as psoriasis or lichen planus. Black patients with MF are more likely to present at a younger age with hypopigmented lesions demonstrating an atypical CD8+ T-cell phenotype.

Conclusions: Clinical presentations of MF in SOC are frequently misdiagnosed, often mimicking inflammatory dermatoses. Early lesions in these individuals frequently present as subtle pigmentary changes, such as hypopigmentation or hyperpigmentation, rather than the erythematous patches typically observed in lighter skin. Increased recognition of atypical clinical presentations, combined with a lowered threshold for biopsy of persistent lesions, supports earlier diagnosis and may improve prognostic outcomes in patients with skin of color.

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SKIN OF COLOR UPDATE

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Analyzing Biased Dermatologic Terminology in Medical Education Materials for Skin of Color

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ABSTRACT

Background: Language used in dermatology education reflects diagnostic norms centered on Fitzpatrick skin types I-III, marginalizing presentations in skin of color.[1-3] Reliance on terms such as "erythema," "pallor," and "blanching" assumes the visibility of vascular changes and pigment contrast often absent or altered in darker skin tones.[4] Visual and textual content in board review resources, institutional slide decks, and standard textbooks positions white skin as the default phenotype, limiting exposure to diagnostic cues relevant to Fitzpatrick IV-VI populations.[2,4] Educational emphasis on color-dependent descriptors impairs early clinical pattern recognition and reinforces misperceptions that limit diagnostic accuracy.

Objective: To examine the frequency and implications of color-dependent descriptors in dermatology education materials and to identify language modifications that improve diagnostic instruction across skin tones.

Methods: Ten widely used dermatology textbooks and four national board review manuals were reviewed. Terminology related to inflammatory, vascular, and pigmentary conditions was coded for reliance on redness-based language, omission of Fitzpatrick IV-VI imagery, and how conditions in darker skin tones are described. Supplementary analysis of educational literature was conducted to evaluate strategies for integrating race-conscious terminology and phenotype-inclusive learning models.

Results: Erythema appeared as the primary descriptor of inflammation in over 90 percent of resources, with less than five percent providing alternate indicators such as warmth, induration, or scale. Descriptors like blanching and cyanosis were presented without contextual clarification regarding their diminished visibility in skin of color, particularly at nail beds, mucosal sites, and acral surfaces. Atopic dermatitis, morphea, and contact dermatitis were predominantly depicted in Fitzpatrick I-III skin, and where darker skin was shown, findings were labeled diagnostically challenging or deviations from the norm. Minimal attention was paid to hue variation, follicular accentuation, or lichenification patterns, which are diagnostically relevant in skin of color.

Conclusions: Educational overreliance on redness-based and contrast-dependent terminology limits diagnostic training in skin of color and sustains a curriculum in which phenotypic deviation from white skin is treated as an obstacle.[3] Emphasizing morphologic descriptors such as scale, lichenification, induration, and distribution enhances diagnostic accuracy when visual redness is not apparent.[5,6] Integrating references to violaceous, hyperpigmented, or gray hues, alongside structural and textural features, provides more clinically useful language for skin of color.[5] Revision of dermatology didactic education to prioritize phenotype-inclusive language is necessary to improve educational equity and diagnostic competence.

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UNIQUE ID: ED_10

Cultural Sensitivity in Alopecia Care for Head-Covering Women Across Religious and Ethnic Communities

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Keywords: alopecia, hijab, head covering, equity

ABSTRACT

Background: Clinical evaluation and management of alopecia often overlook the religious and cultural contexts in which hair holds spiritual and communal significance. Amongst Muslim, Orthodox Jewish, Sikh, and certain Christian and Rastafarian communities, hair is closely tied to spiritual identity, piety, and communal belonging. Although head coverings may obscure visible signs of alopecia, the emotional and spiritual consequences are significant. Many women delay or avoid dermatologic care due to concerns about scalp exposure, being photographed, or being examined by male clinicians. Standard workflows rarely accommodate modesty guidelines or cultural preferences, contributing to underdiagnosis, mistrust, and fragmented care.

Objective: To characterize the psychosocial and religious dimensions of alopecia in head-covering populations and evaluate structural barriers within dermatologic care settings that contribute to underdiagnosis and care avoidance.

Methods: A comprehensive review was conducted incorporating qualitative studies, patient testimonials, and ethnographic literature focused on hair practices in observant Muslim, Orthodox Jewish, Sikh, and Christian communities. Clinic accommodation reports were assessed related to privacy, gender-concordant care, and consent for photography. Patient-reported barriers to alopecia care were analyzed with particular attention to spiritual obligations and modesty requirements.

Results: Hair loss in head-covering populations often carries layered psychosocial impact, including fear of community judgment, spiritual grief, and perceived loss of feminine dignity. The invisibility of hair due to covering does not protect against psychological distress but reinforces isolation. Reported deterrents to dermatologic care included lack of female providers, absence of private examination space, automatic photography without verbal consent, and discomfort with exposure in front of male staff. Institutional protocols rarely addressed religious modesty guidelines, and intake forms did not provide options to indicate privacy or gender preferences. Patients emphasized the importance of relational respect, cultural literacy, and preemptive discussions about examination logistics.

Conclusions: Alopecia management in head-covering populations requires accommodations that actively include religious observance, spiritual embodiment, and cultural constructs of modesty. Incorporating gender-concordant care options, securing explicit verbal consent for scalp imaging, and designing clinical spaces that allow for physical privacy reflect inclusive shifts in practice. Culturally responsive dermatologic care improves diagnosis, builds trust, and respects the spiritual significance of hair in women whose religious practice governs visibility and privacy.

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UNIQUE ID: ED_11

Behind the White Coat with Representation and Resources for Skin of Color Care

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Keywords: racial concordance, skin of color, dermatologic care

ABSTRACT

Background: Patient preference for dermatologic care from racially or ethnically concordant providers is recognized as a determinant of trust, diagnostic satisfaction, and adherence, particularly amongst patients with conditions disproportionately affecting skin of color. Requests for a dermatologist "who looks like me" often reflect broader concerns regarding clinical misrecognition, cultural disconnection, and underrepresentation in dermatologic research and imagery. Conditions such as post-inflammatory hyperpigmentation, keloids, central centrifugal cicatricial alopecia (CCCA), and dyspigmentation require nuanced understanding of skin of color and cultural hair practices, yet patients frequently report difficulty locating providers with both technical expertise and shared cultural awareness.

Objective: To assess the structural limitations patients face when seeking dermatologic care from racially concordant providers and to explore strategies that address diagnostic and cultural misalignment in skin of color dermatology.

Methods: An analysis was conducted of patient-reported experiences from peer-reviewed qualitative studies, public health surveys, and testimonials from dermatologic patient advocacy groups. Themes related to provider concordance, diagnostic trust, and system navigation were coded. National referral systems, academic dermatology websites, and commercial physician directories were assessed for inclusion of race/ethnicity, skin of color expertise, and pigmentary condition focus in publicly available provider information.

Results: Patients seeking dermatologic care for pigmentary disorders and hair loss in darker skin tones consistently reported delayed diagnosis, mismanagement, and dismissal of symptom severity when seen by providers unfamiliar with skin of color. Racial concordance was cited as contributing to improved communication, greater confidence in treatment plans, and increased likelihood of follow-up. Existing referral tools and clinic directories lacked searchable filters for skin of color expertise or provider demographics, limiting access to racially concordant care. Clinics rarely featured educational materials that reflected diversity in common dermatological conditions or addressed cultural dimensions of hair loss and pigmentation.

Conclusions: Improving dermatologic care for patients with skin of color must include accessible referral systems to identify physician expertise in pigmentary and hair conditions, with consideration for specialization across racial and cultural contexts. Representation of diverse skin tones and culturally relevant education in clinical settings improves patient-provider rapport. Racial concordance between patient and dermatologist strengthens clinical dialogue around pigmentary conditions and hair loss, providing opportunities for more accurate assessments and treatment plans informed by cultural knowledge and lived experience.

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UNIQUE ID: ED_13

US Ban on Import and Sale of Mercury-Containing Skin Bleaching Products with Penalties for Retailers

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ABSTRACT

Background: Mercury-containing skin bleaching formulas are used globally despite known health risks and regulatory prohibitions. Colorism, or societal discriminatory preference for lighter skin, promotes the use of skin lightening, particularly among South Asian communities. 25-80% of women in African countries use skin lighteners, and about 40% in Asia. In India, skin lighteners make up over 50% of dermatology product sales. Among the many skin lightening products sold illegally, mercury is often a hidden ingredient. Mercury is a toxic heavy metal that may induce dermatologic and systemic effects, leading the U.S. FDA to ban cosmetic use of mercury and prevent its over-the-counter sales in these products.

Objective: To review US regulatory enforcement against mercury in skin lightening products and examine the dermatologic and public health risks of mercury exposure (including trace-level, chronic use), in addition to colorism as a driver of skin lightener use.

Methods: US FDA reports, World Health Organization (WHO) publications, and PubMed-indexed studies were analyzed and reviewed on mercury-containing skin lighteners. Data on product prevalence, mercury toxicity side effects, and regulatory actions were assessed, with a particular focus on studies involving skin of color populations and international health regulations.

Results: The FDA prohibits mercury in cosmetics at >1 ppm and has further declared all OTC skin lighteners that contain mercury or hydroquinone illegal. Regulatory surveillance has identified imported creams containing high levels of mercury (often thousands of times above the legal limit) marketed in immigrant communities. Mercury-based skin lightening products pose harmful risks as they can cause users to develop rashes, discoloration in the skin, or even experience signs of mercury poisoning in the nervous, renal, and immune systems long-term. Colorism is still a driving factor in usage trends, as lighter skin is often associated with greater beauty or social benefit, leading to the persistence of demand even in the face of danger to health. The international skin-bleaching market is still growing (estimated $11.8 billion by 2026), suggesting that toxic products remain available. Dermatologists are often the first health-care practitioners to recognize signs of mercury poisoning.

Conclusions: Mercury-containing skin lightening products represent a significant dermatologic and public health challenge, especially in colorism affected communities. The FDA's ban is unlikely to be effectively enforced without stringent regulatory oversight to the point of import bans, seizures of products, and consumer warnings. Dermatologists should be vigilant in diagnosing mercury toxicity and educate patients regarding the dangers of skin lightening. Culturally-sensitive public health education is necessary to reduce the demand driven by colorism, promote the beauty of all skin shades, and prevent toxic exposure in vulnerable groups.

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UNIQUE ID: ED_14

Underrepresented and Underprepared: Skin of Color in Clinical Vignettes on USMLE and COMLEX Exams

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ABSTRACT

Background: Despite growing awareness of racial disparities in healthcare, individuals with skin of color (SOC) remain significantly underrepresented across medical education, dermatologic curricula, and board certification materials. Licensing examinations such as the United States Medical Licensing Examination (USMLE) and the Comprehensive Osteopathic Medical Licensing Examination (COMLEX) rely heavily on vignette-based assessments and clinical imagery, yet conditions in skin of color are excluded or inaccurately depicted. Limited exposure to dermatologic presentations in SOC during formative training impairs clinical recognition, delays appropriate interventions, and reduces diagnostic confidence among physicians in training. Educational inequities have been directly linked to poorer dermatologic outcomes in SOC populations and contribute to ongoing structural disparities in care delivery.

Objective: To assess the occurrence and representation of Fitzpatrick skin types IV-VI in board examination vignettes and to evaluate the impact of the current representation on medical trainees' diagnostic accuracy and preparedness in identifying and managing dermatologic conditions in skin of color.

Methods: A comprehensive literature review and analysis was conducted using Google Scholar and PubMed to evaluate the representation of skin of color in clinical vignettes on the United States Medical Licensing Examination (USMLE) and Comprehensive Osteopathic Medical Licensing Examination (COMLEX). Search terms included combinations of the following keywords: "skin of color," "medical education," "clinical vignettes," "board exams," "USMLE," "COMLEX," "dermatology," "Fitzpatrick skin types," "racial disparities," and "skin tone representation." Articles were reviewed for their relevance and key findings related to skin tone diversity in medical assessments and training. Findings were synthesized to identify recurring themes, and opportunities for reform in dermatology education and board examination content.

Results: Across USMLE and COMLEX study resources, only 11% to 24% of dermatologic images depict Fitzpatrick skin types IV-VI, despite over 40% of the U.S. population identifying as non-white. Textbooks and lectures also favor lighter skin types, limiting trainees' exposure to disease presentations in SOC. Studies consistently show that diagnostic accuracy is lower for conditions presented on darker skin, with errors noted in diseases such as psoriasis, Lyme disease, and Stevens-Johnson syndrome. Additionally, learners report significantly lower confidence diagnosing SOC, especially in acute settings. Targeted interventions, such as SOC-focused modules and inclusive image databases, have shown improvements in diagnostic skill and confidence, yet remain inconsistently applied in board-aligned materials.

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UNIQUE ID: ED_18

Cultural Taboos, Shame, and Diagnostic Avoidance in Vulvar Dermatoses Among Women with Skin of Color

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Keywords: shame-related health behaviors, genital dermatology, diagnostic inequity

ABSTRACT

Background: Vulvar dermatoses are often underdiagnosed and undertreated in women with skin of color, not solely because of clinical oversight, but because of deeply rooted cultural, structural, and educational barriers that shape how symptoms are perceived, reported, and evaluated. In many communities of color, discussions of vulvar health remain taboo, constrained by cultural norms that deem the genital area a source of shame, privacy, or moral impurity. These beliefs can prevent women from seeking care, disclosing symptoms, or even developing the language to describe their concerns.

Objective: To investigate the cultural and systemic barriers that contribute to the underrecognition of vulvar dermatoses in women with skin of color and to highlight how patient shame, provider discomfort, and lack of inclusive diagnostic criteria intersect to perpetuate disparities in care.

Methods: An interdisciplinary review was conducted incorporating dermatologic literature, patient narratives, cultural analyses, and health disparities research. Focus was placed on identifying how cultural silence, shame-based stigma, diagnostic discomfort, and structural bias intersect to impact care for vulvar dermatoses in women with skin of color. Special attention was given to how sociocultural conditioning shapes symptom disclosure and how clinical evaluation protocols often fail in skin of color.

Results: Among women of color who seek care for vulvar concerns, clinical encounters are frequently shaped by mistrust in the healthcare system, which stems from longstanding patterns of racialized dismissal and inadequate recognition of pain and dermatologic symptoms in deeply pigmented skin. Providers often express discomfort and insufficient training in evaluating vulvar conditions in darker skin tones, leading to reliance on visual cues and diagnostic frameworks designed for lighter phototypes. This mismatch contributes to frequent misclassification of pigmentary changes, underrecognition of inflammation, and missed diagnoses of chronic disorders such as lichen sclerosus, lichen planus, and vulvar psoriasis. The combined effects of patient shame, provider uncertainty, and structural neglect form a diagnostic void that delays care, exacerbates disease burden, and erodes patient dignity.

Conclusions: Addressing disparities requires more than improved clinical instruction; it calls for a fundamental reorientation of how dermatology approaches genital health in historically marginalized populations. This includes developing inclusive educational resources, equipping providers with culturally sensitive communication tools, and creating clinical environments that affirm the validity of vulvar concerns regardless of skin tone, language, or cultural background. Only by confronting the silence surrounding vulvar disease in skin of color can dermatology move toward a model of care that is equitable, timely, and humanizing.

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UNIQUE ID: ED_19

Invisible Protection, Visible Exclusion: Why Sunscreen Ads and Packaging Alienate Skin of Color Populations

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Keywords: inclusive marketing, cosmetic shade range, representation in advertising

ABSTRACT

Background: Growing awareness of the importance of photoprotection across all skin types has not translated into equitable representation in sunscreen marketing, which continues to marginalize individuals with skin of color. The absence of inclusive shade offerings and models with deeper skin tones further reinforces this narrative. Advertising campaigns, product packaging, and shade offerings frequently fail to include deeper skin tones, reflected in the limited availability of cosmetically elegant tinted formulations and the persistent absence of darker-skinned models in promotional content.

Objective: To explore how exclusionary practices in sunscreen advertising, packaging, and product development influence sunscreen adherence and contribute to disparities in dermatologic outcomes among individuals with skin of color; To highlight the role of inclusive marketing in promoting culturally relevant photoprotection education.

Methods: An interdisciplinary review was conducted by analyzing dermatologic literature, consumer behavior research, and marketing strategies. The review examined how representation in advertising, product accessibility, and brand messaging impact sunscreen use in populations with darker skin tones.

Results: Sunscreen campaigns and packaging frequently exclude deeper skin tones, resulting in limited availability of cosmetically elegant options suitable for melanin-rich skin. Marketing gaps reinforce inaccurate beliefs about sun protection needs and contribute to lower sunscreen use, delayed skin cancer diagnosis, and underrecognition of photoexacerbated conditions. Inclusive marketing, when implemented effectively, has been shown to improve consumer engagement, reshape cultural perceptions of sun safety, and support more informed health behaviors.

Conclusions: Exclusionary marketing practices in the sunscreen industry contribute to reduced adherence by failing to address the aesthetic preferences and photoprotection needs of individuals with skin of color. Limited shade offerings, lack of diverse representation in advertising, and minimal inclusion in brand messaging reinforce the perception that sunscreen is not intended for darker skin tones. Broader shade ranges, inclusive visual representation, and culturally aligned public health messaging can increase engagement with photoprotection and improve management of pigmentary and photoexacerbated skin conditions.

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UNIQUE ID: ED_20

Cultural Barriers to Sunscreen Use Amongst Afro-Caribbean Immigrants and Implications for UV-Induced Dermatoses

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ABSTRACT

Background: Sunscreen use remains disproportionately low among Afro-Caribbean immigrant populations, leading to inadequate photoprotection and contributing to UV-induced dermatoses. Despite a lower baseline risk of skin cancer, individuals with darker skin tones are still vulnerable to pigmentary disorders and photodistributed conditions, which may be exacerbated by insufficient sun protection.

Objective: To identify cultural, sensory, and structural barriers influencing sunscreen use among Afro-Caribbean immigrants and to examine how these barriers contribute to increased risk of UV-induced dermatoses and disparities in preventive dermatologic care.

Methods: An evaluation of dermatologic, public health, and sociocultural literature was performed to examine multifactorial barriers to sunscreen use in Afro-Caribbean immigrant communities. Sources were identified through targeted searches in PubMed and Google Scholar using combinations of the terms "Afro-Caribbean," "immigrant," "sunscreen," "photoprotection," "skin of color," "pigmentary disorders," "sun exposure," "health beliefs," and "access to dermatologic care." Particular emphasis was placed on associations between limited sunscreen use and the prevalence or exacerbation of pigmentary disorders and photodistributed dermatoses.

Results: Commonly reported barriers to sunscreen use included the belief that melanin confers complete protection against ultraviolet radiation, limited representation in public health campaigns, and unfavorable cosmetic characteristics, such as white cast and greasy textures, that are poorly suited for darker skin tones. Additional obstacles included the limited availability of cosmetically acceptable formulations and language barriers that impede access to appropriate photoprotection. Suboptimal sunscreen use has been linked to the exacerbation of melasma, post-inflammatory hyperpigmentation, chronic actinic dermatitis, and polymorphous light eruption. Clinical encounters often fail to account for these behaviors within the context of broader sociocultural and structural influences.

Conclusions: Reducing UV-induced dermatoses in Afro-Caribbean immigrants requires targeted strategies that address misconceptions about melanin's protective capacity, expand access to cosmetically appropriate sunscreens, and improve representation in photoprotection messaging. Clinicians should be trained to recognize pigmentary and photodistributed conditions in richly pigmented skin and to recommend formulations that align with cultural preferences and sensory tolerability. Tailored education and improved availability of cosmetically suitable sunscreens support consistent photoprotection practices and help prevent UV-related pigmentary and photodistributed disorders.

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SKIN OF COLOR UPDATE

UNIQUE ID: ED_21

Assessing the Performance of Skin Cancer Screening Apps in Detecting Atypical Lesions in Melanated Skin

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Keywords: artificial intelligence, AI-driven screening, skin of color, melanated skin, skin cancer

ABSTRACT

Background: The widespread adoption of artificial intelligence-driven skin cancer screening applications has raised important questions about diagnostic equity, particularly regarding performance in detecting atypical lesions in individuals with melanated skin. Most commercially available apps are trained on datasets composed predominantly of Fitzpatrick skin types I-III, leading to algorithmic models that struggle to accurately interpret lesion morphology, pigment variation, and border irregularity in darker phototypes. In skin of color, melanomas and atypical nevi often present with subtler erythema, indistinct contrast against background pigmentation, or dermoscopic patterns that deviate from textbook presentations used in training datasets.

Objective: To evaluate the diagnostic performance and limitations of AI-driven skin cancer screening applications in detecting atypical lesions on melanated skin, with a focus on identifying algorithmic biases, dataset gaps, and imaging challenges unique to Fitzpatrick IV-VI phototypes.

Methods: A narrative literature review was conducted across PubMed and Google Scholar using keywords such as "skin cancer screening apps," "artificial intelligence," "melanated skin," "algorithmic bias," and "skin of color." Studies assessing sensitivity, specificity, and diagnostic accuracy of commercially available apps in diverse skin tones were prioritized. Grey literature, regulatory reports, and dermatology-led validation studies were reviewed to identify gaps in dataset diversity and algorithmic transparency. Particular attention was paid to image acquisition factors, including lighting, resolution, and contrast.

Results: Limitations in model generalizability result in higher false-negative rates, delayed referrals, and reduced trust in AI tools amongst patients with skin of color. Additionally, visual noise introduced by baseline pigment heterogeneity, hair-bearing areas, and post-inflammatory hyperpigmentation may be incorrectly flagged as suspicious or dismissed entirely, reducing the clinical utility of app-generated recommendations. Performance discrepancies are further compounded by poor image capture guidance within the apps, which fails to account for lighting, glare, or shadowing that disproportionately affect darker skin in smartphone photography. Regulatory oversight remains minimal, and most apps lack transparency regarding dataset composition, validation across diverse skin tones, or stratified accuracy reporting.

Conclusions: Improvements in diagnostic performance will require dermatology-led evaluation of algorithmic behavior across deeply pigmented skin, greater representation of skin of color in training databases, and optimization of user interfaces to accommodate the photographic specificities of melanated skin.

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UNIQUE ID ED_22

Leprosy in Pediatric Patients in the Dominican Republic: Clinical Presentations and Epidemiologic Trends, 2014–2024

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Keywords: pediatric leprosy, clinicoepidemiological features, active surveillance, Dominican Republic leprosy

ABSTRACT

Background: Leprosy in pediatric patients is an indicator of epidemiological significance to assess the progress of leprosy control programs. In the Dominican Republic, incidence of leprosy amongst children indicates active foci of transmission in the community. The pediatric population is characterized by fewer skin manifestations and in the peripheral nervous systems, rarely observing visible disabilities. Although children have low risk of morbidity with leprae reactions, children with neural thickening have a higher risk of developing deformities.[1]

Objective: The present study was undertaken to observe the clinicoepidemiological features of childhood leprosy cases, describing the behavior of the disease, degree of disabilities, and sources of detection in a reference hospital in the Dominican Republic.

Methods: A retrospective, observational and descriptive study was conducted obtaining data from the Leprosy Control Program of the Dominican Dermatology Institute and Skin Surgery "Dr. Huberto Bogaert Díaz", during the time period of 2014-2024. Patients included were under 15 years of age registered in our program.

Results: During 2014-2024 a total of 1,396 patients were diagnosed with Leprosy, 103 of which were children under 15 years of age. Most of them were in the group age of 10-14 years old (56.31%). Clinical presentation was mostly reported as Tuberculoid LT (54.30%), classified in both multibacillary (50.5%) and paucibacillary (49.5%). Most cases were diagnosed through active search (61.2%), only four of the total number of patients presented with disabilities, both grade 1 and grade 2 equally.

Conclusions: Incidence of leprosy in children under 15 years of age is an important epidemiological indicator that reflects transmission and high endemicity of the disease. As highlighted in the results, the importance of active surveillance indicates the need for increased awareness and education. Emphasizing early diagnosis and treatment for the prevention of transmission and long-term complications within the community. Monitoring the presence of childhood cases is essential to strengthen care, timely referral, and surveillance to achieve sustainable control and eventual elimination of childhood leprosy.[2,3]

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UNIQUE ID ED_24

Representation of Skin Tones in Images Depicting Cutaneous Autoimmune Diseases in Current Medical Education Texts

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Keywords: kodachrome, skin of color, individual typology angle, autoimmune skin disease, dermatology education

ABSTRACT

Background: Images are a cornerstone of teaching dermatological conditions. Education material that does not include a variety of skin tone may have an impact on future ability to diagnose in diverse skin tones. This is especially relevant for autoimmune diseases such as systemic lupus erythematosus (SLE) and systemic sclerosis, with SLE more common in Asian, Black, Hispanic, and Indigenous populations, and systemic sclerosis showing greater severity in Black individuals. To assess representation across skin tones, skin color in this study will be classified using the Individual Typology Angle (ITA) rather than the Fitzpatrick scale. While the Fitzpatrick scale remains the current gold standard for categorizing skin tone, ITA offers a more objective, quantitative approach, using a three-dimensional color model to approximate perceived skin color. ITA is divided into 6 skin types: very light, light, intermediate, tan, brown, dark, and very dark.

Objective: Identify and quantify the current photographical representation of different skin colors for cutaneous autoimmune diseases in current medical education texts.

Methods: We went through every US medical school's website to identify a publicly available textbook list and any textbooks covering dermatology, rheumatology, internal medicine, and clinical skills was noted. Then, we extracted photos for systemic lupus erythematosus, rheumatoid arthritis, dermatomyositis, systemic sclerosis, Sjogren syndrome, mixed connective tissue disease, relapsing polychondritis, bullous pemphigoid, pemphigus vulgaris, dermatitis herpetiformis, epidermolysis bullosa acquisita, psoriasis, vitiligo, alopecia areata, and lichen sclerosus. Images were run through a rule-based image processing algorithm which adjusted lighting differences between images, identified skin areas, filtered out abnormally red regions, and calculated ITA to determine skin tone.

Results: Of the 206 medical schools, we identified 251 textbooks, 100 of which we were able to access through our institution's library and online. From these textbooks, 1952 colored images showcasing skin were extracted and the algorithm categorized each image into one of the 7 ITA skin types. 5 images were categorized as very light, 205 as light, 1048 as intermediate, 672 as tan, and 22 as brown. There were no pictures that were categorized into the dark and very dark ITA skin tones.

Conclusions: Although there is a variety of skin tones in images showing autoimmune cutaneous diseases, there is only a small number of images in the brown skin tone and a complete lack of images in the dark and very dark skin classifications. Using an algorithm allowed us to have a standardized way to analyze these photos but image quality, lighting, and non-skin objects may alter the reading of the image. Regardless, it is evident that textbooks need to increase their representation of different skin colors in images to better educate future physicians.

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UNIQUE ID: ED_28

Impact of the Globalization of Clinical Trials on Conditions Commonly Seen in Skin of Color

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ABSTRACT

Background: Clinical trials are essential for drug development and FDA approval in the United States. However, rising costs, extended timelines, and extensive regulation have driven sponsors to conduct research abroad, accelerating the globalization of clinical trials.[3] This shift raises critical ethical concerns, particularly regarding the generalizability of findings to populations with skin of color.[2,7,8]

Methods: Of the over 530,000 currently registered clinical trials, only 29% are occurring in the United States.[1] Using ClinicalTrials.gov, we analyzed trials from January 2017 to December 2023 for five common dermatologic conditions in skin of color, as cited in previous literature: vitiligo (n=77), atopic dermatitis (n=598), seborrheic dermatitis (n=16), melasma (n =40), and keloids (n=34).[4,5,6] Heat maps were conducted for each skin condition depicting on a global scale where current research is being done.

Results: Our findings show that while approximately half of these trials were conducted in the United States, the remainder occurred predominantly in Europe and to a lesser extent in Asia, with minimal representation in South America. The U.S. produces the most studies in keloid research (Fig. 1). However, melasma research is done primarily in east Asian countries (Fig. 2). Alarmingly, fewer than 35 trials across all conditions took place in Africa, despite its diverse skin types and high disease burden.

Conclusions: As clinical research becomes increasingly global, it is crucial to recognize that data from international studies may not always be applicable to skin of color populations in the U.S. Future efforts must prioritize diverse, inclusive research to ensure equitable advancements in dermatologic care.

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SKIN OF COLOR UPDATE

UNIQUE ID: ED_31

Underrepresentation of Skin of Color in Dermatology Teaching Materials in Brazilian Medical Training.

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ABSTRACT

Background: Brazilian teaching materials used in medical training for dermatology mostly feature images of light skin, this may contribute to errors in the diagnosis and treatment of skin of color population.

Objective: To systematically review the scientific literature on the underrepresentation of black skin in medical training materials in dermatology.

Methods: Systematic literature review following the PRISMA guidelines. Databases used: PubMed, SciELO, and LILACS. Search strategy: following MesH words we included: "Black skin"; "dark skin"; "medical education"; Boolean operators: AND and OR. Filters: Publications from the last 10 years in Portuguese and English. Inclusion criteria: Full articles, whether original or reviews; Studies addressing the representation of Black skin in teaching materials related to medical training in dermatology; Language: English and Portuguese; Year of publication: 2015 to 2025. Exclusion criteria: Incomplete articles; Studies outside the context of the representation of Black skin in teaching materials for medical training in dermatology; Editorials or letters to the editor.

Results: Besides the absence of articles in Portuguese in this specific research topic, our review highlights that out of 21 selected studies, 90.48% (N=19) were articles published in the 2020s and only 9.52% (N=2) were articles published in the previous decade. Even with a 10-year time frame, most articles on the topic were published only in the last four years. This trend demonstrates how this topic has been neglected in dermatology; even with the advances in research on this field in recent years, it remains an under-represented area of study.

Conclusions: There is a large gap in the national scientific literature on the topic and some small advances in the international literature.

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UNIQUE ID: ED_32

Improving Central Centrifugal Cicatricial Alopecia

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Keywords: central centrifugal cicatricial alopecia, skin of color, health equity, alopecia, insurance coverage

ABSTRACT

Background: Alopecia can be categorized into non-scarring and scarring types.[1] Central Centrifugal Cicatricial Alopecia (CCCA) is the most common form of scarring alopecia and disproportionately affects women with skin of color.[2] Hair loss significantly impacts psychological well-being, self-identity, and cultural expression.[3] There is no cure for CCCA, and insurance coverage for dermatologic treatment and cranial prostheses remains limited.[4]

Objective: This review aims to strengthen advocacy and improve care for skin of color patients affected by CCCA by proposing public health strategies including increased research funding and expanded insurance coverage for alopecia-related care.

Methods: A targeted literature review was conducted using PubMed for articles published between 2011 and 2025, emphasizing CCCA, health disparities, and dermatologic care in skin of color populations. Supplemental data on socioeconomic status and legislation were obtained from the U.S. Congress and U.S. Census Bureau.

Results: CCCA is a progressive scarring alopecia that predominantly affects women of African descent.[2] Patients frequently encounter delays in diagnosis due to underinsurance, limited access to dermatologists, and lack of culturally competent care.[5] Physician expertise in textured hair and associated styling practices remains limited, contributing to diagnostic challenges.[6] Dermatology residents and primary care physicians report inadequate training in hair disorders affecting skin of color, and that dermoscopy education is inconsistent.7 Financial strain, low health literacy, and societal pressures around hair norms often delay care-seeking.3 Despite the recent ICD-10-CM code and CAPAIR survey, CCCA lacks federal legislative recognition and remains underrepresented in clinical trials and policy.

Conclusions: Equitable dermatologic care must address both clinical and cultural dimensions of CCCA. Expanding insurance coverage, integrating textured hair and trichoscopy training into medical education, and increasing research funding are critical next steps. Partnering with advocacy groups, hair professionals, and medical societies can foster inclusive, timely, and effective care—ensuring all patients receive the support and dignity they deserve.

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UNIQUE ID: ED_33

A Review of Evaluating the Efficacy and Safety of Glutathione-Based Interventions for Aging Dark Skin and in Facial Rejuvenation Surgery

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ABSTRACT

Post-procedure dyspigmentation, hypertrophic/keloid scarring, and delayed healing remain prominent concerns for patients with darker skin (Fitzpatrick IV–VI) undergoing facial rejuvenation and resurfacing.[1] Glutathione (GSH), a ubiquitous intracellular antioxidant, has been proposed to mitigate these risks by inhibiting tyrosinase-driven melanogenesis and buffering oxidative injury; however, its perioperative value in darker skin is uncertain.[2] A scoping review was conducted using PRISMA-ScR guidelines. The databases PubMed, Embase, Scopus, Web of Science, Cochrane Library, and ClinicalTrials.gov (with supplemental Google Scholar screening) were searched through July 2025. Search terms linked "glutathione" with "hyperpigmentation," "wound healing," "scar," "Fitzpatrick," "dark skin," "laser," "peel," and "facial rejuvenation." Studies were included if adult participants received topical, oral, or parenteral GSH with pigmentary or wound-healing outcomes reported; animal-only studies, case reports without objective outcomes, and older cosmetic reports were excluded. Two reviewers independently screened records and extracted data, resolving discrepancies by consensus. Evidence was mapped across mechanistic, cosmetic, and procedural contexts. Mechanistic work shows GSH inhibits tyrosinase, scavenges reactive oxygen species, and may influence collagen remodeling.[3] Small human studies suggest modest melanin-index reductions and dyschromia improvement with topical or oral GSH, but effect sizes vary. Critically, no controlled studies evaluate perioperative GSH to prevent post-inflammatory hyperpigmentation or unfavorable scarring after facial procedures, and outcomes are infrequently stratified by Fitzpatrick type.[4] Heterogeneity in formulation, dose, and follow-up, low oral bioavailability, stability concerns for topical preparations, and safety/regulatory issues surrounding off-label intravenous use further limit interpretation.[5] The current literature supports biologic plausibility but not clinical effectiveness of GSH as a perioperative adjunct for darker skin. Skin type–aware risk models are lacking; procedure-specific, Fitzpatrick-stratified trials with standardized pigment/scar outcomes and head-to-head comparators are required to define optimal dosing, timing, and route of administration for equitable perioperative care.

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Beauty, Colorism, and Algorithms: How Social Media Propagates Colorism, Skin Bleaching, and Unhealthy Beauty Ideals in People of Color

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ABSTRACT

Background: Colorism is a form of prejudice or discrimination between groups or within groups based on skin tone. Social media has an ever-growing role in the amplification and propagation of pre-existing colorism in the US and abroad. Platforms such as TikTok, Instagram, YouTube, as well as key players such as beauty and lifestyle influencers, play a central role in the influencing of young people and reinforcement of colorism.

Objective: To outline how colorism is a latent but prominent theme in modern social media and emphasize the implications of this for young adolescents and children of color.

Methods: A comprehensive literature review was performed using databases such as PubMed and Google Scholar, searching for key terms including "colorism", "social media", "skin tone", "Fitzpatrick", "adolescent", "black", "hispanic", "middle eastern". Notable examples of colorism were also drawn from YouTube and TikTok videos where relevant. Videos and articles were analysed for information on colorism bias on social media, impacts on child and adolescent health, as well as strategies for the representation of skin of color and awareness of colorism on social media platforms. Synthesis of these findings yielded important insights for dermatologists and primary care providers of children and adolescents of color.

Results: African-American adolescent girls are likely to report that lighter skin tones are associated with beauty, social status, and more favorable personality traits. Colorism and colorist beliefs may be transmitted intergenerationally, but mothers are a key source of propagation of colorist beliefs. Adolescents who interacted with images related to tanning were more likely to report skin tone dissatisfaction, reduced engagement with sun-protection habits, and increased amounts of prior ultraviolet radiation exposure. In East Asia, social media promotion and sales of skin-lightening products remain prevalent and constitute a billion-dollar industry. By contrast, the harms of such

SKIN OF COLOR UPDATE

products, including mercury exposure, are seldom addressed on social media platforms. Endorsements by celebrities and ingrained associations between lighter skin and positive attributes contribute to the sustenance of the skin-bleaching industry. Side effects of skin lightening include ochronosis, skin atrophy, and infections. Psychologically, these messages have a disproportionate burden on adolescents with skin of color, causing dissatisfaction with body image and internalized biases.

Conclusions: This comprehensive analysis of social media patterns highlights the need for awareness of the latent effects of colorism in social media platforms. Dermatologists should use social media platforms to educate the public on how colorist biases prevail and impact young people of color. Brand campaigns displaying a diverse array of skin tones allow for greater representation and, hence, an improved ability of children and adolescents to be able to identify with the media they consume. Providers should implement screening strategies to pinpoint harmful skin lightening practices and offer alternative solutions, education, and guidance.

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Dermatologic Indicators of Nutritional Deficiency in Displaced Populations with Skin of Color: Addressing Diagnostic Gaps and Public Health Equity

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ABSTRACT

Background: Displaced populations face heightened risk for malnutrition, which often presents through cutaneous signs. In individuals with skin of color, these manifestations may differ in visibility, distribution, and pigmentary pattern, posing unique diagnostic challenges (McKenzie S, et al. Journal of the American Academy of Dermatology 2022). Existing diagnostic frameworks and educational materials are largely derived from lighter skin types, contributing to underrecognition and delays in care for SOC patients.

Objective: To synthesize peer-reviewed literature on micronutrient deficiencies in displaced populations, with a focus on dermatologic manifestations in richly pigmented skin, and highlight adaptations in clinical assessment and diagnostic approach for skin of color.

Table 1. Summary of Common Micronutrient Deficiencies With Skin of Color–Specific Dermatologic Signs, Diagnostic Nuances, High-Risk Populations, and Treatment Strategies in Displaced Settings

Micronutrient	Dermatologic Signs	Presentation Nuances in Skin of Color	High-Risk Groups	Screening/ Treatment
Iron	Pallor, koilonychia, cheilitis, brittle hair	Pallor less visible on skin, examine conjunctiva, oral mucosa, nailbeds	Children, pregnant women	Hemoglobin screen, oral/ IV iron
Zinc	Periorificial/acral rash, alopecia, nail changes	Lesions may present with hyperpigmented borders, pigmentary changes may be more prominent	Low-protein diets, Sub-Saharan migrants	Oral zinc, food fortification
Vitamin D	Xerosis, infections, worsened dermatitis	Xerosis and eczema flares, higher prevalence in dark skin at high latitudes	Dark skin, indoor-living refugees	Serum 25(OH)D, supplementation
Vitamin A	Phrynoderma, xerosis, follicular papules	Follicular papules may appear more hyperpigmented, xerosis is more diffuse	Children, low-infection immunity	High-dose capsules, infection control
B12/Folate	Hyperpigmentation, cheilitis, oral ulcers	Early diffuse hyperpigmentation of knuckles, palms, soles, oral mucosa	Camp settings with inadequate dietary access to animal products and leafy greens	B12 injections, folate tablets
Vitamin C	Hyperkeratosis, bleeding gums, poor wound healing	Perifollicular hyperpigmentation with corkscrew hairs are more evident than erythema	Long-term camp settings	Oral ascorbic acid, fresh produce access
Calcium	Dry skin, coarse hair, psoriasis	Xerosis and psoriatic plaques may show less erythema but more scaling	Limited dairy intake	Oral Ca/Vit D, co-supplementation

Methods: A narrative review of PubMed, Google Scholar, and Embase from January 2005 to July 2025 using terms such as "micronutrient deficiency," "dermatologic manifestations," "skin of color," "refugees," "displaced populations," "vitamin deficiencies," and "malnutrition." Studies and reports addressing cutaneous signs in darker skin tones were included, along with literature on nutritional deficiencies in refugee and migrant cohorts. This review also identifies limitations in current dermatologic training and visual diagnostic references, which often lack representation of SOC. Case series and international agency reports were also reviewed where large-scale epidemiological data were unavailable.

Results: Dermatologic evaluation can serve as a crucial tool for early identification of nutritional deficiencies in low-resource and humanitarian settings. Dermatologic signs are frequently the earliest indicators of deficiencies in iron, zinc, vitamins A, D, B12, C and folate (Wong CY, et al. International Journal of Women's Dermatology 2021). In richly pigmented skin, pallor may be more reliably detected in conjunctivae and mucosa, while pigmentary changes which have B12-related hyperpigmentation or post-inflammatory pigment changes may be more prominent (Pusey-Reid E, et al. American Journal of Nursing 2023). Vitamin D deficiency is especially prevalent among dark-skinned refugees at higher latitudes due to decreased cutaneous synthesis, cultural clothing practices, indoor living, and limited dietary sources (Martin CA, et al. Nutrition 2016). Children are particularly at risk, as evidenced by higher rates of anemia and zinc deficiency. Differences in erythema, scaling, and xerosis presentation in SOC further complicate diagnosis.

Conclusions: Incorporating skin tone inclusive diagnostic frameworks and culturally informed screening protocols can improve early recognition of nutritional deficiencies in displaced populations with skin of color. Recognizing early cutaneous signs in richly pigmented skin supports timely nutritional triage and intervention in displacement-affected and low-resource settings where laboratory testing may be limited. Table 1. Summary of common micronutrient deficiencies with skin of color-specific dermatologic signs, diagnostic nuances, high-risk populations, and treatment strategies in displaced settings.

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Barriers, Behaviors, and Beliefs: Examining Sunscreen Use and Photoprotection Practices in South Asian Populations

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ABSTRACT

Background: South Asian populations have a greater susceptibility to pigmentary disorders, such as melasma and photodermatoses attributed to sun exposure, yet report decreased photoprotective behaviors. Despite lower incidences of skin cancer among South Asian populations, cases are often detected late, leading to more severe outcomes and increased mortality. This is further perpetuated by a lack of clear guidelines on sunscreen use for Fitzpatrick skin types IV-VI due to their poor representation in dermatologic literature. Notably, few sunscreen formulations provide broad-spectrum protection without leaving a white cast, which can discourage use.

Objective: To review and synthesize current literature on photoprotective behaviors among South Asians, focusing on knowledge gaps, cosmetic acceptability, and cultural and social influences on practices.

To raise awareness about the lack of photoprotective behaviors among South Asians and explore the motivations underlying these behaviors, enabling physicians to provide culturally competent care.

Methods: Behaviors, beliefs, and practices related to photoprotective behaviors among South Asian populations were evaluated through PubMed and Embase using search terms including "photoprotection," "South Asian skin," and "sunscreen." Data from published dermatologic studies on photoprotective behaviors, attitudes, and barriers to sunscreen use were examined to identify trends.

Results: Findings demonstrate that South Asians are significantly less likely to use sunscreen compared to non-Hispanic whites, with only 30% of Asian Indians reporting sunscreen use versus 80% of whites, despite being more likely to engage in other sun-protective behaviors such as seeking shade and wearing long clothing.[1] This pattern is attributed to both cultural practices favoring light skin and a lower perceived risk of skin cancer among the South Asian population. Furthermore, South Asians are less likely to seek out dermatologic care and receive total body skin examinations, resulting in late detection of skin cancer and worse outcomes.

South Asians are generally aware of the benefits of sunscreen use for skin cancer prevention, but there is a documented lack of education regarding its role in preventing pigmentary disorders such as melasma, which disproportionately affects this population. The barriers to sunscreen use include low perceived risk of UV damage, cosmetic concerns (mainly white cast), and a lack of culturally tailored education.

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Advanced Basal Cell Carcinoma in a Safety-Net Hospital: THRIVE Framework Identifies Social Determinants Driving Delays and Outcomes

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ABSTRACT

Background: Advanced basal cell carcinoma (aBCC) is rare but associated with significant morbidity. Vismodegib, with or without radiotherapy (RT), achieves high response rates,[1-2] yet delays in diagnosis and treatment can compromise outcomes. Large, national cancer databases, such as SEER, capture disease incidence but lack the granular, patient-level social determinants of health (SDOH) data necessary to identify and address equity gaps.[3] Boston Medical Center's THRIVE program screens for 11 health-related social needs (HRSN), offering unique insight into structural barriers in safety-net settings.[4]

Objective: To examine the impact of SDOH, as measured by THRIVE, on diagnostic, treatment delays, and outcomes in patients with aBCC and relate these findings to the known efficacy of vismodegib ± RT.

Methods: Retrospective chart review of three patients with aBCC treated between 2020–2024 at BMC Cutaneous Oncology clinic using the IRB-approved Cutaneous Oncology Repository. Data included demographics, pathology, treatments, timelines, and THRIVE HRSN.

Results: All patients had unresectable, locally advanced disease with high-risk histology (nodular/infiltrative, perineural invasion). All had ≥5 unmet HRSN; most common were transportation (100%), financial hardship (100%), food insecurity (75%), and limited social support (50%).

- Case 1: Loss of insurance and medication access caused a 3-year follow-up lapse after initial surgery, enabling perineural spread. A further 2-month delay in starting vismodegib, compounded by transportation barriers limiting ophthalmology evaluations, worsened visual deficits and facial nerve droop.
- Case 2: Caregiving burden delayed RT initiation and disrupted daily attendance, prolonging treatment and potentially diminishing therapeutic benefit.
- Case 3: Financial difficulties and loss of insurance caused decades-long care delay and prevented required dental clearance for RT. Radiation was not initiated until 2 years after the recurrence diagnosis, and once started, transportation barriers hindered attendance, likely worsening her prognosis. Low educational attainment and food insecurity (worsened by treatment-related anorexia) further reduced adherence and increased morbidity.

Conclusions: SDOH captured via THRIVE revealed multi-domain vulnerabilities directly contributing to advanced presentation, delayed therapy, and greater morbidity in patients with aBCC who underwent vismodegib and RT—details not discernible from national cancer databases like SEER. Integrating structured SDOH screening with targeted navigation may improve equity in skin cancer outcomes. Future work could include developing an "SDOH-to-Action" pathway in which THRIVE results trigger targeted interventions (e.g., transportation, insurance, nutrition) within 48 hours, and quantifying the impact of specific THRIVE domains to identify high-yield targets for reducing delays and improving outcomes.

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SKIN OF COLOR UPDATE

UNIQUE ID: ED_43

Melanoma Patient Education: A Scoping Review of Interventions for Non-Hispanic Blacks, Non-Hispanic Asians, and Hispanics

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ABSTRACT

Background: Melanoma, the fastest-growing cutaneous neoplasm, is responsible for 75% of skin cancer-related deaths. Melanoma incidence rates vary significantly by race and ethnicity, with non-Hispanic Blacks (NHBs) exhibiting the lowest annual incidence at 2.3 cases per 100,000, compared to non-Hispanic Whites (NHWs), who have the highest incidence at 18.4 cases per 100,000. Despite these differences, the five-year survival rate for NHBs is 18% lower than that of NHWs. Similarly, non-Hispanic Asians (NHAs) and Hispanics have a 9.4% and 8.5% lower five-year survival rate compared to NHWs, respectively. Racial and ethnic disparities in melanoma survival underscore the need for comprehensive diagnostic criteria that account for presentation differences across patient groups. Hispanic, NHB, and NHA populations often perceive themselves as less susceptible to melanoma, leading to lower rates of self-screening and inadequate sunscreen use. Additionally, melanoma patient education materials often focus on lighter skin phototypes, few are specifically tailored to people of color.

Objective: This scoping review aims to identify and evaluate existing melanoma patient education programs for Hispanics, NHBs, and NHAs, as official recommendations for these populations are limited.

Methods: A literature review was conducted and the following databases were searched for articles without restrictions on publication date: Embase, Cochrane, CINAHL, and MEDLINE. The following keywords were used: (Education OR Health Information OR Health Literacy) AND (Melanoma OR Cutaneous Neoplasm) AND (African American OR Black People* OR Hispanic OR Latino* OR Asian American OR Asian*). Each study was then evaluated for their level of evidence and grade of recommendation in accordance with the Oxford Centre for Evidence-Based Medicine.

Results: Of the 1,093 articles screened, 11 studies met the inclusion criteria. Amongst the selected articles, five were randomized clinical trials (RCTs), five were pre-post studies, and one was a qualitative study. Regarding the types of educational interventions, printed materials were discussed in five studies (5), followed by videos (4), images (3), and group-based activities (2). Aside from NHAs who lacked a video-based educational intervention study, all other educational interventions were covered in NHBs, NHAs, and Hispanic populations.

Conclusions: Our scoping review has identified the current avenues of melanoma education for NHBs, NHAs, and Hispanics, being printed materials, videos, images, and group-based activities. To better understand the impact of educational interventions on melanoma outcomes, further studies are needed to explore the associations between melanoma education and other minority ethnic groups not included in this study, as well as pediatric populations.

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Recognizing the Absence of Phototype Representation for Asian Populations in Dermatology

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ABSTRACT

Background: The persistent homogenization of Asian patients in dermatologic literature and clinical research often overlooks skin phototype, resulting in a failure to differentiate between light-skinned (Fitzpatrick type II-III) and dark-skinned (Fitzpatrick type IV-VI) individuals across diverse Asian subpopulations. This racial monolith in scientific publications disregards the substantial phenotypic heterogeneity observed amongst people of East Asian, South Asian, Southeast Asian, and Pacific Islander descent, whose cutaneous characteristics, melanin density, transepidermal water loss, and photoreactivity differ markedly both within and across these ethnic groups.

Objective: To evaluate existing medical literature for phenotype-based stratification in dermatological research and increase representation for Asian populations in dermatology who are excluded by the Fitzpatrick scale.

Methods: A narrative literature review was conducted to assess representation of phototype differentiation in Asian patient populations. Conceptual limitations of the Fitzpatrick scale in Asian populations were examined through cross-disciplinary sources integrating genetics, environmental exposure, and cultural practices. Phenotype-based stratification methods in Asian populations were examined, including those such as melanin index (MI), skin reflectance analysis, individual typology angle (ITA).

Results: Oversimplification has far-reaching implications: misclassification of skin disease patterns, inaccuracies in assessing erythema or pigmentation changes, suboptimal therapeutic outcomes with laser or light-based modalities, and inadequate photoprotection counseling. The Fitzpatrick system itself, while widely used, often conflates ancestry with UV reactivity, failing to account for the complex interplay between genotype, lived sun exposure, and cultural practices. Clinical trials and epidemiologic studies rarely stratify Asian participants by skin type or pigmentation phenotype, leading to generalized treatment recommendations that inadequately serve either end of the phototype spectrum.

Conclusions: The continued reliance of the Fitzpatrick scale as the default method for skin typing in dermatologic research inadequately reflects the phenotypic heterogeneity within Asian populations. By treating a diverse group as monolithic, current literature and clinical practice contribute to diagnostic imprecision and uneven therapeutic outcomes. Stratification tools grounded in objective measures, such as melanin index, skin reflectance, and Individual Typology Angle (ITA), offer a more accurate representation of skin variation among Asian patients. Research methodologies that account for genetic, environmental, and cultural variability are needed to improve diagnostic accuracy and ensure equitable care in dermatology.

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Investigating Delays in Diagnosis of Hidradenitis Suppurativa in Women of Color

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ABSTRACT

Background: Delays in the diagnosis of hidradenitis suppurativa (HS) amongst women of color represent an obstacle in dermatologic care, driven by structural bias, underrecognition of atypical clinical presentations, and disparities in access to specialty evaluation. HS often first presents with painful nodules, sinus tracts, and scarring in intertriginous areas, but in skin of color, inflammation may appear as hyperpigmented or violaceous plaques rather than classic erythema, leading to frequent misclassification as folliculitis, furunculosis, or non-specific bacterial infection. In skin of color, HS may also coexist with pigmentary sequelae, keloidal scarring, and post-inflammatory hyperpigmentation, which further obscure active disease and delay accurate staging.

Objective: To characterize diagnostic delays in hidradenitis suppurativa among women of color by analyzing the intersection of clinical presentation, structural barriers, and provider bias, with the goal of informing strategies that promote earlier recognition and equitable access to care.

Methods: A narrative literature review was conducted to examine existing evidence on diagnostic delays in hidradenitis suppurativa among women of color. Sources were identified through PubMed and Google Scholar using keywords including "hidradenitis suppurativa," "skin of color," "diagnostic delay," "women," "health disparities," and "clinical misdiagnosis." Relevant qualitative and quantitative data were extracted to explore themes related to atypical morphologic features, frequency of misdiagnosis, patient-provider communication, and health system navigation.

Results: Implicit bias in clinical assessment contributes to normalization of chronic pain and dismissal of lesions as hygiene-related or lifestyle-induced, often resulting in years of ineffective antibiotic regimens before referral to dermatology. Limited representation of skin of color in medical education materials and clinical algorithms compounds diagnostic delays, as most imagery and descriptive criteria emphasize erythematous and ulcerated lesions in lighter phototypes. Socioeconomic factors, including insurance status, mistrust of the healthcare system, and long wait times for dermatology appointments, also hinder timely evaluation, with many women of color reporting an average diagnostic delay of 5 to 10 years. Prolonged intervals between symptom onset and diagnosis lead to progressive architectural damage, increased surgical burden, mental health deterioration, and diminished quality of life.

Conclusions: Improving diagnostic timeliness requires clinician training that emphasizes morphologic variations of HS in melanated skin, integration of pain and drainage history into screening tools, and expansion of community outreach programs focused on early identification and referral in underserved populations disproportionately affected by chronic inflammatory disorders.

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Medicaid and Medicare Reimbursement for Dermatologist-Patient Racial Concordance in Pigmentary Disorders

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ABSTRACT

Background: Pigmentary disorders such as melasma, vitiligo, and lichen planus pigmentosus are among the most common dermatologic concerns in patients with skin of color,[1] yet optimal management is often compromised by limited racial concordance between providers and affected populations. Racial concordance between patients and dermatologists has been associated with improved communication, patient satisfaction, and treatment outcomes,[2-8] yet little is known about how current Medicaid and Medicare structures impact equitable access to racially concordant care or incentivize workforce diversity.

Objective: To synthesize existing literature on the intersection of racial concordance, pigmentary disorder management, and insurance reimbursement, with a focus on clinical outcomes and Medicaid/Medicare reimbursement for racially concordant dermatologist-patient encounters involving pigmentary disorders.

Methods: PubMed, Medline, and Google Scholar databases were searched for relevant articles published between 2000 and 2025. Keywords: included "racial concordance," "dermatology," "skin of color," "pigmentary disorders," "Medicare," "Medicaid," and "reimbursement." Existing policy frameworks and payment models were reviewed to assess for financial incentives that support racially concordant or culturally competent care delivery.

Results: Existing research indicates a systemic underrepresentation of minority dermatologists in both academic and community settings, which limits opportunities for concordant care.[9-11] Reimbursement models under Medicaid and Medicare lack explicit mechanisms to reinforce racial or cultural concordance in provider networks.[12,13] Although racial concordance has been shown to improve patient satisfaction and comfort, current Medicaid and Medicare reimbursement is based solely on service type and work relative value units, with no consideration given to racial or ethnic matching between patients and providers. In addition, Medicaid coverage for treatments commonly used in pigmentary disorders, such as topical tretinoin, is often inconsistent or more restrictive compared to coverage for acne,[14,15] despite the disproportionate burden of pigmentary conditions on patients with skin of color.

Conclusions: Despite evidence that racially concordant care improves patient trust, satisfaction, and adherence, Medicaid and Medicare reimbursement structures fail to acknowledge or support the value of concordant encounters. The lack of targeted reimbursement policies and inconsistent coverage for pigment-specific therapies, such as topical retinoids and pigment modulators, perpetuates disparities in access and outcomes.[16] Refining payment models to incorporate provider diversity metrics and standardize coverage for pigmentary disorder treatments can help align dermatologic policy with population-level needs in skin of color care.

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SKIN OF COLOR UPDATE

UNIQUE ID: IS_01

A Pattern Analysis of Race, Comorbidities, and Treatments in Atopic Dermatitis

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ABSTRACT

Atopic Dermatitis (AD) is known for a wide range of comorbid conditions. Additionally, treatment patterns can help alleviate these comorbidities. We sought to assess whether there were racial differences in comorbidities and treatment patterns in patients with AD.

We accessed de-identified electronic health records from the TriNetX Research Network on May 2, 2025. This database comprises approximately 144 million patients from 102 participating healthcare organizations. Patients who were between 18 and 89 years old at the time of AD diagnosis (ICD-10: L20) were identified, yielding cohorts of 283,293 white and 81,534 black or African American individuals.

Propensity score matching (1:1) was performed based on demographic and clinical covariates, including age at diagnosis, sex, ophthalmic disorders, psychiatric conditions, autoimmune diseases, cardiovascular conditions, infections, bone density disorders, and malignancies. These variables were selected based on previously reported comorbidities associated with AD. After matching, both cohorts included 76,654 patients, with all covariates demonstrating standardized mean differences less than 0.1, indicating successful balancing.

We assessed differences in prescription patterns and healthcare utilization within one year of AD diagnosis using odds ratios (OR) with 95% confidence intervals. Among comorbidities, while most disparities were clinically insignificant, we found significantly increased odds among black AD patients for inflammatory bowel disease and decreased odds for skin neoplasms (Table 1). Among treatment patterns, mean times to follow up were similar between cohorts (309 vs 308 days), while white patients were more likely to be treated with Ruxolitinib (Table 2).

We revealed several important observations among comorbidities and treatment patterns, most notably among inflammatory bowel disease and prescription

Table 1. Comorbidities of Atopic Dermatitis Patients by Race

Diagnosis	White	Black	Odds Ratio	*P*-Value
Essential (primary) hypertension	25416	25845	1.016879131	0.022853026
Asthma	18180	18248	1.003740374	0.6870171
Allergic rhinitis, unspecified	13854	14101	1.017828786	0.105458274
Other anxiety disorders	12374	12911	1.043397446	0.000246474
Type 2 diabetes mellitus	10615	10896	1.026471974	0.04010951
Urinary tract infection, site not specified	9376	9555	1.019091297	0.16709378
Conjunctivitis	7280	7508	1.031318681	0.04954826
Pneumonia, unspecified organism	4076	4327	1.06157998	0.004958423
Major depressive disorder, recurrent	4014	4288	1.068261086	0.002036848
Otitis media, unspecified	3592	3637	1.01252784	0.5884371
Dry eye syndrome	3327	3645	1.095581605	0.000100038
Streptococcal pharyngitis	3139	3232	1.02962727	0.23482686
Food allergy status	2792	2828	1.012893983	0.6251952
Attention-deficit hyperactivity disorders	2310	2436	1.054545455	0.06352235
Other specified disorders of bone density and structure	2020	2319	1.148019802	4.2393E-06
Allergic contact dermatitis	1857	2037	1.096930533	0.003514443
Osteoporosis without current pathological fracture	1710	1948	1.139181287	6.92355E-05
Cerebral infarction	1439	1556	1.081306463	0.03098026
Other rheumatoid arthritis	1349	1471	1.090437361	0.020501958
Acute myocardial infarction	1069	1145	1.071094481	0.103948586
Angina pectoris	1056	1191	1.127840909	0.004139932
Malignant neoplasms of breast (C50)	907	1026	1.131201764	0.006480184
Suicidal ideations	864	936	1.083333333	0.08795716
Systemic lupus erythematosus (SLE)	849	843	0.992932862	0.8834404
Malignant neoplasms of lymphoid, hematopoietic and related tissue	666	680	1.021021021	0.7016129
Alopecia areata	448	447	0.997767857	0.9732629
Crohn's disease [regional enteritis]	380	499	1.313157895	5.71276E-05
Vitiligo	346	360	1.040462428	0.5974897
Ulcerative colitis	318	407	1.279874214	0.00092442
Keratoconus	196	189	0.964285714	0.7209684
Malignant neoplasm of bronchus and lung	188	225	1.196808511	0.068317674
Other and unspecified malignant neoplasm of skin	132	144	1.090909091	0.46973363
Celiac disease	115	133	1.156521739	0.25268564
Malignant neoplasm of brain	66	76	1.151515152	0.40116733
Suicide attempt	65	62	0.953846154	0.79000187
Malignant melanoma of skin	38	24	0.631578947	0.075349376
Malignant neoplasm of pancreas	33	42	1.272727273	0.29858905

Table 2. Odds of Treatment for Atopic Dermatitis Among Selected Therapies

	Odds Ratio	95 % CI Lower	95 % CI Upper	Risk Difference	95 % CI Lower	95 % CI Upper	*P*
Dupilumab	1.1	1.01	1.19	0	0	0	0.02
Ruxolitinib	1.6	1.27	2.01	0	0	0	<0.0001
Tacrolimus	1.1	1.03	1.18	0	0	0	0.01
UV Therapy	1.04	0.87	1.25	0	0	0	0.67
Glucocorticoids	0.88	0.84	0.92	-0.02	-0.03	-0.01	<0.0001

trends for newer medications such as ruxolitinib. Increasing access to newer treatment options can help increase the arsenal of medications available to physicians and patients, while reducing the disease burden of atopic dermatitis.

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UNIQUE ID: IS_02

Clinical Presentations of Cutaneous Lupus Erythematosus in Patients With Skin of Color: A Systematic Review (2005-2025)

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ABSTRACT

Background: Cutaneous lupus erythematosus (CLE) disproportionately affects patients with skin of color (SOC), including African American, Hispanic/Latino, Afro-Caribbean, Māori, South Asian, and Pacific Islander descent. These populations often present with chronic cutaneous lupus erythematosus (CCLE), especially discoid lupus erythematosus (DLE), with pigmentary alteration, scarring alopecia, and altered morphology in comparison to lighter skin tones. Underrepresentation of such characteristics in literature leads to delayed diagnosis, erroneous treatment and exclusion from erythema-based evaluation studies.

Objective: Evaluate the clinical symptoms, pigmentary patterns, lesion distribution, and systemic associations reported in SOC populations between 2005 and 2025.

Methods: Comprehensive review of original studies reporting clinical data in identified SOC or Fitzpatrick IV–VI groups. Non-original research, non-human, and non-English studies were excluded. Clinical, dermoscopic, histopathologic, and systemic feature data were descriptively synthesized.

Results: 47 studies (>2000 SOC patients) were included. DLE was the most common subtype among African American, Afro-Caribbean, Māori, Pacific Islander, Hispanic/Latino, and South Asian populations. In African American and Afro-Caribbean patients, dyspigmentation was near-universal (97-100%): often peripheral hyperpigmentation with central hypo/depigmentation, alongside higher odds of scarring alopecia (OR 3.00), ear lesions (OR 1.97), and scalp lesions (OR 3.00). Compared to Europeans, Māori and Pacific Islander individuals showed increased CLE (RR 2.47) and DLE risk (RR 5.96). Middle Eastern individuals exhibited extensive scarring and mucosal illness, while South Asian populations frequently had widespread DLE, cheilitis, and ulcerative variations. Hispanic/Latino individuals with lupus erythematosus tumidus presented unusually, leading to misdiagnosis. In all groups, lesions were pink, violaceous, hyperpigmented or hypopigmented instead of the typical bright red, leading to decreased erythema ratings and increased risk of trial exclusion. Atypical morphologies included dermoscopic blue-white veils, inflammatory plaques on non-sun-exposed areas, and comedonal DLE that mimicked acne. In certain SOC groups, squamous cell carcinoma (SCC) developed in persistent depigmented or scarred plaques, occasionally exhibiting shorter latency and aggressive behavior.

Conclusions: CLE, especially DLE, presents alternative pigmentary and morphologic characteristics, greater irreversible damage, and a range of systemic associations in SOC patients. Varied CLE presentations among African American, Afro-Caribbean, Hispanic/Latino, South Asian, Indigenous, Pacific Islander, and Māori groups emphasizes the need for SOC-specific trial criteria, descriptors, and pigmentary outcome measures to decrease disparities in diagnosis, treatment, and trial participation.

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UNIQUE ID: IS_04

High-Intensity Focused Ultrasound (HIFU) as a Novel Therapy for Granuloma Annulare

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ABSTRACT

Background: Granuloma annulare (GA) is a chronic granulomatous inflammatory dermatosis characterized by annular plaques. Therapeutic responsiveness to conventional treatments such as corticosteroids and cryotherapy is limited. High-Intensity Focused Ultrasound (HIFU) represents an emerging, non-invasive therapeutic modality capable of inducing localized thermal and mechanical effects within cutaneous tissues. At a frequency of 20 MHz, HIFU facilitates precise energy deposition within a confined focal zone, enabling targeted tissue coagulation within dermatological lesions while preserving adjacent healthy skin structures. The selective approach is advantageous in the treatment of benign and inflammatory skin conditions, where cosmetic outcomes are a critical consideration. In contrast to cryotherapy, which exerts non-specific cytotoxic effects on tissues and is associated with scarring and pigmentary disturbances, HIFU offers a controlled, minimally invasive alternative with superior precision and a reduced risk of aesthetic complications.

Objective: This report documents the clinical application of 20 MHz dermatological HIFU in a 47-year-old female patient with recurring GA lesions unresponsive to corticosteroids and cryotherapy. A total of 22 lesion areas were subjected to HIFU treatment to evaluate efficacy and safety outcomes.

Methods: HIFU treatment was applied using a dermatological 20 MHz system with focal depths of 0.8 mm and 1.3 mm. Single acoustic exposures delivered 0.3-0.6 Joules per pulse for 0.15 seconds, with spacing of 0.75-1.5 mm to encompass the lesion periphery. Numerical finite element modelling was employed to simulate intradermal temperature distributions and necrotic dose volumes. HIFU exposures resulted in peak intralesional temperatures of 68.3-81.2°C, generating necrotic volumes up to 0.258 mm^3, significantly smaller than the 138.5 mm^3 necrotic zones induced by -92.7°C cryotherapy exposure, confirming the superior spatial selectivity of HIFU.

Results: HIFU-treated sites exhibited immediate focal blanching and mild erythema, progressing to superficial crust formation and re-epithelialization over 2-4 weeks. Complete or partial lesion resolution was observed in all HIFU-treated areas, with minimal dyspigmentation or scarring. In comparison, cryotherapy-treated controls demonstrated higher rates of blistering, dyspigmentation, and scarring. The findings correlate with numerical simulations, affirming HIFU-induced localized hyperthermic immunological activation without extensive tissue necrosis.

Conclusions: This case report confirms the potential of 20 MHz HIFU as a non-ablative, immunomodulatory therapeutic alternative for inflammatory dermatoses such as GA. The precise energy minimizes collateral tissue damage and cosmetic sequelae compared to cryotherapy. Further clinical investigations in larger patient cohorts are warranted to validate these findings and to optimize HIFU treatment protocols for inflammatory lesions.

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SKIN OF COLOR UPDATE

UNIQUE ID: IS_05

Impact of a Simplified, Visual Educational Intervention on Caregiver Understanding of Pediatric Atopic Dermatitis: A Clinic-Based Randomized Study

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ABSTRACT

Atopic dermatitis (AD) affects nearly 10 million children in the U.S. and requires continuous caregiver management. While caregiver education improves clinical outcomes, most resources exceed readability guidelines and lack visual reinforcement, disproportionately impacting families with low health literacy. We conducted a pilot study to determine whether a simplified, visually enhanced handout would improve understanding of AD care compared with a conventional, text-dominant handout, and a no-handout control. Forty-seven caregivers were assigned to one of three groups: visual handout, conventional handout, or no handout. All participants completed a 20-item knowledge assessment before and after the intervention. Mean score improvement was highest in the visual group, followed by conventional, and control. The visual handout group possessed a significantly higher mean score improvement than the conventional and control groups, while there was no significant difference in score improvement between the latter groups. These findings illustrate the potential benefit of using simplified, visual educational materials in improving pediatric AD caregiver understanding and reducing disparities in dermatological care.

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Delayed Diagnosis of Cutaneous Lupus Erythematosus in Fitzpatrick V and VI Skin Due to Atypical Erythema Presentation and Absence of Telangiectasia

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ABSTRACT

Background: Cutaneous lupus erythematosus (CLE) remains underdiagnosed in individuals with Fitzpatrick skin types V and VI, in part due to the limited visibility of classical inflammatory signs such as erythema and telangiectasia. Standard diagnostic criteria rely on features like erythematous plaques, peripheral scaling, and vascular prominence, descriptors developed largely through studies in lighter phototypes. In skin of color; however, CLE lesions more often present with violaceous or hyperpigmented hues, follicular plugging, central hypopigmentation, or post-inflammatory dyspigmentation, which can easily be mistaken for benign pigmentary disorders, lichen planus, or other nonspecific dermatoses. Presentation differences contribute to diagnostic delays, often resulting in advanced-stage disease by the time of biopsy or rheumatologic referral. Histopathologic confirmation can occur months to years after symptom onset, during which irreversible scarring, dyspigmentation, or systemic progression may develop. Dermatologic training materials and board resources continue to emphasize morphologic features that do not translate well to skin of color, reinforcing diagnostic uncertainty and structural bias.

Objective: To examine how pigmentary differences impact the clinical recognition of CLE in skin of color and to highlight the limitations of current diagnostic criteria and training materials in capturing these variations.

Methods: A synthesis of clinical observations, histopathologic data, and dermatologic education literature was conducted to assess disparities in CLE diagnosis across skin phototypes. Emphasis was placed on identifying common misdiagnoses, delayed diagnostic pathways, and gaps in dermatologic curricula related to skin of color.

Results: CLE diagnosis is complicated by clinical heterogeneity and frequent overlap with other dermatologic and autoimmune conditions. Over 20 studies reported delays in diagnosis, often due to atypical presentations or limitations in histopathology when used without dermatologic expertise. Biomarkers such as anti-SS-A antibodies and interferon-inducible proteins have shown utility for diagnosis and treatment prediction, though variability in ANA testing persists. Diagnostic classification of CLE subtypes remains inconsistent, particularly between dermatologists and rheumatologists, due to overlapping clinical and serologic features. Dermoscopy, immune cell detection kits, and confocal microscopy offer promise in improving diagnostic accuracy.

Conclusions: Diagnosis of CLE in skin of color requires greater recognition of non-erythematous presentations and pigmentary differences. Advancing equity in dermatologic care depends on diversifying educational materials, refining diagnostic criteria, and integrating developing technologies that account for how skin tone alters disease visibility and presentation. Incorporating high-resolution images of CLE in skin of color and expanding diagnostic criteria to account for pigment-specific presentations, such as follicular plugging, dyspigmentation, and violaceous induration, can improve early detection and reduce disparities in care.

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UNIQUE ID: IS_09

Fox-Fordyce Disease After Laser Hair Removal: A Hidden Consequence of Cosmetic Procedures

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ABSTRACT

Background: Fox-Fordyce disease (FFD) is a rare, chronic inflammatory disorder of apocrine-bearing skin, typically presenting in post-pubertal women with pruritic, follicular papules in the axillae, anogenital, and periareolar regions (Salloum, et al. J Am Acad Dermatol 2022; Litchman, et al. Dermatol Clin 2024). Keratin plugging at the follicular infundibulum leads to apocrine duct obstruction, rupture, and inflammation. Emerging reports implicate laser hair removal (LHR) as an underrecognized iatrogenic trigger.

Objective: To review evidence linking LHR to FFD, outline pathogenic mechanisms, and emphasize the need for clinician awareness.

Methods: A PubMed/Embase literature review (2015–2025) and analysis of dermatology conference proceedings, focusing on clinical, histologic, and mechanistic data from reported cases.

Results: FFD development post-LHR (Alexandrite/diode lasers) is documented, with histology showing infundibular hyperkeratosis, ductal dilation, and perifollicular lymphocytic infiltrates (Sepaskhah, et al. Lasers Med Sci 2024; Zargari, et al. J Cosmet Dermatol 2020). Proposed mechanisms include thermal injury to the infundibulum and wavelength-dependent apocrine-duct disruption (Helou, et al. Dermatol Surg 2013). Treatments (topical corticosteroids, calcineurin inhibitors) yield inconsistent results (Alnoshan, et al. Clin Exp Dermatol 2023).

Conclusions: Temporal and histopathologic patterns suggest LHR may trigger FFD. Dermatologists should consider FFD in delayed-onset follicular eruptions post-LHR. Prospective studies are needed to establish causality and optimize management.

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UNIQUE ID: IS_20

An Evaluation of the Effects of Traditional Hair Greasing Practices on Follicular Occlusion Disorders in Black Women with HS

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ABSTRACT

Background: Traditional hair greasing is a culturally rooted grooming practice among Black women, often involving the use of dense emollients such as petrolatum, mineral oil, and lanolin-based pomades. While widely used for scalp and hairline care, these products may transfer to intertriginous regions such as the axillae, groin, and posterior neck through sleep, manual contact, or clothing friction. Given their occlusive and comedogenic properties, dense emollients may contribute to follicular occlusion and chronic inflammation in individuals predisposed to hidradenitis suppurativa (HS). Black women with HS experience greater disease severity and longer delays to diagnosis, yet hair care practices are rarely considered in clinical evaluations or dermatologic guidelines.

Objective: To investigate the relationship between traditional hair greasing practices and HS, as well as to assess the impact of culturally specific grooming behaviors on follicular occlusion and the distribution of lesions in specific regions.

Methods: A literature review was conducted using PubMed and Google Scholar to investigate the potential relationship between cultural hair greasing practices and follicular occlusion in patients with hidradenitis suppurativa, particularly among individuals with skin of color. Search terms included combinations of: "hidradenitis suppurativa," "follicular occlusion," "African American," "hair grease," "petrolatum," "mineral oil," "emollient use," "hair care practices," and "skin of color." Studies were categorized by: (1) HS pathogenesis and lesion distribution, (2) product-based exposures in skin of color, and (3) sociocultural factors in dermatologic care. Findings were reviewed for recurring patterns, proposed mechanisms of follicular occlusion, and any noted associations between topical product use and HS symptomatology.

Results: The frequent use of occlusive hair products among African American women and a potential link to increased HS lesion density in areas such as the occipital scalp, neck, and axillae. While petrolatum- and mineral oil-based products are widely used, no mechanistic studies have directly examined their role in follicular occlusion in deeply pigmented skin. Increased lesion density in these areas has been observed in patients reporting regular use of greasing products. Research on follicular occlusion in HS has largely excluded consideration of product-related exposures in populations with deeply pigmented skin. Despite these patterns, clinical interviews often omit detailed questions about grooming habits, and HS management guidelines do not address the potential role of culturally specific emollient use.

Conclusions: Traditional hair greasing practices may be a modifiable yet underrecognized factor in the regional expression of HS among Black women. Incorporating questions about grooming routines into patient histories and encouraging research on product-related follicular occlusion can improve culturally informed care.

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The authors report no conflicts of interest

SKIN OF COLOR UPDATE

UNIQUE ID: IS_22

The SCALE-UP Study: Real-world Patient-Reported Effectiveness of Upadacitinib-Treated Adults With Atopic Dermatitis by Fitzpatrick Skin Type and Race

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Keywords: atopic dermatitis, upadacitinib, Janus Kinase inhibitors, skin pigmentation, race factors

ABSTRACT

Background: Atopic dermatitis (AD) is a chronic inflammatory skin condition characterized by severe pruritus and eczematous patches and plaques, impairing quality of life (QoL). Upadacitinib is an oral selective Janus Kinase inhibitor for treatment of moderate-to-severe AD. While clinical trials have demonstrated safety and efficacy of upadacitinib, data regarding its real-world effectiveness are limited, particularly among patients of diverse racial backgrounds and skin types.

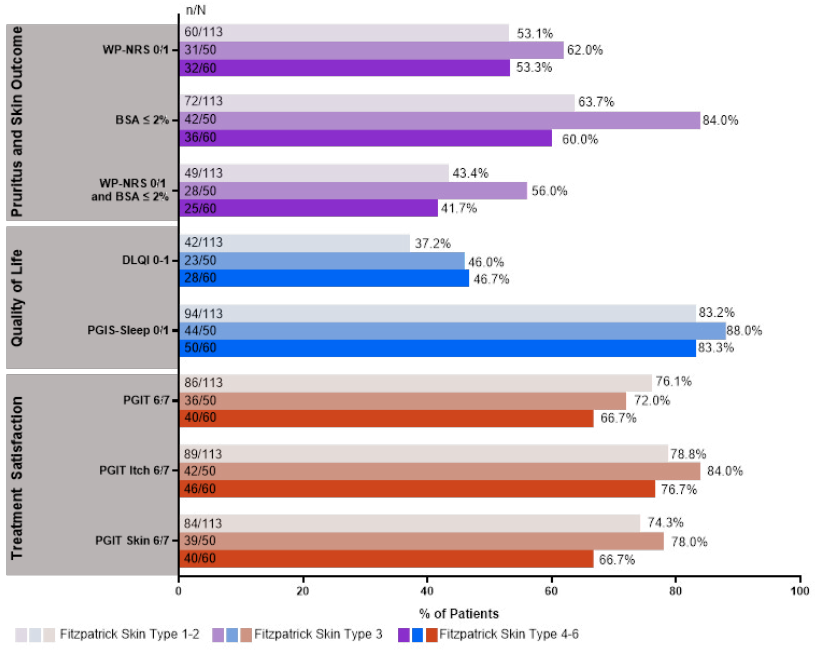
Objective: To evaluate upadacitinib across racial groups and skin types in adults with moderate-to-severe AD by assessing patient-reported symptom relief, disease control, QoL improvement, and satisfaction.

Methods: We evaluated the proportion of patients reporting: little-to-no pruritus (Worst Pruritus Numerical Rating Scale score of 0 or 1 [WP-NRS 0/1]), clear/almost clear skin (body surface area ≤2 palms [BSA≤2%]), no/almost no sleep disturbance (Patient Global Impression of Sleep Disturbance Due to AD [PGI Sleep AD 0/1]), and no impact of AD on QoL (Dermatology Life Quality Index score of 0 or 1 [DLQI 0/1]). Overall treatment satisfaction (Patient Global Impression of Treatment [PGIT]) and satisfaction with pruritus control (PGIT Itch) and skin clearance (PGIT Skin) were assessed, with scores of 6 or 7 indicating high satisfaction. The time to noticeable pruritus improvement and clearer skin were also evaluated.

Results: Of the 224 survey patients (mean age 45.4 years; 71.4% female; 26.8% Fitzpatrick Skin Type 4-6), majority across skin types reported little-to-no pruritus (WP-NRS 0/1; 53.1% Fitzpatrick Skin Type 1-2 | 62.0% Fitzpatrick Skin Type 3 | 53.3% Fitzpatrick Skin Type 4-6 | 54.9% overall sample), clear/almost clear skin (BSA≤2%; 63.7% | 84.0% | 60.0%| 67.4%), and no/almost no sleep disturbance (PGI Sleep AD 0/1; 83.2% | 88.0% | 83.3%| 84.4%), while many reported clear/almost clear skin and little-to-no pruritus (BSA≤2% & WP-NRS 0/1; 43.4% | 56.0% | 41.7%| 45.5%) and no impact of AD on QoL (DLQI 0/1; 37.2% | 46.0% | 46.7%| 41.5%). Most were very/extremely satisfied with pruritus control (PGIT Itch 6/7; 78.8% | 84.0% | 76.7%| 79.5%), skin clearance (PGIT Skin 6/7; 74.3% | 78.0% | 66.7%| 73.2%) and overall satisfaction (PGIT 6/7 76.1% | 72.0% | 66.7%| 72.8%) with upadacitinib. (Figure 1). Patients with pruritus improvement reported noticing improvement (29.2% | 18.8% | 36.8%| 28.8% within 24 hours; 69.8% | 60.4% | 61.4%| 65.5% within 3 days). Those with clearer skin reported improvement within days (36.9% | 35.4% | 21.6%| 32.5% within 3 days; 74.8% | 70.8% | 52.9%| 68.5% within 7 days). These patterns were generally consistent across races.

Conclusions: Adults with moderate-to-severe AD treated with upadacitinib in real-world clinical practice reported high levels of skin clearance, pruritus relief, treatment satisfaction, and improved sleep and QoL across all skin types. Response rates were consistent across racial groups and the overall sample.

Figure 1. Proportion of patients categorized by Fitzpatrick Skin Type reporting pruritus and skin outcomes (shades of purple), quality of life (shades of blue) measures, and treatment satisfaction (shades of red).



DISCLOSURES:
Nada Elbuluk – Abbvie, Beiersdorf, Dior, Eli Lilly, Galderma, Incyte, La Roche Posay, L'Oreal, Medscape, McGraw Hill, Pfizer, Sanofi, Teva, Kao, Kenvue, Dior, Canfield, Pfizer, Sanofi – consultant, advisory board member, and/or speaker. Brian M. Calimlim, Katherine Altman, Chao Li, and Bang Truong – AbbVie – Employee – may hold stock and/or stock options in the company. Chesahna Kindred – Abbvie, Aerolase, Janssen, Lilly, Nutrafol, Novartis, Pfizer, Regeneron, Sun Pharmaceuticals, UCB - advisory board and/or speaker, xtressé - founding advisor, AAD - Web content reviewer, Journal of the National Medical Association: editor, Cutis: journal editor, SOC Advisory Board. Andrew F. Alexis – Leo, Galderma, Pfizer, Sanofi-Regeneron, Genzyme, Dermavant, Beiersdorf, Ortho, L'Oreal, BMS, Bausch health, UCB, Arcutis, Janssen, Allergan, Almirall, Abbvie, Amgen, VisualDx, Eli Lilly, Swiss American, Incyte, Castle, Apogee, Canfield, Alphyn, Genentech, Boehringer Ingelheim, Symrise, Novartis – Speaker, Regeneron, SANOFI-Genzyme, L'Oreal, Janssen, Aerolase – Advisory board/Consulting, Leo, Amgen, Arcutis, Dermavant, Abbvie, Castle, Incyte – Grants (funds to institution), Springer, Wiley-Blackwell, Wolters Kluwer Health, Elsevier – Scientis Royalties, Aerolase – Equipment. Arielle G Bensimon and Jiaxuan Liu – Analysis Group, Inc., – Employee – Analysis Group, Inc. received funding from AbbVie for the conduct of this research. Christopher G Bunick – AbbVie, Allergan, Almirall, Apogee, Arcutis, Connect BioPharma, Daiichi Sankyo, EPI Health/Novan, LEO, Lilly, Novartis, Ortho Dermatologics, Palvella, Pfizer, SUN Pharmaceuticals, Sanofi Regeneron, Skinosive, Takeda, Timber, and UCB – investigator and consultant

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Skin Clearance and Itch Relief in Black or African American Patients with Moderate-to-Severe Atopic Dermatitis Treated with Upadacitinib: 140-Week Outcomes from Integrated Phase 3 Measure Up 1 and 2 Studies

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ABSTRACT

Background: Clinical phenotypes and endotypes of atopic dermatitis (AD) may vary across diverse populations. Although Black or African American patients exhibit a high overall burden of disease, an evidence gap remains in understanding outcomes of advanced therapies in this population.

Objective: To evaluate the efficacy and safety profile of upadacitinib 15 or 30 mg (UPA15 or UPA30, respectively) once daily monotherapy in Black or African American patients with moderate-to-severe AD.

Methods: This post-hoc integrated analysis of the Measure Up 1 and 2 phase 3 trials (NCT03569293; NCT03607422) included Black or African American patients randomized to double-blinded oral UPA15, UPA30, or placebo for 16 weeks, with 140-week data included from a blinded extension period (daily UPA15 or UPA30). Optimal treatment targets for skin, itch, and quality of life (QoL) improvement included 90% improvement of Eczema Area and Severity Index (EASI 90), validated Investigator Global Assessment for Atopic Dermatitis score of 0 or 1 (vIGA 0/1), Worst Pruritus Numeric Rating Scale of 0 or 1 (WP-NRS 0/1), and Dermatology Life Quality Index of 0 or 1 (DLQI 0/1). Minimal disease activity (MDA) was defined as simultaneous achievement of EASI 90 and WP-NRS 0/1. Lichenification was assessed as improved EASI and Scoring Atopic Dermatitis (SCORAD) component scores. Clinically meaningful reduction in Patient-Oriented Eczema Measure (ΔPOEM≥4) and impact of AD on sleep (Atopic Dermatitis Impact Scale Sleep domain; ΔADerm-IS Sleep≥12) were assessed. Non-responder imputation was used in the analysis through week 16 and observed cases at weeks 52 and 140. Adverse events were evaluated through weeks 16 and 140.

Results: This analysis included 112 Black or African American patients (UPA15, n=47; UPA30, n=27; placebo, n=38). Demographics were consistent across groups (48.1-61.1% female, mean age 33.2-37.3 years). At week 16 (Figure 1), UPA15- and UPA30-treated patients achieved reduction in AD severity and extent (EASI 90: 34.9|57.7%), little-to-no itch (WP-NRS 0/1: 25.6|38.5%) MDA (14.0|34.6%), and no effect on patient's life (DLQI 0/1: 35.1|34.8%). Patients with moderate-to-severe lichenification demonstrated substantial improvement. Improvements were sustained with long-term treatment. At week 140 (Figure 2), 91.7% of UPA15-treated patients achieved EASI 90, 75.0% reported WP-NRS 0/1, 70.8% achieved MDA, and 94.7% experienced clinically meaningful improvement in the impact of AD on sleep. Similar trends were observed for a majority of UPA30-treated patients across most outcome measures. No new safety signals were identified in this racial group.

Conclusions: Black or African American patients treated with upadacitinib achieved optimal targets for skin clearance, itch relief, and QoL. The safety profile was consistent with prior studies, confirming upadacitinib is safe and efficacious as a long-term treatment for moderate-to-severe AD in Black or African American patients.

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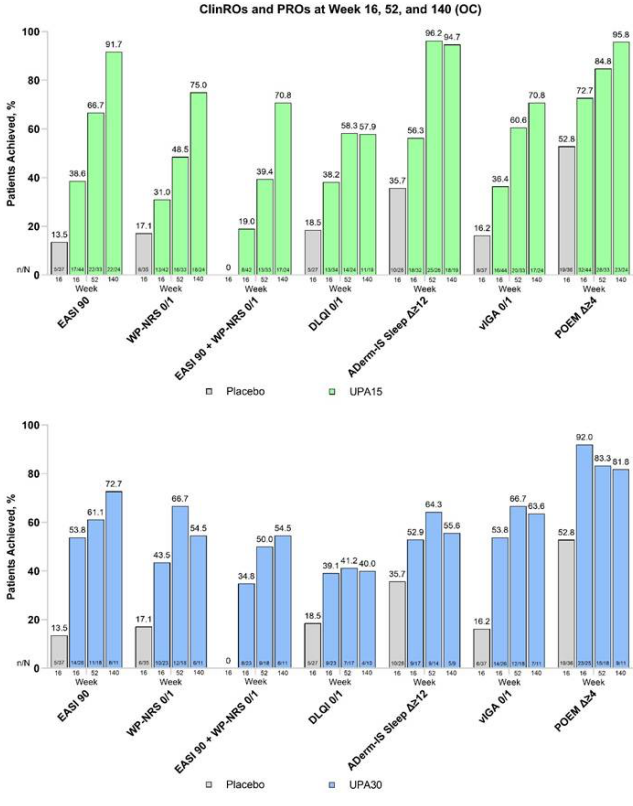
AbbVie funded this study and participated in the study design, research, data collection, analysis, interpretation of data, reviewing, and approval of the abstract. All authors had access to relevant data and participated in the drafting, review, and approval of this abstract. Medical writing support was provided by Alexis League, PhD, of Phoenix Rising Communications, and funded by AbbVie.

Figure 1. Achievement of optimal and clinically meaningful targets for ClinROs and PROs throough 140 weeks of treatment with upadacitinib 15 or 30 mg in Black or African American patients with moderate-to-severe AD.



Outcomes for Black or African American patients treated with (top) UPA15 and (bottom) UPA30 at week 16, week 52, and week 140 presented as observed case data during the placebo-controlled period and long-term extension. AD, Atopic Dermatitis; ADerm-IS, Atopic Dermatitis Impact Scale; ClinRO, Clinician-reported Outcome;DLQI, Dermatology Life Quality Index; EASI, Eczema Area and Severity Index; MDA, Minimal Disease Activity; NRI, Non-responder Imputation; OC, Observed Cases; POEM, Patient-Oriented Eczema Measure; PRO, Patient-reported Outcome; UPA15, upadacitinib 15 mg; UPA30, upadacitinib 30 mg; vIGA, validated Investigator Global Assessment for Atopic Dermatitis; WP-NRS, Worst Pruritus Numerical Rating Scale.

SKIN OF COLOR UPDATE

DISCLOSURES:
AA- Dr. Alexis is a consultant, advisory board member, and/or speaker for Leo, Galderma, Pfizer, Sanofi-Regeneron, Dermavant, Beiersdorf, Ortho, L'Oreal, BMS, Bausch health , UCB, Arcutis, Johnson & Johnson, Allergan, Almirall, AbbVie, Amgen, VisualDx, Eli Lilly, Swiss American, Incyte, Castle, Apogee, Canfield, Alphyn, Genentech, Boehringer Ingelheim, Symrise, Novartis, HairDays, Botanix, Alumis, Regeneron, SANOFI-Genzyme, L'Oreal, Janssen, Aerolase, and Scientis. He has received royalties or equipment from Springer, Wiley-Blackwell, Wolters Kluwer Health, Elsevier, and Aerolase. His institution has received funds from Leo, Amgen, Arcutis, Dermavant, AbbVie, Castle, Incyte, and Genentech. AF- Dr. Friedman is an advisory board member for AbbVie, Arcutis, Galderma, Novartis, Pfizer, Pierre Fabre, Regeneron Pharmaceuticals Inc., and Sanofi, a speaker for Eli Lilly, Incyte, Janssen, Regeneron Pharmaceuticals Inc., and Sanofi, and a recipient of a grant/honoraria from Cerave, Eli Lilly, Galderma, Incyte, La Roche-Posay, and Pfizer. NE- Dr. Elbuluk has served as a consultant, advisory board member, and/or speaker for Avita, Incyte, VisualDx, La Roche Posay, Beiersdorf, Allergan, Eli Lilly, Galderma, Pfizer, Takeda, Abbvie, Janssen, Sanofi, L'Oreal, McGraw-Hill, Dior, Medscape, Kao USA, Canfield, Kenvue. She has grant funding from Pfizer, has received royalties from McGraw-Hill, and has stock options in VisualDx. KL- Dr. Lal is a speaker for Arcutis, Organon, Abbvie, Pfizer, Galderma, Amgen, Sanofi, Regeneron, Eli Lilly, Incyte, Boehringer Ingelheim, and Botanix. MS- Dr. Shahriari has served as a consultant, investigator and/or speaker for: AbbVie, Alumis, Amgen, Apogee, Arcutis, Bristol Myers Squibb, CorEvitas, Organon, Galderma, Pfizer, Incyte, Janssen, Leo Pharma, Lilly USA, Oruka, Novartis, Sanofi-Genzyme, Takeda, Regeneron, and UCB. CK- Dr. Kindred is a recipient of honoraria from Lilly, Pfizer, AbbVie, Selphyl, Aerolase, Sun Pharma, and Regeneron. CO, ML, BC, AG- Drs. Obi, Lane, Calimlim, and Grada are employees of AbbVie, and may hold stock and/or stock options in the company. SD- Dr. Desai is a clinical investigator and a consultant for multiple entities, including Eli Lilly and Company, holds multiple leadership positions in medical organizations, and a recipient of honoraria from L'Oreal.

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Dupilumab Monotherapy in Patients With Skin of Color and Moderate-to-Severe Atopic Dermatitis: Results: From a Phase 4, Open-Label Study

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ABSTRACT

Background: Skin of color (SoC) patients with atopic dermatitis (AD) experience high disease prevalence, severity, and quality-of-life burden, but have historically been underrepresented in clinical trials. Subgroup analyses of dupilumab phase 3 studies, despite limited sample size, showed a risk-benefit profile in patients with SoC comparable to that of the overall AD population.[1]

Objective: The DISCOVER, phase 4, open-label, single-arm, 24-week study aimed to further evaluate the efficacy and safety of dupilumab in patients with SoC and moderate-to-severe AD.

Methods: Eligible patients were ≥12 years old, had Fitzpatrick skin types IV/V/VI, and moderate-to-severe AD. Patients self-reporting as White/Caucasian were ineligible. Patients received dupilumab monotherapy every 2 weeks for 24 weeks (≥30 to <60 kg: 200 mg; ≥60 kg: 300 mg). The primary endpoint was 75% improvement in Eczema Area and Severity Index score (EASI-75). The secondary endpoint was ≥4-point improvement on Peak-Pruritus Numeric Rating Scale (PP-NRS). Pigmentary changes were evaluated using clinician-reported Post-Inflammatory Hyperpigmentation Severity Scale (PHSS; 0 [normal] to 8 [severe]) and the newly developed patient-reported Xerosis NRS. Safety was also evaluated. Data are reported as observed.

Results: From the 120 patients in this study, 81.7% were Black, 10.8% Asian, and 7.5% Other; 42.5%, 48.3%, and 9.2% had Fitzpatrick skin types IV, V, and VI, respectively. At Week 24, 76.0% achieved EASI-75 (primary endpoint). 52.7% and 65.6% achieved ≥4-point or ≥3-point improvement in PP-NRS at Week 24, respectively. Mean PHSS score decreased by 52.9%, from 5.1 at baseline (moderate/marked) to 2.4 at Week 24 (slightly noticeable). Patients "very/extremely bothered" by dry skin per Xerosis NRS decreased from 77.8% at baseline to 17.5% by Week 24. No treatment-related serious adverse events were reported.

Conclusions: Dupilumab monotherapy improved AD signs and symptoms, and reduced AD-related post-inflammatory hyperpigmentation and patient-reported xerosis in SoC patients with moderate-to-severe AD.

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1. Alexis AF, et al. Efficacy of dupilumab in different racial subgroups of adults with moderate-to-severe atopic dermatitis in three randomized, placebo-controlled phase 3 trials. *J Drugs Dermatol.* 2019;18:804-813.

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Dupilumab Monotherapy Improves Dyspigmentation and Xerosis in Patients with Skin of Color and Moderate-to-Severe Atopic Dermatitis

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Keywords: atopic dermatitis, dupilumab, dyspigmentation, skin of color, xerosis

ABSTRACT

Background: Patients with atopic dermatitis (AD) with skin of color (SoC) often present with distinct clinical manifestations (e.g. distribution, pigmentation, and overall appearance of lesions), commonly experience xerosis (dry skin), and are at a high risk of developing post-inflammatory dyspigmentation.

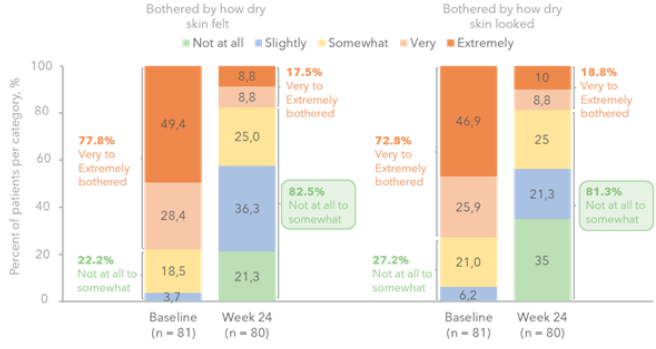
Objective: This analysis aims to report the effect of dupilumab monotherapy on dyspigmentation and skin dryness in SoC patients with AD included in the DISCOVER trial (NCT05590585), using newly developed tools.[1]

Methods: DISCOVER was a phase 4, open-label trial that included patients (≥12 years of age) with moderate-to-severe AD, Fitzpatrick skin type IV, V, or VI, Investigator's Global Assessment (IGA) ≥3, Eczema Area and Severity Index (EASI) score ≥16, affected body surface area (BSA) ≥10%, and weekly average Peak Pruritus Numeric Rating Scale (PP-NRS) score of ≥4. Exclusion criteria included self-reported Caucasian/White race. Patients received dupilumab (200 mg for body weight (≥30 to <60 kg; 300 mg for ≥60 kg) every 2 weeks for 24 weeks. Dyspigmentation in AD (D-AD) and Xerosis in AD (X-AD) are newly developed patient-reported outcome questionnaires assessing AD-related dyspigmentation and xerosis.[1] D-AD assesses the worst skin dyspigmentation (hyperpigmentation and hypopigmentation separately) over the last 7 days (0 [no skin lightening/ darkening at all] to 10 [worst skin lightening/darkening possible]) and associated bother for both, using a 5-point scale from 0 (not bothered at all) to 4 (extremely bothered). X-AD assesses worst xerosis over the last 7 days (0 [not dry at all] to 10 [extremely dry]) as well as how bothered patients were about how dry skin felt and looked (0 [not bothered at all] to 4 [extremely bothered]). Data are reported as observed regardless of rescue treatment and study withdrawal.

Results: 120 patients were included. Mean (SD) age was 37.6 (16.9) years, 46.7% of patients were female, self-reported race was 81.7% Black/African American; 10.8% Asian; 7.5% other, and 43%, 48%, and 9% had Fitzpatrick skin type IV, V, and VI, respectively. From baseline to Week 24, mean (SD) scores improved for hypopigmentation (5.3 [2.6] to 3.7 [2.0]), hyperpigmentation (6.3 [2.4] to 4.5 [2.6]), and xerosis (8.2 [1.9] to 4.8 [2.7]). The proportion of patients reporting being very or extremely bothered about the appearance of lightened skin and darkened skin decreased from 37.7% to 10.9% and 55.1% to 26.3% from baseline to Week 24, respectively. The proportion of patients reporting being very or extremely bothered by how dry their skin felt and by how dry their skin looked decreased from 77.8% and 72.8% at baseline to 17.5% and 18.8% by Week 24 (Figure). Safety was consistent with the known dupilumab safety profile.

Conclusions: Dupilumab monotherapy improved the severity and bother related to dyspigmentation and xerosis in SoC patients with moderate-to-severe AD.

Figure. Proportion of patients per category for how bothered patients were by how dry their skin (a) felt and (b) looked (X-AD).



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DISCLOSURES:

Alexis AF: AbbVie, Amgen, Arcutis, Castle, Dermavant, Incyte, LEO – grants (funds to institution); AbbVie, Allergan, Almirall, Alphyn, Amgen, Apogee, Arcutis, Bausch Health, Beiersdorf, BMS, Boehringer Ingelheim, Canfield, Castle, Dermavant, Eli Lilly, Galderma, Genentech, Incyte, Janssen, LEO, L'Oréal, Novartis, Ortho, Pfizer, Sanofi-Regeneron Pharmaceuticals Inc., Swiss American, Symrise, UCB, VisualDx – advisory board/consulting; Aerolase, Janssen, L'Oréal, Regeneron Pharmaceuticals Inc., Sanofi, Scientis – speaker; Elsevier, Springer, Wiley-Blackwell, Wolters Kluwer Health – royalties; Aerolase – equipment. Markowitz O: Acelyrin, Alastin, Alumis, Amgen, Argenix, Bristol Myers, Candela Medical, Celldex, DAMAE Medical, Dermtech, Eli Lilly, Evommune, Galderma, Incyte, Inmagene, Janssen, Pfizer, RAPT, Regeneron Pharmaceuticals Inc., Sanofi, SquibbCelldex – principal investigator. Mayo T: AbbVie, Acelyrin, Arcutis, BMS, ChemoCentryx, Eli Lilly, Galderma, Janssen, LEO Pharma, Merck, Novartis, Pfizer, Procter and Gamble, UCB – investigator or consultant. Callender VD: AbbVie/Allergan, Avava, Eli Lilly, Eirion Therapeutics, Incyte, Janssen, Pfizer, Prollineum, Regeneron Pharmaceuticals Inc., Symatese, Teoxane – investigator and/or grants; Almirall, Beiersdorf, Estée Lauder, Jeunes Aesthetics, L'Oréal, Ortho Derm, SkinCeuticals – advisory board/consultant; Aerolase, Arcutis, L'Oréal, Pfizer – speaker; UpToDate – royalties. Levit NA: Regeneron Pharmaceuticals Inc. – former employee and shareholder; AbbVie, Arcutis, Bristol Myers Squibb, Eli Lilly, Galderma, Incyte, LEO Pharma, Pfizer, Regeneron Pharmaceuticals Inc., Sanofi – consultant and/or speaker. Xia C, Wang Z, Hartford C: Regeneron Pharmaceuticals Inc. – employees and shareholders. Chuang CC: Sanofi – employee, may hold stock and/or stock options in the company.

SKIN OF COLOR UPDATE

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Post-Inflammatory Pigmentation Reductions in Patients with Atopic Dermatitis with Skin of Color Treated with Dupilumab Monotherapy

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ABSTRACT

Background: In patients (pts) with skin of color (SoC), atopic dermatitis (AD) may be more prevalent and of greater severity than in pts with white skin. SoC pts with AD often present with distinct clinical manifestations, including differences in distribution, pigmentation, and overall appearance of AD lesions, and are at a higher risk of developing post-inflammatory dyspigmentation.

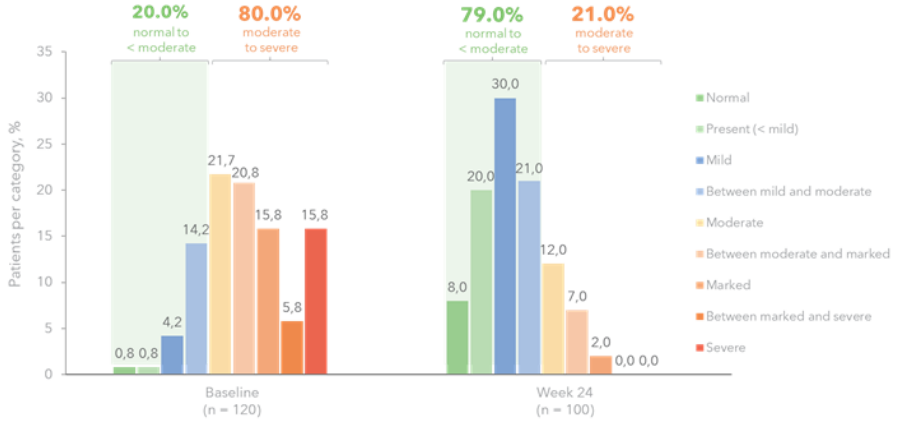
Objective: This analysis reports the effect of dupilumab monotherapy on post-inflammatory pigmentary changes in SoC pts with moderate-to-severe AD using data from the DISCOVER trial (NCT05590585).

Methods: DISCOVER was an open-label trial that included pts (≥12 years) with moderate-to-severe AD, Fitzpatrick skin type IV, V, or VI, Investigator's Global Assessment (IGA) score ≥3, Eczema Area and Severity Index (EASI) score ≥16, affected body surface area (BSA) ≥10%, and weekly average of Peak Pruritus Numeric Rating Scale (PP-NRS) score ≥4. Pts self-reporting Caucasian/White race were excluded. Pts received dupilumab (≥30 kg to <60 kg: 200 mg; ≥60 kg: 300 mg) every 2 weeks for 24 weeks. Here, we report on the Post-inflammatory Hyperpigmentation Severity Scale (PHSS) overall disease severity, the proportion of pts achieving ≥2-, ≥3- and ≥4-point improvement in PHSS overall over time, and the PHSS subscales: pigmentary intensity of hyperpigmented lesions, area of hyperpigmented lesions, and degree of hypopigmentation. Analyses included all observed data regardless of whether rescue treatment was used, or whether data were collected after study drug withdrawal.

Results: 120 pts were included: mean (SD) age 37.6 (16.9) years; 46.7% female; 81.7% Black/African American; 10.8% Asian; 7.5% other. Fitzpatrick skin type IV, V, and VI proportions were 43%, 48%, and 9%, respectively. At baseline, 80.0% of pts reported "moderate" to "severe" disease according to the PHSS overall disease score. The proportion of pts reporting "between mild and moderate" to "normal" disease severity increased from 20.0% at baseline to 79.0% at Week 24 (Figure). The proportions of pts achieving ≥2-, ≥3- and ≥4-point improvement from baseline in PHSS overall disease severity progressively increased from baseline to 73.5%, 60.6%, and 38.8%, respectively, at Week 24. The proportion of pts reporting "moderate" to "severe" intensity of hyperpigmented lesions decreased from 78.3% at baseline to 35.0% at Week 24. The proportion of pts with area of hyperpigmented lesions <25% ("mild" to "none") increased from 39.2% at baseline to 78.0% at Week 24. "Moderate" to "severe" hypopigmentation was present in 22.5% of pts at baseline, decreasing to 14.0% at Week 24. Safety was consistent with the known dupilumab safety profile.

Conclusions: Dupilumab monotherapy improved post-inflammatory pigmentary changes in SoC pts with moderate-to-severe AD. Additionally, our results suggest that hyperpigmentation in SoC pts with AD is a more common clinical issue compared with hypopigmentation.

Figure. Categorical change in PHSS overall at baseline and Week 24.



Sanofi – consultant and/or speaker. Xia C, Levy S, Shumel B, Zahn J: Regeneron Pharmaceuticals Inc. – employees and shareholders. Kwinten B: Sanofi – employee and shareholder.

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Improvements in Patient-Reported Outcomes and Quality of Life with Dupilumab Monotherapy in Patients with Skin of Color and Moderate-to-Severe Atopic Dermatitis

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ABSTRACT

Background: Patients (pts) with atopic dermatitis (AD) with skin of color (SoC) have historically been underrepresented in clinical trials and scientific literature. United States population-based studies demonstrated a higher prevalence of AD in African American (19.3%) vs European American children (16.1%), and a significantly higher risk of developing AD for Black vs White children.[1–3] Moreover, pts with SoC may experience disproportionately high AD disease severity, long-term pigmentary sequelae, and a potentially greater impact on their quality of life (QoL) vs pts with white skin.

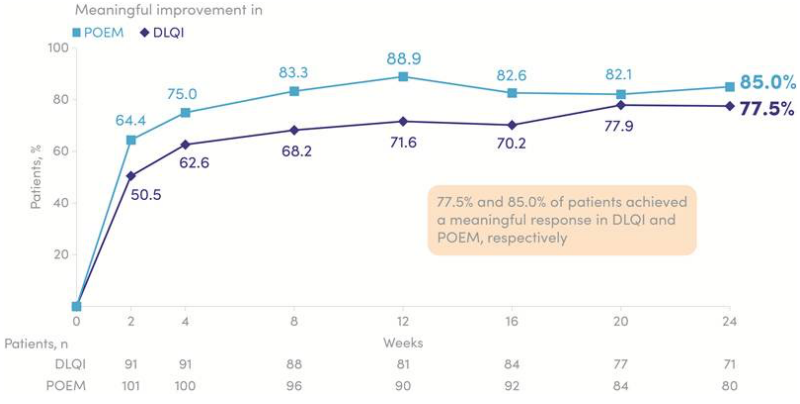
Objective: To report the impact of dupilumab on patient-reported outcomes (PROs) and QoL in SoC pts with moderate-to-severe AD.

Methods: The open-label DISCOVER trial (NCT05590585) included pts (≥12 years) with moderate-to-severe AD, Fitzpatrick skin type IV, V, or VI, Investigator's Global Assessment score ≥3, Eczema Area and Severity Index score ≥16, affected body surface area (BSA) ≥10%, and weekly average of Peak Pruritus Numeric Rating Scale score ≥4. Pts self-reporting Caucasian/White race were excluded. Pts received dupilumab (≥30kg to <60kg: 200mg; ≥60kg: 300mg) every 2 weeks for 24 weeks. We report proportions of pts with meaningful change from baseline (BL; ≥4-point improvement) in Dermatology Life Quality Index (DLQI) and Patient-Oriented Eczema Measure (POEM), and mean change in DLQI and POEM over time; proportions of pts at BL and Week (W)24 by Patient Global Impression of Disease (PGID) category (very severe, severe, moderate, mild, no disease), and at W24 by Patient Global Impression of Change (PGIC) category (much worse, moderately worse, a little worse, no change, a little better, moderately better, much better). Data are as observed regardless of whether rescue treatment was used, or whether data were collected after study drug withdrawal.

Results: 120 pts were included: mean (standard deviation; SD) age 37.6 (16.9) years; 46.7% female; 81.7% Black/African American; 10.8% Asian; 7.5% other; 42.5%, 48.3%, and 9.2% with Fitzpatrick skin type IV, V, and VI, respectively. Mean DLQI (SD) decreased from 13.1 (7.6) at BL (very large effect on QoL) to 5.2 (5.9) at W24 (small effect on QoL), and POEM decreased from 18.3 (6.4) at BL (severe disease) to 7.1 (6.7) at W24 (mild disease). At W24, 77.5% and 85.0% of pts achieved a ≥4-point improvement from BL in DLQI and POEM, respectively (Figure). On to the PGID, the proportion of pts self-reporting "severe" to "very severe" disease decreased from 67.3% at BL to 11.3% at W24. On the PGIC, 76.9% of pts reported that their impression of disease change from BL to W24 was "moderately better" to "much better". Safety was consistent with the known dupilumab safety profile.

Conclusions: Prior to treatment, SoC pts with moderate-to-severe AD experienced high disease severity and a very large effect on QoL. Treatment with dupilumab improved PROs and QoL, and by W24, pts reported mild disease and a small effect on QoL.

Figure. Dupilumab treatment reduces mean total IgE levels over 24 weeks in patients with SoC and moderate-to-severe AD.



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Systemic Treatment Outcomes for Pediatric Atopic Dermatitis in Minority Groups: PEDISTAD 4-Year Results

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ABSTRACT

Background: The prevalence of atopic dermatitis (AD), a chronic inflammatory skin condition, is higher in individuals from ethnic/racial minority groups compared with individuals of European ancestry. Additionally, there is variation in the clinical features of AD, and in the AD risk loci depending on the ethnicity of the individual. Despite this, most research focuses on European populations.

Objective: This analysis aims to report the effect of systemic therapies on clinician-reported outcomes in pediatric patients with AD from ethnic/racial minority groups.

Methods: PEDISTAD (NCT03687359) is an ongoing, global, 10-year, observational registry that enrolled children younger than 12 years. This interim 4-year analysis reports the effect of dupilumab, methotrexate, and cyclosporine on Eczema Area and Severity Index (EASI) scores and percentage affected body surface area (BSA). Discontinuation rates and safety were also evaluated. Outcomes for American or Alaskan Native, Asian, Black or African American, and multiracial patients were pooled and reported descriptively.

Results: Of the 181 patients from ethnic/racial minority groups, 102 were Asian, 51 were Black or African American, 19 were multiracial, and 9 were American Indian or Alaska Native. Of these 181 patients, 91 received dupilumab, 35 received methotrexate, and 55 received cyclosporine. The mean (SE) treatment duration for patients receiving dupilumab, methotrexate, or cyclosporine were 26.0 (1.3) months, 21.6 (3.0) months, and 16.3 (2.1) months, respectively. Clinician-reported outcomes (mean change ± SE) from treatment start to last observation for patients who received dupilumab, methotrexate, or cyclosporine were: EASI scores (–13.6 ± 1.1, –8.2 ± 1.8, –9.2 ± 1.5) and BSA (–20.0 ± 2.9, –16.2 ± 3.6, –16.5 ± 2.8). The 4-year cumulative discontinuation rates for patients receiving dupilumab, methotrexate, or cyclosporine were 14.3%, 42.9%, and 65.5%, respectively. Dupilumab safety was consistent with the known dupilumab safety profile.

Conclusions: Pediatric patients with AD from ethnic/racial minority groups receiving dupilumab had numerically greater improvement in AD signs and extent and lower discontinuation rates compared with patients receiving methotrexate or cyclosporine.

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Dupilumab Safety and Efficacy Up to 3 Years Across Racial Subgroups in Pediatric Patients Aged 6 Months to 11 Years With Atopic Dermatitis

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ABSTRACT

Background: Racial differences in the presentation, prevalence, and severity of atopic dermatitis (AD) are well-documented. Long-term data on disease characteristics and treatment response across pediatric racial subgroups are lacking.

Objective: Safety and efficacy of dupilumab (DPL) were evaluated for up to 3 years in infants and children with AD from different racial subgroups.

Methods: Infants and children aged 6 mo–5 yr with moderate-to-severe AD and children aged 6–11 yr with

severe AD enrolled in an open-label extension study (NCT02612454) after prior DPL trials (NCT03346434, NCT03345914). Patients (pts) received weight-based doses of DPL (200/300 mg every 4 or 2 weeks). Topical treatments were allowed. Here, pts were categorized into 2 subgroups based on self-reported race: White vs Asian, Black/African American (AA), and Other. Safety and percentage change from baseline in body surface area (BSA), Eczema Area and Severity Index (EASI), and SCORing Atopic Dermatitis (SCORAD) were reported through Week (W)152. Data are as observed. Results: 400/554 (72.2%) pts self-identified as White and 154 (27.8%) as Asian, Black/AA, and Other. Study completion rates for White vs Asian, Black/AA, and Other pts were 88.8% vs 81.8% at W52, 77.5% vs 62.3% at W104, and 68.0% vs 47.4% at W152. Mean (SD) treatment exposure was 117.9 (45.4) weeks for White and 104.2 (50.5) weeks for Asian, Black/AA, and Other pts.

Pts from the Asian, Black/AA, and Other subgroup had more severe baseline disease and higher rates of treatment discontinuation vs White pts. By W152, 22.3% of White and 39.6% of Asian, Black/AA, and Other pts discontinued treatment, most often due to patient withdrawal (6.3% and 11.0%) or other reasons (9.0% and 11.0%); differences may reflect a contrast in sample size between subgroups. Discontinuation due to lack of efficacy or adverse events (AEs) occurred in <2.0% of pts in either group.

Treatment-emergent AEs (TEAEs) occurred in 89.5% of White and 84.4% of Asian, Black/AA, and Other pts. Common treatment-related TEAEs (White vs Asian, Black/AA, and Other) included allergic conjunctivitis (2.5% vs 3.2%), nasopharyngitis (2.3% vs 1.3%), and blepharitis (0.5% vs 2.6%). Most TEAEs causing permanent discontinuation (5/6), including one serious food-related anaphylaxis in a White patient, resolved or resulted in recovery. Both drug-related serious TEAEs (1 patient per subgroup) also resolved or recovered. From parent study baseline BSA reduced by >80% (–85.5% White vs –80.3% Asian, Black/African American, and Other), SCORAD decreased by approx. 70% (–71.2% vs –69.4%), EASI scores improved by >85% (–89.6% vs –85.5%), and nearly 90% of all pts achieved EASI-75 by W152.

Conclusions: DPL treatment provided meaningful improvements in clinical outcomes for infants and children with AD across racial subgroups. The safety profile remained consistent with the established safety data for DPL, supporting its use in diverse pediatric populations with AD.

DISCLOSURES:
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Real-World Effectiveness of Dupilumab in African American Patients with Atopic Dermatitis: 3-Year Data From the PROSE Registry

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ABSTRACT

Background: Some evidence suggests African-American patients with atopic dermatitis (AD) may have distinct phenotype and endotype, although clinical trials do not reveal marked treatment response differences from other self-reported race categories.

Objective: This study aimed to analyze real-world treatment responses in a large registry of African-American patients on dupilumab therapy for AD.

Methods: PROSE (NCT03428646), an ongoing 5-year, prospective, observational study, enrolls patients ≥12 years initiating commercially available dupilumab treatment for AD per country-specific prescribing information. Patients receive a dupilumab loading dose at baseline, without restrictions on post-baseline dosing changes or concomitant medication and are encouraged to stay in the study if they discontinue dupilumab. We present up to 3-year data from an interim data cutoff (June 2023), including only patients self-reporting as Black/African-American. Data are descriptive.

Results: Fourteen percent (N=122) of the PROSE patient sample were Black/African-American (mean[SD] age: 40.8[15.7]; AD duration: 23.9[17.1] years). At the time of this interim analysis, 38 (31.1%) had withdrawn from PROSE; mean(SD) dupilumab treatment duration was 31.9(18.3) months. EASI score (range 0–72) was reduced from baseline (mean[SD]: 19.3[14.8]) to Month 36 (1.7[2.0]). Pruritus NRS (range 0–10) was reduced from baseline (mean[SD]: 7.7[2.1]) to Month 36 (2.2[2.7]). Treatment-emergent adverse events in >1 patient(s) were: AD, conjunctivitis, allergic conjunctivitis, myalgia, muscle spasms, upper respiratory tract infection and increased liver function test.

Conclusions: Improvement up to 36 months was observed in AD signs and symptoms in Black/African-American patients initiating dupilumab treatment in PROSE. Reported tolerability was consistent with the known dupilumab safety profile.

SKIN OF COLOR UPDATE

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Dupilumab Reduces Total and Allergen-Specific IgE Levels in Patients With Skin of Color and Moderate-to-Severe Atopic Dermatitis: Results: From a Phase 4, Open-Label Study

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ABSTRACT

Background: Variations in epidemiology, clinical presentation, and impact of atopic dermatitis (AD) in patient populations with skin of color (SoC) have been reported. Historically, patients with SoC have been underrepresented in clinical trials.[1,2] Dupilumab monotherapy has been shown to improve AD signs and symptoms, and reduce AD-related post-inflammatory hyperpigmentation and patient-reported xerosis in patients with SoC and moderate-to-severe AD.[2] Previous reports also demonstrated that dupilumab significantly reduces levels of IgE, a marker of allergic sensitization and type 2 inflammation, across age groups of patients with AD in phase 3 trials.[3,4]

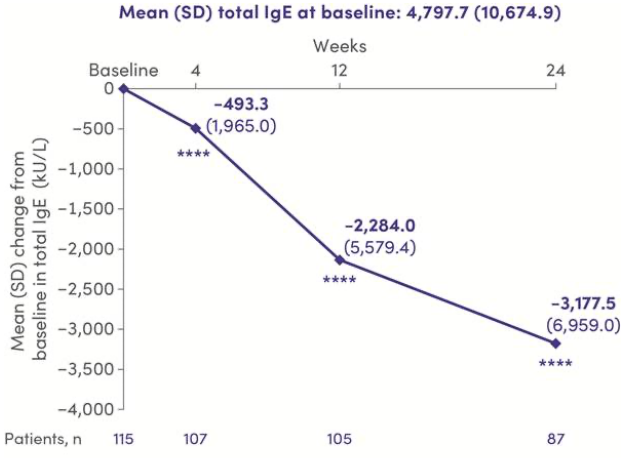
Objective: This analysis reports the impact of dupilumab on total and allergen-specific IgE levels in patients with SoC and moderate-to-severe AD.

Methods: DISCOVER (NCT05590585), an open-label, single-arm, 24-week study enrolled patients ≥12 years old with self-reported race other than White/Caucasian, with Fitzpatrick skin types IV, V, VI, and moderate to severe AD, who received dupilumab monotherapy every 2 weeks for 24 weeks (≥30 to <60 kg body weight: 200 mg; ≥60 kg: 300 mg). Total and allergen-specific IgE (kU/L) were measured at baseline, and Weeks 4, 12, and 24. House allergens included *Dermatophagoides farinae*, cat dander, dog dander, and German cockroach; plant/tree allergens included whole Timothy grass, common silver birch, elm, grey alder, mugwort, giant ragweed, white ash, and white oak; fungal allergens included *Alternaria alternata* and *Cladosporium herbarum*. *P* values (comparison vs baseline) were obtained using a Wilcoxon signed-rank test.

Results: 120 patients were included in the study. At baseline, mean (SD) total IgE was 4,797.7 (10,674.9), which significantly decreased by Week 4 ($P<0.0001$). By Week 24, mean total IgE levels decreased by 50% ($P<0.0001$). Reduction in mean house-allergen-specific IgE levels was observed as early as Week 4 ($P<0.01$), further decreasing by approximately 30% by Week 24 ($P<0.0001$). Most plant/tree allergen-specific IgE levels (except whole Timothy grass, common silver birch, and mugwort) also significantly decreased from baseline by Week 4 ($P<0.05$); this was the case for all plant/tree allergens by Week 12 ($P<0.0001$) and all decreased by at least 20% by Week 24 ($P<0.0001$). A similar trend was observed with fungal allergens, which were significantly reduced by Week 4 ($P<0.001$), an effect that sustained up to Week 24 (at least 26% decrease; $P<0.0001$). Overall safety was consistent with the known dupilumab safety profile.

Conclusions: Dupilumab significantly reduces total and allergen-specific IgE levels in patients with SoC and moderate-to-severe AD. This reduction is rapid and sustained through 24 weeks, and the effect is consistent across most allergens.

Figure. Dupilumab treatment reduces mean total IgE levels over 24 weeks in patients with SoC and moderate-to-severe AD.



****$P<0.0001$ vs baseline. SD, standard deviation.

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Dupilumab Monotherapy vs Topical Corticosteroids in Prurigo Nodularis: Impact on Signs and Symptoms in the PRIME/PRIME2 Studies

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ABSTRACT

Background: Prurigo nodularis (PN) is a chronic inflammatory disease that substantially impacts patient quality of life. Topical corticosteroids (TCS) are commonly used to treat PN, but they often fail to provide adequate control. Dupilumab is the first advanced therapy approved for the treatment of PN in the USA, EU, and Japan.

Objective: To demonstrate the value of dupilumab monotherapy compared to medium-potency TCS.

Methods: LIBERTY-PN PRIME (NCT04183335) and PRIME2 (NCT04202679) were randomized, double-blind, 24-week, Phase 3 trials of dupilumab in adult patients with moderate-to-severe PN. Patients were randomized to dupilumab 300 mg every 2 weeks or matched placebo, for 24 weeks. Patients on a stable regimen of low-to-moderate potency TCS or topical calcineurin inhibitors before screening were allowed to continue their use during the trial. In this analysis, patients were stratified into those receiving dupilumab treatment without TCS use (dupilumab monotherapy) and those in the placebo group with stable TCS use (TCS monotherapy). Stable TCS use was defined as application for at least 5 out of 7 days prior to Day 1; and maintaining the same medicine and dose to the end of treatment. These patients were assessed for: ≥4-point reduction in Worst Itch Numeric Rating Scale (WI-NRS) and an Investigator's Global Assessment of PN Stage (IGA PN-S) up to Week 24.

Results: Of the 311 adult patients in the pooled PRIME/PRIME2 studies, 62 patients in the dupilumab group did not have stable TCS use, and 91 patients in the placebo group did have stable TCS use. At Week 4, a significantly greater proportion of patients receiving dupilumab monotherapy vs TCS monotherapy achieved a ≥4-point reduction in WI-NRS (16.4% vs 3.4%; P=0.0057) and this proportion increased through Week 24 (63.8% vs 23.2%; P<0.0001). Similarly, a significantly greater proportion of patients receiving dupilumab monotherapy vs TCS monotherapy achieved IGA PN-S of 0/1 by Week 4 (9.8% vs 1.2%; P=0.02) through Week 24 (49.2% vs 15.3%; P<0.0001). Overall safety was generally consistent with the known safety profile of dupilumab.

Conclusions: A significant number of patients receiving dupilumab monotherapy achieved clinically meaningful improvements in itch (63.8%) and lesions (49.2%) compared to those treated with TCS alone by Week 24, with improvements seen as early as Week 4. The data presented here demonstrate the clinical benefit of dupilumab used as monotherapy which may inform clinical management and patient expectations.

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Kyrle Disease: Cutaneous Manifestation of Systemic Disease

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ABSTRACT

Background: Kyrle disease (KD) is a rare perforating skin disorder associated with systemic disorders, especially chronic renal failure and diabetes. We aim to educate clinicians on diagnosing and managing KD. This case also demonstrates the hyperpigmented appearance of KD skin lesions in skin of color.

Background: KD presents in the 3rd to 5th decade, with no racial predominance, and possible female predilection; It occurs in 10% of dialysis patients.[1] It is commonly associated with chronic renal disease and diabetes, but also liver and heart disease, endocrine disorders, malignancy, infections, and biologic drugs.[2]

KD presents as hyperkeratotic papules with a central keratin plug often located on the legs, but can be on the arms, head, neck and trunk. 50% of patients have pruritus, one-third are asymptomatic, and few have pain.[2] Medications (including keratolytics, antipruritics, antihistamines, antibiotics, corticosteroids, and isotretinoin), UV light, electrocautery, cryotherapy and laser have variable results.[1]

CASE PRESENTATION:
A 54 yo Pacific Islander female presented to our dermatology clinic with itchy bumps on her legs and elbow for 3 weeks. Medical history included diabetes, kidney disease on dialysis, hypertension, hypercholes-

terolemia, and coronary artery bypass graft surgery. On physical exam, she had hyperkeratotic papules and plaques on her lower legs with central hyperkeratotic cones, consistent with KD (Figure 1, Figure 2). A shave biopsy was done to confirm the diagnosis.

Results: Histopathology confirmed KD with significant parakeratosis. The epidermis was edematous with an absent granular layer. There were perivascular and perifollicular inflammatory infiltrates with intrafollicular neutrophils.

The patient's skin lesions improved after her underlying medical conditions (diabetes, chronic renal disease, and heart disease) were under control.

Conclusions: Since KD is associated with systemic disease (especially diabetes and chronic kidney disease), treatment requires managing medical conditions that are associated with KD, as well as working patients up for systemic disease. This can include ordering fasting glucose or hemoglobin A1C, kidney and liver function tests, serum uric acid and thyroid function tests.[2]

KD has limited studies, so more clinical trials are needed. Due to possible pathophysiology of itching and superficial trauma, drugs that target Interleukin receptors and JAK pathways are promising.[3]

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Quantifying Erythema Misrepresentation in Skin of Color Using Multispectral Imaging Across Fitzpatrick IV to VI

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Keywords: erythema, multispectral imaging, inflammatory dermatoses

ABSTRACT

Background: Erythema is frequently misrepresented or entirely overlooked in individuals with skin of color, particularly across Fitzpatrick phototypes IV to VI, resulting in delayed or inaccurate diagnoses of inflammatory dermatoses. Traditional visual assessment relies on the detection of redness, a cue often masked by baseline melanin content in deeply pigmented skin, rendering standard clinical observation insufficient. Multispectral imaging offers a quantitative approach to overcome this limitation by capturing and analyzing wavelengths beyond the visible spectrum, allowing for detection of underlying vascular inflammation regardless of surface pigmentation.

Objective: (1) To analyze the diagnostic utility of multispectral imaging for erythema detection in deeply pigmented skin, with a focus on improving identification of inflammatory dermatoses in Fitzpatrick phototypes IV-VI. (2) To examine three overarching categories: the accuracy, sensitivity, and pigment-independent detection capabilities of multispectral devices across a range of inflammatory conditions.

Methods: A comprehensive review was conducted to characterize the potential of multispectral imaging in detecting erythema in patients with Fitzpatrick IV-VI phototypes. Analysis of included studies comprises a comparison of erythema scores between clinical grading and spectral data, stratified by phototype. The power of device outputs were investigated, including those calibrated for melanin density to ensure vascular signal isolation and reproducibility across skin tones.

Results: Preliminary studies using multispectral devices have demonstrated that conditions such as atopic dermatitis, lupus erythematosus, and psoriasis may exhibit significant subclinical erythema in darker phototypes despite minimal visible redness, highlighting a diagnostic gap that remains unaddressed in current training and practice. Across Fitzpatrick IV to VI, erythema intensity is frequently underestimated or falsely equated with hyperpigmentation or induration, contributing to underdiagnosis, undertreatment, and reliance on textural or pigmentary changes as surrogate indicators of disease activity. Quantification of erythema using near-infrared and visible spectrum imaging has revealed consistent discrepancies between visual assessment and objective vascular data, with Fitzpatrick VI skin showing the highest rates of misclassification.

Conclusions: Findings support the need for pigment-independent diagnostic technologies and challenge reliance on color-based inflammation scoring in both clinical and research settings. Incorporating multispectral imaging into dermatologic evaluation protocols allows for more accurate monitoring of inflammatory activity in skin of color and promotes equitable disease management through objective, reproducible assessment methods that function independently of melanin density.

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KELOIDS

UNIQUE ID: K_01

Racial Differences in Keloid and Hypertrophic Scar Treatment Patterns

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Keywords: treatment, race, keloids

ABSTRACT

Keloids represent a significant burden for many patients and a diagnostic challenge for dermatologists, especially given high rates of recurrence. Racial disparities can play a crucial role in diagnosis delays and treatment outcomes. We sought to understand how differences in race impact keloid treatment patterns using a large representative cohort.

This study utilized data collected on May 2, 2025, from the TriNetX Research Network, which provides access to de-identified electronic medical records for approximately 144 million patients across 102 healthcare organizations. We identified patients aged 18 to 89 at the time of keloid diagnosis (ICD-10: L91.0) and stratified them by race (white, black or African American, asian, or other race). We then screened electronic health records for medical and procedural interventions performed within one year of keloid diagnosis.

Outcomes of interest included intralesional injections (CPT: 11900, 11901), destruction procedures (CPT: 17110, 17111), radiation treatment (CPT: 77261, 77262, 77401), excision procedures (CPT: 11400-11446), repair procedures (CPT: 12031-13153, 14000-14302), fractional ablative laser (CPT: 0479T, 0480T), and medications including tacrolimus and imiquimod. Patients who received procedures or medications of interest prior to a diagnosis of keloids were excluded from analysis to reduce confounding from individuals receiving treatments for other conditions.

Among keloid patients, 45191 identified as black, 16179 as asian, 99076 as white, and 8334 as other. Blacks, asians, and others were generally more likely to receive intralesional injections, keloidectomy, repair procedures, and tacrolimus, while whites were more likely to receive destruction procedures, imiquimod, and laser treatment (Table 1). While many factors may contribute to these differences, disparities in access to insurance and coverage of procedures may play a role in access to other forms of care. These disparities may contribute towards disease severity and morbidity.

DISCLOSURES:
The authors have no conflicts of interest to disclose.

Table 1. Percent of Patients Receiving Treatment Outcomes by Race With Odds Ratios Compared With White Patients

Treatment	Black (no.)	% (OR)	Asian (no.)	% (OR)	Other (no.)	% (OR)	White (no.)	% of Patients
Intralesional Injection	4,098	10.72 (1.59)	1,254	9.32 (1.38)	630	9.32 (1.38)	5,152	6.74
Destruction Procedures	204	0.46 (0.19)	180	1.15 (0.48)	126	1.58 (0.66)	2,099	2.4
Radiation Therapy	278	0.62 (7.34)	13	0.08 (0.96)	10	0.12 (1.43)	83	0.08
Tacrolimus	181	0.41 (1.35)	76	0.48 (1.59)	38	0.47 (1.55)	293	0.3
Imiquimod	85	0.19 (0.59)	36	0.22 (0.69)	24	0.29 (0.90)	313	0.32
Keloidectomy	2,752	6.43 (1.79)	448	2.91 (0.81)	296	3.8 (1.06)	3,153	3.59
Local radiation	14	0.03 (1.5)	10	0.06 (3.00)	10	0.12 (6.00)	15	0.02
Repair Procedures	2,450	5.72 (1.13)	401	2.59 (0.51)	340	4.45 (0.88)	3,986	5.05
Laser	214	0.47 (0.87)	45	0.28 (0.51)	94	1.13 (2.08)	536	0.54

UNIQUE ID:K_03

Hypertrophic and Keloid Scars in Burn Recovery: Innovations in Detection, Treatment, and Equity-Focused Care

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ABSTRACT

Background: Hypertrophic and keloid scarring following burn injury is associated with pain, contractures, and psychosocial burden. Individuals with skin of color face a disproportionate risk, compounded by underdiagnosis, delayed intervention, and limited representation in clinical studies.[1,2]

Objective: To evaluate emerging diagnostic modalities, perioperative interventions, and patient-specific therapies that address disparities and improve scar outcomes, particularly in high-risk populations.

Methods: A structured literature review was conducted using PubMed, Scopus, and Google Scholar. Search terms included "hypertrophic scar," "keloid," "skin of color," "ultrasound," "molecular profiling," and "wound monitoring." Inclusion criteria emphasized studies on diagnosis, imaging, equity, and post-burn care.

Results: Pathologic scars result from fibroblast dysregulation, excess TGF-β signaling, and impaired ECM remodeling. Individuals of African, Asian, and Hispanic descent are more susceptible, and early erythema and vascular cues are less visible in darker skin, limiting clinical detection.[3,4]

Emerging modalities such as high-frequency ultrasound, shear wave elastography, and thermal imaging provide objective assessments of scar depth and activity, bypassing melanin-related limitations.[5,6] Biomarker panels including IL-10 and fibronectin show promise for early stratification.[7,8]

Early surgical excision (<72 hours post-burn) and full thickness grafts reduce inflammation, contracture, and pigmentary change.[9] Anesthetic modulation using regional blocks and lidocaine can inhibit fibroblast proliferation and support wound resolution.[10,11]

Postoperative therapies such as pressure garments, silicone sheeting, and intralesional corticosteroids remain foundational. Onion extract-based gels may be considered for superficial scarring, though data is limited. Table 1 compares the mechanisms, use cases, and limitations of these interventions.

Conclusions: Scar care must move toward proactive, precision-based approaches that reflect population diversity. By integrating advanced diagnostics, individualized perioperative planning, and inclusive research, outcomes for patients with skin of color—who are most burdened by pathological scarring—can be meaningfully improved.

Table 1. Comparison of Post-Operative Therapies for Pathological Scarring

Therapy	Mechanism of Action	Ideal Use Cases	Limitations and Considerations
Pressure garments	Mechanical compression reduces collagen deposition	Large surface areas, early intervention	Poor fit on joints, poor compliance
Silicone sheeting	Occlusive barrier, modulates hydration and collagen	Mobile areas like neck, axilla, joints	May peel, difficult in hot climates
Intralesional steroids	Reduces fibroblast activity and inflammation	Raised scars, keloids	Atrophy, telangiectasia, injection pain
Onion extract gel	Inhibits fibroblast proliferation, mild anti-inflammatory	Superficial or early hypertrophic scars	Limited evidence, results variable, over-the-counter

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PEDIATRIC DERMATOLOGY

UNIQUE ID: PD_01

Systemic Therapies for Pediatric Hidradenitis Suppurativa: Stratified Assessment of Efficacy, Adverse Profiles, and Age-Specific Considerations

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ABSTRACT

Background: Pediatric hidradenitis suppurativa (HS) is marked by aggressive inflammatory activity and early recurrence. The clinical presentation often includes Hurley stage I-II disease, axillary and groin involvement, and a strong family history. Despite rising incidence, systemic treatments remain off-label and are typically adapted from adult protocols without adjustment for growth, hormonal status, or developmental pharmacology. Data on long-term safety, treatment durability, and age-specific risks remain limited.

Objective: To evaluate systemic therapies for pediatric HS by efficacy, age of administration, treatment duration, and adverse effect profiles; and to identify pharmacologic considerations unique to preadolescents and adolescents.

Methods: A targeted review of studies published between 2000 and 2025 was conducted using PubMed, Google Scholar, and ClinicalTrials.gov. Inclusion criteria required participants ≤18 years old receiving systemic HS therapy. Study types included randomized trials, cohort studies, case series, and pharmacology reports. Extracted data included HiSCR response rates, flare frequency, lesion burden, dosing, adverse events, growth-related toxicities, and reproductive implications. Agents were grouped as TNF-α inhibitors, oral antibiotics, hormonal agents, and retinoids.

Results: Adalimumab achieved HiSCR in 42–58% of adolescents > 12 years, reducing inflammatory nodules and flares. Infliximab improved tunnel formation and pain in refractory cases but required premedication for infusion reactions and tuberculosis screening. Dual oral antibiotics (clindamycin-rifampin) showed partial response in early HS but were associated with nausea, liver enzyme elevation, and intolerance beyond 10–12 weeks. Tetracyclines were avoided in children < 13 due to enamel risk and limited sustained efficacy in follicular-predominant HS. Hormonal agents (spironolactone and oral contraceptives) were prescribed in postmenarchal females, though data on flare suppression and lesion count reduction were inconsistent. Oral retinoids demonstrated poor efficacy in draining sinus tracts, menorrhagia, and rarely contributed to growth plate abnormalities in long-term use. Across therapies, prepubertal patients had lower treatment durability, with frequent flare recurrence upon tapering or discontinuation.

Conclusions: Systemic therapies for pediatric HS vary in efficacy, tolerability, and long-term safety by age, sex, and disease severity. Adalimumab is most consistently effective for moderate-to-severe HS, though biologic access and monitoring challenges persist. Non-biologics offer limited sustained benefit and pose growth and hormonal risks, particularly in younger children. Pediatric-specific dosing protocols and long-term safety evaluations guide systemic therapy selection, limit cumulative toxicity, and prevent progression to chronic, treatment-resistant disease in early-onset HS.

DISCLOSURES:

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UNIQUE ID: PD_07

Representation of Infantile Hemangiomas in Educational Resources: A Content Analysis

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ABSTRACT

Introduction: Infantile hemangiomas (IH) are the most common pediatric vascular tumor, typically appearing within the first few weeks of life.[1] Despite their prevalence, there is a deficiency of research examining their clinical presentation and management in patients with skin of color (SOC).

Objective: The authors aimed to quantify the representation of SOC in educational resources for IH.

Methods: The authors reviewed images of IHs from textbooks and internet-based educational resources. Each image was categorized as non-SOC (Fitzpatrick skin types I-III) or SOC (Fitzpatrick skin types IV-VI). Images were compared to the reported disease prevalence in SOC populations (~40%) and the overall U.S. SOC population (~40%).[2,3]

Results: Of 230 unique images, 13 (5.65%) depicted SOC, substantially lower than the 40% ($P<0.0001$) prevalence estimates. SOC representation between resource types showed no statistically significant difference between the two resource types.

Limitations: Limitations include nonexhaustive resource selection and image heterogeneity that may affect interpretation.

Conclusions: SOC is strikingly underrepresented in educational materials on IHs. This deficit reveals a systemic shortfall in reflecting patient diversity. A reflection of the true diversity of patients is necessary in order to enhance diagnostic accuracy, reduce disparities, and ultimately improve outcomes for all children.

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SKIN OF COLOR UPDATE

PIGMENTARY DISORDERS (MELASMA, VITILIGO, HYPERPIGMENTATION, PHOTODAMAGE)

UNIQUE ID: PDS_05

Multifactorial Causes of Periorbital Hyperpigmentation in Skin of Color

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ABSTRACT

Background: Periorbital hyperpigmentation (POH) is a common aesthetic and dermatologic concern in individuals with skin of color. POH arises from epidermal and dermal pigmentation, vascular congestion, and anatomical shadowing. Constitutional hyperpigmentation involves elevated tyrosinase activity and basal melanin deposition. Postinflammatory causes, often from chronic eczematous dermatoses or mechanical eye rubbing, lead to pigment incontinence and dermal melanin deposition. Dermal melanocytosis, particularly common in South and East Asian populations, results in a blue-gray hue due to the Tyndall effect. Vascular factors such as prominent subcutaneous venous plexuses and pooling contribute violaceous discoloration. Structural contributors like tear trough depression and malar hypoplasia create shadows that mimic pigmentation. Limited standardized subtyping complicates diagnostic accuracy and therapeutic targeting in melanin-rich skin.

Objective: To characterize the primary etiologies of POH in deeply pigmented skin and assess diagnostic tools that enable accurate subtype differentiation.

Methods: A focused review was conducted of histopathologic, dermoscopic, and imaging-based literature specific to POH in Fitzpatrick IV-VI populations. Diagnostic modalities evaluated included clinical photography, dermoscopy, reflectance confocal microscopy (RCM), and high-frequency ultrasound. Etiologies were categorized as epidermal pigmentation, dermal melanocytosis, vascular congestion, and structural shadowing based on melanin depth, vascular visibility, and midface volume status.

Results: Epidermal POH was associated with basal melanin accumulation and melanocyte hyperactivity. Postinflammatory cases showed pigment incontinence and superficial inflammatory infiltrates. Dermal melanocytosis was confirmed via RCM and biopsy, often resistant to topical depigmenting agents. Vascular POH corresponded to visible subcutaneous venous plexuses and superficial pooling. Structural contributors such as midface volume loss and tear trough depression intensified shadowing without true pigmentation, complicating visual interpretation and treatment planning.

Conclusions: Accurate POH subtyping in skin of color requires integration of pigment localization, vascular involvement, and structural anatomy. RCM enables noninvasive differentiation of dermal versus epidermal pigment, while high-frequency ultrasound delineates vascular prominence and facial volume loss. Etiology-guided treatment is critical: epidermal pigmentation may respond to topical tyrosinase inhibitors and superficial peels; dermal melanocytosis often necessitates low-fluence laser therapy; vascular prominence may benefit from targeted energy-based devices; and structural hollowing may require volumization. Etiologic specificity allows for avoidance of pigmentary complication and reduction of recurrence rates for POH in melanin-rich skin.

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UNIQUE ID: PDS_06

HPV-Related Postinflammatory Hyperpigmentation in Melanin-Rich Skin

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Keywords: HPV, postinflammatory hyperpigmentation, melanin-rich skin, genital warts, skin of color

ABSTRACT

Background: Post-inflammatory hyperpigmentation (PIH) is a frequent sequela of cutaneous inflammation where increased melanocyte reactivity leads to more prominent and persistent pigmentary changes. While PIH is well-documented in acne, eczema, and procedural injury, pigmentary alterations following condyloma acuminata are underrecognized in clinical literature and practice. Genital warts, caused primarily by low-risk human papillomavirus (HPV) types 6 and 11, elicit localized epithelial disruption and immune-mediated inflammation that initiate melanogenic signaling cascades. The genital skin's thin epidermis, increased vascularity, and frequent mechanical irritation may predispose patients with deeply pigmented skin to more extensive and persistent PIH. PIH secondary to genital HPV lesions remains insufficiently addressed in counseling, management, and post-treatment care. Objective: To characterize the pathophysiologic basis, clinical presentation, and treatment-associated contributors to PIH following genital warts in patients with skin of color, and to identify gaps in prevention and post-procedural care.

Methods: A targeted review of clinical and molecular studies was performed focusing on PIH pathogenesis in Fitzpatrick IV-VI skin and the inflammatory sequelae of HPV-induced anogenital warts. Emphasis was placed on melanocyte signaling pathways activated by immune and procedural injury, and the impact of common wart treatments on pigment alteration.

Results: HPV-related epithelial damage induces a cascade of proinflammatory mediators, including interleukin-1, tumor necrosis factor-α, prostaglandins, and leukotrienes, which upregulate tyrosinase and activate α-MSH pathways in melanocytes. Inflammation-driven melanogenesis results in melanin deposition within the basal epidermis and, in chronic cases, the superficial dermis. Cryotherapy and electrosurgery frequently cause post-treatment erythema and injury, increasing PIH risk when used in repeated sessions. Imiquimod stimulates local immune activation through toll-like receptor 7, intensifying pigment production. Podophyllotoxin, though less inflammatory, may still cause irritation-induced pigmentation, especially without photoprotection.

Conclusions: PIH following condyloma acuminata is driven by inflammation-mediated melanogenesis and exacerbated by procedural and topical therapies. Accurate recognition of pigmentary risk in genital HPV infections supports more informed patient counseling, guides the selection of lower-irritation treatment strategies, and promotes implementation of preventative measures such as post-treatment emollients and sun protection. Incorporating PIH management into wart treatment protocols reduces cosmetic burden in patients with deeply pigmented skin, particularly in the anogenital region where thin epidermis, high frictional forces, and inflammation from therapy contribute to prolonged dyschromia.

DISCLOSURES:

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UNIQUE ID: PDS_07

Approaches to Managing Post-Inflammatory Hyperpigmentation in Genital Herpes

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ABSTRACT

Background: Post-inflammatory hyperpigmentation (PIH) is a common sequela of genital herpes, particularly in individuals with skin of color, and significantly contributes to psychological distress and diminished quality of life. Localized inflammation and recurrent episodes of herpetic lesions can trigger melanocyte hyperactivity, resulting in persistent discoloration even after lesion resolution. Despite its prevalence, PIH in the context of genital herpes remains an underexplored area, with limited evidence-based guidelines for optimal management. This review evaluates existing therapeutic strategies, focusing on their safety, efficacy, and applicability in this sensitive anatomical region.

Methods: A comprehensive analysis of the literature was conducted, including observational studies and case series addressing PIH associated with genital herpes. Therapies reviewed include topical depigmenting agents (e.g., hydroquinone, azelaic acid, and kojic acid), physical modalities such as chemical peels and laser therapy, and adjunctive measures like photoprotection and anti-inflammatory agents. Emphasis was placed on assessing interventions suitable for patients with darker skin types and sensitive genital skin, considering risks such as irritation, hypopigmentation, and scarring.

Results: Topical therapies, such as hydroquinone and retinoids, remain the cornerstone of PIH treatment, with evidence suggesting efficacy in reducing pigmentation when used consistently over several months. Azelaic acid and kojic acid offer safer alternatives for sensitive areas, with reduced risks of irritation. Chemical peels, particularly superficial alpha-hydroxy acid peels, show promise in accelerating epidermal turnover and pigment reduction but require careful application to avoid complications. Energy-based devices, including fractional lasers, have demonstrated efficacy in recalcitrant cases, although their use in the genital area demands caution due to heightened risks of adverse effects. Preventive measures, such as rigorous photoprotection and the use of antiviral agents to reduce recurrence and inflammation, are adjuncts in long-term management.

Conclusions: Effective management of PIH in genital herpes necessitates a multimodal approach tailored to individual skin types and sensitivities. Topical depigmenting agents, supplemented by preventive strategies and, in select cases, procedural interventions, can significantly improve outcomes. Clinical improvement in genital herpes-associated PIH requires both therapeutic efficacy and addressing unique challenges of treatment adherence, including patient discomfort, stigma, and the need for prolonged application in a sensitive and pigment-reactive anatomical site.

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The authors have no conflicts of interest to disclose.

UNIQUE ID: PDS_08

Environmental Racism and Chemical Exposure in Hyperpigmented Skin Disorders

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ABSTRACT

Background: Environmental racism facilitates chronic exposure to industrial pollutants, contaminated water supplies, and air toxins in communities of color, directly influencing the prevalence and severity of hyperpigmented skin disorders through biologically plausible yet underinvestigated mechanisms. Residents of environmentally burdened neighborhoods, such as redlined areas or communities near petrochemical plants and Superfund sites, face routine exposure to chemicals like benzene, arsenic, dioxins, and phthalates. These chemicals are known or suspected to disrupt melanin regulation through pathways involving oxidative stress, aryl hydrocarbon receptor (AhR) activation, and dysregulation of MITF-driven melanogenesis. Cellular and molecular studies suggest that these environmental insults may heighten melanocyte reactivity, particularly in individuals with Fitzpatrick skin types IV-VI, contributing to the disproportionate burden of pigmentary disorders such as post-inflammatory hyperpigmentation, melasma, lichen planus pigmentosus, and exogenous ochronosis.

Objective: To investigate the relationship between environmental racism and hyperpigmented skin disorders in communities of color, with a focus on biologically plausible mechanisms, geographic exposure patterns, and the disproportionate impact on skin of color.

Methods: A literature review was conducted using PubMed and Google Scholar to explore the relationship between environmental racism, hyperpigmented skin disorders, and photoprotection practices in communities of color. Search terms included combinations of "environmental racism," "hyperpigmentation," "skin of color," "photoprotection," "visible light," and "dermatologic disparities." Articles were included if they addressed environmental exposures, structural racism, pigmentary disorders, psychosocial burden, or barriers to dermatologic care. Relevant studies were categorized by thematic focus and critically reviewed for methodology, content, and integration of clinical, social, and environmental determinants.

Results: Studies consistently demonstrate that communities of color face higher exposure to environmental toxins, which may drive increased rates of pigmentary disorders like postinflammatory hyperpigmentation, lichen planus pigmentosus, melasma, and exogenous ochronosis. Mechanistic data implicate oxidative stress, aryl hydrocarbon receptor activation, and MITF dysregulation as drivers of abnormal melanogenesis. These conditions are further influenced by sex-linked vulnerability, with a disproportionate burden on women. Psychosocial distress related to colorism, stigma, and limited access to culturally competent care exacerbates the impact. Misconceptions about sunscreen use, lack of visible light protection, and poor provider training in skin of color all contribute to ongoing disparities. Technological tools such as GIS mapping and exposure biomarkers offer future potential but remain underutilized.

Conclusions: Hyperpigmentation in structurally marginalized populations represents a visible biomarker of chronic toxicologic burden, environmental injustice, and systemic neglect reflecting a cumulative imprint of racialized exposures, from polluted housing and unsafe labor conditions to limited access to preventive care. Recognizing pigmentary disorders as indicators of structural violence requires a repositioning of skin pigmentation as a site of environmental surveillance and health equity. To achieve this, dermatologic systems must include environmental context into every stage of care (diagnosis, treatment, and prevention) while advancing pigmentary equity as a measurable outcome of structural reform.

DISCLOSURES:
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SKIN OF COLOR UPDATE

UNIQUE ID: PDS_09

The Role of Melanin in Modulating Cutaneous Microbiome Profiles in Individuals with Skin of Color

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ABSTRACT

Background: Melanin, a central determinant of skin pigmentation, appears to influence the structure and function of the cutaneous microbiome in individuals with skin of color, though this relationship remains insufficiently characterized in current dermatologic research. Most microbiome studies have focused on lighter skin phototypes, failing to account for how melanin density, distribution, and related biophysical properties shape microbial colonization and diversity.

Objective: (1) To examine how melanin density and distribution in individuals with skin of color may alter the composition and behavior of the cutaneous microbiome. (2) To highlight physiologic and immunologic mechanisms through which melanin may influence microbial communities, contributing to disease prevalence and therapeutic response.

Methods: A comprehensive narrative review of current literature was conducted focusing on the connection between skin pigmentation, microbiome composition, and cutaneous barrier function. Emphasis was placed on studies examining transepidermal water loss, lipid content, pH gradients, sebaceous activity, and immune modulation in skin of color, alongside microbial patterns involving *Cutibacterium acnes, Staphylococcus epidermidis*, and *Malassezia* species.

Results: Higher levels of epidermal melanin are associated with lower transepidermal water loss, increased lipid content, and enhanced stratum corneum integrity, all of which alter microbial habitats and nutrient availability on the skin surface. Sebaceous output, pH gradients, and sweat gland density may further modulate microbial community composition in darker skin, contributing to unique patterns of colonization by organisms such as *Cutibacterium acnes*, *Staphylococcus epidermidis*, and *Malassezia* species. Variations may help explain phototype-specific prevalence of acneiform eruptions, seborrheic dermatitis, and pigmentary disorders commonly observed in patients with skin of color. Melanin's immunoregulatory properties, including the ability to modulate oxidative stress and antigen presentation, may also influence local cutaneous immune responses to microbial signals.

Conclusions: A lack of diverse representation in dermatologic microbiome studies limits the ability to identify pigmentation-linked factors relevant to both disease risk and treatment response. Analyzing microbiome profiles in relation to melanin concentration may identify differences in cutaneous immune-microbial dynamics and support the development of tailored interventions. Pigmentation influences cutaneous microbial composition and activity through mechanisms such as eumelanin to pheomelanin balance, follicular density, and lipid oxidation, which affect microbial metabolite production, biofilm behavior, and immune responses to resident skin flora.

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UNIQUE ID: PDS_10

The Rise of 'Functional Sunscreens' in Skin of Color Beauty Culture

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ABSTRACT

Background: Conventional public health messaging around sunscreen has primarily emphasized skin cancer prevention in lighter-skinned populations. This approach often fails to address the specific dermatologic concerns of individuals with skin of color, such as pigmentary disorders and photoaging. As a result, sunscreen use in these populations has remained limited, in part due to dissatisfaction with available products and the perception that sunscreen is not designed for their needs.

Objective: To examine the emergence and influence of functional sunscreens, or products that combine photoprotection with cosmetic benefits, on sunscreen behaviors in individuals with skin of color. To explore how beauty culture, consumer engagement, and inclusive marketing influence perceptions of SPF products in skin of color populations.

Methods: A comprehensive analysis of dermatologic literature, consumer behavior data, and digital media content was conducted to evaluate the influence of functional sunscreens on photoprotection practices in individuals with skin of color. Particular emphasis was placed on formulation advances, such as tinted mineral filters, antioxidant-enriched bases, and melanin-compatible textures, and the role of beauty influencers, user-generated content, and targeted branding strategies in reframing sunscreen as a necessary component of daily skincare routines for darker phototypes.

Results: Functional sunscreens, including tinted SPF formulations, moisturizers with sun protection, and hybrid skincare products, are increasingly popular among individuals with skin of color. These products address longstanding concerns such as white cast and greasy textures, while also aligning with aesthetic goals like pigmentation control and even skin tone. Social media and influencer-driven marketing have amplified the appeal of these products by promoting inclusive beauty narratives. The repositioning of sunscreen as a beauty-enhancing tool has contributed to improved adherence and engagement in populations previously underserved by traditional sun safety campaigns.

Conclusions: Functional sunscreens designed for skin of color have expanded the role of photoprotection to include targeted management of pigmentary conditions such as melasma and post-inflammatory hyperpigmentation. Tinted mineral formulations, antioxidant-enriched bases, and cosmetically elegant textures reduce white cast and improve usability, addressing key barriers to adherence. When clinicians incorporate these product attributes into counseling, sunscreen use becomes more aligned with the aesthetic and clinical priorities of individuals with skin of color, particularly those seeking daily protection that complements skin tone and supports pigment regulation.

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The authors have no conflicts of interest to disclose.

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Culturally Relevant Visual Scales for Measuring Post-Inflammatory Hyperpigmentation Severity in South Asian Skin Types

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ABSTRACT

Background: Post-inflammatory hyperpigmentation (PIH) is a prevalent sequela of acne, eczema, and procedural dermatology in South Asian populations, yet, current visual assessment tools fail to account for the distinct pigmentary response patterns and undertone variations common in Fitzpatrick skin types IV and V. Existing scales, such as the Post-Acne Hyperpigmentation Index or modified Melasma Area and Severity Index (mMASI), were developed using predominantly lighter skin tones and often lack gradation appropriate for evaluating nuanced changes in brown, olive, or yellow-based pigmentation typical of South Asian phenotypes. Diagnostic inconsistency resulting from pigment-blind visual tools contributes to misclassification of severity, inaccurate tracking of therapeutic response, and underrepresentation in clinical trials.

Objective: To develop and validate a culturally tailored visual assessment tool for post-inflammatory hyperpigmentation (PIH) in South Asian skin, addressing the pigmentary nuances, undertone diversity, and lesion morphologies often overlooked by existing severity scales.

Methods: A narrative review was conducted to identify limitations in current pigmentary assessment tools used for PIH. Concurrently, a new visual severity scale was developed through collaboration with South Asian patients, dermatologists, and skin imaging specialists. The tool uses high-resolution, standardized photographic of individuals across the Indian subcontinent with confirmed PIH secondary to acne, lichen planus pigmentosus, and atopic dermatitis. Content validity will be established through Delphi consensus among pigmentary disorder experts, and construct validity will be evaluated via correlation with spectrophotometric melanin index and dermatologist-reported severity scores. Inter-rater reliability testing will be assessed among clinicians with diverse backgrounds.

Results: The proposed PIH scale achieved strong content validity through consensus of pigmentary disorder experts, supported by input from dermatologists, imaging specialists, and South Asian community stakeholders. Preliminary validation efforts demonstrated consistent interpretation, supporting the scale's potential reliability. Findings suggest that the tool offers a more nuanced and culturally attuned framework for assessing PIH severity in Fitzpatrick types IV and V, with implications for broader applicability in future clinical and research use.

Conclusions: Application of this culturally attuned tool aims to improve clinical decision-making, enhance longitudinal treatment monitoring, and facilitate equitable inclusion of South Asian patients in dermatologic research and therapeutic development. Incorporation into clinical trials, registries, and electronic health record documentation systems may also standardize data collection for pigmentary disorders in underserved populations historically overlooked in scale development.

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Clinical Evaluation of Thiamidol-containing Formulations for the Visual Management of Facial Hyperpigmentation

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ABSTRACT

Objective: Skin hyperpigmentation, which includes melasma, post-inflammatory hyperpigmentation, and solar lentigines, significantly impacts patients' quality of life. The overproduction of melanin occurs via a complex mechanism and is mediated by activation of the human skin enzyme tyrosinase through conversion of L-Dopa to the end product melanin with subsequent deposition in skin. Thiamidol-based formulations have been previously shown to be effective in reducing the visible factors associated with this human skin enzyme. The objective of this research was to investigate the clinical efficacy of a novel cosmetic Thiamidol-containing serum and Thiamidol-containing regimen (Day Lotion with SPF 30, Serum, and Night Cream) for the visible management of facial hyperpigmentation.

Materials and Methods: A randomized study was performed with 90 subjects (representative of Fitzpatrick Skin Types I-VI) clinically presenting with facial hyperpigmentation as measured by colorimeter and individual typology angle (ITA^0) (Thiamidol serum n=43; Thiamidol regimen n=47), to assess the efficacy of a Thiamidol-based serum (2x daily application; morning/night) or a Thiamidol-based regimen (Day lotion with SPF 30 + Serum in morning; Night cream + Serum at night) for 12 weeks with a 6-week regression period. Assessments of skin lightness (L*), ITA^0 value, radiance, and shine were conducted at baseline, Weeks 2, 4, 8, 12, and 18.

Results: A significant visible reduction in facial hyperpigmentation, assessed by increases in L* and ITA° values, along with an increase in skin radiance and shine, were observed as early as Week 2, with continued improvement through Week 12 in both the Serum and Regimen groups relative to baseline. At Week 12, changes in radiance and shine were trending toward enhancement in the regimen group compared to serum group.

Discussion: This study demonstrates the clinical effectiveness of Thiamidol-containing formulations in the visible improvement of facial hyperpigmentation and in overall skin radiance and shine. These data support the use of Thiamidol-containing formulations as part of the overall management strategy for individuals affected by facial hyperpigmentation.

DISCLOSURES:
Dr. Desai has served as a consultant and/or investigatorfor Beiersdorf and other organizations and has held several leadership positions with other companies and groups

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SKIN OF COLOR UPDATE

UNIQUE ID: PDS_13

Clinical Evaluation of a Thiamidol-Containing Regimen Compared With Photoprotection for the Visual Management of Facial Hyperpigmentation

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ABSTRACT

Objective: Pigmentary disorders, including melasma, post-inflammatory hyperpigmentation, and solar lentigines, are among the most common skin disorders. Uneven skin tone as a result of hyperpigmentation affects how patients see themselves, and how they are perceived by others, resulting in an impact on patients' quality of life. Photoprotection in the form of broad-spectrum ultraviolet sunscreen is the cornerstone of most standard management protocols to reduce hyperpigmentation exacerbation. Hyperpigmentation is mediated by overactivity of a multi-step synthesis process resulting in the overproduction of melanin from tyrosine via tyrosinase activity. Recently, isobutylamido thiazolyl resorcinol (Thiamidol) has been identified as the most effective human tyrosinase inhibitor out of >50,000 screened compounds, making it an attractive ingredient for anti-hyperpigmentation formulations. The objective of this study was to evaluate the efficacy of a Thiamidol-containing regimen (Day Lotion with SPF 30, Serum, and Night Cream) compared with a standard SPF 30 lotion for visible management of hyperpigmentation.

Materials and Methods: A randomized study was performed (N=95; n=47, Thiamidol regimen; n=48, standard SPF 30 lotion) with subjects aged 18-64 and Fitzpatrick Skin Types I-VI clinically presenting with facial hyperpigmentation (measured by colorimeter and individual typology angle [ITA°]) to assess the efficacy of the Thiamidol-containing regimen (Day Lotion with SPF 30 and Serum applied in the morning, Night Cream and Serum applied in the evening) compared with a standard SPF 30 lotion (applied 1-4 times daily as needed) for 12 weeks, followed by a 6-week regression phase.

Results: Facial hyperpigmentation, measured by skin lightness, ITA° values, radiance and shine, was significantly reduced relative to baseline for both groups as early as Week 2, and significantly reduced for patients receiving the Thiamidol-containing regimen vs the standard SPF 30 lotion at Weeks 8 and 12. Additionally, both groups maintained significant reductions in hyperpigmentation compared to baseline after a 6-week regression phase.

Discussion: This study demonstrates that while SPF alone can reduce the visible signs of hyperpigmentation, the addition of Thiamidol to a daily skin care regimen can confer additional benefit with regard to skin lightness, radiance, and shine. This data supports the integration of Thiamidol-containing formulations into existing skin regimens for individuals with facial hyperpigmentation.

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Thiamidol: A Breakthrough Innovation in the Treatment of Hyperpigmentation

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ABSTRACT

Objective: Cutaneous hyperpigmentation, including melasma, solar lentigines, and post-inflammatory hyperpigmentation (PIH), results in a significant impact on patients' quality of life. Unfortunately, many currently available over-the-counter (OTC) options have been limited by efficacy, safety, and tolerability concerns. Melanogenesis is driven by a complex pathway resulting in the ultimate production and deposition of melanin in the skin. The major rate-limiting step of melanogenesis centers on the conversion of L-Dopa to the final melanin product mediated by a cellular tyrosinase, causing the overproduction of melanin clinically resulting in hyperpigmentation. Recently, isobutylamido thiazolyl resorcinol (Thiamidol) has been identified as the most effective inhibitor of human tyrosinase out of 50,000 compounds screened, and thus, a novel ingredient for inclusion in OTC products to address hyperpigmentation. The objective of this review was to describe and discuss the current pre-clinical and clinical safety and efficacy data of Thiamidol formulations aimed at educating the dermatology community on a safe and effective OTC option for use as part of the overall management of hyperpigmentation in patients. Methods: A literature search was conducted in February 2025 on PubMed and Google Scholar databases using the search terms Thiamidol or isobutylamido thiazolyl resorcinol.

Results: A total of 21 articles were identified and evaluated for relevant information on the discovery and chemistry of Thiamidol, including *in vitro* analysis, as well as clinical studies investigating Thiamidol as a treatment or prophylaxis for hyperpigmentation. Studies included in this literature review included: 1) Discovery of isobutylamido-thiazolyl-resorcinol (Thiamidol); 2) Clinical evaluation of Thiamidol for treatment of hyperpigmentation (ultraviolet-induced hyperpigmentation, melasma, acne vulgaris induced PIH, laser-induced PIH); 3) Clinical use of Thiamidol as adjunctive therapy; and 4) Thiamidol safety and tolerability.

Discussion: Currently available over-the-counter (OTC) treatments are limited by efficacy, safety and tolerability concerns. Recently, isobutylamido thiazolyl resorcinol has been identified as an effective inhibitor of human tyrosinase and melanin production, with an IC50 = 1.1 mmol/L as compared to hydroquinone's IC50 > 4000 mmol/L. In clinical studies, Thiamidol has been shown to reduce hyperpigmentation in solar lentigines, mild-to-severe melasma, and acne-, and laser-induced PIH and prevent and enhance resolution of UV-induced pigmentation. Additionally, Thiamidol has been shown to work as well as the Kligman formula when used in combination with tretinoin and dexamethasone acetate and to be suitable adjunctive therapy with commonly used lasers. From these results, Thiamidol appears to be a safe and effective ingredient that should be considered when recommending an OTC option as part of the overall treatment regimen for patients with hyperpigmentation.

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Skin Tone-Adjusted Dermoscopic Criteria for Lichen Planus Pigmentosus in Indian and Middle Eastern Populations

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ABSTRACT

Background: Lichen planus pigmentosus (LPP) presents diagnostic challenges in Indian and Middle Eastern populations due to its subtle clinical presentation on deeply pigmented skin and the inadequacy of standard dermoscopic criteria developed primarily for lighter phototypes.[1] In Fitzpatrick IV to V skin, LPP often manifests as ill-defined slate-gray or brown macules with minimal surface change, typically distributed along photoexposed or flexural areas, making early detection difficult without skin tone-adjusted diagnostic tools. Conventional dermoscopy descriptors such as Wickham striae, erythematous background, or perifollicular scaling are either absent or visually obscured in darker skin, limiting their utility and contributing to misdiagnosis as melasma, ashy dermatosis, or fixed drug eruption.[2]

Objective: To identify dermoscopic patterns specific to lichen planus pigmentosus in Fitzpatrick IV–V skin and evaluate the limitations of conventional diagnostic frameworks in skin of color populations.

Methods: A narrative literature review was conducted to analyze dermoscopic findings of LPP in individuals with skin of color, with emphasis on studies involving Indian and Middle Eastern cohorts. Databases searched included PubMed, Embase, and Scopus using keywords such as "lichen planus pigmentosus," "dermoscopy," "skin of color," "South Asian," and "Middle Eastern." Articles were reviewed for reported dermoscopic features, histopathologic correlations, and clinical misclassification patterns.

Results: Recent high-resolution dermoscopic analyses in South Asian and Middle Eastern cohorts have revealed distinct features, including annular to reticulated gray-blue dots, pseudonetwork-like arrangements, follicular accentuation without redness, and subtle slate-gray pigmentation that may only be discernible under polarized light.[3] Patterns reflect deeper dermal pigment incontinence and basal layer vacuolar degeneration, hallmarks of LPP that are often overlooked in standard pattern recognition frameworks. The presence of discrete versus confluent gray globules, degree of follicular plugging, and distribution symmetry also vary based on regional phenotype and sun exposure habits, emphasizing the need for population-specific dermoscopic parameters.[1,6-8]

Conclusions: Relying on erythema or vascular patterns leads to underdiagnosis and delayed intervention in darker-skinned patients, where pigmentary changes are often the only visible marker of active disease. Development of skin tone-adjusted dermoscopic criteria that prioritize pigment morphology over inflammatory color cues improves diagnostic accuracy, informs biopsy site selection, and supports timely therapeutic intervention for LPP in Indian and Middle Eastern populations.

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Vaccine- and Immunotherapy-Induced Vitiligo: Clinical Features, Mechanisms, and Implications for Skin of Color

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ABSTRACT

Introduction: Vitiligo is a skin disease characterised by depigmentation resulting from autoimmune-mediated destruction of melanocytes, leading to distinctive cutaneous findings. Immunotherapy-induced vitiligo (IIV) is a side effect seen upon use of cancer vaccines, biologics, immune checkpoint inhibitors, and the COVID-19 vaccine. In melanoma, IIV is a positive prognostic indicator and may be useful as a biomarker of immunity in these patients. In non-melanoma contexts, the prognostic significance of vitiligo occurrence remains unclear. New-onset of vitiligo in patients with skin of color can be particularly concerning, as the depigmentation is more obvious on darker skin tones, potentially leading to greater self-consciousness and social stigma.

Objective: To investigate the factors which contribute to the pathogenesis of vitiligo induced by immunotherapies and vaccines, with a focus on skin of color, adverse outcomes, and strategies for management and destigmatization.

Methods: A comprehensive review of databases, including PubMed and Google Scholar, was conducted searching for terms including "vitiligo", "vaccine-induced", "immunology", "immunotherapy", "vaccine", "adverse effect", "side effect", and "depigmentation". Key pieces of information were extracted, including: types of vaccines and immunotherapies causing IIV, epidemiology and prevalence of IIV in different immunotherapies, mechanisms of IIV, prognostic associations, clinical features, and gaps in the literature on how this condition affects skin of color.

Results: The overall incidence of IIV in melanoma treated with immunotherapy is about 3.4%. With PD-1 inhibitors, nivolumab and pembrolizumab, the incidence is about 7-8%. The median time of onset for IIV with PD-1 inhibitors is about 5 months. Of note, most studies did not report the skin type of patients using the Fitzpatrick system or mention patients' ethnicities. IIV may occur due to anti-tumor antibodies reacting

with normal human melanocytes due to similar antigens. Trauma or inflammation during illness can also provide a nidus for the onset of IIV. The mechanism could implicate melanocyte destruction by CD8+ T-cells and overall imbalances of Th responses. For melanoma patients, IIV development coincides with significantly improved survival. Prior autoimmune diseases could indicate increased susceptibility to IIV. We note a lack of reporting on race, skin tone, and ethnicity in our literature search. Misdiagnosis as other skin diseases, such as tinea versicolor or pityriasis alba, can result in delays in treatment and recognition of IIV.

Conclusions: Immunotherapy-induced vitiligo is a phenomenon with unique implications in skin of color. Early recognition, accurate diagnosis, cultural sensitivity, and psychosocial support can improve outcomes in patients with darker skin tones who develop IIV.

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The authors have no conflicts of interest to disclose.

UNIQUE ID: PDS_21

Hemispheric Asymmetry of Facial Melasma in Hijab-Wearing South Asian Women and the Association with Lateralized UV Exposure

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ABSTRACT

Background: In South Asian women who practice wearing a hijab, one-sided ultraviolet (UV) exposure from environmental and vehicular sources may lead to lateralized melasma, especially in settings where driving or walking habits consistently expose the same side of the face to sunlight. In countries where traffic flows on the left and drivers sit on the right, right-sided UV exposure dominates in hijab-wearing women due to uncovered facial areas adjacent to the car window or sun-facing pedestrian side. Sociocultural and geographic factors may be key contributors to the asymmetric photodamage observed in this population.

Objective: To explore the relationship between unilateral UV exposure, cultural clothing practices, and hemispheric asymmetry in facial melasma, and to emphasize the need for culturally responsive photoprotection strategies in hijab-wearing populations.

Methods: A comprehensive literature review was conducted using PubMed and Google Scholar to examine melasma distribution patterns in hijab-wearing women, with particular focus on clinical, dermoscopic, and photobiological factors. Search terms included combinations of "melasma," "hijab," "UV exposure," "window glass," "photoprotection," "dermoscopy," and "skin of color." Observational studies reporting laterality of facial hyperpigmentation in relation to geographic traffic patterns and sun exposure through glass were included. Mechanistic studies exploring UV-A transmission, photoinduced melanogenesis, and skin barrier responses in pigmented skin types were also reviewed. Cultural influences on sun protection behaviors, including religious dress and regional norms, were assessed to contextualize clinical findings.

Results: Right-sided melasma predominates in hijab-wearing women in countries with left-lane traffic flow, where the right side of the face is more frequently exposed to sunlight through car windows or pedestrian positioning. Subclinical UVA exposure through untreated glass, paired with limited sunscreen use on visibly exposed areas, may lead to asymmetrical photodamage. Mechanistic data support lateralized increases in tyrosinase activity, melanocyte dendricity, and oxidative stress in photoexposed skin. However, no standardized studies have quantified pigment asymmetry in veiled populations, and lateralized UV exposure is rarely addressed in pigmentary counseling or treatment plans.

Conclusions: Lateralized melasma in hijab-wearing women reflects a consequence of asymmetric UV-A exposure shaped by regional traffic patterns and cultural practices. Despite clear mechanistic links to localized melanogenesis, this pattern is rarely addressed in pigmentary management. Incorporating laterality-specific photoprotection, such as UV-filtering window films and targeted sunscreen application, into counseling and treatment protocols may improve therapeutic outcomes in hijab-wearing women.

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UNIQUE ID: PDS_22

Reframing Melasma Management Guidelines for South Asian Women Based on Regional UV Index and Cultural Practices

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ABSTRACT

Background: Melasma disproportionately affects South Asian women, yet current management guidelines often fail to account for the intersection of regional UV index variability, skin phototype physiology, and culturally specific practices that influence pathogenesis and treatment adherence. In South Asian women, melasma frequently presents as mixed-type or dermal-predominant hyperpigmentation with a chronic, relapsing course exacerbated by high ambient ultraviolet A exposure, thermal stress, and visible light, which are all intensified by geographic location, seasonal variation, and lifestyle patterns. Daily UV index levels in South Asian regions such as Tamil Nadu, Maharashtra, Punjab, and West Bengal frequently exceed 8–10, leading to subclinical photodamage despite minimal direct sun exposure.

Objective: To reassess melasma management strategies for South Asian women by integrating regional UV index patterns, Fitzpatrick IV–V skin responses, and culturally specific behaviors influencing photodamage and treatment adherence.

To propose modified guidelines that are physiologically appropriate, culturally relevant, and regionally responsive.

Results: Findings demonstrate that cultural norms, including early morning commutes, religious outdoor gatherings, and cooking near open flames, contribute to cumulative photothermal stress, while photoprotection behaviors such as sunscreen use remain inconsistent due to concerns about greasiness, white cast, expense, and perceived incompatibility with tradi-

tional skincare routines. Clothing that partially covers the face or arms may offer inadequate protection in high-UV environments, and many women rely on fairness creams or homemade masks with limited or no photoprotective properties. Conventional melasma regimens emphasizing triple combination therapy and chemical peels often overlook the risk of post-inflammatory hyperpigmentation in Fitzpatrick IV–V skin and do not incorporate environmental or cultural modifiers into treatment planning.

Conclusions: Effective long-term control of melasma in South Asian women requires tailored strategies that integrate region-specific UV index data, culturally compatible photoprotection counseling, non-hydroquinone-based depigmenting agents with anti-inflammatory properties, and safer procedural interventions aligned with pigment sensitivity.

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A Novel Investigator Developed Regimen for Treatment and Prevention of Post-Inflammatory Hyperpigmentation in Skin of Color

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ABSTRACT

Background: Post-inflammatory hyperpigmentation (PIH) is a common acquired disorder caused by increased melanin production or abnormal deposition following inflammation, with a higher prevalence and psychosocial burden in patients with skin of color (Lawrence E, et al. StatPearls 2025; Maymone MBC, et al. J Am Acad Dermatol 2017). PIH can result from acne, atopic dermatitis, burns, and other inflammatory dermatoses and may take months to years to resolve spontaneously (Darji K, et al. J Clin Aesthet Dermatol 2017). Current first-line therapies such as hydroquinone may be effective but have notable adverse effects, including exogenous ochronosis, limiting long-term use (Draelos ZD. Dermatol Ther 2007). There remains a need for safe, effective, and accessible treatment options for PIH in skin of color patients.

Objective: To evaluate the safety and efficacy of an investigator-developed, hydroquinone-free skincare regimen in improving PIH and patient-reported satisfaction in individuals with skin of color.

Methods: In this single-center, prospective, non-blinded, non-randomized 12-week clinical study, 10 participants (Fitzpatrick skin types IV–VI) with a diagnosis of PIH received two in-office Pigment Balancing Peel treatments (glycolic acid, citric acid, vitamin C, emblica) at baseline and week 6, combined with a daily at-home regimen including Discoloration Defense Serum (tranexamic acid, niacinamide, kojic acid), LHA Cleanser Gel, Hydrating B5 Gel, and Daily Brightening UV Defense Sunscreen. The primary endpoint was change in FACE-Q Satisfaction with Facial Appearance scores from baseline to week 12. Secondary outcomes included changes in Dermatology Life Quality Index (DLQI), FACE-Q psychosocial and social function scales, melanin and erythema indices, and patient satisfaction with treatment (Austin E, et al. G Ital Dermatol Venereol 2019).

Results: At week 12, mean FACE-Q Satisfaction with Facial Appearance scores increased from 41.8 ± 17.4 to 79.2 ± 16.1, reflecting an 89.5% improvement ($P<0.001$). DLQI scores decreased from 6.5 ± 6.6 to 0.7 ± 1.3 ($P<0.01$), with 70% of participants reporting no negative quality-of-life impact post-treatment. FACE-Q Psychological Function scores increased from 64.6 ± 19.1 to 94.6 ± 15.1 ($P=0.0008$), and Social Function scores from 66.3 ± 23.6 to 77.9 ± 15.2 ($P=0.048$). SkinColorCatch® melanin index values decreased progressively, indicating objective pigment improvement, while erythema index remained stable. The regimen was well tolerated, with only transient mild redness, peeling, and burning reported in 3 participants after peels, resolving without intervention.

Conclusions: This investigator-developed regimen, combining chemical peels with targeted topical agents, significantly improved patient-reported satisfaction, quality of life, and objective pigment measures in individuals with skin of color affected by PIH. The hydroquinone-free, multi-agent approach was safe, accessible, and well tolerated, supporting its potential as a patient-centered therapeutic option (Chen T, et al. *Clin Cosmet Investig Dermatol*. 2024; Navarrete-Solís J, et al. *Dermatol Res Pract*. 2011).

DISCLOSURES:
Kayla Zafar BA, Margaret Kabakova BS, and Lucie Joerg BA do not have any relevant conflicts of interests. Jared Jagdeo MD MS is the investigator for this investigator-initiated study and has no conflicts of interest.

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