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Selected Abstracts

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The Scientific Committee

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ABSTRACTS

AB-01

Assessing the attitudes, knowledge and beliefs of the Hispanic community regarding skin cancer

Anna Veintimilla[1], Jason Chen[2], Barbara Nemesure[2], Linda Mermelstein[2], Annalea Trask[2]
[1]Stony Brook Cancer Center, Stony Brook, New York
[2]Renissance School of Medicine, Stony Brook University, Stony Brook, New York

Melanoma incidence rates continue to rise across the United States, with Suffolk County, NY, reporting one of the highest rates statewide—particularly among White males. However, melanoma incidence rates among Hispanic populations have increased by 20% over the past two decades, with significantly lower 5-year survival rates—78% in Hispanic men compared to 91% in non-Hispanic White men. These disparities are believed to stem from later-stage diagnoses, anatomical differences in tumor presentation, and a reduced self-perception of skin cancer risk among Hispanic individuals. Even when healthcare access is similar, Hispanic populations have been shown to express less concern about developing skin cancer. This project seeks to examine the attitudes, knowledge, and beliefs related to melanoma risk and sun safety practices among Hispanic residents of Suffolk County. An anonymous online survey (available in Spanish and English), adapted from validated national tools (BRFSS, HINTS, NHANES, NHIS), is being disseminated through trusted community-based organizations in partnership with the Stony Brook Cancer Center's Office of Community Outreach & Engagement. To date, 50 responses have been recorded- including 32 responses from Hispanic identifying individuals. Current data demonstrates that, although general knowledge about skin cancer was good among Hispanic respondents, 31% believed they were less likely to develop skin cancer, 19% indicated they could not protect themselves from getting it, and 34% were not concerned about skin cancer. We hypothesize that Hispanic participants will show lower perceived risk, concern, and preventive behaviors for skin cancer, such as regular sunscreen use, reflecting prior findings that delayed melanoma diagnoses in Hispanic and African American groups are linked to low perceived risk and infrequent self-exams. Results will inform culturally sensitive educational strategies and outreach initiatives aimed at addressing disparities in melanoma prevention and outcomes in Hispanic populations.

AB-02

Sun safety in rural youth: exploring knowledge, preferences, and behaviors

Darya Khani, Tiffany Pittman, Haley Elliot, Jennifer Shaw
Philadelphia College of Osteopathic Medicine, Moultrie, Georgia

Background: Skin cancer is the most common cancer in the U.S., with prolonged sun exposure significantly increasing the risk. Rural youth, particularly in agricultural regions like South Georgia, experience high levels of UV exposure but may lack sufficient knowledge about sun safety. Understanding their awareness, preferences, and behaviors regarding sun protection is crucial for developing effective educational interventions. The primary objective is to survey students in the South Georgia community about their knowledge of sun safety prior and following a presentation on the topic of skin protection. The findings of this survey, as well as the informative presentation will help promote the importance of skin checks, daily sunscreen use, and overall youth empowerment on the topic of sun safety.
Methods: Middle and high school students at Georgia Christian School in Valdosta, GA, completed pre- and post-surveys evaluating their sun safety knowledge, behaviors, and sources of information. The intervention included a structured presentation covering the risks of UV exposure, effective sun protection methods, and skin cancer prevention strategies.
Results: Pre-survey data revealed limited sun protection habits, with most students using sunscreen inconsistently. White students reported higher sunscreen use, while

Hispanic and Asian students preferred protective clothing. Social influences, including family and social media, shaped students' perceptions of tanning and sun exposure. Post-survey results demonstrated a significant increase in sun safety awareness, with 69% recognizing its importance and 90% reporting confidence in identifying skin cancer signs. Intentional tanning preferences declined, though some students maintained previous attitudes.
Conclusions: Education significantly improves sun safety knowledge and influences protective behaviors among rural youth. Tailored interventions considering cultural differences can enhance long-term sun safety practices, ultimately reducing skin cancer risks in high-exposure regions.

AB-03

Systematic review of dermatological conditions in correctional facilities: a look at prevalence and healthcare gaps

Rachel E. May
Rosalind Franklin University Chicago Medical School, North Chicago, IL, United States of America

Background: Incarcerated individuals are disproportionately affected by dermatologic conditions due to environmental and systemic factors, such as overcrowding, poor sanitation, and limited access to timely medical care. These conditions foster both communicable and chronic skin diseases, contributing to overall health disparities within correctional facilities. This systematic review aims to identify the most prevalent dermatologic conditions in incarcerated populations, examine their underlying causes, and evaluate evidence-based strategies for improving healthcare delivery.
Methods: A systematic literature review was conducted using PubMed and Google Scholar, encompassing studies published between 2012 and 2025. Eight peer-reviewed studies were selected based on their relevance and inclusion of data on the prevalence, etiology, treatment adherence, and management outcomes of dermatologic conditions within correctional systems. The studies also assessed potential interventions to improve skin health outcomes in this population.
Results: The selected studies examined correctional populations in Turkey, India, Taiwan, Nigeria, Spain, and the United States, identifying prevalent dermatologic conditions such as scabies, acne, psoriasis, and tinea pedis. Key contributing factors included overcrowded living environments, inadequate personal hygiene resources, delayed diagnosis, and inconsistent access to follow-up care. To address these challenges, the implementation of teledermatology services, enhanced sanitation practices, and systemic policy reforms were recommended to improve healthcare access and quality in correctional facilities.
Conclusions: Dermatologic disease in incarcerated populations reflects broader systemic healthcare disparities. Targeted interventions, particularly those focused on access to care, hygiene infrastructure, and health policy reform, are essential to improving dermatologic outcomes and advancing health equity for this vulnerable group.

AB-04

Barriers to seeking dermatologic care in Puerto Rico: insurance-based differences in wait time, travel distance, and multilevel access challenges

Valeria Torres García[1], Joan Neptune Rosa[2], Rychel Torres Rodríguez[2], María Limardo[1], Camila Fontané Hoyos[3], Solianne Martínez[2]
[1]Ponce Health Sciences University, Ponce, Puerto Rico
[2]Universidad Central del Caribe, Bayamón, Puerto Rico
[3]Universidad de Puerto Rico, Recinto de Ciencias Médicas, Dermatology Department, San Juan, Puerto Rico

Background: Dermatologic conditions—including chronic inflammatory diseases and skin cancers such as melanoma—require early diagnosis and treatment to prevent long-term morbidity and mortality. Alarmingly, in the US and Puerto Rico, skin cancer now surpasses prostate, lung, and breast cancers combined in incidence. In Puerto Rico, this need for timely care collides with a stark provider shortage: fewer than 200 dermatologists serve over 3.2 million residents. The consequences include delayed appointments, long travel distances, and reliance on non-specialists, particularly in rural and low-income communities. While most residents have health insurance, coverage alone does not guarantee access. For the publicly insured and uninsured, systemic barriers remain underexamined. This study explores how insurance type influences access to dermatologic care in Puerto Rico, through the lens of
patient-reported experiences.
Methods: A cross-sectional survey was conducted in Spring 2025 among adults (≥21 years) residing in Puerto Rico. Participants who had attempted to access dermatologic care within the past five years (n = 329) were included in the analysis. The survey collected data on insurance status, appointment wait times, travel distances, reported access barriers, and demographic characteristics. Descriptive statistics and chi-square tests were used to explore differences across insurance groups.
Results: Among care-seeking respondents, 83.3% had private insurance, 15.8% public insurance, and 0.9% were uninsured. Publicly insured faced greater delays—58.8% waited more than three months for an appointment, compared to 52.9% of those with private insurance. Additionally, 2.0% of public vs 8.0% of private insurance holders were unable to secure an appointment. Long travel times (>1 hour) were more common among publicly insured individuals (19.6%) compared to those with private insurance (11.4%). Reported barriers were also more prevalent among public insurance holders, including difficulty contacting clinics (36.5% vs. 18.6%), limited provider availability (63.5% vs. 44.9%), and perceived long wait times (61.5% vs. 33.2%).

Discussion: Our findings reveal a concerning reality: insurance status significantly shapes the access of dermatologic care in Puerto Rico. Patients with public insurance reported longer wait times, travel burdens, and more frequent barriers compared to privately insured. Over 58% of publicly insured participants waited more than three months for an appointment, and nearly one in five had to travel over an hour to be seen. Barriers such as difficulty contacting clinics, limited provider availability, and financial limitations were all more common in this group. While statistical significance was not reached, the trends point to a meaningful and consistent pattern. These results mirror nationwide Medicaid access challenges, but highlight a uniquely urgent context in Puerto Rico—where over 1.5 million residents depend on public insurance and the dermatology workforce remains critically limited and centralized in urban areas. Crucially, our study underscores that having insurance is not enough. Structural barriers continue to block equitable access to care. Addressing these disparities demands intentional action: expanding the dermatology workforce, decentralizing specialist access, optimizing referral and scheduling systems, and scaling up teledermatology. Without these steps, patients most in need will remain systematically underserved.

AB-05

Racial disparities in dermatologic manifestations of chlamydia trachomatis: a call for inclusive diagnosis and training

Neha Iska[1], Jonique Depina[2], Nicholas Doss-Hom[3], Carolyn Duong[2], Jordan Shelestak[2], Vivian Li[4], Kelly Frazier[5]
[1]Wayne State University School of Medicine, Detroit, MI, USA
[2]Kansas City College of Osteopathic Medicine, Kansas City, MO, USA
[3]Lewis Katz School of Medicine, Philadelphia, PA, USA
[4]Nuvance Health, Poughkeepsie, NY, USA
[5]Department of Dermatology, Northwell Health, New Hyde Park, NY, USA

Background: Globally, CT is the most common sexually transmitted infection (STI), and in the United States, CT is the most frequently reported bacterial infection. Critically, CT presents asymptomatically, particularly in females. Left untreated, CT can lead to serious reproductive complications such as pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. Furthermore, CT frequently co-infects host cells with Neisseria gonorrhoeae (NG), amongst other STI-related pathogens. Racial and ethnic disparities exist in CT prevalence, with Non-Hispanic Black and Hispanic women facing disproportionate lifetime CT sequelae. Dermatologic manifestations of CT, including reactive arthritis and keratoderma blennorrhagicum, are underrecognized, especially in skin of color (SOC). Dermatologists' understanding of ethnic differences in immune responses and clinical presentation is a cornerstone for equitable diagnosis and care.

Methods: A comprehensive literature review was conducted using PubMed, Scopus, and Web of Science databases. Keywords included "CT," "NG," "ethnicity," "race," "co-infection," "PID," and "reactive arthritis." Inclusion criteria were peer-reviewed, English-language articles published since January 2000. Relevant cross-sectional, retrospective, and prospective studies were included, and reference lists were screened for additional sources.

Results: Non-Hispanic black women have nearly a fourfold increased lifetime risk of CT infection compared to non-Hispanic white women. Furthermore, many dermatologic manifestations linked to CT-induced reactive arthritis, such as keratoderma blennorrhagicum, are rarely depicted or studied in patients with SOC. Patients with lower income and education, particularly within Hispanic and Black racial groups, are less likely to seek dermatologic care. Patients with public insurance (e.g., Medicaid), more common among Black and Hispanic populations, face significantly lower acceptance rates for dermatology referrals compared to those with private insurance. In addition to disparities driven by variations in sexual behavior patterns and systemic or cultural barriers to care, representation within the field remains limited, as only 3% of dermatologists identify as Black.

Conclusions: There is a significant gap in recognizing CT-associated dermatologic manifestations across racial and ethnic groups. Improved education on dermatologic conditions in diverse populations, equitable access to STI screening, and inclusion of SOC in clinical training are necessary to reduce disparities. Addressing these gaps may lead to earlier detection, better outcomes, and more equitable dermatologic care for CT-related conditions.

AB-06

Remote dermatologic assessment in prisons: a telehealth approach to skin cancer recognition

Emilia Preda[1], Sarina Shah[2], Tej Patel[3], Sahla Esam[4], Natasha Doshi[5], Toan Vu[6]
[1]Georgetown University, Washington, DC, USA
[2]Rowan-Virtua School of Medicine, Stratford, NJ, USA
[3]Lewis Katz School of Medicine at Temple University, Philadelphia, PA, USA
[4]University of Missouri School of Medicine, Columbia, MO, USA
[5]Lake Erie College of Osteopathic Medicine, Bradenton, FL, USA
[6]University of Wisconsin School of Medicine and Public Health, Madison, WI, USA

Skin diseases and skin cancer are highly prevalent among incarcerated persons (IPs), with a higher standardized incidence ratio compared to the general population. IPs face limited access to preventive skin screenings and dermatologic care, in part due to provider shortages, cost constraints, and the logistical burden of transporting patients to external facilities under security supervision. As a result, IPs often receive cancer diagnoses at more advanced stages and experience significant delays in

treatment initiation, both of which increase the risk of poor outcomes. For example, melanoma treatment in IPs is frequently delayed by more than 30 days after biopsy, which is associated with a significantly increased mortality risk. Providing timely, specialized dermatological care in prisons is challenging due to logistical barriers, security concerns, and high transportation costs. Teledermatology, which utilizes digital imaging and remote consultation, offers a promising solution. This approach enables diagnosis and treatment planning without the need for inmate transfer, thereby reducing costs, improving security, and potentially decreasing wait times. Teledermatology in prisons has demonstrated efficacy in achieving complete diagnoses, with only a small minority of patients seen virtually requiring face-to-face follow-up, thus providing timely and safe dermatological care. A feasible model involves trained prison staff capturing images of skin lesions, which are then sent to dermatologists for asynchronous review (store-and-forward). Challenges include ensuring adequate infrastructure, training, and addressing potential biases. Implementing teledermatology can enhance access to specialized expertise, support early recognition and triage of suspicious lesions, and potentially lead to improved outcomes for this vulnerable population.

AB-07

Al diagnostic performance across diverse skin tones in melanoma detection: a comprehensive review

Aymen Arain[1], Annabelle Alrez[2], Sakina Akbar[3], Danny Lee[4], Alice Kesler[5], John Louie Allera[6]
[1]Edward Via College of Osteopathic Medicine, Monroe, LA, USA
[2]Windsor University School of Medicine, Cayon, St Kitts & Nevis, USA
[3]University of Missouri, Kansas City, MO, USA
[4]University of California San Francisco, CA, USA
[5]Lakeland Regional Health, Lakeland, FL, USA
[6]Nova Southeastern University, Davie, FL, USA

Artificial intelligence (AI) has emerged as a transformative modality in dermatological diagnostics, particularly in detecting melanoma, a malignancy known for its aggressiveness and high mortality rate when detected late. Despite these advances, significant gaps remain in AI's equitable diagnostic performance across diverse skin tones. Melanoma detection in patients with darker skin types (Fitzpatrick IV-VI) remains a significant challenge, owing primarily to historical underrepresentation in training datasets and insufficient model validation across diverse populations. This imbalance is concerning, considering that patients with darker skin tones are often diagnosed in the latter stages of melanoma, leading to poorer outcomes compared to those with lighter skin, and is a reflection of image repositories predominantly consisting of lighter skin tones. The composition of commonly used dermatological image datasets, such as HAM10000 and ISIC, primarily feature lighter skin types, leading to the diagnostic disparities seen in AI systems. Recent studies, including evaluations using the Diverse Dermatology Images (DDI) dataset, have shown a significant decrease in the area under the curve metrics for melanoma detection in darker-skinned individuals compared to lighter-skinned groups. Efforts to mitigate these biases have resulted in novel strategies for improving AI equity in dermatological applications. Initiatives include creating racially diverse image archives, implementing standardized skin tone classification systems (such as the Monk Skin Tone Scale), and using algorithmic debiasing during model training. Furthermore, fine-tuning CNN models on inclusive datasets has shown promise in reducing diagnostic disparities, with sensitivity and specificity nearly equal across skin tones. However, challenges remain in clinical implementation, regulatory oversight, and ethical considerations for bias detection and correction. Understanding AI-driven melanoma detection as both a diagnostic tool and a potential source of bias changes its role in dermatology. Achieving equitable outcomes will require diversifying training data and continuously assessing model performance across all Fitzpatrick types in real-world clinical settings.

AB-08

Evaluating ChatGPT's recommendations for adolescent skin care routines: accuracy, consistency, and evidence-based practices

Karen L. Vo[1], Valerie Foy[2]
[1]Desert Regional Medical Center, 1150 N Indian Canyon Dr, Palm Springs, CA, USA
[2]St. John's Episcopal Hospital, 327 Beach 19th St, Far Rockaway, NY, USA

Adolescence is a critical period for developing lifelong skin care habits, with common conditions including acne, eczema, and inadequate sun protection. Early, evidence-based guidance can help prevent long-term complications such as scarring, post-inflammatory hyperpigmentation, and increased skin cancer risk. As teens increasingly seek health information online, artificial intelligence chatbots like ChatGPT have become popular sources. A recent survey found 79% of teens are aware of ChatGPT, with 54% deeming it is acceptable to use ChatGPT to research new topics. However, the lack of regulation and risk of inconsistent, non-evidence-based responses raise concerns about using ChatGPT for dermatologic advice. This study assesses ChatGPT's responses to adolescent skin care questions for accuracy, consistency, and alignment with evidence-based guidelines. We queried ChatGPT-4o (OpenAI, May 2024) via its default web interface to simulate typical use. Four common adolescent skin concerns—acne, atopic dermatitis, and sun protection—were each rephrased three ways to assess consistency. Responses were compared to American Academy of Dermatology (AAD) guidelines and peer-reviewed literature. Two physicians independently evaluated accuracy, consistency, and guideline alignment. The study examined ChatGPT-4o's recommendations,

personalization limitations, and referrals to dermatologists. Queries were conducted in May 2025 and archived for reproducibility. Of 12 ChatGPT-4o responses to adolescent skin care queries, 50% aligned with AAD guidelines, while 25% included partially accurate information. Reworded prompts led to differing recommendations in 25% of cases. All responses gave generalized advice without citations, limiting transparency. When asked for evidence-based justification, all ChatGPT's responses explicitly referenced hallucinated literature and provided unsupported conclusions. Additionally, 25% gave inconsistent advice on seeing a dermatologist. Our findings show that while ChatGPT provides accessible dermatologic information, its advice often lacks clinical nuance and evidence-based medicine. For example, ChatGPT responses did not distinguish comedonal from cystic acne and rarely mentioned Fitzpatrick skin types, risking recommendations that could worsen scarring or hyperpigmentation. Gender-specific factors, such as hormonal acne in females, were also overlooked. ChatGPT seldom gave evidence-based justifications unless prompted and frequently cited fabricated sources, undermining its credibility. Adolescents, vulnerable to misinformation, may view artificial intelligence (AI) generated advice as definitive, risking mismanagement of chronic skin issues and delaying proper care. This is especially concerning for those with limited dermatologic access, potentially worsening health disparities. The use of photo uploads or personal health data by minors raises ethical concerns, as these platforms may not follow HIPAA standards, posing privacy risks. These results highlight the need for dermatologist-led education to improve digital health literacy and promote safe AI use. Future research should explore dermatology-specific AI tools based on AAD guidelines to improve accuracy and personalization. Public health campaigns can help teens critically assess online health advice, while dermatologists should advocate for regulatory oversight to ensure AI-driven health tools prioritize patient safety. Given ChatGPT's oversimplified recommendations and failure to create individualized skin care recommendations, dermatologists play a critical role in educating adolescents about the limitations of AI for managing complex skin conditions. Through patient counseling and digital health literacy initiatives, clinicians can emphasize the importance of personalized dermatologic care over AI-generated advice.

AB-09

Artificial intelligence in the management and treatment of pediatric burns: current applications and future directions

Roban Shabbir[1], Emilia Preda[2], Tioluwa Akinjaiyeju[3], Shaina Gagadam[4], Ayham Alkiswani[5], Harleen Multani[6]
[1]Lewis Katz School of Medicine at Temple University, Philadelphia, PA, USA
[2]University of Virginia, Charlottesville, VA, USA
[3]Boston University Chobanian & Avedisian School of Medicine, Boston, MA, USA
[4]Philadelphia College of Osteopathic Medicine, Philadelphia, PA, USA
[5]University of the Incarnate Word School of Osteopathic Medicine, San Antonio, TX, USA
[6]Meharry Medical College, Nashville, TN, USA

Pediatric burns represent a significant source of childhood morbidity, often detrimental to both psychological and psychosocial development. Although promising advancements are being made in their management, clinical assessment of burn depth and severity remains highly subjective, frequently leading to diagnostic variability and inconsistent treatment outcomes. Artificial intelligence (AI) technology, including machine learning (ML), deep learning (DL), and generative models, holds significant transformative potential in accurately diagnosing, planning, monitoring, and rehabilitating pediatric burn injuries, thereby enhancing patient outcomes and reducing healthcare costs. AI's capacity to improve care is demonstrated by its ability to significantly improve diagnostic accuracy, achieving up to 95.4% precision and greater speed compared to traditional assessments. This enhancement extends to AI-based telemedicine and wearable sensor technologies, which improve patient status monitoring, enabling earlier detection of complications and more tailored treatment strategies. Furthermore, surgical planning benefits from AI-enhanced graft modeling and predictive analytics, which optimize outcomes by reducing the risks of infection and functional impairments. Additionally, AI-driven wearable technology and virtual reality in rehabilitation increase patient engagement and treatment adherence. However, significant challenges hinder the widespread integration of AI, including limitations in pediatric-specific datasets, variability in clinician-captured image quality, the need for consistent and stringent validation of AI models, and crucial ethical considerations regarding the privacy of pediatric patients and the use of their data. This review surveys recent advancements and applications of AI technology in pediatric burn management, examining its integration in diagnostic tools, individualized treatment planning, telemedicine integration, predictive analytics for surgical outcomes, and rehabilitation practices, while also exploring the associated limitations and ethical considerations. Addressing these multifaceted challenges is essential for the responsible, effective, and equitable integration of AI, ultimately ensuring high-quality pediatric burn management on a nationwide scale.

AB-10

Consumer wearables in atopic dermatitis: opportunities, limitations, and practical guidance

Shivani S. Ambardekar[1], Yazmin Williams[2], Raneem Albosstani[3], Nesreen Shahrour[4], Mena Abdullah[5], Diana Ayala[6], Nasim Kasiri[7]
[1]Department of Medicine, University of Illinois at Chicago, Chicago, IL, USA
[2]Rowan-Virtua School of Osteopathic Medicine, Stratford, NJ, USA

[3]Texas College of Osteopathic Medicine, Fort Worth, TX, USA
[4]Georgetown University School of Medicine, Washington, DC, USA
[5]University of Arizona College of Medicine - Tucson, Tucson, AZ, USA
[6]St. George's University School of Medicine, St. George's, Grenada, USA
[7]Stritch School of Medicine, Loyola University Chicago, Chicago, IL, USA

Atopic dermatitis is a chronic inflammatory skin disease characterized by pruritus, sleep disruption, and stress-reactive flares. These symptoms significantly impair quality of life yet remain difficult to monitor objectively. Consumer wearables including smartwatches and rings are increasingly used to track health metrics such as sleep quality, physical activity, and heart rate variability, which may provide indirect insight into disease activity and symptom patterns in atopic dermatitis. While these devices are widely adopted in other areas of medicine, their role in dermatology and atopic dermatitis management has not been comprehensively evaluated. This narrative review addresses this gap by examining the potential clinical applications and dermatologic risks of general-purpose wearables in atopic dermatitis care. Existing studies and case reports suggest that wearable data related to scratching, sleep, and stress may support personalized care, enable early intervention, and improve patient engagement. However, wearables have also been associated with skin reactions including allergic and irritant contact dermatitis, particularly in individuals with compromised skin barriers. This review synthesizes current evidence, offers practical clinical guidance, and underscores the importance of dermatology input in shaping future research, device design, and clinical frameworks for integrating wearable data into patient care.

AB-11

The impact of physical activity on dermatological health: a scoping review

Levi Jensen[1], Halen Heussner[1], Caden Carver[2]
[1]Midwestern University- Arizona College of Osteopathic Medicine, Glendale, Arizona, USA
[2]Kansas City University - Graduate Medical Education (KCU-GME), Phoenix, Arizona, USA

Background: The effects of physical activity on skin health are increasingly recognized but remain underexplored compared to the well-established benefits for metabolic, cardiovascular, and musculoskeletal health. The skin plays a crucial role in thermoregulation, immune defense, and sensory perception. Understanding how different forms of exercise influence skin physiology may help optimize strategies for maintaining skin health and managing dermatological conditions. This scoping review aims to (1) synthesize existing literature on the impact of aerobic and resistance training on skin health, (2) identify the physiological mechanisms through which physical activity affects skin function, (3) explore potential clinical applications of exercise in dermatology, and (4) highlight research gaps for future investigation.
Methods: A systematic literature search was conducted using PubMed, CINAHL Plus with Full Text, and MEDLINE Complete with predefined search terms related to exercise and skin health. After screening 312 full-text articles based on inclusion and exclusion criteria, eight studies were included for analysis.
Results: Both aerobic and resistance training positively impact skin health through multiple mechanisms. Resistance training enhances dermal thickness and extracellular matrix composition, improving skin elasticity and firmness. Aerobic exercise promotes wound healing, increases cutaneous microvascular reactivity, and enhances mitochondrial function. Exercise reduces inflammatory markers and boosts immune function, potentially mitigating skin aging and inflammatory skin conditions. Hypoxia training improves skin microcirculation, while combined resistance training and extracorporeal shockwave therapy reduces cellulite severity.
Conclusions: Physical activity plays a significant role in enhancing skin elasticity, wound healing, inflammation control, and microcirculation. Despite promising findings, existing studies are limited, necessitating further research to determine optimal exercise regimens and elucidate molecular mechanisms. Future studies should explore long-term exercise effects and establish clinical guidelines for dermatologic applications.

AB-12

Red light therapy for skin rejuvenation

Daniela Rizzo[1], Kelly Frasier[2], Kristina Mueller[3], Gabriella Martinez[4], Milana Stein[5], Caroline Kruithoff[6], Creighton Pfau[7], Rafael do Valle[8]
[1]Arizona College of Osteopathic Medicine, Glendale, AZ, USA
[2]Northwell Health, New Hyde Park, NY, USA
[3]Philadelphia College of Osteopathic Medicine, Philadelphia, PA, USA
[4]Medical College of Wisconsin, Milwaukee, WI, USA
[5]New York Institute of Technology College of Osteopathic Medicine, Old Westbury, NY, USA
[6]Ohio University Heritage College of Osteopathic Medicine, Cleveland, OH, USA
[7]AT Still University SOMA, Mesa, AZ, USA
[8]Texas College of Osteopathic Medicine, Fort Worth, TX, USA

Red light therapy (RLT) has emerged as a promising modality in cosmetic dermatology for enhancing skin appearance, yet its precise mechanisms and full therapeutic potential remain underexplored. Beyond its established role in promoting collagen synthesis and wound healing, RLT may address age-related alterations in cellular metabolism and oxidative stress that contribute to skin aging, laxity, and uneven texture. Mechanistically, RLT stimulates cytochrome c oxidase (CCO) within mitochondria, enhancing ATP production and mitigating reactive oxygen species (ROS)-induced damage, thereby restoring energy-dependent processes crucial for dermal rejuvenation. Targeted research could further explain

RLT's effects on dermal fibroblast activity, focusing on the ability of red light therapy to optimize extracellular matrix remodeling, enhance elastin and hyaluronic acid synthesis, and reduce the appearance of fine lines and wrinkles. Additionally, RLT's influence on sebaceous gland activity presents potential applications for conditions such as rosacea and acne, where dysregulated sebum production and inflammation degrade skin texture and tone. RLT's role in modulating melanocyte function could also be explored to address post-inflammatory hyperpigmentation (PIH) and promote even skin pigmentation. Combining RLT with adjunctive procedures, such as microneedling or chemical peels, offers a compelling avenue for synergistic enhancement of skin rejuvenation, potentially amplifying treatment outcomes by enhancing transdermal absorption and cellular recovery processes. Refinement of RLT parameters, including optimal wavelengths (e.g., 630–680 nm) and dosimetry, is critical to tailoring cosmetic outcomes for specific skin concerns. Integrating molecular mechanisms with clinical applications positions RLT as a promising non-invasive modality, offering the potential to significantly improve skin health, tone, and texture.

AB-13

V-Y advancement flap for correction of oral incompetence after Mohs surgery: a case report

Linh H. Tran[1], Samantha Shwe Daniel[2], Keemberly Kim[2], Daniel B. Eisen[2]
[1]University of California, Davis, School of Medicine
[2]University of California, Davis, Department of Dermatology

Background: Background: Lower lip reconstruction following Mohs surgery presents a unique challenge, requiring precise restoration of both function and aesthetics. Postoperative complications such as oral incompetence, vertical height mismatch, and hypertrophic scarring can significantly impact a patient's quality of life. When primary reconstructive techniques fail to achieve optimal outcomes, secondary revision is necessary. V-Y advancement flap offers a versatile and effective solution for addressing these complex defects.
Case presentation: A 72-year-old woman underwent Mohs surgery for squamous cell carcinoma of the right lower lip, resulting in a 3.0 × 2.5 cm defect involving both the vermilion and cutaneous lip. Initial repair with a Modified Gillies flap achieved primary wound closure; however, at two months postoperatively, the patient developed oral incompetence, fluid leakage while eating, and hypertrophic scarring, leading to functional impairment and aesthetic dissatisfaction. Conservative management, including massage therapy and silicone gel sheets, was unsuccessful. A V-Y advancement flap with a mucosal approach was performed to recruit additional tissue, correct height asymmetry, and restore oral competence. A full-thickness triangular incision was made, and an adipofascial pedicle was advanced without tension to optimize both function and contour.
Results: At two months post-revision, the patient reported complete resolution of oral incompetence and high satisfaction, with sustained outcomes at six months. Compared to alternative revisions such as Z-plasty, V-Y advancement flap provided superior tissue recruitment while preserving lip function and contour.
Conclusions: This case underscores V-Y advancement flap's versatility in secondary lower lip reconstruction, effectively correcting both functional impairments and aesthetic concerns following Mohs surgery.

AB-14

Evaluation and comparison of Thiamidol vs. leading agents in the treatment of hyperpigmentation

Nahleh Koochak[1], Nicole Werpachowski[2]
[1]Department of Medicine, St. Joseph's Hospital BayCare, Tampa, FL, USA
[2]Department of Medicine, Northwell Health, New York, NY, USA

Hyperpigmentation, including post-inflammatory dark spots and melasma, remains one of the top cosmetic skin concerns across various skin types and age groups. While established topical agents such as azelaic acid and hydroquinone have demonstrated promising results in the improvement of hyperpigmented lesions, their use can be limited by irritation and safety concerns. Thiamidol, a patented derivative of resorcinol, selectively inhibits human tyrosinase, a key enzyme in melanogenesis, thus representing a novel, targeted approach to treating hyperpigmentation. This scoping review aims to synthesize the clinical evidence of the efficacy and safety of Thiamidol compared to traditional dark spot correctives for the treatment of hyperpigmentation. A systematic literature search of PubMed and MEDLINE databases identified 14 studies published within the last 7 years that evaluated Thiamidol's efficacy both as a monotherapy and in combination with other lightening agents. The results demonstrated significant improvement in the visibility of dark spots following 4 to 12 weeks of twice-daily Thiamidol application. Notably, Thiamidol was well-tolerated with a low incidence of adverse effects and showed efficacy across all Fitzpatrick skin types. These findings suggest that Thiamidol is a safe and effective alternative to hydroquinone, particularly for patients seeking a long-term, well-tolerated solution for hyperpigmentation. Further investigation is warranted to explore synergistic effects of Thiamidol when used in combination with other depigmenting or resurfacing agents for optimal sustained benefits and patient outcomes.

AB-15

Astragalus membranaceus extract as a botanical ingredient for pigmentary and anti-aging skincare: a systematic review

Stephanie A. Jackson[1], Jill S. Waibel[2], Lily Park[3]
[1]A.T. Still University School of Osteopathic Medicine, Mesa, AZ, USA

[2]Department of Dermatology, Miami Dermatology & Laser Institute, Miami, FL, USA
[3]Department of Dermatology, California Northstate University College of Medicine, Elk Grove, CA, USA

Skin aging, driven by both intrinsic and extrinsic factors such as ultraviolet (UV) radiation, oxidative stress, and inflammation, leads to visible signs including wrinkles, pigmentation, and reduced elasticity. This systematic review investigates the anti-aging potential of Astragalus membranaceus, a traditional Chinese botanical ingredient rich in bioactive compounds such as astragaloside IV, cycloastragenol, flavonoids, and polysaccharides. These compounds have demonstrated multiple beneficial mechanisms, including antioxidant activity, inflammatory pathway suppression, collagen synthesis promotion, mitochondrial protection, and telomere elongation. Experimental studies indicated that astragaloside IV effectively mitigates UV-induced collagen degradation by modulating signaling pathways such as TGF-β/Smad and ERK/p38 MAPK. Additionally, cycloastragenol and astragalus polysaccharides demonstrated photoprotective effects by reducing reactive oxygen species (ROS), preserving mitochondrial integrity, and inhibiting the production of proinflammatory cytokines. Clinical trials further supported these findings, showing significant improvements in skin hydration, texture, tone, and a reduction in wrinkle depth when using Astragalus-based topical formulations. Notably, Astragalus extracts also modulate skin pigmentation through mechanisms involving melanocyte transcription factors and signaling pathways, suggesting possible utility in treating pigmentary disorders. Although the current evidence underscores the potential of Astragalus membranaceus as a multifunctional anti-aging cosmeceutical, further randomized controlled trials with longer durations and larger sample sizes are necessary to definitively confirm its safety and efficacy. Given the growing consumer interest in plant-based skincare, Astragalus membranaceus presents a promising, natural ingredient for innovative anti-aging and skin rejuvenation strategies.

AB-16

Does regular exposure to skincare content on social media influence skincare practices in young adults compared to minimal or no exposure?

Diana Rose[1], Fathima Nujumudeen[1], Kholoud Mohamed Said Abdelaziz[1], Mankaran Singh[1], Atif Salim Khatib[1], Maroof Shaikh[2], Mohmadfaizan Mohmadrafi Mansuri[2], Syeda Fatima Zehra[2]
[1]Tbilisi State Medical University, Tbilisi, Georgia
[2]David Tvildiani Medical University, Tbilisi, Georgia

It is no secret that TikTok and Instagram have become go-to hubs for obtaining skincare information among the younger population. Unfortunately, the unmonitored nature of content on these social media applications can be as dangerous as it is informative. The purpose of this systematic review is to evaluate how the amount and type of information available on social media platforms influence skincare behaviours among people aged 18 to 30. Social media consumer engagement can blur the lines between professional advice and user-generated content, potentially affecting health behavior. A literature search was conducted across Google Scholar as well as PubMed and Scopus databases for relevant literature between the years 2015 and 2025. The selected studies had to be in the English language, peer reviewed, and focused on humans aged 18 to 30 assessing the impact of social media on skincare behavior to be eligible for inclusion. Clearly defined social media platforms have established set routines, and young adults' use of active ingredients to treat troublesome skin problems is on the rise. Influencer-driven marketing and controllable social media trends have reshaped the perception of skincare, often encouraging early adoption of complex routines. Skin issues treatable with over-the-counter remedies are increasing; however, without proper medical guidance, this growing awareness may result in risky or uninformed practices. Furthermore, continual exposure to idealized skin aesthetics on Instagram and TikTok fosters appearance-related anxiety and sets unrealistic beauty standards, significantly influencing both consumer behavior and self-esteem. In conclusion, young adults' skincare habits are significantly impacted by social media, especially TikTok and Instagram. Although it raises awareness and improves accessibility, it also promotes reliance on unreliable advice, misinformation, and potentially dangerous practices. These results underline the critical need for public health initiatives that support responsible digital engagement and evidence-based skincare education with a medical foundation.

AB-17

When the skin speaks: cutaneous metastasis as the first manifestation of lung adenocarcinoma

Alicia Fields[1], Jacqueline Leon[1], Kathryn Zalla[2], Deanna Morris[3]
[1]University of Kentucky College of Medicine, Bowling Green, KY
[2]University of Kentucky College of Medicine, Highland Heights, KY
[3]Department of Medical Education, University of Kentucky College of Medicine, Bowling Green, KY

Cutaneous manifestations can be the first indication of an underlying malignancy but are often misdiagnosed as benign dermatologic conditions. We describe a rare cutaneous presentation of a common lung malignancy that disproportionately affects Kentuckians. A male patient in his mid-fifties with a past medical history of type 2 diabetes, hypertension, hyperlipidemia, and chronic kidney disease presented to an emergency department with a three-month history of progressive, painful skin lesions on his left cheek, scalp, right buttock, and maxillary gingiva. The lesions were previously treated as soft tissue abscesses. After no response to oral cephalexin, clindamycin, and Bactrim DS, and intramuscular triamcinolone, he was admitted for

infectious disease consultation. After extensive evaluation by multiple specialists that included biopsy of the lesions, the patient was diagnosed with metastatic lung adenocarcinoma. Soft tissue metastasis poses a diagnostic challenge in the absence of typical symptoms of lung adenocarcinoma but should be considered when a progressive non-healing lesion is encountered. Biopsy is necessary for diagnosis. The prognosis with this presentation is poor with low survival. Treatment is generally palliative. Given that the incidence rate of lung cancer in Kentucky is significantly higher than the national average, it is especially important to consider an underlying metastatic disease as a potential cause of an atypical cutaneous presentation. Soft tissue metastasis is an uncommon initial manifestation of lung adenocarcinoma but should be included in the differential diagnosis of non-healing skin lesions, particularly in regions with elevated lung cancer incidence and mortality rates.

AB-18

Topical timolol as a novel adjunct for chronic chemical burn healing: a case report

Stephanie A. Jackson[1], Andrew Bran[2], Christopher U. Rex[3,4]
[1]A.T. Still University School of Osteopathic Medicine, Mesa, AZ
[2]California State University, Fresno, Fresno, CA
[3]SUNY Downstate Medical Center, Brooklyn, NY
[4]Peak Dermatology, Aesthetics, and Wellness, Visalia, CA

Chronic wounds remain a growing burden on the healthcare system, affecting 1–2% of individuals in developed countries and disproportionately impacting the elderly. Despite adherence to standard treatments, many wounds fail to heal, necessitating exploration of novel adjunctive therapies. Timolol maleate 0.5%, a non-selective β-blocker traditionally used in ophthalmology, has shown promise as an off-label topical agent for wound healing due to its anti-inflammatory properties and β2-receptor blockade, which enhances re-epithelialization. This case report describes a 72-year-old woman with a chronic pretibial ulcer resulting from a chemical burn caused by leaked motorcycle fluid. Despite multiple antibiotic courses and standard wound care, the lesion persisted, prompting the introduction of topical timolol maleate ophthalmic drops once daily. Over a three-month course that included continued timolol use, standard dressings, and intermittent silver nitrate cauterization for granulation control, the wound showed steady reduction in size and healing. The patient reported full adherence to the regimen and experienced no adverse effects. This case adds to the emerging body of evidence supporting the dermatologic utility of timolol as an adjunctive therapy in complex wounds. Its favorable safety profile, ease of application, and accessibility make it a compelling option for patients with refractory wounds, particularly the elderly with multiple comorbidities. While promising, larger clinical studies are needed to establish optimal dosing, application frequency, and long-term outcomes. This report offers an important real-world example of successful wound healing using a repurposed agent and underscores the need for continued innovation in chronic wound management.

AB-19

A case of lymphomatoid papulosis type D: differentiating from aggressive cutaneous lymphomas

Elise Lau[1], Brenda Chen[2], Allen Miraflor[1], Aaron Chen[1,2]
[1]Schweiger Dermatology Group, San Francisco, CA
[2]Touro University California, College of Osteopathic Medicine, Vallejo, CA

Background: Lymphomatoid papulosis (LyP) is a rare, chronic, recurrent CD30+ cutaneous lymphoproliferative disorder. Clinically, it presents as crops of erythematous papules and nodules that spontaneously regress. Although LyP may appear histologically malignant, it typically follows a benign clinical course. Unlike types A-C, LyP type D is a less common variant characterized by a CD8+ cytotoxic T-cell infiltrate that can closely mimic aggressive CD8+ lymphomas such as primary cutaneous epidermotropic CD8+ cytotoxic T-cell lymphoma (CTCL), which has a poor prognosis, and primary cutaneous anaplastic large cell lymphoma (pc-ALCL), which can persist without surgical or radiation intervention. This overlap presents a significant diagnostic challenge with serious clinical implications.
Case Presentation: A 29-year-old female presented with a 4-month history of recurrent, ulcerated papules widely distributed on her bilateral arms, chest, abdomen, and back, initially misdiagnosed with folliculitis. She showed partial improvement with doxycycline and dexamethasone. A punch biopsy revealed a superficial and deep perivascular and periadnexal dermatitis with CD8+ and CD30+ lymphocytic infiltrate, consistent with LyP type D. She completed a trial of trimethoprim/sulfamethoxazole before returning to doxycycline, along with topical fluocinolone, supplemented with 5mg/cc intralesional kenalog injections in clinic. Her symptoms stabilized over three months.
Discussion: Our patient's case underscores the importance of clinicopathologic correlation in distinguishing LyP type D from aggressive CD8+ cutaneous lymphomas. While histology may suggest aggressive lymphoma, clinical features—spontaneous resolution, lack of systemic symptoms, and responsiveness to conservative treatment—support LyP. Compared to types A-C, LyP type D's CD8+ phenotype and prominent epidermotropism increase the risk of misclassification. Accurate diagnosis prevents unnecessary systemic therapy and ensures appropriate monitoring, as patients remain at risk for secondary lymphomas.
Conclusion: LyP D is managed conservatively and requires close follow-up. Recognizing its distinct features

with clinicopathologic correlation is crucial to avoid overtreatment and associated long-term complications.

AB-20

A contradictory case in the etiology of multiple miliary osteoma cutis secondary to laser therapy

Jeffrey Cruz[1], Paige Hunter[2], Margaret Rinker[3]
[1]Central Michigan University College of Medicine, Mount Pleasant, MI
[2]West Virginia School of Osteopathic Medicine, Charleston, WV
[3]PHDermatology SOHO, Tampa, FL

Osteoma cutis (OC) is a rare dermatologic condition where bone tissue develops within the skin. This condition is divided into two forms: primary, which is rare and develops de novo in healthy skin, and secondary, the more common variant that results from trauma, inflammation, or neoplastic processes. Of the multiple subtypes that develop from these forms, miliary osteoma cutis is the most common subtype, typically arising around the face. A 69-year-old female with no significant medical history presented to the clinic complaining of several firm, white-colored papules on her forehead that had increased in quantity over the past year. While the patient was unaware of any recent trauma to the area, she claimed the lesions developed shortly after receiving Candela VBeam Perfecta treatment for cosmetic purposes. She had several more cosmetic treatments with Candela Smoothbeam 1450nm and Iridex 532nm to eliminate the lesions, but they were unsuccessful. A biopsy of the affected area confirmed the patient had developed osteoma cutis. This case of multiple miliary osteoma cutis is particularly rare, as it developed without any known predisposing risk factors. Our patient did not exhibit common associations such as trauma to the area, disorders of calcium homeostasis, cystic acne, or skin cancer. While laser therapy is typically used as a treatment modality for osteoma cutis, it has served as a potential trigger in this case. We hypothesize that cutaneous trauma, including laser treatments, may induce osteoma cutis in predisposed individuals, highlighting the need for further investigation into this paradoxical mechanism.

AB-21

Rethinking the cut: wide local excision for digital papillary adenocarcinoma and the future beyond amputation

Mallory Suhling, Bryce Demoret, Richard Miller
HCA Healthcare/USF Morsani College of Medicine GME: HCA Florida Largo Hospital, Largo, FL

Digital papillary adenocarcinoma (DPA) is a rare malignant tumor of eccrine sweat glands. It is associated with high recurrence and metastasis rates, cited at approximately 50% and 14%, respectively. It typically presents as a nonspecific, flesh-colored papule on the volar surface of the digit in White men between 50 and 70 years old. Early recognition is crucial; yet, due to its rarity, often benign clinical appearance, and lack of symptoms, diagnosis is frequently delayed, contributing to adverse outcomes. We present a case of a patient with biopsy-confirmed DPA on the toe successfully treated with wide local excision (WLE). A 79-year-old woman with a history of squamous cell carcinoma presented to the dermatology clinic for a routine skin cancer screening. On exam, a firm, skin-colored nodule was noted on the right dorsal third toe. The patient reported the lesion had appeared 10 years earlier and had recently grown but was not causing pain. Pathology from a shave biopsy revealed a surface of atypical acral cutaneous adnexal neoplasm with features of digital papillary adenocarcinoma and deep margin involvement. The patient was originally scheduled for Mohs micrographic surgery (MMS), but she later elected to undergo a WLE. A fusiform excision to the level of the fascia with 4-mm margins was performed, and closure was achieved using 4-0 nylon sutures in a simple interrupted technique. Follow-up pathology exhibited a scar and an absence of adnexal structures. At the time of writing this report, she is being closely monitored with biannual full-body skin examinations. She had no evidence of recurrence or lymphadenopathy at her 6-month and 1-year follow-up visits. The mainstay of treatment for DPA has historically been aggressive surgical management, namely digit amputation; however, there are no existing guidelines on margins or extent of amputation. A 2009 review concluded that WLE may result in outcomes similar to those of amputation. Recent studies support the efficacy of complete surgical excision with MMS, demonstrating high cure rates, although sample sizes are limited. The role of sentinel lymph node biopsy in the management of DPA remains controversial but may be considered in high-risk cases or unusual presentations. At present, there are insufficient data to determine the optimal treatment strategy for DPA. Our case supports the use of WLE as a potentially effective option for patients seeking more conservative management. Further studies are required to explore outcomes after treatment with WLE compared to MMS, as there are very few documented cases in the literature of DPA treated with MMS.

AB-22

Challenges in assessing lip changes in scleroderma

Mustafa Mahmood[1], Michael Hughes[2,3],
Zsuzsanna McMahan[4], Lee Shapiro[1,5]
[1]Albany Medical Center, Albany, NY, USA
[2]Division of Musculoskeletal and Dermatological Sciences, School of Biological Sciences, Centre for Musculoskeletal Research, Manchester Academic Health Science Centre, The University of Manchester, Manchester, UK
[3]Department of Rheumatology, Northern Care Alliance NHS Foundation Trust, Salford Care Organization, Salford, UK
[4]Division of Rheumatology, UTHealth Houston, Houston, TX, USA
[5]Steffens Scleroderma Foundation, Albany, NY, USA

Background: Systemic sclerosis (SSc), also known as scleroderma, is a chronic autoimmune disease marked by excessive collagen deposition and vasculopathy, leading to significant tissue fibrosis. Oral and facial manifestations of SSc, particularly involving the lips, are common and can greatly affect patient quality of life. This review explores factors such as age, gender, ethnicity, and lifestyle on lip health to understand how the lips are assessed and how those assessments can be transferred to studying the lip in SSc.
Methods: A comprehensive literature search was conducted via PubMed using keywords related to systemic sclerosis, lip health, and associated factors such as ethnicity, gender, lifestyle and age.
Results: The lips play a critical role in facial expression, communication, and appearance. Factors such as gender differences, aging patterns, ethnicity, and lifestyle, such as smoking or playing instruments, all affect the lips in different ways. Additionally, there remains little standardization across these groups to accurately assess lip functionality and size, leading to further research inconsistencies.
Conclusions: The impacts of lip involvement in SSc represent significant unmet clinical needs. Given the variation in assessment of the lips in the literature, as well as natural lip variation due to ethnicity, aging and gender, accurate research for the lip in SSc represents a logistical challenge. Further research is needed to develop standardized outcome measures and therapies to address the orofacial complications of this disease.

AB-23

A rare case of Allopurinol associated drug reaction with eosinophilia and systemic symptoms (DRESS) in the setting of overlapping cutaneous adverse reactions of toxic epidermal necrolysis (TEN)

Saba Iqbal[1], Daniel Miller[2], Anushka Tomar[2]
[1]New York Institute of Technology, College of Osteopathic Medicine, Glen Head, NY, USA
[2]NYC H+H Queens Hospital, Jamaica, NY, USA

Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) and Stevens-Johnson Syndrome/ Toxic Epidermal Necrolysis (SJS/TEN) are severe cutaneous adverse reactions (SCAR) that pose significant diagnostic and therapeutic challenges in the medical community. Although there is a strong overlap between these drug induced hypersensitivity reaction etiologies, the differences are also evident in terms of severity, rash characteristics, organ involvement, and long term sequelae. This case report describes a 73-year-old Indo-Guyanese male patient who developed a complex presentation of DRESS with features of TEN following the administration of Allopurinol for gout. The patient's clinical course, diagnostic challenges, and therapeutic interventions are discussed to highlight the importance of early recognition and management. Initially, a broad differential for infection with fever and related skin involvement was kept at the forefront, closely monitoring the need for a potential burn unit transfer should the patient's condition progress. A skin biopsy and evaluation of RegiSCAR (registry of severe cutaneous adverse reactions) scoring criteria guided us with definitive markers in making the patient's diagnosis and narrowing the differential. Standard supportive care measures were taken to establish prompt therapeutic care, including intravenous (IV) fluid hydration, analgesics, corticosteroids and IV immune globulin (Ig), alongside withholding all potential triggering medications. Although the patient initially necessitated in-patient admission to the medicine unit with the impression of DRESS syndrome he later progressed to developing a rash with much greater body surface area involvement, prompting a transfer to the burn unit. Hence, this case emphasizes the importance of swift recognition and management of gradually worsening cutaneous systemic reactions.

AB-24

Malignant atrophic papulosis: a case of rare thrombo-occlusive vasculopathy with systemic involvement

Carly Perkowski[1], Hermon Feron[1], Bailey Stammen[1], Jaree Naqvi[2], Julian Trevino[2]
[1]Boonshoft School of Medicine, Wright State University, Dayton, Ohio, USA
[2]Department of Dermatology, Wright State University, Dayton, Ohio, USA

Malignant atrophic papulosis (MAP), also known as Kohlmeier-Degos disease, is an exceedingly rare thrombo-obliterative vasculopathy with both cutaneous and systemic manifestations. We present the case of a 22-year-old female with a 4-year history of erythematous cutaneous papules and progressive neurological symptoms, including facial and extremity numbness, intermittent hemicranial pain, and progressive quadriparesis. During her hospitalization, imaging revealed cerebral microinfarcts and a biopsy-indeterminate subdural fluid collection. Exploratory laparotomy and biopsy revealed multiple nodules throughout several segments of her small bowel, suspicious for intra-abdominal involvement. The patient continued to experience neurological decline, prompting a dermatology consult. Based on her combined clinical findings, she was ultimately diagnosed with MAP. This case underscores the importance of recognizing characteristic cutaneous lesions as early indicators of systemic disease progression. Misdiagnosis can delay treatment, worsening patient outcomes. The diagnostic challenge in MAP arises from its varied presentations, especially when pathognomonic skin lesions are absent or not evaluated by a dermatologist. Without these key diagnostic clues, there is a higher risk of overlooking the disease, leading to a delayed or incorrect diagnosis. The malignant form of MAP affects multiple organ systems, including the gastrointestinal and central nervous systems, resulting in infarctions and a high mortality rate. Diagnosis typically relies on identifying pathognomonic skin lesions and histological evidence of vascular

occlusion. While the etiology is unclear, complement-mediated endothelial injury is suspected. Treatment options are limited, though heparin, anti-aggregant, eculizumab, and treprostinil have shown potential efficacy. Further research is needed to understand the pathogenesis and treatment of this life-threatening disease.

AB-25

A case report of a toenail infection with alcaligenes faecalis

Salma Bennis[1], Julia L. Armstrong[1], Robert Norman[2]
[1]Dr. Kiran C. Patel College of Osteopathic Medicine, Nova Southeastern University, Fort Lauderdale, FL
[2]Department of Dermatology, Nova Southeastern University Dr. Kiran C. Patel College of Osteopathic Medicine, Tampa, FL

Alcaligenes faecalis is an aerobic, gram-negative bacteria commonly associated with bacteremia and meningitis. Although rare, skin and soft tissue infections on account of A. faecalis have also been reported. We present an unusual case of a toenail infection that was initially suspected to be fungal but was rather attributed to A. faecalis. A 49-year-old female with a history of chronic kidney disease presented with an over three-year history of hallux nail and subungal changes bilaterally including dystrophic thickening and a yellow discoloration. The initial clinical diagnosis was onychomycosis of the bilateral hallux nails, in which topical ketoconazole cream was prescribed. The discoloration persisted despite topical antifungal treatment. The hallux nails were clipped and scraped for staining and culture which revealed a heavy growth of A. faecalis on the left hallux nail specimen. The delayed yet final clinical diagnosis was a toenail infection of the left hallux nail on account of A. faecalis. This case depicts the rare clinical presentation of a skin and soft tissue infection due to A. faecalis. As A. faecalis is not a usual causative agent of nail infections, the diagnosis can get delayed in these cases. This has tremendous implications given the bacteria's association with additional comorbidities and its multi-drug resistant properties. This requires patients with A. faecalis skin and soft tissue infections to receive a complex treatment regimen, which our patient was prescribed upon diagnosis. Being a rare culprit of nail infections, it should be considered as a differential in immunosuppressed patients or those unresponsive to long-term treatment. This rare case of an A. faecalis skin and soft tissue infection broadens dermatological differential diagnosis for a toenail infection.

AB-26

Histological analysis of collagen fibers in different aged male cadavers

Setareh Khani, Sydnee Jackson, Darya Khani, Collin Morris, Shiv Dhiman, Emranul Huq, Rasheed Agboola
Philadelphia College of Osteopathic Medicine, Moultrie, GA

Background: The process of aging significantly impacts the structural and functional properties of the skin, in part due to changes in extracellular proteins like collagen. Variations in the amount of collagen present within the dermal layer can serve as a key indicator in the aging process, providing insight into the structural and functional changes that occur over time. This study aims to analyze the histological changes in collagen fibers, utilizing skin samples obtained from male cadavers ranging from 60 to 90 years of age. Understanding these changes may help to aid in the development of specific anti-aging interventions to better preserve dermal integrity.
Methods: Skin samples were collected from 23 male cadavers approximately 1 cm below the right ear. Collagen content and muscle fibers were analyzed using the McLetchie trichrome stain to assess overall cellular and tissue composition. Collagen fiber length across different age groups was quantitatively measured using ImageJ, an image analysis software.
Results: The histological stains revealed that collagen fibers progressively become thinner with advancing age. Cadavers in their 60s exhibited an average collagen fiber length of 157.4 μm, while those in their 90s showed a reduced average of 111.05 μm, consistent with age-related collagen degradation. Notably, collagen fibers in the 80 to 90 age group demonstrated the greatest reduction in quantity and density within the deep dermal layer, with visible signs of collagen fiber lysis.

AB-27

Accelerated tumor growth and lymphatic spread of transplantable melanomas in tumor necrosis factor (TNF)-transgenic mice

Alapatt C.[1,2], Sudharshan S.[1], Hughes R.[1], Sheffmaker R.[1], McGuire G.[3], Deegan D.[3], Engel N.[3], Kuzin I.[1], Bottaro A.[1]
[1]Cooper Medical School of Rowan University, Camden NJ;
[2]Rowan School of Osteopathic Medicine, Stratford NJ;
[3]Coriell Institute, Camden NJ

Melanoma is the fifth most common cancer among American adults, with significant morbidity and mortality at 5 years remaining >60% for patients with stage IV disease. The malignancy is due to the transformation of melanocytes, with one of the major risk factors being ultraviolet light exposure. Although as many as one in five human cancers have been linked to chronic inflammation, the role of inflammatory signals in melanoma growth and metastasis remains poorly understood. Tumor necrosis factor (TNF)-transgenic (TNFtg) mice are a well-established model of chronic systemic inflammation, with involvement of joints and other organ systems. To assess the effect of TNF overexpression on melanoma in vivo, we investigated the growth of transplantable B16 melanomas (F1 and F10 sublines) in TNFtg mice (3647 strain). The B16 cell line and its derivatives originated from a spontaneous melanoma of C57BL/6 mouse. B16 cells were injected

into the hind paws of TNFtg mice and non-transgenic (NT) littermates at 8-12 weeks of age. At this age, the mice have begun to exhibit early arthritis, creating a localized area of inflammation in the paw. TNFtg mice displayed highly accelerated B16 primary tumor growth compared to NT littermates (tumor area 43.7±15.2mm^2 vs 15.0±15.5mm^2 at week 2, $p<0.001$), and early tumor-draining lymph node (TDLN) invasion (14/31 vs 7/34 positive TDLNs in TNFtg vs NT mice, $p<0.05$). No significant differences were observed between F1 and F10 tumors, or male vs female mice. To test whether the observed effects were linked to systemic TNF overexpression or to the localized inflamed microenvironment in the arthritic paws we also compared growth of tumors injected in the lower flank, and observed no primary tumor growth differences in this area (251±155mm^3 vs 319±178mm^3 tumor volume in TNFtg vs NT, $p=0.3$). Finally, in order to establish whether the observed differences were specific to B16 cells or are relevant for melanoma growth more broadly, we compared growth in TNFtg vs NT mice of an independently derived melanoma line, YUMM1.1. Again, TNFtg mice showed accelerated paw melanoma growth compared to NT mice (32.6±14.0mm^2 vs 19.1±20.8mm^2 at week 5, $p<0.01$). Overall, these results highlight a significant effect of TNF, and specifically of the TNF-driven inflammatory microenvironment, in transplantable melanoma growth in mice.

AB-28

Diagnostic and therapeutic challenges in facial cicatricial alopecias: a case series of folliculitis decalvans and lichen planopilaris

Bailey Stammen[1], Justin Thrush[2], Melissa Piliang[2]
[1]Boonshoft School of Medicine, Wright State University, Dayton, Ohio
[2]Department of Dermatology, Cleveland Clinic, Cleveland, Ohio

Introduction: Cicatricial (scarring) alopecias are characterized by irreversible hair follicle destruction, categorized as primary or secondary. Lichen planopilaris (LPP) and folliculitis decalvans (FD) are common forms of primary cicatricial alopecias presenting distinct clinical and histological features. LPP is lymphocytic, affecting primarily women, while FD is neutrophilic and predominantly affects young males.

Case reports:

Case #1:

Clinical presentation: A male presented with chronic folliculitis of the lateral chin, exacerbated after imiquimod use for suspected facial warts. Despite multiple treatments, including topical corticosteroids and antimicrobials, symptoms persisted with pustules, pain, and hair loss.

Diagnosis: Punch biopsy confirmed suppurative folliculitis consistent with FD, showing neutrophilic microabscesses and inflammatory infiltrates composed of lymphocytes, neutrophils, and plasma cells. Management: The patient's regimen of ketoconazole, benzoyl peroxide, and intralesional kenalog (ILK) was continued. Considerations of clindamycin/rifampin, pending pustule culture results, and future dapsone or Humira therapy were discussed.

Case #2:

Clinical presentation: A male presented with perifollicular erythema and scaling on the cheeks, initially diagnosed with pityrosporum folliculitis. Despite various treatments, including doxycycline, steroid injections, adapalene, isotretinoin, Elidel, methotrexate, and ILK, symptoms persisted with facial hair thinning.

Diagnosis: Punch biopsy revealed scarring perifollicular dermatitis consistent with LPP, demonstrating dermal interface change and lymphohistiocytic infiltrates.

Management: Ongoing therapy with Olumiant and Opzelura despite adverse effects was continued, with consideration of Rinvoq pending insurance approval.

Discussion: These cases illustrate the diagnostic challenges and complexities in managing FD and LPP localized to the facial region. While typically seen on the scalp, their presentation on the face necessitates careful clinical and histopathological evaluation for accurate diagnosis. Early intervention is critical to mitigate irreversible hair loss and scarring. Personalized treatment approaches are essential due to variable treatment responses. Further research elucidating shared pathogenic mechanisms and developing targeted therapies is needed to enhance outcomes for patients with cicatricial alopecias.

AB-29

Prevalence of alopecia among medical students; an insight into triggers

Zaki Mehraeil, Gregni Adam, Hamdan Hana
Kansas City University College of Osteopathic Medicine, MO

Background: Alopecia, defined as the loss of hair in areas where it is normally present, affects individuals across all demographics. Many factors have been shown to contribute to hair loss. Literature supports strong associations between high stress levels and hair shedding, especially in women. Additionally, poor sleep, nutritional deficiencies (e.g., iron, vitamin D), and damaging hair care practices (e.g., excessive heat, tight hairstyles) have all been linked to increased hair loss. Medical students especially are at an increased risk of hair loss given many of these factors are evident in their rigorous lifestyle of being a medical student. Alopecia is frequently overlooked in young, healthy populations such as medical students. Nonetheless, the psychological effects of alopecia can be significant leading to anxiety, depression, and a reduced quality of life. Despite this, many students do not seek out medical attention. By identifying modifiable risk factors and understanding student behaviours, this study hopes to raise awareness, support mental health and offer a pathway to promote preventative strategies and early intervention among medical trainees. To determine the prevalence of self-reported hair loss among medical students at Kansas City

University (KCU), and to assess association with the most common risk factors including stress, sleep quality, nutritional habits, and hair care behaviours.
Methods: This study will use a cross-sectional online anonymous survey given to KCU medical students via email and campus channels. The survey will include demographic and behavioural data along with the Perceived Stress Scale (PSS). Data then will be analyzed using descriptive statistics to summarize demographic variables and prevalence rates. Chi-square tests and among others will assess associations between hair loss and potential risk factors. A p value of <0.05 will be considered statistically significant.
Results: Data collection is currently ongoing. The anticipated results aim to identify common triggers within this population and demonstrate how behavioral factors common among medical students affect hair loss. We hypothesize that a large proportion of students will report hair loss and that stress, nutrition, poor sleep quality, and damaging hair care behaviours will be significantly associated with alopecia.
Conclusions: By identifying these risk factors, this study aims to promote earlier intervention, reduce stigma, and promote wellness. Insights from this study could help clinicians integrate targeted questions during patient encounters, improving early identification and guiding more personalized treatment approaches. Additionally, this research aims to hopefully shape how future physicians approach alopecia with their own patients with greater awareness of all dimensions of hair loss leading to both comprehensive and empathetic care.

AB-30

Beyond androgens: exploring the multifaceted pathophysiology and emerging treatments of androgenetic alopecia

Neha Iska[1], Esther Nwozo[2], Hafsa Hassan[3], Navya Peddireddy[4], Alejandra Sataray-Rodriguez[5], Kelly Frasier[6]
[1]Wayne State University School of Medicine, Detroit, MI
[2]The Lewis Katz School of Medicine at Temple University, Philadelphia, PA
[3]Northeast Ohio Medical University, Rootstown, OH
[4]Texas College of Osteopathic Medicine, Fort Worth, TX
[5]University of Nevada, Reno, NV
[6]Department of Dermatology, Northwell Health, New Hyde Park, NY

Background: Androgenetic alopecia (AGA) is the most common form of hair loss, affecting nearly 50% of men before age 50 and 40% of women by age 70. Characterized by progressive follicular miniaturization, AGA significantly impacts quality of life and is increasingly linked to systemic conditions like metabolic syndrome and cardiovascular disease. While dihydrotestosterone (DHT)-driven miniaturization is central, emerging evidence points to a complex interplay of genetic predisposition, sebaceous gland dysfunction, lipid metabolism, and inflammation. This review explores the multifactorial pathophysiology of AGA and evaluates both established and emerging therapies.
Methods: A comprehensive literature review was conducted using PubMed, Scopus, and Web of Science, focusing on studies from 2000–2024. Peer-reviewed articles, clinical trials, and systematic reviews examining the hormonal, genetic, inflammatory, and metabolic aspects of AGA were included. Therapeutic strategies, including pharmacologic, regenerative, and experimental interventions, were assessed.
Results: AGA is driven by DHT binding to androgen receptors in dermal papilla cells. Polymorphisms in AR and Wnt/β-catenin pathways increase follicular sensitivity. Sebaceous gland hypertrophy, lipid dysregulation, and inflammation worsen follicular decline. Standard treatments—minoxidil and 5α-reductase inhibitors—have variable efficacy. Antiandrogens like spironolactone are used in women. Novel therapies include topical AR inhibitors, prostaglandin analogs, PRP, stem cell-derived exosomes, and microneedling. Emerging targets involve lipid metabolism, inflammation, and gene therapy.
Conclusions: AGA is a multifactorial condition. While current treatments focus on androgen suppression, novel strategies targeting the follicular microenvironment may offer more durable, personalized outcomes.

AB-31

Evaluating the ingredients in proprietary dermatologic balm: a scoping review

Daphne Pate[1], Minisha Kanakarajan McKinney[1], Elham T Tabatabaei[2], Steven Daveluy[2]
[1]Wayne State University School of Medicine, Detroit, MI
[2]Department of Dermatology, Wayne State University, Detroit, MI

Chronic dermatologic conditions such as eczema and hidradenitis suppurativa (HS) have garnered interest in natural therapies. A proprietary balm, marketed online to alleviate many dermatologic conditions, contains natural ingredients including olive oil, grapeseed oil, propolis, beeswax, egg yolk extract, and lavender essential oil. Given its popularity and anecdotal success, we conducted a scoping review to assess the dermatologic benefits of these ingredients. A PubMed search was conducted using the terms: "Vitis vinifera," "Olea europaea," "Cera alba," "Ovi albumen extract," "Propolis extract," and "Lavandula angustifolia," combined with "skin" or "dermatology." Inclusion criteria were human studies published within the last ten years, focusing on dermatologic outcomes. Data were extracted on ingredients studied, proposed mechanisms of action, and clinical outcomes. Nine studies met the inclusion criteria, investigating olive oil, grapeseed oil, propolis, and lavender essential oil. Olive oil demonstrated potential for skin hydration, integrity, and wound healing. Grapeseed oil improved skin barrier function and reduced radiation-induced dermatitis. Propolis exhibited antimicrobial, anti-inflammatory, and wound-healing

properties in diabetic foot ulcers and herpes labialis. Lavender essential oil has local anesthetic and antimicrobial effects. However, both propolis and lavender essential oil have been reported as potential contact allergens. No studies were identified for egg yolk extract or cera alba. While individual ingredients demonstrate potential dermatologic benefits, further research is essential to substantiate the combined formulation's efficacy and safety, particularly evaluating this balm in patients with HS. Further investigation is also needed regarding the potential for contact allergy from propolis and lavender oil.

AB-32

Hidradenitis suppurativa and squamous cell carcinoma: a southern California-based multi-center retrospective analysis

Donna Pham[1], Avigdor Nosrati[2], Jenny Hu[2]
[1]University of California, Riverside School of Medicine, Riverside, CA
[2]University of Southern California, Department of Dermatology, Los Angeles, CA

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterized by recurrent nodules, abscesses, scarring, and sinus tract formation, most commonly affecting intertriginous regions. Although rare, squamous cell carcinoma (SCC) is a serious and potentially fatal complication of long-standing HS. Existing literature documents SCC in HS, but risk factors, comorbidities, and histologic aggressiveness remain poorly understood. Early detection of malignant transformation is essential for optimizing patient outcomes. A retrospective chart review (IRB# HS-24-00240) was conducted of patients diagnosed with HS-associated SCC at Keck Medicine of the University of Southern California and Los Angeles General Medical Center between January 2010 and July 2024. HS patients were identified using ICD-10 codes, and SCC cases within HS-affected regions were confirmed histologically. Data collected included demographics, comorbidities, treatments, SCC site, pathology, and outcomes. Of 5,176 HS patients screened, eight met inclusion criteria for HS-associated SCC (16 lesions), with four patients from each institution. Mean age at HS diagnosis was 51 years, with equal gender distribution. The cohort included four Hispanic/Latino, three Black, and one Asian patient; 87.5% identified as racial/ethnic minorities. Five patients (62.5%) were HIV-positive, and two had Crohn's disease. Hematologic comorbidities were present in 37.5%, including macrocytic anemia, T-cell large granular lymphocytic leukemia, and sickle cell beta-thalassemia. Lesions were equally distributed between the groin/inguinal folds (n=8) and buttocks (n=8). At diagnosis, 75% were invasive SCC and 25% were SCC in situ (SCCis). Histopathologic features included perineural invasion (n=1), lymphovascular invasion (n=1), and deep invasion (n=2). Differentiation was well (n=7), moderate (n=3), and poor (n=2). Half of patients experienced local SCC recurrence in HS-affected areas. Treatment varied: surgery alone (n=6 lesions), surgery plus radiation (n=1), systemic therapy (n=1), multimodal therapy (n=6), topical therapy (n=1), and no treatment (n=1). One patient died from pneumonia 95 days after invasive SCC diagnosis. HS-associated SCC in this cohort disproportionately affected racial/ethnic minorities and individuals with HIV. The combination of chronic inflammation, structural barriers to care, delayed diagnosis, and immunosuppression may contribute to malignant transformation and aggressive disease course. HIV prevalence was notably high at 62.5%, supporting its potential role in SCC pathogenesis in chronic HS. Aggressive histologic features, including perineural and lymphovascular invasion, were observed despite the small sample size, underscoring the importance of early detection. HS-associated SCC remains a rare but aggressive malignancy, with high recurrence rates and poor prognostic features. Disparities in occurrence among racial/ethnic minorities and patients with HIV highlight the need for targeted surveillance and multidisciplinary management. Larger studies are warranted to further clarify the interplay of immunosuppression, race, and structural inequities in SCC development and to establish standardized screening protocols for high-risk HS populations.

AB-33

Leukocytoclastic vasculitis mimicking meningitis: a case report of petechial eruption in a young adult

William Snider[1], Rebecca Hicks[1], Ian Depew[1], Sean Hill[1], Shane Cook[2]
[1]Marshall University Joan C. Edwards School of Medicine, Huntington, WV
[2]Marshall University Department of Dermatology, Huntington, WV

Meningitis is a life-threatening condition that typically presents with fever, altered mental status, and a petechial or purpuric eruption. The combination of symptoms suggests an immediate emergent infectious workup, as early diagnosis and treatment are crucial. However, leukocytoclastic vasculitis (LCV), a small-vessel immune complex-mediated vasculitis, can mimic these cutaneous findings, making differentiation essential for appropriate management. We report the case of a 46-year-old female who presented to the emergency department with a diffuse purpuric eruption involving the extremities and trunk, compounded by headache and a history of recreational drug use. Given the presentation, meningococcal meningitis was high on the differential, prompting immediate workup of an infectious etiology, including a lumbar puncture and blood cultures. Cerebrospinal fluid analysis revealed no evidence of infection. As the rash progressed, a skin biopsy was performed, revealing neutrophilic infiltration, leukocytoclasia, and fibrinoid necrosis, findings consistent with LCV. Septic vasculitis, such as that seen in meningococcemia, is a large vessel vasculitis that presents differently, most notably with retiform purpura or livedo racemosa. In contrast, LCV is a small-vessel

vasculitis, typically presenting with palpable purpura. The poster aims to highlight this key clinical and pathophysiologic distinction. This case highlights the diagnostic challenge created by overlapping clinical features of LCV and meningitis. While meningitis needs urgent antimicrobial therapy, LCV management involves identifying and addressing underlying triggers. These include the “little 5”: drugs, infections, malignancy, autoimmune disease, and idiopathic causes. Misdiagnosis can lead to delayed treatment and unnecessary interventions. By presenting this case, we aim to raise awareness of the dermatologic manifestations of small-vessel vasculitis and its potential to mimic serious infectious diseases; like meningitis in this case. Awareness of this overlap is important for timely diagnosis, appropriate treatment, and improved patient outcomes.

AB-34

Topical steroid withdrawal: misdiagnosis, distrust, and impacts on mental health

Minh Nguyen[1], Mia Panlilio[1], Sana Khan[1], Elizabeth Tchernogorova[2], Nathaniel Marroquin[3]
[1]Rocky Vista University College of Osteopathic Medicine, Parker, CO, USA
[2]Rocky Vista University College of Osteopathic Medicine, Ivins, UT, USA
[3]KCU-GMEC/ADCS Orlando Program, Maitland, FL, USA

Topical Steroid Withdrawal (TSW) is a condition that has gained increasing awareness through patient-led narratives on digital platforms in recent years. TSW occurs in individuals who discontinue long-term or high-potency topical corticosteroid (TCS) therapy, resulting in rebound symptoms such as burning, erythema, pruritus, and skin barrier compromise. Despite mounting anecdotal accounts and increasing attention on social media, the condition remains controversial within dermatology, and many patients report growing mistrust of medical providers when seeking treatment for TSW. This viewpoint synthesizes findings from the limited clinical literature alongside patient-reported experiences to examine TSW as both a clinical entity and a digitally mediated movement. We highlight diagnostic uncertainty, common misclassifications, and the therapeutic inconsistency surrounding this condition, particularly in pediatric cases that have resulted in significant psychological distress and some patients eventually seeking emergency care services. Treatment remains empirical, ranging from symptomatic management in more mild cases, to systemic therapies in more severe presentations. Recovery trajectories are variable and often prolonged, underscoring the current lack of consensus on best treatment practices. We also address the broader implications of TSW’s digital dissemination. While online communities have validated patient suffering and helped surface overlooked harms, they have contributed to a growing phobia towards steroid use, medical mistrust, and increasing misinformation. This reinforces the need for dermatologists to better understand the impact TSW has on patients, and how patient narratives are being shared through unregulated digital spaces, thus giving rise to public skepticism towards medical care. As a result of growing mistrust, many patients have begun to turn to alternative, non–evidence-based treatments that can delay care or worsen outcomes. We argue that TSW exemplifies a critical division between traditional dermatologic practice and patient-centered digital health movements. This division exemplifies how awareness of certain medical conditions can be amplified online, but disregarded in clinical settings. Future work must focus on clarifying the clinical complexities of TSW and on developing frameworks to integrate digital patient narratives into dermatologic research, provider education, and care delivery. Doing so will be essential to rebuilding patient trust and ensure that evolving health concerns are empathetically addressed with evidence-based solutions.

AB-35

Histamine intolerance and the association with chronic idiopathic urticaria in patients with small intestinal bacterial overgrowth

Muhammad Hassan[1], Pauline Gerard[2], Robert Adler[3], Mehraeil Zaki[4], Ochuwa Precious Imokhai[5], Zeid Habbab[6], Maryam Khalid[7], Darrian Johnson[8], Kelly Frasier[9]
[1]Department of Internal Medicine, Nuvance Health/Vassar Brothers Medical Center, NY
[2]University of Colorado Anschutz School of Medicine, Aurora, CO
[3]Brooklyn, NY
[4]Kansas City University College of Osteopathic Medicine, Kansas City, MO
[5]Rocky Vista University Montana College Of Osteopathic Medicine, Billings, MT
[6]The Ohio State University College of Medicine, Columbus, OH
[7]New York Institute of Technology College of Osteopathic Medicine at Arkansas State, AR
[8]Texas College of Osteopathic Medicine, Fort Worth, TX
[9]Department of Dermatology, Northwell Health, New Hyde Park, NY

Background: Chronic idiopathic urticaria (CIU) is characterized by persistent hives lasting over six weeks without an identifiable cause, significantly impairing patients' quality of life. Second-generation H1-antihistamines are the primary treatment; however, a substantial proportion of patients exhibit resistance, necessitating alternative therapeutic strategies. Emerging research highlights the gut microbiome's role in CIU pathogenesis, particularly the interactions among histamine intolerance (HIT), CIU, and small intestinal bacterial overgrowth (SIBO). This review systematically examines existing literature on these associations, identifies knowledge gaps, and proposes directions for future research.

Methods: A systematic literature search was conducted across multiple databases (e.g., PubMed, Web of Science) using keywords such as "histamine intolerance,"

"chronic idiopathic urticaria," and "small intestinal bacterial overgrowth." Eligible studies investigated the prevalence, clinical characteristics, diagnostic approaches, and therapeutic interventions related to HIT, CIU, and SIBO. Quality assessment was performed using standardized tools (e.g., Newcastle-Ottawa Scale for observational studies). Extracted data included study design, sample size, patient characteristics, diagnostic methods for HIT, CIU, and SIBO, and reported outcomes. A narrative synthesis integrated findings, highlighting consensus, discrepancies, and methodological limitations.

Results: HIT, characterized by impaired histamine metabolism due to diamine oxidase (DAO) deficiency, is associated with diverse gastrointestinal and extra-intestinal symptoms. CIU is a complex condition wherein histamine plays a central pathogenic role. A significant subset of CIU patients exhibits autoantibodies against FcεRI or IgE, leading to mast cell activation and histamine release. SIBO, diagnosed via breath tests, is linked to gastrointestinal symptoms and nutrient malabsorption. Several studies suggest a potential association between HIT and CIU, with some reporting symptom improvement following a histamine-reduced diet, although findings remain inconsistent. The relationship between SIBO and CIU is less well-defined, with variable prevalence rates reported across studies. Additionally, gut microbiome alterations in CIU patients may influence histamine metabolism and immune responses.

Conclusion: This review underscores the potential interplay among HIT, CIU, and SIBO, suggesting that impaired histamine metabolism, autoimmunity, and gut dysbiosis may contribute to CIU pathogenesis. However, the precise nature and extent of these interactions remain unclear. Future research should prioritize standardized diagnostic criteria for HIT and SIBO, identify predictive biomarkers for treatment response, and elucidate the mechanisms by which gut microbiota and histamine metabolism influence CIU development. A more comprehensive understanding will facilitate the development of effective, personalized therapeutic strategies. Further investigations should explore microbiome-modulating therapies and the impact of factors such as vector-borne illnesses on CIU pathogenesis. While current evidence suggests intriguing connections, larger, well-designed studies with standardized methodologies are necessary to confirm these associations and establish causal relationships. The heterogeneity in study designs and outcomes highlights the complexity of these interactions, emphasizing the need for rigorous research to clarify the interconnections among HIT, CIU, and SIBO.

AB-36

The effect of proton pump inhibitors on the cutaneous microbiome, rosacea, and seborrheic dermatitis

Muhammad Hassan[1], Rafael Avilés Encarnacion[2], Emily Uh[3], Setareh Khani[4], Joshlyn Resek[5], Brittany Hawkins[6], Amal Umerani[7], Kirat Sraa[8], Kelly Frasier[9]

[1]Department of Internal Medicine, Nuvance Health/Vassar Brothers Medical Center, Poughkeepsie, NY
[2]Department of Internal Medicine, Larkin Community Hospital, Hialeah, FL
[3]Norton College of Medicine, SUNY Upstate Medical University, Syracuse, NY
[4]Philadelphia College of Osteopathic Medicine, Moultrie, GA
[5]University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND
[6]Mercer University School of Medicine, Columbus, GA
[7]Georgetown University School of Medicine, Washington, DC
[8]Arizona College of Osteopathic Medicine, Glendale, AZ
[9]Department of Dermatology, Northwell Health, New Hyde Park, NY

Background: Proton pump inhibitors (PPIs) are widely used for gastrointestinal disorders, but their impact on the skin microbiome and related conditions like rosacea and seborrheic dermatitis remains unclear. This review systematically examines the association between PPI use and these dermatological conditions, focusing on the potential role of microbiome alterations.

Methods: A comprehensive literature search was conducted across PubMed, Scopus, and other relevant databases, using keywords such as “proton pump inhibitors,” “cutaneous microbiome,” “rosacea,” “seborrheic dermatitis,” and “dysbiosis.” Studies investigating the relationship between PPI use and these dermatological conditions, including those examining microbiome alterations, were included. Studies were assessed for methodological quality and limitations.

Results: Several studies indicate a significant association between long-term PPI use and an increased risk of rosacea. These observational studies, primarily retrospective cohort analyses, reported dose-dependent relationships, with higher cumulative defined daily doses (cDDD) of PPIs correlating with a greater risk of rosacea. One study observed a sex-specific effect, with a significant association observed in women but not men. The mechanism underlying this association remains unclear but may involve alterations in the cutaneous microbiome. PPIs are known to alter the gut microbiome, and this disruption could potentially influence skin health through the gut-skin axis. However, direct evidence linking PPI use to cutaneous microbiome dysbiosis in rosacea or seborrheic dermatitis is limited. Studies on seborrheic dermatitis show a strong link to microbiome alterations, but the direct effect of PPIs on this condition remains largely unexplored.

Conclusion: While observational studies suggest a link between prolonged PPI use and increased rosacea risk, particularly in women, the underlying mechanisms remain unclear. The potential for PPIs to indirectly influence rosacea and seborrheic dermatitis through gut microbiome alterations and the gut-skin axis requires further investigation. Further research, including well-designed prospective studies with direct microbiome assessment and mechanistic analyses, is needed to confirm these associations and elucidate the underlying biological pathways. This includes exploring the direct

impact of PPIs on the cutaneous microbiome and investigating whether microbiome-targeted therapies could mitigate potential adverse effects of PPIs on skin health. The limited direct evidence linking PPIs to cutaneous microbiome changes in rosacea and seborrheic dermatitis necessitates further investigation using advanced molecular techniques and robust study designs. Furthermore, studies should consider sex-specific effects and potential confounding factors, including other medications and underlying health conditions. The current evidence, while suggestive, does not definitively establish causality.

AB-37

The therapeutic potential of GLP-1 agonists in psoriasis and hidradenitis suppurativa

Joshua K. Morales[1], Jennifer Keelin[2], Toan N. Vu[3], Selene M. Kizy[4], Sabrina C. Camacho[5], Sarah Kazemeini[6], Rebecca Metellus[7], Naif Hebo[8], Kristine P. Nguyen[9], Selina J. Chang[10], David G. Cotter[6,11]

[1]Anne Marion Burnett School of Medicine at Texas Christian University, Fort Worth, TX, USA
[2]Florida International University Herbert Wertheim College of Medicine, Miami, FL, USA
[3]University of Wisconsin School of Medicine and Public Health, Madison, WI, USA
[4]Oakland University William Beaumont School of Medicine, Rochester, MI, USA
[5]Texas Tech University Health Sciences Center School of Medicine, Lubbock, TX, USA
[6]Kirk Kerkorian School of Medicine at UNLV, Las Vegas, NV, USA
[7]Geisinger Commonwealth School of Medicine, Scranton, PA, USA
[8]University of Arizona College of Medicine Phoenix, Phoenix, AZ, USA
[9]Touro College of Medicine, New York, NY, USA
[10]University of Pittsburgh School of Medicine, Scranton, PA, USA
[11]Las Vegas Dermatology, Las Vegas, NV, USA

Glucagon-like peptide-1 (GLP-1) receptor agonists, widely prescribed for type 2 diabetes mellitus (T2DM) and obesity, have demonstrated anti-inflammatory and immunomodulatory properties that suggest a therapeutic role in chronic inflammatory dermatologic conditions such as psoriasis and hidradenitis suppurativa (HS). A systematic literature review, conducted in accordance with PRISMA guidelines across PubMed, Medline Ultimate, Scopus and Web of Science, evaluated twenty prospective studies, case reports, and meta-analyses to assess their impact on these diseases. In psoriasis, GLP-1 receptor agonists, particularly liraglutide and semaglutide, were consistently associated with reductions in the Psoriasis Area and Severity Index (PASI) and Dermatology Life Quality Index (DLQI), along with decreases in inflammatory cytokines including interleukin-17 (IL-17), interleukin-23 (IL-23), and tumor necrosis factor-alpha (TNF-α). Benefits were observed in both diabetic and non-diabetic patients, sometimes independent of weight loss or glycemic control, suggesting direct modulation of T helper 17 cell activity and the IL-23/IL-17 axis. In HS, GLP-1 receptor agonists have been linked to reduced lesion severity, lower Hurley stages, decreased inflammatory markers such as C-reactive protein (CRP), and improved quality of life metrics. Weight loss may also reduce mechanical friction and adipokine-driven inflammation in intertriginous regions. While early findings are promising, the literature remains limited by small sample sizes and case-based evidence; however, dermatology-specific randomized controlled trials are now beginning to emerge, indicating a promising trajectory for future research. By targeting both metabolic dysfunction and chronic inflammation, GLP-1 receptor agonists represent a novel, potentially dual-mechanism therapeutic option in dermatology, warranting further large-scale investigation.

AB-38

Dietary Omega-3 supplementation in acne vulgaris: impacts on inflammation, sebum production, and clinical severity

Rachel E. May
Rosalind Franklin University Chicago Medical School, North Chicago, IL, USA

Background: The influence of dietary factors on dermatologic conditions has garnered increasing scholarly attention in recent years. Acne vulgaris, one of the most prevalent dermatologic disorders globally, affects individuals across a broad age spectrum and is often associated with significant psychosocial morbidity. Although the pathogenesis of acne is multifactorial, emerging evidence suggests a potential role for specific dietary components, particularly Omega-3 fatty acids, in modulating disease severity. Omega-3 fatty acids, including alpha-linolenic acid (ALA), eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA), are known for their potent anti-inflammatory effects. These lipids may benefit acne management by attenuating inflammatory mediators such as cytokines, eicosanoids, and insulin-like growth factor-1 (IGF-1). This review aims to synthesize current evidence regarding the potential utility of Omega-3 fatty acids as adjunctive agents in managing acne vulgaris.
Methods: A systematic literature review was conducted using PubMed and Google Scholar, targeting studies published between 2020 and 2025. The inclusion criteria comprised human clinical studies that evaluated the relationship between Omega-3 fatty acid supplementation and clinical outcomes in acne vulgaris. Non-English-language articles were not considered. Eleven peer-reviewed studies met the inclusion criteria and were selected for analysis.
Results: The majority of studies reviewed reported a statistically significant reduction in both inflammatory and non-inflammatory acne lesions following Omega-3 fatty acid supplementation. Several investigations further noted a concomitant decrease in sebum production, which was positively correlated with clinical improvement. Patient-reported outcomes frequently reflected enhanced perceptions of skin clarity and a reduction in acne

severity. Notably, a significant proportion of participants demonstrated baseline Omega-3 fatty acid deficiencies, regardless of acne severity. These findings underscore a potential systemic role of Omega-3 fatty acid levels in modulating cutaneous inflammatory processes.

Conclusion: Although pharmacological treatments are essential for managing moderate to severe acne vulgaris, dietary interventions may serve as effective, non-invasive adjuncts to enhance therapeutic outcomes. Given their anti-inflammatory mechanisms, Omega-3 fatty acids present a promising complementary approach to conventional acne management. Integrating nutrition-based therapies may not only improve clinical outcomes but also align with increasing patient interest in holistic and integrative care. Future randomized controlled trials are necessary to determine optimal dosing, duration, and formulation of Omega-3 supplementation in acne treatment protocols.

AB-39

Roots of inflammation: the microbiome-immune interface and the call for a multidisciplinary protocol in alopecia areata

Simran Gill[1], Korina Kemelmakher-Liben[2], Stephanie Sawicki[1], Michelle Elway[1]
[1]Touro College of Osteopathic Medicine, Great Falls, MT
[2]Nova Southeastern University Dr. Kiran C. Patel College of Osteopathic Medicine

Alopecia areata (AA) is a chronic autoimmune condition marked by non-scarring hair loss. Its pathogenesis involves a complex interplay of genetic predisposition, immune dysregulation, environmental stressors, and microbial imbalance. Emerging evidence highlights the critical role of the gut-skin-immune axis, primarily gut and scalp dysbiosis, contributing to systemic inflammation and aberrant immune responses in AA. This literature review investigates the role of gut dysbiosis in AA pathogenesis, drawing parallels with other inflammatory disorders to highlight shared immunologic mechanisms and broaden therapeutic horizons beyond conventional protocols. This review also synthesizes data from immunology, microbiology, nutrition, and integrative medicine to examine how disruptions in gut microbiota - exacerbated by stress, diet, and environmental exposures-may trigger or amplify AA via mechanisms involving Th1/Th17 pathways, regulatory T-cell dysfunction, and inflammatory cytokine cascades. Notably, studies reveal distinct differences in gut microbiota composition between AA patients and healthy controls, supporting the value of stool-based diagnostics in clinical evaluation to uncover hidden dysbiosis. Therapeutic implications of targeting the microbiome are explored, including the use of prebiotics, probiotics, postbiotics, micronutrient therapy, and fecal microbiota transplantation (FMT). Additionally, this review emphasizes the relevance of osteopathic principles, highlighting modalities such as osteopathic manipulative treatment and vagal nerve regulation in restoring homeostasis through gut-immune modulation. Framing gut dysbiosis through an osteopathic lens reinforces the interconnectedness of body systems advocating for a holistic, systems-based approach to AA. This paper also explores how functional medicine principles focused on microbiome restoration, personalized nutrition, and identifying root causes of inflammation can complement osteopathic and conventional therapies. By bridging conventional, functional, and osteopathic medicine, this review proposes a multidisciplinary framework for managing AA and emphasizes the need for further research into gene-microbiome-environment interactions to inform personalized, integrative treatments.

AB-40

The impact of the skin microbiome on healing of burn injuries: a systematic review of microbial dynamics and clinical outcomes

Kiratpreet Sraa[1], Emilia Preda[2], Natasha Doshi[3], Tej Patel[4], Toan Vu[5], Andres Parga[6]
[1]Arizona College of Osteopathic Medicine, Glendale, AZ
[2]University of Virginia, Charlottesville, VA
[3]Lake Erie College of Osteopathic Medicine, Bradenton, FL
[4]Lewis Katz School of Medicine, Philadelphia, PA
[5]University of Wisconsin School of Medicine and Public Health, Madison, WI
[6]HCA Florida Oak Hill Hospital, Brooksville, FL

Recovery of the impaired skin microbiome after burns and skin grafting is a critical determinant of clinical outcomes. Under physiological conditions, the skin microbiome maintains homeostasis through interactions with host immunity and tissue repair mechanisms. Severe burns and grafting procedures disrupt this equilibrium leading to dysbiosis, opportunistic infections, delayed healing, and scar production. Evidence indicates that burns deplete commensal microbes, while favoring pathogens that impair graft integration through biofilm formation and chronic inflammation. Current clinical practices focus on infection control via broad-spectrum antibiotics yet these approaches often exacerbate microbial imbalance and antimicrobial resistance. Emerging strategies such as probiotic therapies, phage-based/nanoparticle-based interventions, and microbiome stabilizing dressings offer promising alternatives to restore microbiome symbiosis and enhance healing. This review evaluates the mechanisms by which burns and grafts alter microbial ecology and synthesizes current diagnostic and therapeutic limitations. A review conducted with PubMed and Scopus used keywords including “burn,” “wound repair,” “healing,” “antimicrobial,” and “microbiome.” Limitations included absence of standardized microbiome profiling, limited sample sizes, ethical challenges in conducting microbiome research, lack of longitudinal data in studies examining post-burn microbiomes, and limited efficacy of animal models in replicating human microbiome dynamics. Despite these barriers, advances in personalized microbiome modulation hold potential to revolutionize post-burn/graft management.

Interdisciplinary integration of microbiology, dermatology, and regenerative medicine will be key in developing clinically actionable solutions.

AB-41

Prevention of melanoma growth and invasion by lipophilic vitamin B1 derivatives

Sarah Ngo, Nicholas Bleza, Alexandria Vo, Kota V. Ramana
Noorda College of Osteopathic Medicine, Provo, UT

Background: In the United States, melanoma is one of the most common cancers among Americans. According to the Skin Cancer Foundation, one in five Americans will develop melanoma by the age of 70. Increased oxidative stress due to unprotected exposure to UV light and tanning beds leads to damage to skin cells and melanoma progression. Increased free radicals generated by oxidative stress could lead to genomic instability and mutations that trigger melanoma growth. Vitamins, including vitamin B1, are molecules readily used by biological systems to counteract oxidative stress and have been shown to modulate inflammatory response. Thus, the usage of vitamins as a preventative therapy for at-risk patients is a promising approach to decreasing the incidence and progression of melanoma. Currently, there is insufficient research on the chemopreventive efficacy of Vitamin B1 derivatives, Benfotiamine and Fursultiamine. Therefore, we hypothesize that Benfotiamine and Fursultiamine could inhibit melanoma cell growth and invasion through anti-oxidative properties.
Methods: Murine melanoma cells, B16-F10, were obtained from ATCC and maintained with DMEM media. Cells were treated with varying concentrations of Benfotiamine and Fursultiamine for 24 h. MTT assay was carried out to detect the cell viability. RD systems Mouse Apoptosis Arrays were used to detect the expression of pro- and anti-apoptotic markers. Invasion and migration of melanoma cells were detected by scratch and transwell migration assays.
Results: Our data suggest that Benfotiamine and Fursultiamine effectively prevented melanoma cell growth in B16-F10 cells. Further, they prevented the invasion and migration of cancer cells. In melanoma cells, Benfotiamine and Fursultiamine also regulated the expression of various anti-apoptotic, pro-apoptotic, and inflammatory markers. Conclusions: Our results suggest that lipophilic vitamin B1 derivatives prevent melanoma cell growth and invasion, indicating their chemopreventive effects.

AB-42

Not just a rash: pediatric anaplastic large cell lymphoma with cutaneous recurrence and literature review

Emily Saurborn[1], Kayla Coffman[1], Nicole Liang[1], Isabella Stuart[1], Madelyn Ross[1], Paul Finch[2], Dylan Maldonado[3], Shane Cook[3]
[1]Marshall University's Joan C. Edwards School of Medicine
[2]Department of Pediatric Oncology, Marshall University's Joan C. Edwards School of Medicine
[3]Department of Dermatology, Marshall University's Joan C. Edwards School of Medicine

Background: Cutaneous metastases are lesions of malignant cells from a primary internal malignancy to the skin. Although they typically occur in less than 10% of patients, their recognition is critical. They often present as fast-emerging, discrete, firm, painless nodules, but can mimic other skin conditions, such as erysipelas, herpes zoster, impetigo, or radiation dermatitis. They are most commonly present in the head and neck region, anterior chest wall, and abdomen. Systemic anaplastic large cell lymphoma (S-ALCL), a CD30+ T-cell neoplasm, accounts for approximately 10-15% of pediatric non-Hodgkin lymphomas and is divided into anaplastic lymphoma kinase positive (ALK+) and negative (ALK-). A higher frequency of cutaneous involvement is observed in the ALK- subtype. Despite treatment efforts, outcomes over the years have not improved, and extranodal involvement is commonly seen. Up to 40% of patients will suffer disease relapse. Cutaneous metastases across cancers often carry a poor prognosis, with a median survival of < 1 year after diagnosis. Since skin metastases can be the first signs of extensive insidious cancer growth or tumor recurrence, it is important to recognize them promptly and initiate appropriate measures.
Case report: We present a case of a 9-year-old female who presented with erythematous papules and nodules on the trunk and arm unresponsive to antibiotics. A punch biopsy revealed a CD30+ lymphoproliferative disorder. Further evaluation confirmed ALK+ S-ALCL with cutaneous involvement (Murphy Stage II). She was treated per the Children's Oncology Group ANHL12P1 protocol and achieved remission. Four months later, she developed a new lesion on the wrist, which biopsy confirmed as recurrent ALCL.
Discussion: This case highlights the importance of maintaining a high index suspicion for malignancy in patients presenting with an atypical rash resistant to treatment. Early biopsy and establishing multi-disciplinary care are crucial to improving outcomes.

AB-43

The overlap of benign and malignant dermatoses: cutaneous T-Cell lymphoma imitating pityriasis alba in a pediatric patient

Vyshnavi Rallapalle[1], Kavita Kantemneni[1], Alexandra Savage[1], Sailesh Kumar[2], Andrew Fortugno[3], Peter Pavlidakey[3], Ravi Hiremagalore[3]
[1]Heersink School of Medicine, University of Alabama at Birmingham, Birmingham, AL, USA
[2]Deparment of Surgery, University of Alabama at Birmingham, Birmingham, AL, USA
[3]Department of Dermatology, University of Alabama at Birmingham, Birmingham, AL, USA

Background: The most common subtype of cutaneous T-cell lymphoma (CTCL) in pediatric patients is mycosis fungoides (MF), which is often misdiagnosed as conditions such as vitiligo, pityriasis alba, and post-

inflammatory hypopigmentation, leading to delays and difficulties in diagnosis. We present a rare case of a pediatric patient with multivariate Stage IIB CTCL who initially presented with hypopigmented lesions leading to a misdiagnosis of pityriasis alba.

Case report: A 14-year-old Black male presented to the dermatology clinic for worsening pityriasis alba and a slowly enlarging right shoulder plaque. Physical exam revealed ill-defined hypopigmented patches across 80% of the body and a reddish plaque with follicular edema and plugging on the right posterior shoulder. Two punch biopsies, one from a representative hypopigmented lesion and another from the right shoulder plaque, revealed abundant atypical lymphocytes along the dermal epidermal junction and a skewed CD4:CD8 ratio (1:4); this, along with the clinical presentation, led to a new diagnosis of hypopigmented MF and folliculotropic MF for the right shoulder plaque, respectively. After referral to hematology/oncology, the patient underwent systemic workup and was diagnosed with stage IIB (T3N0M0B0) MF. He started brentuximab vedotin infusions along with narrowband ultraviolet B therapy (NB-UVB) and topical mometasone leading to marked improvement at 5-month follow-up.

Discussion: Our case is the first report of multivariate late stage MF in a pediatric patient to our knowledge. In fact, there have only been three reported pediatric patients with stage IIB MF, ranging from ages 5-13 years, which highlights the rarity of this patient's presentation as most patients with MF are diagnosed at much earlier stages. This case highlights the importance of maintaining a high index of suspicion for CTCL in patients with atypical and treatment-resistant hypopigmented skin lesions. Histopathological evaluation is crucial for facilitating early intervention and improving patient prognosis, while avoiding systemic therapies.

AB-44

Pediatric molluscum contagiosum: evaluating FDA-approved interventions compared to observation

Quinn Schroeder[1], Olivia Moreno[2], Andrea Belovich[1]
[1]Idaho College of Osteopathic Medicine, Meridian, ID
[2]University of New England College of Osteopathic Medicine, Portland, ME

Molluscum contagiosum is a common viral infection in the United States, affecting three distinct populations: sexually active individuals, the immunocompromised, and most typically, children under the age of 14. Caused by the DNA Poxvirus, it is characterized by the appearance of singular or, more commonly, multiple umbilicated papules. Molluscum contagiosum is benign and self-limiting, often resolving spontaneously, leading many clinicians and patients to opt for observation rather than active treatment. However, children with atopic dermatitis and those who are immunocompromised are particularly at risk, experiencing higher rates of infection and more severe disease courses. The resolution of molluscum can take months to years, which many patients with severe cases are unable or unwilling to wait for. While more than fifteen off-label therapies have been used in attempts to expedite resolution, in the last two years, the U.S. Food and Drug Administration (FDA) has finally approved two specific treatments for molluscum: Ycanth (cantharidin), a single drug-device topical administration, and Zelsuvmi (berdazimer gel), a topical agent. This review evaluates the two FDA treatments over the past two years in comparison to no interventions aka observation, focusing on the clinical utility, efficacy, adverse reactions, and integration into current management strategies. Ycanth and Zelsuvmi showed most efficiency when compared to observation alone; these treatments significantly reduced average resolution time and improved complete clearance rates with intervention. Despite these advances, many physicians—particularly in pediatric care—still choose observation, often due to concerns about local site skin irritation, tolerability or the self-limiting nature of the condition. However, these FDA-approved treatments offer meaningful benefits in shortening disease duration, reducing transmission risk, and managing extensive or symptomatic cases more effectively in children.

AB-45

Diffuse multifocal granular cell tumors in a 15-year-old female

Danny Lee[1], Catalina Matiz[2]
[1]University of California San Francisco St. Mary's Hospital, San Francisco, CA
[2]Southern California Permanente Medical Group, San Diego, CA

Case Report: A 15-year-old girl presented with multiple pea-sized masses that had developed over the past two years. The most prominent lesions included a nasal mass causing breathing difficulty and a painful mass on the left lateral tongue. More recently, she noted smaller, asymptomatic masses on both upper and lower extremities. Her medical history was significant for type 1 diabetes mellitus with proteinuria and hypertension, managed with insulin and lisinopril. There was no relevant family history. Punch biopsy of a left arm lesion demonstrated unencapsulated cell proliferation with a focal plexiform pattern within the perivascular and interstitial spaces, exhibiting a focal plexiform pattern in a fibrotic dermis. On higher magnification, the lesion showed polygonal cells with abundant granular cytoplasm and small, round to oval nuclei without malignant features. A trapped nerve was observed in the upper central field, characteristic of granular cell tumors (GCTs). Immunohistochemical staining was positive for S-100 and SOX-10. A MRI of her face confirmed a right nasal ala lesion extending into the subjacent fascial soft tissue measuring .8 cm and a tongue lesion measuring 2.3 cm. Due to the symptomatic nature of the nasal and tongue lesions, the patient was referred to a head and neck specialist for surgical evaluation. She elected to defer excision of the asymptomatic extremity lesions.

Discussion: Granular cell tumors (GCTs), also known as Abrikossoff's tumors, are rare neoplasms derived from Schwann cells, comprising about 0.5% of all soft tissue tumors. Most present as solitary lesions, though multiple tumors occur in up to 30% of patients. Multiple GCTs in pediatric patients are particularly uncommon. Our report highlights a rare and widespread pediatric presentation of granular cell tumors, emphasizing the associated diagnostic challenges. The pathogenesis of GCTs remains unclear, though genetic contributions have been implicated. Multiple lesions are more often associated with a positive family history or genetic syndromes such as Noonan syndrome, neurofibromatosis type I, or LEOPARD syndrome. In our case, there was no personal or family history and no dysmorphic features to suggest an underlying syndrome. Clinically, GCTs present as firm, well-circumscribed nodules, often mimicking other benign skin lesions. This can make diagnosis based on physical examination alone challenging. The differential diagnosis is expansive and varies by location. Clinicopathologic correlation and immunohistochemical staining is helpful. Excisional biopsy is the diagnostic gold standard. Histologically, GCTs consist of large polygonal cells with abundant granular eosinophilic cytoplasm and small central nuclei, as seen in our patient. Imaging is typically not required for small, benign-appearing nodules in the skin or oral cavity. However, it may be indicated for lesions in atypical or deep soft tissue locations to help distinguish GCTs from malignant or other benign tumors. The mainstay of treatment for GCTs is wide local excision with clear margins. In cosmetically sensitive sites, Mohs micrographic surgery may be considered. Asymptomatic lesions can be managed with observation. Sentinel lymph node biopsy is reserved for cases with clinical or histologic suspicion for malignancy.

AB-46

Acute limb pain and purpuric rash: a case of Henoch-Schönlein purpura

Rose Bahari[1], Stephanie Marie Lopez[1], Roger Kapoor[2]
[1]University of Illinois College of Medicine, Rockford, IL
[2]Senior Vice President, Beloit Health System, Inc., Beloit, WI

Background: Henoch-Schönlein Purpura (HSP), or IgA vasculitis, is the most common systemic vasculitis in children under the age of 10 years. It is characterized by the deposition of IgA immune complexes in small vessels, leading to inflammation in the skin, joints, kidneys, and gastrointestinal tract. HSP usually follows a respiratory infection and presents a classic tetrad of symptoms: palpable purpura (especially on the lower extremities), arthralgia or arthritis, abdominal pain, and renal involvement. The diagnosis is clinical, and early recognition is necessary to prevent complications.
Case Report: We describe a case of a 5-year-old male who was seen in the emergency department with difficulty walking due to sudden bilateral pain in his lower and upper extremities, with predominant pain in his right ankle and left knee. His symptoms started a day after a minor fall and were followed by a non-blanching purpuric rash across his extremities and lower back. The patient had no fever or recent infection. The clinical picture and the rash indicated a diagnosis of Henoch-Schönlein Purpura (HSP), an IgA-mediated small-vessel vasculitis. The case illustrates the importance of maintaining a broad differential diagnosis and considering systemic inflammatory disorders for pediatric musculoskeletal complaints when no traumatic or infectious etiology is present.
Discussion: This case serves to remind us to consider Henoch-Schönlein Purpura in the differential diagnosis of children presenting with unexplained limb pain and purpuric rash, even in the context of trivial trauma. Prompt recognition allows for adequate management and monitoring for renal and gastrointestinal manifestations, which can present later in the disease process. HSP remains a clinical diagnosis, and awareness of its varied presentations will prevent misdiagnosis and inappropriate procedures.

AB-47

Examining Nrf2 signaling and autophagy in melanocyte survival and vitiligo pathogenesis

Chahat Arora[1], Hargun Sachar[2], Jay Modi[3]
[1]New York Institute of Technology, Old Westbury NY
[2]Carnegie Mellon University, Pittsburgh PA
[3]College of Osteopathic Medicine, New York Institute of Technology, Old Westbury NY

Vitiligo is an autoimmune disorder characterized by the destruction of melanocytes in the skin, causing white macules to appear on the body. While the underlying mechanism of action of vitiligo remains unclear, recent literature has shown that oxidative stress resulting from an imbalance of reactive oxygen species (ROS) could play a role in melanocyte destruction. Oxidative stress has been linked to other skin-related disorders such as psoriasis and melasma, emphasizing its relevance in dermatological disease. Stress response pathways involving Nuclear Factor E2-related factor 2 (Nrf2), a transcription factor that protects melanocytes from oxidative damage, may have been identified as contributors to melanocyte survival under oxidative stress. Nrf2 has been identified as an upstream regulator of autophagy in melanocytes that have undergone oxidative stress. Autophagy is a process in which cells utilize damaged proteins and organelles as a source of nutrients under stressful conditions. In vitiligo, autophagy has been implicated in playing a protective role and ensures that melanocytes can survive under detrimental conditions. The impairment of autophagy within the body has been found to worsen the senescent phenotype of vitiligo melanocytes, contributing to disease progression. Recent evidence has shown that Nrf2 impairment has caused defects in autophagy under oxidative stress, exacerbating the disease progression. An understanding of how they work together to maintain cellular homeostasis is formed by examining the connection between these pathways and processes. This review

examines the relationship between Nrf2 signaling and autophagy under oxidative stress and how disturbances within these processes can lead to vitiligo pathogenesis. Understanding these mechanisms can lead to potential therapeutic treatments to target cellular processes to obtain increased melanocyte survival.

AB-48

Harnessing flavonoids and nutraceuticals for vitiligo via targeting oxidative stress and neural-melanocyte crosstalk

Hafsa Hassan[1], Camile Delva[2], Caroline Hunter[3], Arielle Radparvar[4], Kaitlyn Miner[5], Hannah Reimer[6], Kelly Frasier[7]
[1]Northeast Ohio Medical University College of Medicine, Rootstown, OH
[2]CUNY School of Medicine, New York, NY
[3]Edward Via College of Osteopathic Medicine, Auburn, AL
[4]California Health Sciences College of Osteopathic Medicine Clovis, CA
[5]Kansas City University College of Osteopathic Medicine, Kansas City, MO
[6]Ross University School of Medicine, Warren, OH
[7]Department of Dermatology, Northwell Health, New Hyde Park, NY

Vitiligo, a complex disorder characterized by the progressive destruction of melanocytes, involves a multifaceted pathophysiology driven by oxidative stress, immune dysregulation, and impaired neural-melanocyte signaling. Emerging evidence supports the therapeutic potential of flavonoids and other nutraceuticals in targeting these pathways, yet their precise mechanisms and clinical applications remain inadequately defined. Specific flavonoids, such as quercetin, apigenin, and catechins, demonstrate potent antioxidant effects by scavenging reactive oxygen species (ROS) and modulating redox-sensitive signaling pathways, including nuclear factor erythroid 2–related factor 2 (Nrf2) and mitogen-activated protein kinases (MAPKs). In addition to their role in redox homeostasis, flavonoids exhibit neuroprotective properties by attenuating neuro-inflammation through the suppression of pro-inflammatory cytokines (e.g., IL-1β, TNF-α) and enhancing neural-melanocyte communication via upregulation of cyclic adenosine monophosphate (cAMP) and extracellular signal-regulated kinase (ERK) signaling pathways. Further, the combination of flavonoids with antioxidants such as N-acetylcysteine and alpha-lipoic acid offers synergistic benefits by targeting distinct aspects of oxidative stress, including ROS detoxification, mitochondrial function restoration, and lipid peroxidation prevention. These compounds collectively promote melanocyte survival and migration, critical processes for effective repigmentation. Integration with narrowband UVB (NB-UVB) phototherapy offers additional therapeutic potential by enhancing UV-induced melanogenesis while minimizing photodamage through upregulated antioxidant defenses. Specifically, flavonoids may amplify NB-UVB efficacy by stabilizing melanogenic enzymes, such as tyrosinase, and protecting melanocyte stem cells from oxidative insults. Emerging research suggests that flavonoids may exert epigenetic effects on melanocyte stem cell niches, influencing their plasticity and regenerative capacity. Investigating these epigenetic modifications, such as changes in histone acetylation and DNA methylation, could illuminate new pathways for reversing depigmentation and preventing disease recurrence. Integrating flavonoid-based nutraceuticals with NB-UVB therapy offers a targeted strategy to address oxidative stress, immune imbalance, and neural-melanocyte signaling dysfunction in vitiligo, enhancing repigmentation outcomes and reducing relapse rates through synergistic molecular mechanisms.

AB-49

Salmon-Derived polydeoxyribonucleotide for post-inflammatory hyperpigmentation: a new contender against standard therapies

Sabah Iqbal[1], Maha Alhoda[2], Audrey Iglesias[3], Naif Hebo[4], Madilyn Covelli[5]
[1]Rowan-Virtua School of Osteopathic Medicine, Stratford, NJ
[2]Royal College of Surgeons in Ireland, Bahrain
[3]St. George's University School of Medicine, St. George's, Grenada
[4]University of Arizona College of Medicine Phoenix, Arizona
[5]Midwestern University College of Osteopathic Medicine, Glendale, AZ

Polydeoxyribonucleotide (PDRN), a polymer of deoxyribonucleotides extracted from the sperm of Oncorhynchus mykiss (Salmon Trout) or Oncorhynchus keta (Chum Salmon), has gained traction in regenerative dermatology due to its potent anti-inflammatory and wound-healing capabilities, mediated primarily through activation of the adenosine A2A receptor (A2AAR). Traditionally utilized in tissue repair and chronic wound management, PDRN is being explored for its potential to modulate melanin production through downregulation of melanogenic targets, including microphthalmia-associated transcription factor (MITF), tyrosinase (TYR), and tyrosinase-related proteins TYRP-1 and TYRP-2. Inhibition of key intracellular pathways—namely cAMP/PKA, PI3K/Akt, and MAPK/ERK—contributes to its emerging role in mitigating post-inflammatory hyperpigmentation (PIH), particularly in cases following acne, eczema, or dermatologic procedures. Current treatments for PIH center on disrupting melanogenesis and removing accumulated pigment through use of topical lightening agents, retinoids, chemical exfoliants, or laser therapy. PDRN offers a stable, bioavailable, multifunctional profile with both anti-melanogenic and regenerative properties. Formulations containing PDRN cater to increasing demand for naturally derived, biocompatible skincare options. The dual-action profile of PDRN positions it as a promising, next-generation therapeutic agent in the evolving landscape of PIH management and pigmentary disorder treatment. Integration of nucleotide-based therapeutics such as PDRN into pigmentation management protocols

represents a paradigm shift in cosmeceutical innovation, redefining how biologically active compounds can be utilized to treat pigmentary disorders while simultaneously restoring cutaneous homeostasis.

AB-50

Exploring the role of fragrance allergens in Riehl's melanosis: a focus on hydroperoxides of linalool

Sophie A. Serfaty[1], Nikol Pritsky[1], Damilola Oladinni[2], Alejandra Sataray-Rodriguez[3], Diana Ayala[4], Aileen Poron[5]
[1]The Ruth and Bruce Rappaport Faculty of Medicine, Technion Israel Institute of Technology, Haifa, Israel
[2]A.T. Still University School of Osteopathic Medicine Arizona, Mesa, AZ
[3]University of Nevada-Reno School of Medicine, Reno, NV
[4]St. George's University School of Medicine, St. George's, Grenada
[5]Baylor University, Waco, TX

Riehl's melanosis is a chronic pigmentary disorder classified as a form of pigmented contact dermatitis. It is now more commonly associated with exposure to modern cosmetic and wellness products, particularly those containing fragrance ingredients. Clinically, it appears as gray-brown reticulated pigmentation of the face, neck, and upper chest, resulting in high psychosocial burden despite its benign nature. The condition is especially problematic for women and individuals with darker phototypes, who are most at risk for hyperpigmentation. Riehl's melanosis pathogenesis is believed to be a type IV hypersensitivity reaction to chronic low-dose allergen exposure. Recent evidence has identified oxidized fragrance terpenes, specifically hydroperoxides of linalool, as significant environmental factors. Linalool is a terpene alcohol found in more than 60% of fragranced cosmetics, detergents, and household products. While relatively nonsensitizing in pure form, linalool readily oxidizes on contact with air. The resulting hydroperoxides are potent allergens that activate T cells, trigger release of proinflammatory cytokines, and compromise epidermal barrier function. Chronic inflammation damages basal keratinocytes and alters melanin synthesis, transport, and degradation. As a result of the basement membrane disruption, melanin granules settle in the dermis and are phagocytosed by macrophages, leading to pigment incontinence—a histological hallmark of Riehl's melanosis. Diagnosis remains difficult. Its clinical similarity to other hyperpigmentary dermatoses, insidious onset, and the fact that patch testing is not widely available all contribute to underdiagnosis. Even when identified, avoidance is challenging because linalool hydroperoxides are ubiquitous in consumer products but typically masked under general "fragrance" labels. So-called "natural" or "clean" products can, ironically, be loaded with these sensitizers, frustrating patients and complicating avoidance. The rising trend of using fragranced products makes even greater clinical suspicion and public health action all the more urgent. Improved ingredient transparency, more accessible diagnostic testing, and broader recognition of oxidized fragrance allergens as a cause of chronic pigmentation could reduce the burden of this preventable disease. Riehl's melanosis underscores the intersection of dermatology, consumer safety, and regulatory policy and the need for vigilance in both product formulation and clinical practice.

AB-51

Successful management of a chronic venous ulcer via Varithena sclerotherapy for secondary saphenous vein reflux: a novel approach

Apurva Ramanujam[1], Afrida Sara[1], Djellza Rrukiqi[1], Gurpreet Gill[2]
[1]Nova Southeastern University Dr. Kiran C. Patel College of Osteopathic Medicine, Fort Lauderdale, FL, USA
[2]Vascular Surgery, Stony Brook Southampton Hospital, Southampton, NY, USA

Chronic venous ulcers represent a major dermatologic burden, often persisting despite compression, wound care, and procedures targeting great saphenous vein (GSV) reflux. Ulcers refractory to conventional measures highlight the importance of considering venous pathology beyond the GSV. This case describes the successful management of a long-standing ulcer through a multimodal approach that targeted secondary venous reflux and optimized the wound environment. A 67-year-old man with chronic venous insufficiency presented with a 10-year history of a painful, draining ulcer on the right medial ankle. Despite long-term compression therapy and local wound management, the lesion progressively enlarged. On examination, the ulcer measured 13 × 10 cm with irregular borders, fibrinous slough, and surrounding fibrosis. Venous duplex ultrasonography revealed reflux within secondary saphenous tributaries and incompetent varicosities, without GSV involvement. The ulcer was staged as Clinical-Etiological-Anatomical-Pathophysiological Clinical Stage 6 (CEAP C6), reflecting active disease with advanced cutaneous damage. Given the persistence of venous hypertension and failure of conservative measures, a multimodal procedure was undertaken. Varithena foam sclerotherapy ablated the refluxing tributaries, stab phlebectomy removed incompetent varicosities, and excisional debridement cleared fibrotic tissue to optimize healing. At four months, the ulcer demonstrated approximately 30% closure with reduced drainage, improved pain control, and a favorable trajectory toward complete re-epithelialization. This case illustrates that refractory venous ulcers may be sustained by collateral or tributary venous insufficiency rather than GSV reflux alone. For dermatologists, recognizing secondary venous reflux as a contributor to non-healing wounds is essential when standard therapies fail. Foam sclerotherapy, although commonly associated with vascular surgery, is a minimally invasive modality with direct relevance to dermatologic wound management. When combined with procedures such as phlebectomy and debridement, it provides an opportunity to address both underlying hemodynamic pathology and the chronic wound environment. Integrating vascular-directed interventions

with dermatologic strategies underscores the value of interdisciplinary collaboration in complex ulcer care. By expanding evaluation to include tributary incompetence and tailoring interventions accordingly, clinicians can enhance healing trajectories, minimize recurrence, and improve quality of life for patients. This case highlights a comprehensive and evolving paradigm in refractory venous ulcer management, where dermatology and vascular expertise converge to achieve durable outcomes.

AB-52

Neuropsychiatric sequelae of systemic acne therapies in pediatric patients: a TriNetX analysis

Darianne Zimmer, Christina Stirwalt
UC Riverside School of Medicine, Riverside, CA, USA

The neuropsychiatric safety profile of systemic acne therapies in pediatric populations remains an area of ongoing concern and investigation. Isotretinoin, in particular, has historically raised concerns regarding its potential association with depression, anxiety, and suicidality, while other systemic agents, including oral antibiotics and hormonal agents, have also been considered for their potential psychiatric effects. This retrospective cohort study utilized the TriNetX database to evaluate the incidence of new-onset neuropsychiatric sequelae in patients aged 10 to 18 years with a diagnosis of acne vulgaris, comparing those treated with systemic agents (isotretinoin, oral antibiotics, spironolactone, oral contraceptives) to those treated with topical agents alone (clindamycin, benzoyl peroxide, tretinoin, adapalene). Patients with pre-existing psychiatric diagnoses were excluded. Propensity score matching was performed to control for baseline differences in age, sex, race, and ethnicity. Neuropsychiatric outcomes, including depression, anxiety, suicidal ideation, suicide attempt, and antidepressant initiation, were assessed within six months of treatment initiation. No statistically significant differences were observed in neuropsychiatric event rates between systemic and topical cohorts. Among systemic therapies, oral contraceptives were associated with the highest observed incidence of neuropsychiatric sequelae (5.31%), while isotretinoin demonstrated a lower incidence (2.29%) than both oral antibiotics and topical therapies. These findings align with emerging evidence suggesting that acne severity, rather than treatment modality, may be the primary contributor to psychiatric burden. The results support the continued use of systemic therapies in appropriately selected pediatric patients and underscore the need for individualized, severity-based treatment decisions.

AB-53

Hidradenitis suppurativa: body image disturbance and risk of body dysmorphic disorder

Hamzah Hassan, Hafsa Hassan
Northeast Ohio Medical University College of Medicine, Rootstown, OH

Body image disturbances are a significant, but overlooked aspect of the psychological burden of hidradenitis suppurativa (HS), a chronic dermatological disorder affecting visible and intimate areas of the body. This review combines the current evidence of negative body image and possible body dysmorphic disorder (BDD) in HS patients, thus indicating a large unmet need in dermatological and mental health care. Despite research consistently linking higher rates of depression and anxiety in those with HS, there is limited research that focuses specifically upon BDD and body image concerns. Preliminary findings suggest that HS patients, especially women with anogenital HS lesions, suffer significantly from social withdrawal, appearance-related distress, and low self-esteem. Nevertheless, validated instruments to screen for BDD, like the Body Dysmorphic Disorder Questionnaire (BDDQ), are infrequently used in this population. The quality of life improvements provided by combined use of psychodermatological interventions, such as cognitive behavioral interventions, aspects of self-image counseling, and sexual health support are only shortly addressed in literature and limited in practice. Barriers, including stigma, provider unawareness, and inadequate mental health screening, continue to hinder proper BDD diagnosis in patients with HS. Recommendations are to implement body image assessments as part of the dermatologic care, as well as extend research on appearance-related psychopathology facilitated by standardized instruments. Collaboration between dermatologists, mental health professionals, and patients advocacy groups is further essential to create accessible interventions for this population. Creating a standardized approach for the evaluation of body image changes in HS will guide therapeutic decision making and enhance the interdisciplinary approach to patients. This review highlights the importance of a targeted focus on body image and BDD in HS, moving towards solutions that treat not only the physical symptoms, but also oftentimes the hidden psychological impact of the disease.

AB-54

Psychiatric burden in hidradenitis suppurativa: an updated scoping review of depression, anxiety, and suicidality

Julie Paik[1], Julia Reitkopp[1], Dakota Campbell[1], Sherli Koshy-Chenthittayil[2]
[1]College of Osteopathic Medicine, Touro University Nevada, Henderson, NV
[2]Office of Institutional Effectiveness, Touro University Nevada, Henderson, NV

Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition involving painful follicular pilosebaceous units that is thought to have multifactorial etiology. Lifestyle, hormonal status, microbiota, genetic, and environmental factors are only a few factors that contribute to HS cases around the world. In both pediatric and adult HS populations, comorbidities include obesity, acne vulgaris, arthritis, autoinflammatory syndromes, and

inflammatory bowel disease. Affecting 1% of the global population, HS significantly decreases quality of life and is strongly linked to an increased risk of anxiety, depression, and suicide. Although the precise mechanism underlying this association remains unclear, both psychosocial and physiological factors are likely involved. This study aims to do a 5-year update on the existing review by Jalenques et al, "The prevalence and odds of anxiety and depression in children and adults with Hidradentitis Suppurativa: systematic review and meta-analysis" to more accurately understand the association and prevalence of HS and psychiatric disorders in both the pediatric and adult populations. A search of PubMed was conducted for studies published after May 2019, using search terms like "hidradenitis suppurativa," "depression," "anxiety," and "generalized anxiety disorder." Only peer-reviewed articles in English were included and the review was not limited by design type, race, gender, or age. A preliminary search identified 16 papers that investigated psychiatric comorbidities in HS. Across these studies, the prevalence of depression in adults ranged from 20.9% to 30%, anxiety from 12% to 19.3%, and suicidality around 0.67%. In pediatric patients with HS, the prevalence of depression ranged from 9.51% to 11.7%. The prevalence of anxiety and suicide rates were less documented among these papers. An updated meta-analysis will be conducted to better support dermatologists and psychiatrists in making evidence-based and individualized clinical decisions for patients with HS.

AB-55

The psychology of skin bleaching: investigating colorism, self-esteem, and dermatological risks in darker-skinned populations

Precious Ochuwa Imokhai[1], Natasha Doshi[2], Tala Maya[3], Sahla Esam[4], Arpita Patel[5], Tiffany Mayas[6], Julia Vinagolu-Baur[7], Kelly Frasier[8]
[1]Rocky Vista University Montana College of Osteopathic Medicine, Billings, MT, USA
[2]Lake Erie College of Osteopathic Medicine, Bradenton, FL, USA
[3]University of Louisville School of Medicine, Louisville, KY, USA
[4]University of Missouri-Columbia School of Medicine, Columbia, MO, USA
[5]Kansas City University College of Osteopathic Medicine, Kansas City, MO, USA
[6]Department of Public Health and Preventative Medicine, St. George's University, Grenada
[7]SUNY Upstate Medical University, Syracuse, NY, USA
[8]Department Of Dermatology, Northwell Health, New Hyde Park, NY, USA

Skin bleaching remains a prevalent yet underregulated practice among individuals with higher levels of constitutive melanin, driven by deeply ingrained colorism, societal beauty standards, and media representations. While its dermatological risks, such as exogenous ochronosis, paradoxical hyperpigmentation, and skin-barrier dysfunction, are well-documented, gaps persist in understanding its long-term psychological impact, the influence of social media, and cross-cultural differences. This review employs a mixed-methods approach to investigate the dermatological, psychological, and sociocultural dimensions of skin bleaching. Through the inhibition of tyrosinase, disruption of epidermal barrier function, and systemic toxicity of common bleaching agents, this study examines the physiological and metabolic consequences of chronic skin-lightening practices and explores the role of cognitive distortions, social reinforcement, and neuropsychological reward processing in perpetuating skin-lightening behaviors, particularly in communities affected by intergenerational colorism. Sociocultural analysis integrates historical colonial legacies, globalization, and economic stratification as reinforcing mechanisms that sustain skin-lightening trends across diverse populations. This study evaluates the effectiveness of existing bans, public health campaigns, and dermatological interventions while proposing culturally tailored approaches to mitigate the practice. Findings will contribute to a more comprehensive understanding of colorism's impact on dermatological health and mental well-being, informing dermatologists and public health professionals on effective strategies for promoting skin-positive narratives.

AB-56

The psychological and quality-of-life (QoL) impact of seborrheic dermatitis on adults: a systematic review

Rishika Voruganti, Joy Xie, Barbar Rao
Robert Wood Johnson School for Medicine, Piscataway, NJ

Seborrheic dermatitis (SD) is a chronic inflammatory skin condition affecting up to 5% of the population, frequently seen in individuals with immunosuppression, neurological disorders, or genetically oilier skin. Despite its prevalence, SD is often dismissed as a mild dermatological concern. However, the presence of dry, scaly patches on visible areas like the scalp and face can negatively affect self-esteem and social interaction. While the psychosocial impact of conditions like alopecia areata and psoriasis has been well-characterized, the psychological burden of SD remains underexplored. This systematic review evaluates the impact of SD on psychological well-being and quality of life (QoL) in adults. A comprehensive literature search was conducted using PubMed and Google Scholar, guided by MeSH terms (Sebaceous Gland Diseases, Dermatitis, Seborrheic, Mental Health, Depression, Anxiety Disorders, Quality of Life) and keywords (DLQI, PHQ-9, GAD-7). Observational studies published between 2005–2025 were included if they used validated tools to assess depression, anxiety, or QoL in adults with SD. Case reports, non-peer-reviewed literature, and treatment-focused studies were excluded. Data extraction included sample size, SD severity, and psychological assessment scores. Fifteen studies were included, representing over 5,500 patients across multiple countries. Results

consistently demonstrated that SD patients experience elevated levels of depression, anxiety, and stress. Quality of life was moderately to severely impaired in most populations, with DLQI scores ranging from 3.87 to 8.1 and Skindex-29 scores as high as 33.97±20.55. Depression and anxiety prevalence ranged from 29% to over 90%, with higher psychological distress noted among those with facial involvement or more severe disease. Several studies demonstrated significant correlations between SD severity and elevated scores on the Beck Depression Inventory, HADS, DASS-21, and other validated scales. These findings confirm that SD is associated with a meaningful psychosocial burden that is frequently underestimated in clinical practice. Emotional distress, particularly depression and anxiety, was prevalent across multiple populations and measurement tools. Visibility of lesions, especially on the face, appears to exacerbate psychological symptoms, likely due to stigma and reduced self-esteem. The evidence supports integrating routine mental health screening into dermatologic visits, particularly for patients with visible or chronic SD. Psychodermatologic interventions and interdisciplinary care may improve outcomes. Social determinants of health (SDOH) should also be considered as potential confounders influencing mental health. While differences in study design and measurement tools is a limitation, the consistency of findings across regions and populations underscores the need for more holistic SD management.

AB-57

Investigating the associated link between substance use and psoriasis

Toan Vu[1], Joshua Morales[2]
[1]University of Wisconsin School of Medicine and Public Health, Madison, WI
[2]Anne Burnett Marion School of Medicine at Texas Christian University, Fort Worth, TX

Background: Psoriasis is a chronic inflammatory skin disorder characterized by erythematous, scaly, and pruritic patches on the skin. Emerging research suggests that the progression and severity of psoriasis are influenced by various lifestyle factors, including substance use. This review analyzes the existing literature on the association between substance use and psoriasis outcomes, focusing on tobacco and alcohol use.
Methods: A literature search was conducted using PubMed, Cochrane Library, and Google Scholar. Boolean operators were used to identify relevant literature. The key search terms included “psoriasis,” “substance use,” “smoking,” “tobacco,” and “alcohol.” Findings from peer-reviewed studies examining substance use in relation to psoriasis prevalence and severity, along with treatment response and mechanisms contributing to the development of psoriasis, were synthesized. Articles published in English over the last 20 years were considered.
Results: Current studies indicate that smoking tobacco plays a significant role in the risk of developing psoriasis and exacerbating disease severity. Alcohol consumption is more prevalent among patients with psoriasis when compared with the general population. Notably, patients with psoriasis were found to have a statistically significant increase in the odds ratio for alcohol consumption when compared with healthy controls. Existing studies also suggest that greater consumption of alcohol correlates with increased severity of psoriasis. The misuse of alcohol is linked to reduced effectiveness of conventional systemic treatments for psoriasis. As an immune-mediated skin disorder, psoriasis may be worsened by both smoking and alcohol use through increased reactive oxygen species, oxidative stress, and proinflammatory cytokines, including IL-17, IL-23, and TNF-α.
Conclusions: By highlighting the association between substance use and psoriasis, this review underscores the importance of screening patients with psoriasis for substance use and implementing intervention strategies early on to optimize psoriasis management and patient outcomes. Further research is needed to determine the causal relationship between substance use and psoriasis and to guide integrated care models that address both psoriasis management and substance use reduction.

AB-58

Pharmacological and psychotherapeutic interventions for dermatitis artefacta: a systematic review

Nithisha Cheedalla[1], Shivani Patel[1], Pooja Patel[1], Niket Barot[2]
[1]Rowan-Virtua School of Osteopathic Medicine, Stratford, New Jersey
[2]Liberty University College of Osteopathic Medicine, Lynchburg, Virginia

Background: Dermatitis artefacta (DA), also known as factitial dermatitis, is a psychodermatological disorder characterized by self-inflicted skin lesions. Patients with DA often have other comorbid psychiatric conditions such as depression, anxiety, obsessive-compulsive disorder, and personality disorders. Management of DA requires a multidisciplinary approach combining dermatological and psychiatric interventions.
Hypothesis: This systematic review aims to evaluate the pharmacological treatments and multidisciplinary management approaches of dermatitis artefacta within the last ten years to provide a comprehensive understanding of this condition and guide future research and clinical management.
Methods: A literature search was conducted using three databases - Pubmed, Embase, and Google Scholar. Case reports, randomized controlled trials, cohort studies, and case series were all included in this systematic review.
Results: This systematic review consists of 34 case reports, randomized controlled trials, cohort studies, and case series within the last 10 years focusing on the management of dermatitis artefacta. Overall, treatment

options include n-acetylcysteine, antipsychotics, selective serotonin reuptake inhibitors, and anxiolytics. Many of these treatments were combined with non-pharmacological treatments such as psychotherapy, which was found to be much more successful.

Discussion: The treatment of DA requires a multidisciplinary approach that addresses both dermatological manifestations and underlying psychological factors. A collaborative approach involving dermatologists, psychiatrists, and primary care physicians can lead to better outcomes. Family physicians frequently serve as the first point of contact for these patients, making their role in early recognition and management crucial. Future research should explore standardized treatment protocols and the long-term efficacy of various psychological interventions in managing DA. A major limitation to this systematic review is that most available data was extracted from case reports and small case series, which limits the ability to draw a strong conclusion about treatment efficacy. Due to its complex presentation, DA poses a diagnostic and therapeutic challenge that requires further comprehensive investigation.

AB-59

Skin cancer in older adults: a scoping review of risk, diagnosis, and care in residential facilities

Emily Garelick[1], Adriana Lombardi[2]
[1]Philadelphia College of Osteopathic Medicine, Philadelphia, PA
[2]Skin Cancer and Cosmetic Surgery Center of NJ, Edison, NJ

The older adult population is rising, resulting in a larger number of adults residing in nursing homes. Skin cancer is most commonly diagnosed in older adults. Yet, these individuals often face limited access to advanced dermatologic care, in addition to unique risk factors such as inadequate sun protection and reduced mobility. This review aims to map the current evidence on skin cancer risk and diagnosis, as well as prevention strategies among older adults residing in nursing homes. A search was conducted on PubMed using the algorithm: ((nursing home) OR (assisted living) OR (elderly living facility)) AND (skin cancer). Two hundred and sixty-nine articles were retrieved. Inclusion criteria included full-text primary sources published from 2015 to 2025. Exclusion criteria included duplicates, reviews, animal studies, and studies not about skin cancer in nursing home settings. Title review narrowed the search to thirty-eight papers. Following abstract screening, five final papers were included. A comprehensive review of the included studies demonstrated that there is a high prevalence of skin cancer among nursing home residents. There were a total of 4785 participants among the five papers, and skin cancer prevalence varied from 15-40% across studies. Nearly half of the diagnosed cases were basal cell carcinoma, a quarter were squamous cell carcinoma, and the final quarter was unspecified. Factors that contribute to the prevalence of skin cancer include age, immobility, incontinence, as well as a lack of appropriate sun protection. Additionally, systematic barriers, such as limited access to specialized dermatologic services, the absence of standardized screening practices, and limited staff training, increase the risk of delayed diagnosis and inadequate management of skin cancer in nursing home patients. To improve outcomes for this vulnerable population, there is a need to implement routine skin assessments, strengthen staff education on dermatologic care, and increase timely specialist referrals for proper detection and treatment of skin cancer.

AB-60

Transmission of blood borne hepatitis in wrestling and contact sports: a comprehensive review of risks, prevention, and management

Kolby Quillin[1], Sahil Kapur[1], Kermanjot Sidhu[2], Craig Burkhart[1]
[1]The University of Toledo College of Medicine and Life Sciences Department of Medicine
[2]Michigan State University College of Human Medicine

This literature review examines the transmission of hepatitis viruses in wrestling and other contact sports. Several cases of hepatitis B virus (HBV) transmission through the sport of wrestling have been documented over the years, highlighting the potential risk of blood borne infections in combat sports. Transmission of blood borne pathogens can occur in wrestling through mutual contact of open wounds, abrasions, or mucous membrane during close physical contact. While rare, with the estimated risk of HBV transmission in contact sports ranging from 1 in 10,000 to 1 in 4,250,000 athletic events, wrestling may be considered a risk factor for those who would otherwise not be at high risk for developing the disease. Dermatologists play an important role in a wrestler's healthcare due to the high prevalence of cutaneous infections in these athletes. Because of this, dermatologists may be the first in line to catch hepatitis infections in young athletes before it becomes more advanced. By noting the cutaneous manifestations of viral hepatitis, such as jaundice, pruritus, and serum sickness-like syndrome, dermatologists may consider hepatitis on differential diagnosis of a patient who reports a history of participation in wrestling. This act may potentially aid in slowing or stopping the disease progression before it can advance to a more severe state. This review synthesizes current evidence on hepatitis transmission risks in the sport of wrestling, including case reports and epidemiological studies. Additionally, prevention strategies such as proper hygiene and the mandated stoppage of competition for “blood time” are discussed. Overall, this review aims to highlight the need for continued vigilance of potential hepatitis transmission through the sport of wrestling, advocates for the use of preventative measures, and presents management strategies for dermatologists.

AB-61

A recommendation for updated guidelines in a modern practice: revisiting antibiotic prophylaxis for high-risk dermatologic surgery sites

Neena Edupuganti[1], Daphne Pate[2], Joshua Clark[3], Kelly Frasier[4], Nicole Werpachowski[5], Travis Jackson[6]
[1]Piedmont Healthcare, Macon, GA
[2]Wayne State University School of Medicine, Detroit, MI
[3]Medical College of Georgia, Augusta, GA
[4]Northwell, New Hyde Park, NY
[5]Lenox Hill Hospital, Northwell Health, New York, NY
[6]University of Missouri School of Medicine, Columbia, MO

Antibiotic prophylaxis in dermatologic surgery remains a contentious and inconsistently applied intervention, particularly in the context of evolving antimicrobial resistance patterns, shifting procedural complexity, and growing patient populations with multiple comorbidities. Current guidelines are largely extrapolated from general surgical data or outdated dermatology-specific studies and fail to adequately address the nuanced infection risks associated with high-risk anatomic sites, such as the lower extremities, groin, axillae, and perineum, where impaired vascularity, local moisture, and microbial density increase susceptibility to postoperative surgical site infections (SSIs). Additionally, patient-specific factors such as poorly controlled diabetes, immunosuppression (iatrogenic or disease-related), history of prosthetic joint implantation, or prior SSI events remain insufficiently stratified in existing prophylaxis algorithms. Recent data suggest that surgical procedures involving flaps, grafts, or layered closures in high-risk zones carry a significantly elevated risk of infection, which is often not mitigated by current prophylaxis recommendations that remain conservative and non-site-specific. Emerging evidence also highlights the microbiologic distinctiveness of cutaneous flora across different body regions, with polymicrobial colonization and anaerobic species being more prevalent in intertriginous and lower extremity sites, potentially necessitating broader-spectrum or anaerobe-directed prophylaxis regimens. Given this complexity, a re-evaluation of prophylactic antibiotic protocols is warranted, including tailored recommendations based on anatomical site, reconstructive technique, host immune status, and local resistance data. Implementation of evidence-informed, site- and patient-specific prophylaxis guidelines would not only reduce postoperative morbidity and associated healthcare utilization but also refine antibiotic stewardship practices within dermatologic surgery. Updated guidelines on antibiotic prophylaxis in dermatologic surgery are recommended to support evidence-based, precision-aligned perioperative care and replace outdated practices with protocols that account for contemporary surgical risk, evolving microbial resistance, and individual patient vulnerability.

AB-62

Comparative analysis of severe cutaneous adverse reaction (SCAR) risks across antibiotic classes: a matched population-level study

Ryan Chan[1], Zachary Neubauer[2], Amit Singal[3], Shari R. Lipner[4]
[1]New York Medical College, Valhalla, NY
[2]Thomas Jefferson University, Sidney Kimmel Medical College, Philadelphia, PA
[3]Rutgers New Jersey Medical School, Newark, NJ, USA
[4]Weill Cornell Medicine, Department of Dermatology, New York, NY

Background: Severe cutaneous adverse reactions (SCAR)- including Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), SJS-TEN overlap, and drug reaction with eosinophilia and systemic symptoms (DRESS)- are rare but potentially fatal hypersensitivity reactions. Antibiotics are common triggers, yet comparative risk data across antibiotic classes remain limited. This study assesses the relative risk of SCAR across eight antibiotic classes using a large, real-world cohort.

Methods: The TriNetX Research Network (>134 million patients across 98 healthcare organizations) was queried on December 13, 2024. Patients prescribed antibiotics between 2004-2024 were identified. SCAR was defined using ICD-10 codes. Exposures to sulfonamides, aminoglycosides, tetracyclines, cephalosporins, penicillins, fluoroquinolones, nitrofurantoin, and macrolides (reference) were analyzed. Crude SCAR rates were calculated per million prescriptions. Propensity score matching (PSM) adjusted for age, sex, race, and comorbidities. Odds ratios (OR) and Cox proportional hazards models estimated relative risk.

Results: Among 27.5 million antibiotic exposures, 410 SCAR cases were identified. Sulfonamides had the highest SCAR rate (45.1/million), followed by aminoglycosides (23.2/million) and tetracyclines (11.7/million). After PSM, sulfonamides (HR=7.5, 95% CI: 4.9-11.5), aminoglycosides (HR=3.7, 95% CI: 2.0-6.9), and tetracyclines (HR=1.7, 95% CI: 1.01-2.9) had significantly higher SCAR risk compared to macrolides. Cephalosporins, penicillins, fluoroquinolones, and nitrofurantoin were not significantly different. Male sex was associated with increased SCAR risk in the sulfonamide comparison (HR=1.5), while Black race was associated with decreased risk in the penicillin comparison (HR=0.3).

Conclusion: Sulfonamides, aminoglycosides, and tetracyclines are associated with significantly elevated SCAR risk, whereas macrolides and beta-lactams (penicillins, cephalosporins) appear safer. Given SCAR's severity, clinicians should prioritize lower-risk antibiotics when appropriate- particularly avoiding sulfonamides in high-risk individuals. These findings support more individualized, risk-aware antibiotic prescribing practices and highlight the need for future studies to incorporate medication adherence, immune status, and prospective validation.

AB-63

Beyond the usual suspects: recognizing rare causes of drug-induced lupus

Travis Jackson[1], Mollie Henry[1], Kostandin Valle[1], Kathleen Long[2], Mirna Becevic[2]
[1]University of Missouri School of Medicine, Columbia, MO
[2]Department of Dermatology, University of Missouri Hospital, Columbia, MO

Drug-induced lupus (DIL) is a condition that mimics systemic lupus erythematosus (SLE) and is caused by exposure to certain medications. DIL often presents with arthralgias, cutaneous rashes, and other systemic involvement. Unlike SLE, DIL typically arises weeks after beginning an offending medication. Over 100 medications have been implicated in causing DIL. Although implicated in multiple reports, angiotensin-converting enzyme (ACE) inhibitors are among the least likely medications to cause the condition. This is a case involving a pediatric patient on lisinopril therapy for the treatment of his congenital heart defect. The patient developed an intermittent erythematous and scaly malar facial rash shortly after starting his ACE inhibitor therapy. The rash showed no improvement with topical steroids and minimal response to oral prednisone. The patient was tested for SLE but had a negative ANA on several lab draws. After a specialist reviewed the case, the primary care physician was advised to draw an anti-histone level to evaluate further. The patient's anti-histone level returned elevated therefore, confirming DIL. Due to the patient's need for an antihypertensive medication in the setting of a congenital heart defect, a temporary discontinuation of lisinopril was not feasible. Recommended management included sun protection and symptom control, while cardiology arranged an appointment to transition the patient to a different class of antihypertensives. This case highlights the importance of maintaining a high suspicion for DIL when patients present with SLE-like symptoms within weeks of initiating new medications. While some drugs are well-known for causing DIL, many others are far less commonly implicated. However, rarity should not exclude consideration. Clinicians should consider testing for anti-histone antibodies even in the setting of atypical presentations or when the medication involved is not among the usual causative agents. Early recognition of DIL is essential to reduce the risk of unnecessary complications.

AB-64

Endurance athletes and skin aging: mechanisms, risks and protective strategies

Tyarah Trias[1], Guang Orestes[2], Mary Grace Hash[3], Afreen Hussaini[4], Alejandra SatarayRodriguez[5], Stefany Acosta[6], Kelly Frasier[7]
[1]California Health Sciences University, Clovis, CA, USA
[2]Kirk Kerkorian School of Medicine at UNLV, Las Vegas, NV, USA
[3]Edward Via College of Osteopathic Medicine, Auburn, AL, USA
[4]A.T. Still University School of Osteopathic Medicine in Arizona, Mesa, AZ, USA
[5]University of Nevada, Reno School of Medicine, Reno, NV, USA
[6]Michigan State University College of Osteopathic Medicine, East Lansing, MI, USA
[7]Department of Dermatology, Northwell Health, New Hyde Park, NY, USA

With the growing popularity of endurance sports in recent years, endurance athletes are uniquely vulnerable to premature skin aging due to prolonged environmental exposures, high physical exertion, and training demands. This review explores factors contributing to skin aging in endurance athletes, including ultraviolet radiation, oxidative stress, chronic dehydration, and nutritional deficits. Key mechanisms such as photoaging and reactive oxygen species production are examined alongside the impacts of training intensity and insufficient recovery on skin health and aging. Strategies to mitigate these effects, including photoprotection, antioxidant supplementation, and hydration optimization, are highlighted, emphasizing their relevance to athlete-specific skincare practices. By addressing the gaps in current research and prevention, this review underscores the importance of integrating dermatologic care into endurance training to enhance both skin health and athletic longevity.

AB-65

Evaluating dermatological STI clinics in reducing local transmission rates

Lilly Jimoh[1], Hafsa Hasan[2], Nicholas Doss-Hom[3], Kelly Frasier[4]
[1]Charles R. Drew University of Medicine and Science, Los Angeles, CA
[2]Northeast Ohio Medical University College of Medicine, Rootstown, OH
[3]Lewis Katz School of Medicine, Philadelphia PA
[4]Department of Dermatology, Northwell Health, New Hyde Park, NY

Background: STIs are a significant global health challenge, with millions of new cases annually in the United States alone. Many STIs have cutaneous manifestations, emphasizing the need for dermatologists in diagnosis and treatment. This positions dermatological STI clinics as crucial points of care for the identification and management of conditions like syphilis, herpes simplex virus (HSV), and human papillomavirus (HPV). While general STI clinics are well-studied, the impact of dermatologic STI clinics on reducing transmission remains underexplored.
Methods: A search of peer-reviewed literature was performed on PubMed and Google Scholar to identify studies focused on diagnostic accuracy, innovative prophylactic implementations, and epidemiological trends in STIs under the care of dermatologists. The following keywords were used: "dermatology STI clinic", "specialized STI clinic effectiveness", and "dermatology in STI transmission reduction".

Results: Studies suggest dermatological STI clinics may reduce local transmission rates through early detection, prompt treatment, and preventive interventions. Clinical trials have demonstrated low-intensity laser therapy - unavailable at traditional STI clinics - reduces HSV recurrences. Research on syphilis highlights dermatologists' role in early detection through routine screening, helping to curb transmission. By leveraging dermatologic expertise in recognizing cutaneous STI manifestations and implementing appropriate therapies, dermatological STI clinics can allow for rapid identification of infections, leading to quicker interventions. With approximately 70% of STI diagnoses occurring outside of traditional clinics, dermatological STI clinics can play an essential role in early detection, prompt treatment, and reduced local transmission.
Conclusion: Dermatological STI clinics, rooted in the historical connection between dermatology and syphilology, offer specialized care combining dermatological expertise with comprehensive management. This integrated approach is essential for addressing rising STI prevalence and supporting public health efforts to control and prevent transmission. By strengthening the integration of dermatologic expertise into STI care, dermatologic STI clinics can lead to early intervention, improved patient outcomes, and reduced community-level transmission.

AB-66

Exploring the role of osteopathic manipulative medicine in the management of hyperhidrosis: a literature review and educational outlook

Kristina Mueller[1], Alyssa Forsyth[2], Connie Koutsos[3], Dinah D'Silva[4], Deepali Singh[1], Paige Daly[5]
[1]Philadelphia College of Osteopathic Medicine, Philadelphia, PA
[2]Texas College of Osteopathic Medicine, Fort Worth, TX
[3]Touro College of Osteopathic Medicine, New York, NY
[4]California Health Sciences University College of Osteopathic Medicine, Clovis, CA
[5]Edward Via College of Osteopathic Medicine, Blacksburg, VA

Several studies have shown the benefits of osteopathic manipulative medicine (OMM) in dermatology practices, yet it is often underutilized due to the lack of standardization confirming its therapeutic role. One dermatologic condition that may benefit from osteopathic manipulative techniques (OMT) is hyperhidrosis. Hyperhidrosis causes excessive sweating due to a dysregulation of the autonomic nervous system (ANS). The use of OMM considers the following four core tenets: (1) the body is a unit of mind, body, and spirit, (2) structure and function are interrelated, (3) the body is capable of self-regulation, and (4) treatment is based on integration of the above three tenets. OMT techniques that target balancing the autonomic nervous system may be beneficial as a non-invasive, cost-effective adjunct or alternative to treatments such as topicals, oral medications, botulinum toxin, iontophoresis, and surgery. This literature review will examine the benefits of OMT techniques that regulate the autonomic nervous system and its potential use in managing hyperhidrosis. While the literature on OMM and hyperhidrosis is limited, existing evidence on autonomic regulation suggests its potential role. In addition, this review advocates for greater integration of OMM within dermatologic practice, an area where osteopathic physicians are often underrepresented, to promote awareness and education around holistic dermatologic treatment approaches for hyperhidrosis.

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Analysis of acral melanoma perceptions in social media

Anisha Venkatesh[1], Preetha Agarwal[2]
[1]Philadelphia College of Osteopathic Medicine, Philadelphia, Pennsylvania, USA
[2]University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA

Acral melanoma predominately affects people with darker skin and it is important to detect lesions early due to lower survival rates of this subtype compared to other cutaneous melanomas. Educational intervention has been shown to increase awareness of the disease and highlight the importance of seeing a dermatologist for full body skin examinations. Medical information circulating on online platforms has the potential to inform larger audiences about various medical conditions. The purpose of this study is to explore the ways in which acral melanoma is presented on social media. Data was collected from the social media platform Instagram. Posts with the hashtags #acralmelanoma and #acralmelanomas were evaluated to understand how acral melanoma was presented to social media users. A total of 132 posts dated from February 2014 to January 2022 were included for evaluation. The frequency of major themes from these Instagram posts was analyzed. The posts were categorized based on their source of content and further categorized by the overall theme of the content shared. We found that 60.6% of content was provided by medical professionals, 24.2% posted by non-medical professionals, and 15.2% shared by patients diagnosed with acral melanoma or close contacts. The most frequent type of post shared by medical professionals described clinical findings of acral melanoma and which patients are most at risk. There were fewer Instagram posts sharing patients' individual experiences with acral melanoma, and the content of most posts were spread evenly amongst the sub-sections of themes. The most prevalent theme from both medical and non-medical online sources was educational posts about acral melanoma (53.0%). These posts described clinical findings, common locations, predominant patient demographics, and other general facts. Of the 20 Instagram posts documenting patients' personal experiences with acral melanoma, only 2 of them were patients of darker skin tone, specifically Hispanic patients. The data is limited by the small sample size and skewed by multiple posts shared by two patients.

Nonetheless, there are still a paucity of posts made by patients with skin of color regarding their personal experiences with acral melanoma. This finding is noteworthy, since our study aimed to understand the importance of representing acral melanoma in diverse patient groups. Health disparities can worsen if information is not accurately presented to minority patients. Given that acral melanoma primarily occurs in patients with skin of color, it is imperative to have adequate representation. With the melanoma survival rate of skin of color patients being 25% less than their Caucasian counterparts, it is evident that raising awareness can help these patients seek treatment more promptly. Understanding how acral melanoma is presented on major social media platforms, such as Instagram, is of interest given its impact on how minority patients receive medical information online. Additional studies and efforts are needed to bridge these gaps.

AB-68

Social media analysis of South Asian skincare content and misinformation risk

Amna Amir[1], Ameena Ali[2], Zaynah Amir[3]
[1]Medical College of Georgia, Augusta, GA
[2]Mercer University of Medicine, Columbus, GA
[3]University of Georgia, Athens, GA

Introduction: Social media platforms such as TikTok play a growing role in shaping public perceptions of skincare. South Asian skincare content, which often blends traditional remedies with modern products, remains understudied. This study aims to better understand how South Asian skincare advice is represented and consumed on TikTok.
Methods: To reduce algorithmic bias, a new TikTok account was created and used to search "South Asian skincare," "Desi skincare," and "Indian skincare." The top 50 videos for each term were reviewed, except "South Asian skincare," which yielded 35. Videos were assessed for creator credentials, follower count, content type, hashtags, and likes. Non-English, duplicate, or unrelated videos were excluded. Of 135 videos reviewed, 107 were included for analysis of content themes and source credibility.
Results: Among the 107 TikTok videos analyzed, the most common content types discussed skincare products from South Asian brands (34.6%), American brands (29.0%), and natural remedies (23.4%). Among videos featuring natural skincare, the most commonly used ingredients were turmeric, followed by yogurt, honey, and amla. The majority of creators were bloggers (76.6%), while only a small portion were board-certified dermatologists or a plastic surgeon (2.8%). The mean number of followers for bloggers was 130,920 with a mean average of 13,635 likes. In contrast, dermatologists and plastic surgeons had a higher average follower count of 243,225, but fewer likes per video (8,335).
Discussion: South Asian skincare content on TikTok is predominantly produced by non-medical creators who receive high levels of user engagement. This raises concerns about misinformation, particularly given the limited research on natural remedies and the prevalence of advice from individuals without medical credentials. Recognizing and understanding skincare practices in South Asian communities is essential for promoting cultural competency in dermatology.

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Threading unveiled: dermatologic consequences of a cultural tradition

Haya Beydoun, Sarah Chamdin
Wayne State University School of Medicine

Introduction: Threading is an epilation technique originating in India and the Middle East. While it is gaining popularity due to its low cost and quick process, it is associated with several dermatological side effects.
Methods: A literature review was conducted on PubMed from 2000 to 2024 with search terms "threading" AND "dermatology," "threading" AND "facial," and "eyebrow" AND "threading." Ten relevant articles were found.
Results: We found 42 cases with complications, which can be categorized into three main groups: local skin irritation, skin infections, and koebnerization (the induction of new lesions). Notable complications included local erythema, vitiligo, and molluscum contagiosum. Trauma to the skin can disrupt the epidermal barrier, fostering an environment that may be more susceptible to viral infections. These infections can arise from unhygienic practices, such as the use of dirty threads or unwashed hands by beauticians, as well as cross-infection between clients or even from the patient's own skin. Trauma can also inflict damage on the melanocyte stem cell reservoir within the hair follicle leading to depigmentation.
Conclusions: With the rising popularity of threading, dermatologists must consider this aspect in a patient's history when approaching a differential diagnosis. Most side effects associated with threading are infectious in etiology, highlighting the critical importance of maintaining clean and hygienic practices.

AB-70

A truncal nodular pigmented basal cell carcinoma in a 26-year-old: diagnostic and clinical considerations

Marielle Quinn, Benazir Merchant, Ajay Pandey, Andrew Cheng, Theresa Rohr-Kirchgraber
AU/UGA Medical Partnership, Athens, GA

Background: Basal cell carcinoma (BCC) is the most common form of nonmelanoma skin cancer, with a global incidence of over 4 million in 2019. Most studies of BCC report a mean age of diagnosis between 60-70 years of age and prevalent risk factor of chronic UV exposure (including tanning bed use). Pigmented nodular BCC is a relatively rare subtype primarily impacting people with skin of color. Pigmented nodular BCC may present with features clinically similar to dysplastic nevi, illustrating the importance of including this pathology in the differential diagnosis.

Clinical case: A26-year-old white female who was evaluated for a 0.8×0.5×0.1 cm irregularly pigmented papule on the left medial upper back. The patient reported minimal cumulative sun exposure and no history of tanning bed use. Pertinent history included a family history of melanoma in a first-degree relative. The lesion had been present for approximately one year, initially described as a raised, itchy spot. Based on its atypical pigmentation and the patient's demographic profile, the lesion was clinically suspected to be a dysplastic nevus. A shave biopsy of the lesion revealed pigmented nodular basal cell carcinoma. Given the patient's age and lesion location, Mohs micrographic surgery was performed to minimize recurrence. Clear margins were achieved in one stage. A 1.7×1.5 cm surgical site was closed with intermediate layered repair using 3-0 Monocryl for deep subcutaneous tissue and 4-0 Prolene for epidermal closure to maximize functional and cosmetic results. Final pathology confirmed complete excision with no evidence of perineural invasion.

Conclusion: This case highlights the need to consider BCC in the differential diagnosis of pigmented lesions in young, fair-skinned individuals. Early recognition and appropriate management is key to reduce local invasion of surrounding tissue.

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Voice-Enabled symptom tracking and education for older adults with atopic dermatitis

Radina Khalid[1], Sarina Shah[2], Harman Bindra[3], Selina J. Chang[4], Emilia Preda[5], Toan Vu[6], Shreya Rekhi[7], Grace Dang[8], Bijoy Shah[9]
[1]University of Texas at Tyler School of Medicine
[2]Rowan-Virtua School of Osteopathic Medicine
[3]UMass Chan Medical School
[4]University of Pittsburgh School of Medicine
[5]University of Virginia
[6]University of Wisconsin School of Medicine and Public Health
[7]Avalon University School of Medicine
[8]University of Missouri-Kansas City
[9]Albert Einstein College of Medicine

Older adults with atopic dermatitis often face unique barriers to disease self-management, including reduced dexterity, visual impairments, and lower tech literacy, challenges that can hinder use of app-based tools for symptom tracking or education. This review explores the potential of voice-enabled virtual assistants (e.g., Alexa, Google Assistant) to support hands-free atopic dermatitis management in older populations. This exhibit outlines a conceptual framework for a voice-activated eczema companion that allows users to log flares, describe symptoms (e.g., "my arms feel itchy again today"), receive personalized skin care reminders, and access simplified educational content about moisturization, flare triggers, and medication timing. Integration with wearable humidity sensors or app-based provider portals could allow providers to review voice-logged symptom patterns remotely. Building on evidence from voice-based interventions in diabetes, heart failure, and elder care, we explore how similar approaches could be translated to dermatologic contexts. Key considerations include data privacy, natural language processing (NLP) accuracy with dermatologic terminology, and integration into aging-in-place workflows. By enabling intuitive, low-friction interaction, voice-first tools could offer an inclusive, patient-centered path to atopic dermatitis self-monitoring and improved continuity of care in chronic skin disease management.

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