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24-26 JUNE 2024

Paris, France

5th Edition of International Conference on

Dermatology and Cosmetology

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Venue: Hotel CIS Paris Ravel, 6 Av. Maurice Ravel, 75012, Paris, France

BOOK OF ABSTRACTS

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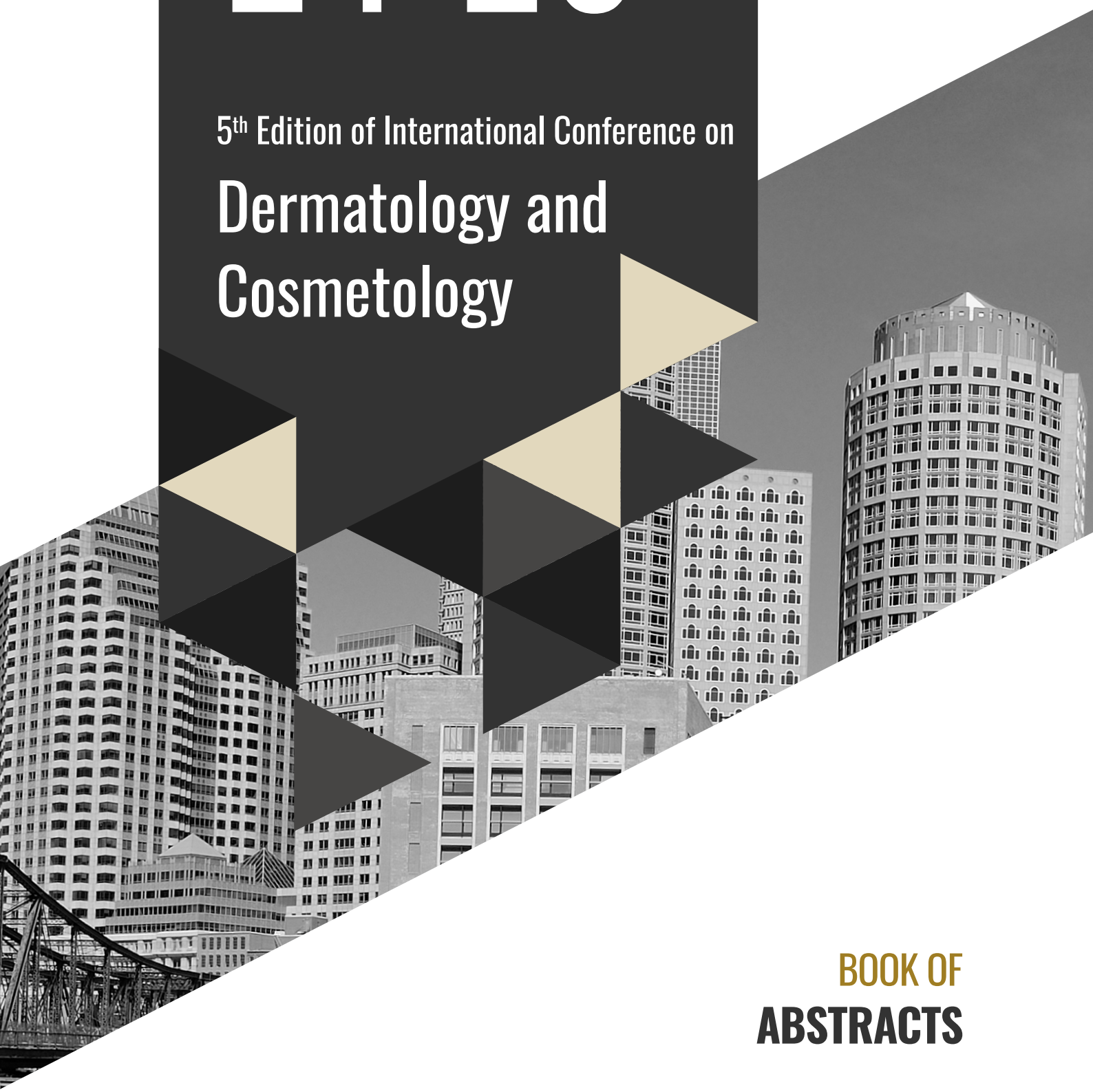

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The Russian University for Medicine & The Russian Academy of Natural Sciences, Russian Federation

Makoto Senoo
Cell Exosome Therapeutics Inc, Japan

Madhu Gupta
Delhi Pharmaceutical Science and Research University, India

Thank You All...

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Paragon Technology and Innovation, Indonesia

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Dr A S Clinic Pvt Ltd, India

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Hanse-Klinik GmbH, Germany

Bharti Magoo
Golden Touch Clinic, India

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Leading research fellow of Moscow scientific and practical center of dermatovenereology, Russia Federation

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University of West Attica, Greece

Vivian Li
Nuvance Health Vassar Brothers Medical Center, United States

Vsevolod Akulinkin
The Peoples Friendship University of Russia, Russian Federation

Thank You All...

Welcome Message

Sergei A. Grando, MD, PhD, DSc

University of California Irvine, United States

On behalf of the Scientific Committee, I take great pleasure in welcoming you to the 5th Edition of International Conference on Dermatology and Cosmetology (IDC 2024 Hybrid Event) in Paris, France. IDC 2024 is a specialized event offering a unique hybrid experience, allowing participants to either attend in-person or from the convenience of their homes or workplaces. The theme of this year's congress "Revolutionizing Skin Care Through Advances in Dermatology & Cosmetology" will focus on improving outpatient treatment, improving patient health and experience and expanding data analysis abilities among dermatologists to embrace new challenges and advance the profession. IDC 2024, distinguished by renowned speakers, cutting-edge methodologies, and recent advancements in Dermatology and Cosmetology, stands out as an outstanding conference that seeks to facilitate the interchange and integration of ideas, perspectives, and research approaches across various fields, with a primary focus on the latest advancements and discoveries in skin-related research. I sincerely hope that you take the opportunity to network, learn, share and collaborate with international experts. I wish you an enjoyable and productive meeting. For those who comes to Paris, I hope you enjoy your stay in this wonderful city and use pre and post conference times to enjoy the sites. We are enthusiastic about your attendance and participation. Enjoy the conference!

Welcome Message

Nalini Kaul, MSc., Ph.D

Princeton Consumer Research, Canada

Dear Colleague,

On behalf of the Organizing Committee, it gives me great pleasure to extend a very warm welcome to you at the IDC 2024.

The meeting features fantastic days of science from around the world, covering many interdisciplinary aspects of dermatology and cosmetology. This conference provides great opportunity to exchange ideas, gain valuable insights and increase our understanding of the latest technical and beneficial research.

I would like to commend the organizers for providing a platform to showcase the knowledge and the latest advances in dermatology and cosmetology.

I am certain that all attendees will come away from this experience with a renewed vigour and fresh ideas. I hope you enjoy your stay in Paris and have a chance to take in some of the city's terrific attractions and cuisine.

Please accept my best wishes for a very productive and successful conference.

ABOUT
MAGNUS GROUP

Magnus Group, a distinguished scientific event organizer, has been at the forefront of fostering knowledge exchange and collaboration since its inception in 2015. With a steadfast commitment to the ethos of Share, receive, grow, Magnus Group has successfully organized over 200 conferences spanning diverse fields, including Healthcare, Medical, Pharmaceutics, Chemistry, Nursing, Agriculture, and Plant Sciences.

The core philosophy of Magnus Group revolves around creating dynamic platforms that facilitate the exchange of cutting-edge research, insights, and innovations within the global scientific community. By bringing together experts, scholars, and professionals from various disciplines, Magnus Group cultivates an environment conducive to intellectual discourse, networking, and interdisciplinary collaboration.

Magnus Group's unwavering dedication to organizing impactful scientific events has positioned it as a key player in the global scientific community. By adhering to the motto of Share, receive, grow, Magnus Group continues to contribute significantly to the advancement of knowledge and the development of innovative solutions in various scientific domains.

ABOUT
IDC 2024

The 5th Edition of the International Conference on Dermatology and Cosmetology (IDC 2024) is a prestigious global event taking place in Paris, France, from June 24-26, 2024. This event brings together a diverse and international mix of large and medium-sized companies, leading universities, and research institutions. Participants include researchers, scientists, academicians, healthcare professionals, doctors, caregivers, dermatologists, cosmetologists, pharmacists, and industry representatives.

The Dermatology and Cosmetology Summit revolves around the theme "Revolutionizing Skin Care Through Advances in Dermatology & Cosmetology." IDC 2024 will provide a comprehensive review of state-of-the-art developments in the fields of dermatology and cosmetology, highlighting the progress made over the past decade and addressing anticipated future challenges.

The aim of IDC 2024 is to tackle contemporary issues faced by societies worldwide and find innovative solutions. Attendees can expect a comprehensive agenda featuring keynote sessions, workshops, oral and poster presentations, and networking sessions. Renowned speakers from academia, industry, and research institutions will share their expertise on cutting-edge research, emerging trends, and breakthrough technologies in dermatology and cosmetology.

IDC 2024 offers a unique opportunity for meaningful discussions, experience sharing, and the establishment of professional connections bringing together like-minded individuals from around the globe, fostering collaboration and interdisciplinary discussions to shape a promising future for dermatology and allied fields.

ABOUT
CPD Accreditation

APPROVED PROVIDER #780643

Continuing Professional Development (CPD) credits are valuable for IDC 2024 attendees as they provide recognition and validation of their ongoing learning and professional development. The number of CPD credits that can be earned is typically based on the number of sessions attended. You have an opportunity to avail 1 CPD credit for each hour of Attendance. Some benefits of CPD credits include:

Career advancement: CPD credits demonstrate a commitment to ongoing learning and professional development, which can enhance one's reputation and increase chances of career advancement.

Maintenance of professional credentials: Many professions require a minimum number of CPD credits to maintain their certification or license.

Increased knowledge: Attending IDC 2024 and earning CPD credits can help attendees stay current with the latest developments and advancements in their field.

Networking opportunities: IDC Conference provide opportunities for attendees to network with peers and experts, expanding their professional network and building relationships with potential collaborators.

Note: Each conference attendee will receive 25 CPD credits.

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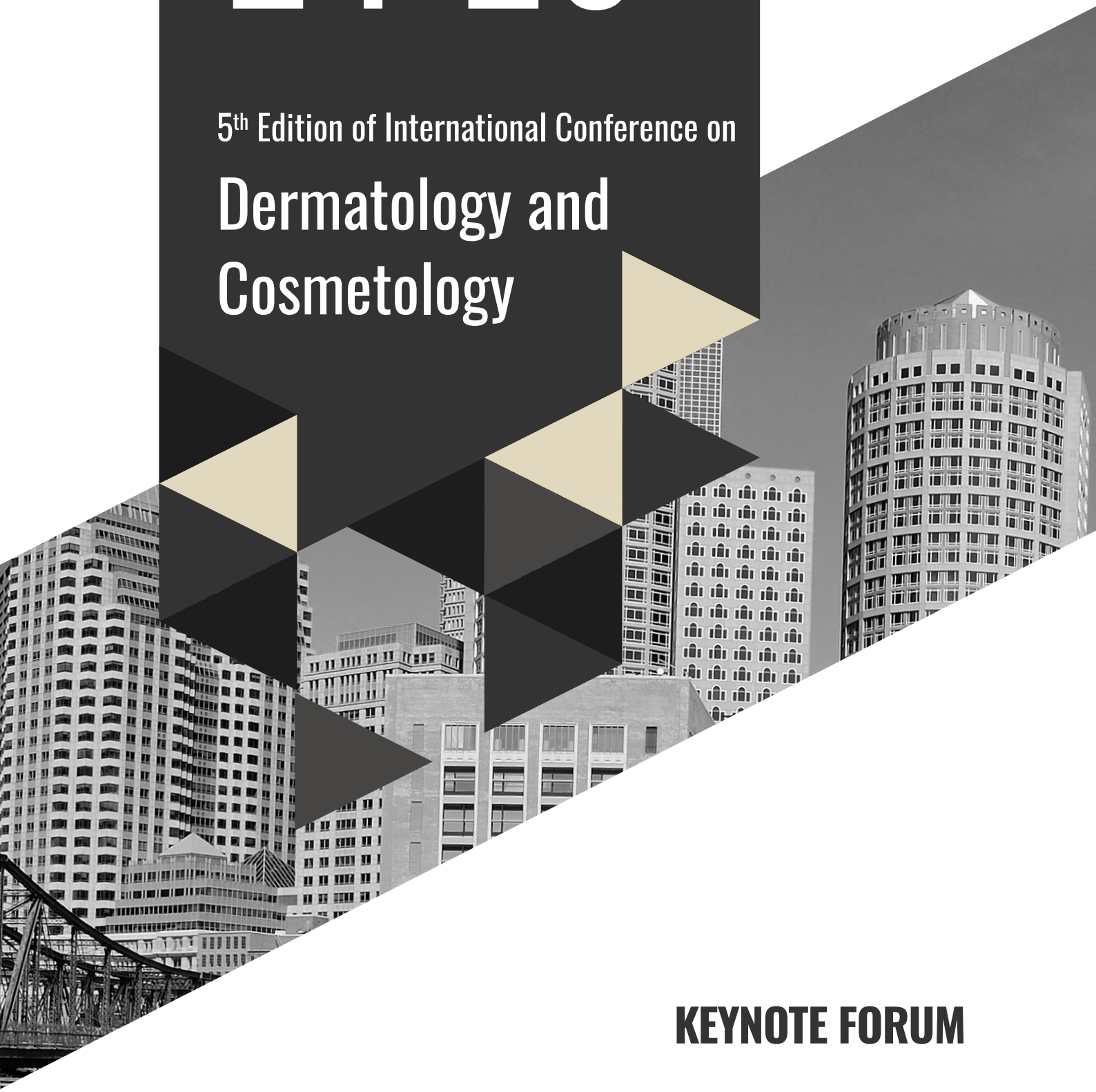

KEYNOTE FORUM

Maturation of the skin barrier - Indications of phenotypic plurality of healthy skin

The safety of all skin care products is important, especially those intended for infants and young children. Besides national guidelines and regulations, cosmetic products in the European Union are regulated by the EU Cosmetic Products Regulation. Such regulations pay particular attention to protecting the health of vulnerable population groups and recommend specific assessments for cosmetic products intended for use on children. This is important, since specific differences in the structure, function, and composition between infant and adult skin exist. Importantly, at steady state infant stratum corneum appears to be better hydrated but loses water at higher rates compared to adult. This deviation of the pathophysiologic relationship between skin hydration and skin barrier is indicative of an apparent plurality in the phenotype of healthy skin. We argue that healthy skin can be in a spectrum of skin hydration and barrier function states that depend on and most likely are the result of the state of epidermal cell turnover. Recent advancements in the field have demonstrated that the processes involved in the maturation of the skin barrier extend beyond infancy into early childhood. Additionally, the parallel development of the skin microbiome during these periods of life is of particular interest. Ongoing research is actively looking to establish a deeper understanding of the functional relationship between the microbiome and skin health during childhood. In conclusion, the differences in skin structure and function between children and adults highlight the need for specific considerations when formulating products for these ages. Ongoing advancements in our understanding of skin barrier development and the role of the microbiome contribute to the continuous improvement of skincare practices to maintain and promote skin health.

Audience Take Away Notes

- Understand differences between infant and adult skin
- How skin maturation processes extend to early childhood
- How these processes translate to specific considerations when designing and testing skin care products for safety and efficacy in these populations

Dr. Georgios N. Stamatas, Ph.D[1]*, Stephan Bielfeldt[2]

[1]Division of Health & Nutrition, SGS France, Arcueil, France

[2]Division of Health & Nutrition, SGS Proderm, Schenefeld, Germany

Biography

Dr. Stamatas has >25 years' experience in the Health Care industry. He is passionate about discovering actionable scientific insights on skin physiology and the effects of topical skin care products. He is leading work that ranges from microbiome and metabolome to computational biology and development on non-invasive clinical methods. This research has led to an important number of global firsts, including a paradigm shift in our knowledge of infant skin maturation and understanding the mechanisms of cutaneous adverse reactions during oncology therapy. Dr. Stamatas holds a PhD in Chemical/ Biomedical Engineering and has co-authored more than 100 publications and 14 patents.

Bio-regeneration and bio-reparation in the treatment of the genital syndrome of menopause

Objectives: Aesthetic and functional gynecology is a philosophy of work that must be carried out by gynecologists and whose focus of attention is on the anatomical, functional, aesthetic, and sexual recovery of the woman.

Introduction: Disorders of the external genitalia (vulva) and internal genitalia (Vagina) are becoming increasingly important in the lives of women, and that seriously affects the quality of life. The symptoms and signs of the GSM have acquired great importance in the daily life of women and increase day by day without treatment. They don't allow women to have active lives, and this decreases their quality of life.

Materials/Method: I have compiled scientific works, and we have evaluated (together with members of the WSCG) more than 300 patients (341) with symptoms of SGM of various causes, both physiological, such as that produced by breast cancer treatments, use of aromatase inhibitors, pelvic radiotherapy, gynecological radical surgery, and where a protocol was used for the treatment where bio regeneration treatments were combined (adult stem cells of fatty tissue, PRP, exosomes, Carboxytherapy, Lipograft).

Results: The results were highly satisfactory, with the improvement of the symptoms (dyspareunia, dryness, orgasmic alterations) and signs (dryness of the vaginal epithelium, improvement of the pH, improvement of the quality of the skin of the vulva, and decrease in the size of the labia minora among others).

All this generated a better quality of life for the patients and the anatomical recovery, functional, aesthetic, and sexual genitalia of your genitalia vulva vaginal.

Conclusion: The conclusion is that we can help women who suffer from symptoms and signs of SGM for various reasons recover without the use of hormones, and we have even observed changes at the level of the labia minora that make us rethink some treatments.

Dr. Gustavo H. Leibaschoff

President of the WSCG World Society of Cosmetic Gynecology, United States

Biography

Gustavo H Leibaschoff is president of the International Union of Lipoplasty IUL, President of ICAM International Consultants in Aesthetic Medicine, Director of the International School of Carboxytherapy, Director of the ICAM USA Academy Dallas Texas USA, CV Abstract of Gustavo Hector Leibaschoff, President and Founder of the World Society of Cosmetic Gynecology WSCG, Co-Director of the University Course of Specialist in Aesthetic and Functional Gynecology and Aesthetic Genital Surgery of Women University of Barcelona Spain 2017-2020, Member of the American Academy of Cosmetic Surgery, Honorary Member of the Australasian College of Cosmetic Surgery, Honor Member of the French Society of Aesthetic Surgery, Honor Member of the Italian Society of Liposuction, Director of the Postgraduate Course of Cosmetic Surgery and Cosmetic Medicine in the Faculty of Sciences of the Health, University of Mendoza, Argentina, Honor President of the Argentina Association of Aesthetic Medicine, Scientific Coordinator of the Anti-Aging Medicine World Congress 2010, 2011, 2012, 2013, 2014, 2015, 2016. Member of the ISPRES International Society of Plastic Regenerative Surgeons.

Examining quality of life after treatment with azelaic and pyruvic acid peels in women with acne vulgaris

Purpose: This randomized parallel study aims to investigate the Azelaic Acid (AA), and Pyruvic Acid (PA) peels treatment effect on health-related Quality Of Life (QOL) in young adult women with acne vulgaris.

Patients and Methods: The participants were 120 female undergraduate students, with mild to moderate facial acne and an average age of 22 years old (M = 22.2, SD = 16.1). Eligibility criteria were as follows: female gender, 18-25 years of age, no dermatological treatment within the last 12 months and mild to moderate papulopustular acne. Patients were randomly divided into two groups, the first group was treated with AA, and the second group was treated with PA. Both groups received treatment every 2 weeks, for a total of 12 weeks. The Hellgren-Vincent scale was used to assess acne severity, and the Dermatology Life Quality Index (DLQI) and Skindex-29 were used to evaluate the quality of life of each patient. These scores were calculated before treatment, and after finishing the final treatment.

Results: All scoring systems used (Hellgren-Vincent scale, DLQI, and Skindex-29) demonstrated improvement in both groups. QOL scores were slightly better in the group using pyruvic acid compared with azelaic acid.

Conclusion: Both AA and PA have a significant impact on the objective assessment of acne symptoms, as well as the subjectively measured quality of life of young adult women with acne. There is a slightly greater improvement in QOL scores with PA compared with AA peeling treatment.

Audience Take Away Notes

- Listeners will learn what acne vulgaris is
- Listeners will learn what treatments help in reducing acne
- The listeners will learn what problems with the quality of life are caused by acne vulgaris
- The listeners will learn how cosmetic procedures can improve the quality of life
- The listeners will find out what surveys were used in the study

Karolina Chilicka Hebel

Department of Health Sciences, Institute of Health Sciences, University of Opole, Opole, Poland

Biography

Karolina Chilicka Hebel is a research interests are focusing on acne vulgaris skin, oil skin, cellulite. As a cosmetologist she is trying to use cosmetics and new cosmetological devices to reduce skin problems. She is also a very important aspect in her research field is quality of life of her patients.

Embracing the potential of biopolymer based hydrogel: The new frontier in chronic wound therapy

Chronic, non-healing diabetic wounds put a massive economic burden on health services causing patient incompliance and discomfort. Thorough interpreting of chronic wound pathophysiology led to the fabrication of targeted systems of drug delivery that can improve and accelerate the wound healing process. Natural polymers or biopolymers are now explored for the fabrication of wound dressings. Polysaccharides elicit enormous and promising applications due to their extensive obtainability, innocuousness, and biodegradability. Various outstanding features of polysaccharides can be employed to fabricate biomimetic and multifunctional hydrogels as efficient wound dressings. These hydrogels mimic the natural extracellular matrix and also boost the proliferation of cells. Owing to distinctive architectures and abundance of functional groups, polysaccharide-derived hydrogels have exceptional physicochemical properties and unique therapeutic interventions. Hydrogels designed using polysaccharides can effectively safeguard wounds from bacterial attack. More research is required to engineer multifaceted advanced polysaccharide hydrogels with tuneable and adjustable properties to attain huge potential in wound healing. Chitosan- based hydrogels demonstrated better healing as they inhibited bacterial growth and expedited re-epithelization and cell proliferation. So, these hydrogels can be used for effective wound care offering truly valuable material in the field of wound healing and certainly opening new avenues for future research and development.

Dr. Madhu Gupta

Department of Pharmaceutics, School of Pharmaceutical Sciences, Delhi Pharmaceutical Sciences & Research University, Associate Professor, New Delhi-110017, India

Biography

Dr. Madhu Gupta is working as an Associate Professor in Delhi Pharmaceutical Science and Research University, New Delhi. She has research experience pertaining to drug delivery to nanoformulations for magical molecule delivery, bioligands for targeting of bioactives and drug moiety, biopolymers, cancer nanomedicine as well as topical delivery. She has over 80 research publications to her credit published in journals of high scientific impact and contributed 30 chapters in various renowned books with h index 20 and more than 100 citations.. She has the recipient of Research Excellence of the Year 2020, Youth Education Icon of the Year 2018, Young Scientist Award, Best Administrative Service Award, IDMA-G.P. Nair award and Prof. C.S. Chauhan award, BioAsia Innovation Award – 2012, Grace India awards. She has also filed the PCT patent for effective wound healing therapy.

Unlocking the role of p63 gene splicing in epithelial cancer development through stem cell activation

The transcription factor p63 is part of the p53 tumor suppressor family and is uniquely responsible for regulating the proliferative potential of stem cells in epithelial tissues. While studies have shown that p63 can exhibit both tumor-suppressive and oncogenic properties in vitro, studies using knockout and transgenic mouse models have not linked p63 to tumor suppression or oncogenesis in vivo. Despite the rarity of p63 mutations in cancer, our previous study demonstrated a strong association between the splicing out of exon 4 of the p63 gene and epithelial tumor formation. Specifically, the loss of exon 4 leads to the activation of progenitor cells in epithelial tissues, contributing to cancer development. In experiments with mice lacking exon 4 of the p63 gene, it was found that heterozygous mutants developed normally but displayed increased hyperplasia in certain epithelial tissues when exposed to carcinogens or oncogenic stimuli. Additionally, clonogenic culture of epithelia, originally developed for skin grafts, has shown that progenitor cells in mutant epithelia exhibit hyperproliferation compared to their wild type counterparts. These findings collectively underscore the critical role of p63 in tumor suppression in vivo and emphasize the importance of splicing rather than gene mutation in compromising epithelial progenitor cell activity, ultimately leading to the development of precancerous conditions and potentially to aggressive cancers such as squamous cell carcinomas.

Audience Take Away Notes

- Abnormal splicing rather than gene mutation leads to p63-associated cancers
- This is the first mouse model of epithelial cancer induced by p63 dysregulation
- The Δ4p63 model supports two-step carcinogenesis of epithelia
- Probes (e.g. antibodies) for Δ4p63 can serve as novel diagnostic tools for epithelial cancers
- Our study suggests dysregulation of stem cells can cause cancers in epithelia

Makoto Senoo[1]*, Dr. Keshia Pitt[2]

[1]Boston University School of Dental Medicine, Boston, Massachusetts, USA, and Cell Exosome Therapeutics Inc., Shibuya, Tokyo, Japan

[2]Boston University School of Medicine and Boston University School of Dental Medicine Boston, Massachusetts, United States

Biography

Dr. Makoto Senoo started his research career as a post-doctoral research fellow at Harvard Medical School in 2002. He then opened his own research laboratory at the University of Pennsylvania School of Veterinary Medicine. Subsequently, he moved to the Boston University School of Dental Medicine and continued working on the p63 biology since its discovery in 1998. After 20 years of stay in the US, Dr. Senoo returned to Japan in late 2022, where he focuses on the development and manufacturing of stem cell- and exosome-mediated therapeutic strategies.

Dr. Keshia Pitt received her undergraduate degree in biology from St. John's University in Queens, New York and her doctorate from Boston University School of Medicine in Boston, Massachusetts. Her dissertation research in Dr. Makoto Senoo's lab characterized a novel splice variant of the transcription factor p63 that leads to precancerous hyperproliferation of epithelial stem cells.

Anti-aging skin care with emphasis on skin radiance in brightening uneven skin tone in a 12-week clinical design

Our daily skin care routine affects our skin's complexion and its overall health. Very early, we are told to cleanse, moisturize, protect and prevent our skin not only from dirt and disease but also from aging and environment factors, which otherwise, can result, in wrinkling, rough texture, dullness and hyperpigmentation. There is abundance of cleansers, moisturizers, sunscreens, and antipollution products for various skin type needs-dry, oily, normal or combination. Hydrated, radiant skin, clear complexion are most sought-after skin attributes. Makeup products are chosen for anti-aging, camouflaging pigmentation and brightening skin. Our objective was to test a skin care product for its antiaging and brightening potential during a 12-week clinical trial. 30F (35-65y) who gave signed informed consent and met the inclusion.exclusion criteria wee enrolled. Subjects used TA twice daily (AM&PM). Facial skin health, brightness/radiance, smoothness, hyperpigmentation, and skin tone evenness evaluated by expert grader and bio-instrumentation for radiance (Glossymeter®), hydration-(Corneometer®) and pigmentation-(Colorimeter®) were included. Photography with VISIA-CR® and subject self-perception were collected. Our results showed statistically significant improvement of wrinkles, fine lines, overall skin health, skin texture and the effect to help brighten the look of uneven skin tone at various time points compared to baseline. Instruments showed skin hydration and radiance to increase, affecting uneven skin tone. VISIA photos and SPQs showed improvement. In conclusion, skin care formulations with ingredients with proven efficacy can help deliver a plethora of benefits and empower the consumer with better choices for their personal skin care needs.

Audience Take Away Notes

- This will help understand our skin needs as we age and how products are tested in a clinical trial. It will make people aware of latest techniques used in skin testing like expert grading, various bioinstruments and consumer perception. Skin radiance and hyperpigmentation are hot fields in dermatology and new products with novel ingredients need to be tested for safety and efficacy and the scientific information collected. Information obtained from a well thought out clinical design is valuable during product development and also at the marketing stages for claim substantiation in differentiating one product from others, thus empowering the consumer to make a better choice

Dr. Nalini Kaul[1]*, Barrie Drewitt[2], Elsie Kohoot[1]

[1]Princeton Consumer Research, Winnipeg, Canada

[2]Florida, United States

Biography

Dr. Nalini Kaul completed her PhD. from PGIME&R Chandigarh, India and Post-doctoral trainings at St Boniface General Hospital Winnipeg Canada and University of Southern California, USA. Soon after, she took a Senior Scientist position at the University of Dallas, Texas. Following her return to Canada in 2000 she worked as Technical Director on Clinical trials with a reputed CRO, moved on to hold a joint appointment as Sr. Director of Regulatory Affairs and Director of Clinical trials with a Canadian company. Since 2000, she is Vice President of Technical Services at a well reputed CRO serving North America, UK and Asia. She has presented and published widely, both nationally and internationally, and also has several book chapters to her credit.

A foray into the world of PRP mechanisms in dermatology and its outcomes

Platelet-Rich Plasma (PRP) therapy has gained traction in the scientific field due to its potential regenerative effects and great benefit–risk profile. This lecture extensively explores the most studied PRP mechanisms according to the etiopathogenesis of skin diseases: cellular proliferation, matrix formation, regulation of inflammation, angiogenesis, and collagen synthesis. The presentation will focus on PRP's benefits and clinical relevance in wound healing, alopecia, pigmentary disorders, scars, rejuvenation, lichen sclerosus, and other inflammatory dermatoses. This update will deepen the dermatologist's confidence in the use of PRP in the treatment of skin diseases as well as for beauty purposes (rejuvenation). The lecture will encompass a variety of clinical cases.

Audience Take Away Notes

- The audience will broaden their knowledge of the PRP method and will be able to apply it in their daily practice. They would become more familiar with the power of PRP that has changed the lives of many patients (e.g. lichen sclerosus in females and males), without any significant adverse events. Introducing this modern technique, with promising results and high availability, represents a major contribution to their daily workload. Among other PRP benefits, I would emphasize: non-surgical lifting, enhancing the before and after of hair transplantation results, and a stellar complementary therapy to botulinum toxin and fillers use
- This presentation will also highlight technical details such as the manual injection technique and choosing the most suitable PRP kit based on one's needs. Recently, one of the papers we published (December 19th, 2023) on the subject was selected as the cover of the January 2024 issue of the Biomedicines Journal. Currently, I am conducting a Ph.D. thesis on the topic of PRP use in dermatology. Hence, PRP and thrombocyte molecular mechanisms of action in skin disorders represent a hot topic of 2024

Prof. Dr. Olga Simionescu*, Lucian G. Scurtu, Denisa Vladulescu

Dermatology I Department, Colentina Clinical Hospital, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Biography

Prof. Dr. Olga Simionescu, M.D., has been the clinical head of the Dermatology I Department, Colentina Clinical Hospital, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania over the last 15 years. She is an expert in dermoscopy and skin surgery, with a special interest in mucosal lesions, and has published important papers in high-ranked international journals. As a Professor of Clinical Dermatology, she is highly qualified in general Dermatology and Venereology, with a special interest in skin cancers, connective tissue disorders, inflammatory skin diseases, lasers, skin surgery, regenerative and cutaneous molecular medicine (keratinocytes, melanocytes, telocytes).

Autoimmune Pemphigus: Breakthrough discoveries in the pathophysiology and development of potentially curative treatment

Pemphigus Vulgaris (PV) is an autoimmune blistering skin disease where autoantibody-mediated suprabasilar intraepidermal splitting causes flaccid blisters and non-healing erosions of the oral mucosa and sometimes also of the skin. Historically, acantholysis in PV was thought to be driven by Anti-Desmoglein (Dsg) antibodies. Herein, we describe the role of autoantibodies against keratinocyte muscarinic and nicotinic acetylcholine receptors in the immunopathogenesis of PV. The identification of targets in this disease is important, as they may lead to novel diagnostic and therapeutic options in the future for this potentially deadly disease. Treatment of PV patients with the novel multidrug protocol consisting of a short course of prednisone and a long-term maintenance therapy with Intravenous Immunoglobulin (IVIg) paired with a cytotoxic immunosuppressive drug as well as a tetracycline derivative and niacinamide, led to a stable remission off drugs for longer than 5 years in 88% of patients. This is superior to the treatment outcome of the FDA-approved regimen combining short-term prednisone with rituximab, because 32% of pemphigus patients who were in clinical remission off therapy relapsed within 5 years after treatment. The superiority of the multidrug protocol is based on the additive/synergistic effects of individual treatment modalities that target specific aspects of PV immunopathology, such as: 1) protection of keratinocytes from autoantibody attack by systemic corticosteroids and mitochondrion-protecting drugs, 2) selective elimination of autoantibodies by IVIg and 3) prevention of autoantibody production by a cytotoxic immunosuppressive drug.

Audience Take Away Notes

- Corticosteroids increase resistance of keratinocytes to the acantholytic action of pemphigus autoantibodies by increasing their cell adhesive properties
- A combination of doxycycline or minocycline with niacinamide (a.k.a. nicotinamide) protects keratinocytes from anti-mitochondrion antibodies
- IVIg provides for selective elimination of pathogenic IgGs due to saturation of FcRn and replenishment of non-pathogenic IgGs
- Combining IVIg with of a cytotoxic immunosuppressive drug can prevent the rebound effect
- The multidrug protocol for potentially curative treatment of pemphigus allows a lower relapse rate, compared to that of the FDA-approved prednisone/rituximab treatment regimen

Sergei A. Grando, MD, PhD, DSc

Department of Dermatology, University of California, Irvine, California, United States

Biography

Sergei A. Grando, M.D., Ph.D., D. Sci., is a distinguished Professor of Dermatology at the University of California Irvine. He graduated from Kyiv Medical Institute in 1980, obtained his Ph.D. in 1984 and in 1989, the Doctor of Science in medicine (D.Sci.) degree for studies of pemphigus and pemphigoid. From 1991 to 1996 was at University of Minnesota, from 1996 to 2007 at University of California Davis, and then joined UC Irvine. He is certified by the American Board of Dermatology. He has published 285 papers and obtained over $12 million research funding from NIH and other funding agencies in the USA.

Integrating personalized and precision medicine into dermatology clinical practice securing its potential to get skin diseases cured and to revolutionize dermatology

Dr. Sergey Suchkov[1-9]*, Hiroyuki Abe[11], Grigorii Flaks[10], Noel Rose[12,13]

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[4]Member: EPMA (European Association for Predictive, Preventive and Personalized Medicine), Brussels, European

[5]Member, ISPM (International Society for Personalized Medicine), Tokyo, Japan

[6]Member, PMC (Personalized Medicine Coalition), Washington, United States

[7]Member, AMEE (Association for Medical Education in Europe), Dundee, Scotland

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A new systems approach to diseased states and wellness result in a new branch in the healthcare services, namely, Personalized and Precision Medicine (PPM). The latter are both the science of using each patient's individual genomic landscapes – the genes that are mutated, causing the cancer to grow – to create a biomarker-based targeted therapy protocol. PPM is defined as an approach to disease prevention or treatment based on each patient's genetic makeup and relies on biomarkers. The latter are an integral part of PPM and are defined as indicators of normal or pathological biological processes which can be obtained from tissue or blood. And individualized molecular profiles (uniting genomic and phenotypic ones), skin pathology-related site and other patient characteristics are then potentially used for determining optimum individualized (preventive, prophylactic, canonical and rehabilitative) therapy options to be tailored and applied for.

PPM-driven dermatology uses individualized dermatologic disease-directed targeted therapy for the management of dermatoses and for the evaluation and therapy of cutaneous malignancies.

For instance, the pathologic diagnosis of a pigmented lesion and determining the prognosis of a malignant melanocytic neoplasm can be enhanced by genomic/transcriptomic analysis.

The other example is psoriasis, when choosing a biologic medication for the disorder often relies on patient preference, provider preference, and a trial-and-error approach. Utilizing PPM-based tests, we can help providers identify biomarkers unique to a patient's pathophysiology and choose the optimal targeted medication through a targeted and evidence-based approach. Among psoriasis-specific biomarkers and thus modes of targeted therapy, most of the latter discovered and designed focused on anti-TNF and IL12/23, with still few on IL17 (secukinumab). So, PPM-driven treatment in psoriasis would provide excellent outcome minimizing the risk of side effects.

It would be extremely useful to integrate available scientific knowledge on skin disorders-associated abnormal genes and gene products and their implications for targeted therapy, and thus data harvesting from different databanks for applications such as prediction and personalization of further treatment to thus provide more tailored measures for the patients resulting in improved patient outcomes, reduced adverse events, and more cost effective use of the latest health care resources including diagnostic (companion ones), preventive and therapeutic (targeted molecular and cellular) etc. The latter requires the incorporation of information from multiple data sources, linking the functional effects of altered genes to potential therapy options into a

central repository that can be easily accessed, interpreted, and utilized by physicians and patients.

But! For many dermatological conditions, there is a lack of standardized methodology for quantitatively tracking disease progression and treatment response. And new tools using digital health technology can aid in capturing the variables over time. With these data, machine learning can inform efforts to improve health care by, for example, the identification of high-risk patient groups, optimization of treatment strategies, and prediction of disease outcomes.

The advent of PPM in dermatology could lead to a paradigm shift in how patients are treated, with the resulting improved clinical outcomes leading to concomitant reductions in wasted healthcare expenditures. And we are entering an era of rapidly evolving transformation in skin pathology-related research as it relates to medical practice, and a shifting paradigm of standardized health care in which detailed genetic and molecular information regarding a patient's cancer is being used for PPM-based treatments.

Meanwhile, a lack of the medical guidelines has been identified by the majority of responders as the predominant barrier for adoption, indicating a need for the development of best practices and guidelines to support the implementation of PPM in daily dermatology practice! So, coordination of all health care stakeholders has become more important than ever to unite dermatologists, pathologists, immunologists, geneticists, and payers to work with Big Pharma and Biotech to develop products, services, and coverage policies that would improve patient outcomes and lower overall health care costs for institutions that put personalized regimens in place. This is the reason for developing global scientific, clinical, social, and educational projects in the area of PPM dermatology to elicit the content of the new branch and to stress the impact and benefits of the latter.

[11]Abe Cancer Clinic, Tokyo, Japan

[12]Harvard Medical School,

[13]John Hopkins Medical Institutions, Baltimore, MD, United States

Biography

Dr. Sergey V. Suchkov, MD, PhD, was born in the City of Astrakhan, Russia, in a family of dynasty medical doctors. In 1980, graduated from Astrakhan State Medical University and was awarded with MD. In 1985, Suchkov maintained his PhD as a PhD student of the I.M. Sechenov Moscow Medical Academy and Institute of Medical Enzymology. In 2001, Suchkov maintained his Doctor Degree at the National Institute of Immunology, Russia. From 1989 through 1995, Dr. Suchkov was being a Head of the Lab of Clinical Immunology, Helmholtz Eye Research Institute in Moscow. From 1995 through 2004 - a Chair of the Dept for Clinical Immunology, Moscow Clinical Research Institute (MONIKI). In 1993-1996, Dr. Suchkov was a Secretary-in-Chief of the Editorial Board, Biomedical Science, an international journal published jointly by the USSR Academy of Sciences and the Royal Society of Chemistry, UK. At present, Dr. Sergey Suchkov, MD, PhD, is: Professor, and Chair of the Dept for Personalized Medicine & Precision Nutriciology of the Institute for Global Health of RosBioTech, and Professor of Dept of Clinical Immunology, A.I. Evdokimov Moscow State Medical and Dental University (MGMSU), Russia. Secretary General, United Cultural Convention (UCC), Cambridge, UK. Dr. Suchkov is a member of the: New York Academy of Sciences, USA. American Chemical Society (ACS), USA; American Heart Association (AHA), USA; European Association for Medical Education (AMEE), Dundee,

Audience Take Away Notes

- To learn more about the impact of PPM in the daily practice of dermatologists
- To outline individualized strategy for clinical practice of physicians to use PPM resources in their own practice
- For constructing their training lecture of the next step generation
- To define a scope of the ways to overcome barriers stopping down the solvation of the dermatology-related problems
- It will improve the accuracy of a design, or provide new information to assist in a design problem

UK; EPMA (European Association for Predictive, Preventive and Personalized Medicine), Brussels, EU; ARVO (American Association for Research in Vision and Ophthalmology); ISER (International Society for Eye Research); Personalized Medicine Coalition (PMC), Washington, DC, USA.

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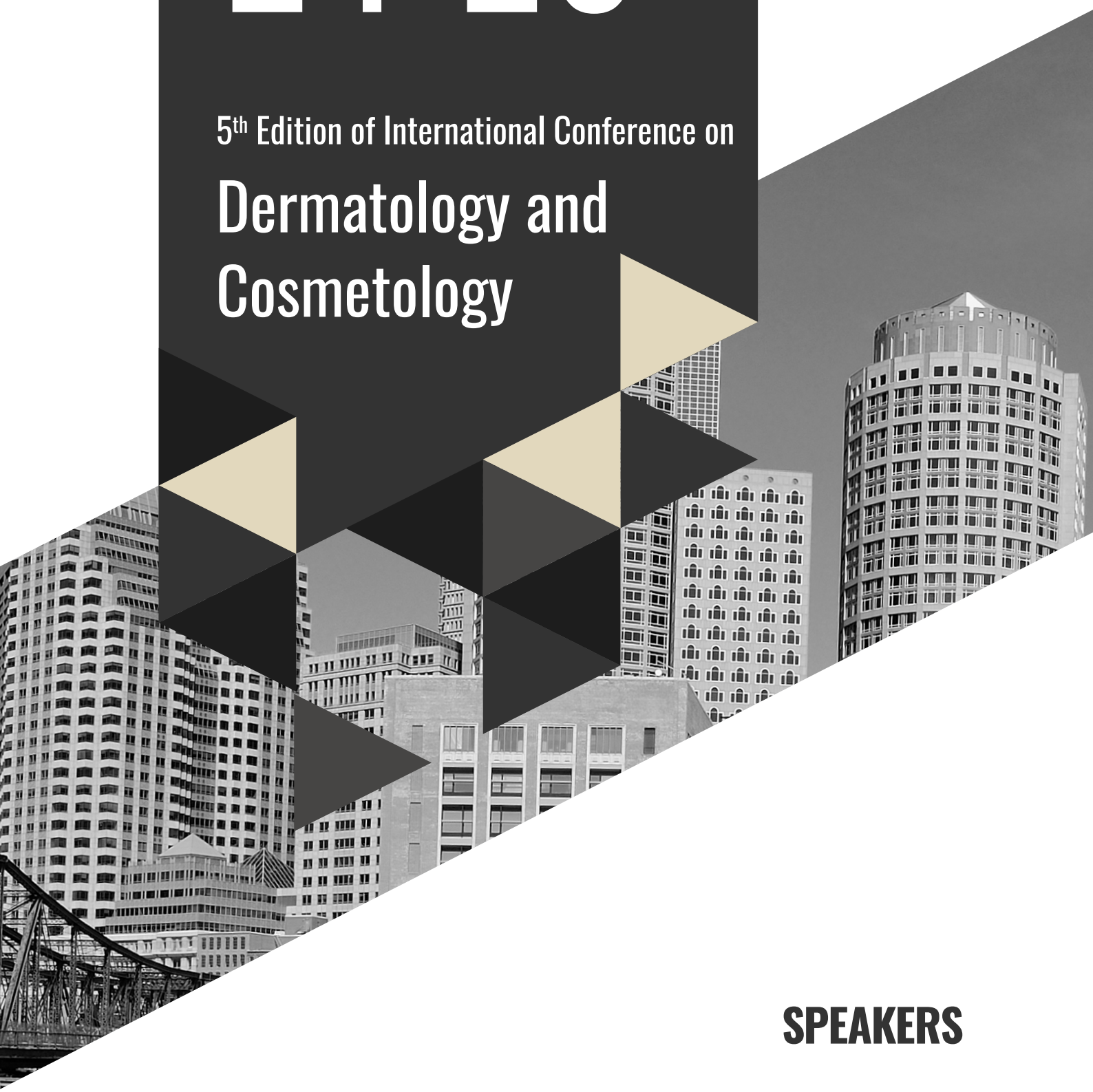

SPEAKERS

Dr. Alfadea Irbah Allizaputri[1]*, Densy Violina Harnanti[2], Fachrezi Khatami[3]

[1]Student of Global Health Program, University of Glasgow, Glasgow
[2]Department of Dermato and Venereology, Dr. Ramelan Navy Hospital, Surabaya
[3]General Practitioner, Universitas Sriwijaya, Palembang, Indonesia

Neglected tropical disease case report: Impetiginized scabies

Scabies is a highly contagious skin condition caused by the Sarcoptes scabiei mite infestation, leading to intense itching, particularly at night. It is declared a neglected skin disease by the World Health Organization due to its significant health burden, especially in developing countries. This neglected tropical disease presents significant challenges in diagnosis and management, often leading to misdiagnosis, treatment failure, and outbreaks within communities.

This case report explores a particularly severe manifestation of scabies known as impetiginized scabies, characterized by secondary bacterial infection, poses additional challenges in diagnosis and management. We presented a case of one-year-old male patient. The patient experienced with a two-week history of progressively worsening intense pruritus, particularly exacerbated at night, leading to impaired sleep. Despite previous treatments with topical and systemic medications, the symptoms persisted, prompting referral to a tertiary dermatovenereology clinic.

Dermatological examination revealed erythematous papules, pustules, and crusted lesions primarily affecting interdigital spaces, hands, feet, and trunk. Upon examination, skin scrapings revealed the presence of Sarcoptes scabiei mites, confirming the diagnosis of scabies. Additionally, Gram staining identified gram-positive cocci, indicative of secondary bacterial infection. The patient was diagnosed with impetiginized scabies and initiated on a comprehensive management plan.

Management strategies included patient and family education on scabies transmission, hygiene measures, and treatment adherence. Topical permethrin 5% cream was prescribed for the patient, applied once nightly for eight hours and repeated after one week, in addition to topical Fusidic Acid cream for active lesions. Systemic cetirizine was administered for symptomatic relief of pruritus.

This case underscores the clinical complexities of scabies, especially when complicated by secondary bacterial infection, and highlights the significance of accurate diagnosis and comprehensive management. Furthermore, it emphasizes the need for improved public health measures, including hygiene promotion, environmental decontamination, and access to effective treatments, to mitigate the burden of scabies, particularly in resource-limited settings. This presentation aims to enhance healthcare providers' understanding of impetiginized scabies, facilitate early recognition, and optimize patient outcomes through evidence-based management strategies.

Audience Take Away Notes

- **Understanding the clinical manifestations of impetiginized scabies:** Attendees will gain insight into the varied presentations of impetiginized scabies, including typical and atypical features, facilitating early recognition and diagnosis in clinical practice
- **Implementing effective treatment strategies:** The presentation will elucidate evidence-based treatment options for impetiginized scabies, such as topical permethrin, oral antibiotics, and antihistamines, empowering healthcare professionals to make informed decisions in managing this condition

- **Enhancing interdisciplinary collaboration:** By emphasizing the importance of an interdisciplinary approach involving dermatologists, primary care providers, pharmacists, and nurses, the audience will learn how effective teamwork can optimize patient outcomes and mitigate the spread of scabies within communities
- **Promoting community-wide initiatives for prevention:** Attendees will explore the socio-economic determinants of scabies prevalence and learn about practical interventions to improve hygiene practices and raise awareness, ultimately contributing to the prevention of scabies outbreaks and reducing the disease burden
- This presentation aligns with the objectives outlined by the World Health Organization (WHO) to address Neglected Tropical Diseases (NTDs), including scabies. By providing insights into the clinical manifestations, treatment strategies, and community-based interventions for impetiginized scabies, the presentation contributes to WHO's broader mission of eliminating NTDs as a public health concern. By raising awareness, promoting interdisciplinary collaboration, and advocating for sustainable prevention and control measures, this presentation actively supports WHO's efforts to reduce the global burden of neglected tropical diseases and improve health equity worldwide
- **How Attendees Can Apply Their Learning:** Healthcare professionals can directly apply the knowledge gained from this presentation in their clinical practice by
- Recognizing and accurately diagnosing impetiginized scabies based on clinical features and microscopic examination
- Selecting appropriate treatment modalities, including topical permethrin, oral antibiotics, and antihistamines, tailored to individual patient characteristics and disease severity
- Collaborating with interdisciplinary team members to implement comprehensive management strategies and promote community-wide initiatives for scabies prevention
- **Impact on Attendees' Job Performance:** This presentation equips healthcare professionals with practical skills and evidence-based strategies to effectively manage impetiginized scabies, thereby improving patient care outcomes, reducing the incidence of complications, and enhancing community health
- **Potential for Further Research or Teaching:** The insights and findings presented offer valuable contributions to both research and teaching endeavors, serving as a foundation for future studies exploring novel treatment modalities, diagnostic approaches, and community-based interventions for scabies control
- **Practical Solutions and Design Efficiency:** The presentation provides a practical solution to the challenges associated with diagnosing and managing impetiginized scabies, offering clear guidance on treatment protocols, interdisciplinary collaboration, and community engagement initiatives. Implementing these strategies can streamline clinical workflows, improve diagnostic accuracy, and optimize patient care delivery
- **Overall Benefits**:
    - Improved patient outcomes through early recognition, accurate diagnosis, and timely treatment of impetiginized scabies
    - Enhanced interdisciplinary collaboration among healthcare professionals, leading to more efficient and comprehensive patient care
    - Contribution to public health efforts by promoting community-wide initiatives for scabies prevention and control
    - Potential for further research and teaching in the field of dermatology, infectious diseases, and public health, driving innovation and knowledge dissemination

Biography

Dr. Alfadea Irbah Allizaputri, a versatile medical professional, blends extensive clinical experience with a passion for research and community service. With a Bachelor of Medicine from Sriwijaya University and ongoing pursuit of a Master of Science in Global Health, her research interest in dermatology and venereology, notably in infectious skin diseases like neglected tropical diseases and sexually transmitted diseases. Her commitment extends beyond clinical settings, as evidenced by her research contributions to journals and scientific conferences, particularly in neglected tropical diseases. Dr. Allizaputri's dedication to healthcare is further highlighted by her active involvement in voluntary work and community outreach initiatives, reflecting her holistic approach to improving public health.

Anita Fajrin*, Diyah Utami, Ersza Autonia, Adinda Asri Pixelina, Yacinta Solehati Christi Hapsari

Research and Development, PT Paragon Technology And Innovation, Tangeran, Banten, Indonesia,

Clinical evidence of innovative water-based sunscreen for acne prone and sensitive skin for Indonesia women

Indonesia's climate is hot and high humidity with temperature ranging between 22.8 - 30.2 deg C and humidity between 61 to 95% in average cities and has a high prevalence of Acne Vulgaris (AV) skin disease. The extreme climate conditions lead to the overproduction of sweat and sebum that make it uncomfortable to use sunscreen with heavy spreading and thick layers (oil or silicone-based). Excessive sun exposure can lead to acne worsen and may cause sunburn and redness to sensitive skin. Hence, the need for light and watery sunscreen for acne-prone skin and sensitive skin is rising.

In this study, we aim to prove the efficacy of two innovative water-based sunscreen formulations that are suitable for acne-prone skin in extreme climates using total acne solution technology. Total acne solution technology is an innovative technology in sunscreen that combines water-based sunscreen formulation with calming acne active for every stage of acne; before acne, during acne, and after acne. We also tested one water-based transparent physical sunscreen for sensitive skin with skin barrier improvement benefit.

The clinical efficacies were conducted for 14 and 28 days under dermatology evaluation and instrument analysis for 30 subjects. The subjects of the test are Indonesian women with skin type between III - IV with acne skin (for acne sunscreen) and sensitive skin (for physical sunscreen) condition. The efficacy result of water-based acne sunscreen SPF 35 PA+++ proven to reduce comedones and acnes respectively by -11.84% ($p<0.05$) and -67.78% ($p<0.05$) at D28. For water-based acne sunscreen SPF 50 PA++++, the result of comedones and acne improvement starting since D14 by reduction at -18.93% ($p<0.05$) and -27.37% ($p<0.05$). The difference of anti-acne actives in sunscreen SPF 50 lead to faster comedo and acne improvement than sunscreen SPF 35. The physical sunscreen SPF 50+ PA++++ also showed improvement in skin barrier by reduction of TEWL -11.30% and -13.82% significantly at D14 and D28 and reduced skin erythema by Mexameter at -3.53% ($p<0.05$). In conclusion, the proposed water-based sunscreen for acne and sensitive skin were performing good clinical evidence and high satisfactory level.

Keywords: Water-based, sunscreen, acne-prone, sensitive skin

Audience Take Away Notes

- This study will talk about habit and preference of sunscreen for tropical country (hot and humid) especially for acne-prone and sensitive skin and how other country with similar climate can adopt the study approach
- This study will show the efficacy evidence as practical solution for acne-prone skin user that found difficulties to use sunscreen especially for high SPF value
- This study also will show about water-based physical sunscreen with no white-cast that suitable for darker skin colour and the clinical efficacy of sunscreen to improve skin barrier and skin redness on sensitive skin
- This study can give insight to the dermatologist, researcher, and manufacturer in term of sunscreen development

Biography

Anita Fajrin is a senior skincare scientist in Paragon Corp, a leading cosmetic manufacture in Indonesia for Indonesia, Malaysia, and Brunei Darussalam market, with more than 7 years experience in the research and development area for skincare. The main expertise of the author are sunscreen, acne and sensitive skin products with more than 20 products launched. The author has published 10 international scientific journals for skincare in some international congress events such as International Federation of Societies of Cosmetic Chemists (IFSCC) and one of the author's journals talking about neuroscience, was presented in the podium presentation of IFSCC 2023 Barcelona.

Dr. Arvind Poswal
Dr. A S Clinic Pvt Ltd, India

Gene therapy for hairloss (bio hacking therapy)

Recent advances in Epigenetics & Anti ageing medicine has discovered molecules of interest that influence our cells, including our stem cells at a genetic level.

Use of this knowledge will help us provide better & holistic treatment for hairloss.

Molecules of interest

- Resveratrol
- NMN (Nicotinamide Mononucleotide)
- Fisetin
- Grapeseed extract
- Ca AKG or AKG
- Rapamycin
- Apigenin, and more…

NMN & Grapeseed extract induce increased proliferation/multiplication in the stem cells of thinning/ miniaturizing hair follicles (and in the hair in forced telogen phase in TE).

Resveratrol & Fisetin increase TERT levels in the skin & increase rapidly multiplying Ki67+ cells around the hair follicle. These stimulate the stem cells in the hair bulge area to start multiplying.

Fisetin, a senolytic, destroys the senescent cells.

They also protect the niche of stem cells in the bulge area of hair follicle, thus, effectively reversing the hairloss process. Instead of looking for stem cell transplants or similar heroic measures, we should improve the epigenome and gene expression in the existing stem cells to delay their senescence (and thus, baldness). Research in genetics and antiageing medicine shows that we can change gene expression as well as influence the stem cell growth of hair follicles. This knowledge can be included in clinical practice to offer better hair regrowth treatment protocols especially in people suffering hairloss/AGA at young age.

Biography

Dr. Arvind Poswal, an inventor, an artist, a perfectionist, a compassionate dermatologist and a teacher, is popular among his patients and peers alike. He completed his medical studies from the prestigious Armed Forces Medical College, Pune (India). He did Professional Diploma in Dermatology from Australia. His areas of special interest include Body hair to scalp transplant, dermatologic-aesthetic surgeries and anti-ageing/longevity medicine and Peptide-Gene therapies. For this, he also completed the Post Graduate program in Diabetology from Johns Hopkins University, Baltimore and Masters in Business Administration. He has been felicitated by heads of states and celebrities alike. Dr. Capt Arvind Poswal widely acclaimed for his contributions to the field of hair transplant. He is the inventor of the stitchless FUSE/fue technique and Beard hair to scalp transplant. Dr. Arvind Poswal: MBBS (AFMC), Prof. Diploma Dermatology, MHA, PGPD (Johns Hopkins), Dip. Pys, PCTD, PCP, Founder Member, FUE Europe, President, SHTS. He is also a member of the American Hair Loss Association, IAHRS, IPHA, SHTS, ESHRS, ISHRS, AHRS, FUE Europe, IFSCC.

Dr. Axel Baumgartner
Hanse-Klinik, St. Jürgen-Ring 66, D-23564 Lübeck, Germany

Liposuction in lipoedema: The best option we have

Lipoedema only affects women; it persists lifelong and tends to progress gradually or intermittendly. Though we do not understand many aspects of this disease, we are able to offer very effective conservative and surgical treatment modalities; they improve shape and symptoms and enable the patients to live a fairly normal life again.

Combined decongestive therapy (manual lymphatic drainage, compression garments) is able to minimize oedema. Tumescent liposuction is used for reducing the increased volume of fatty tissue. It can be applied in stage I, in stage II and – depending from the patients weight, the amount of subcutaneous tissue and the elasticity of the skin – in stage III.

Liposuction causes a correction of shape with a decrease in the circumference of hips, legs and arms, resulting in a normalization of body proportions. In addition there is a significant and long lasting improvement – sometimes a complete disappearance of spontaneous pain and pain due to pressure. This causes an improvement of mobility, cosmetic impairment and a marked increase of quality of life.

Though many aspects of this treatment – especial the reduction of pain - are not well understood, the impressive long-term benefits of liposuction in patients with lipoedema are well documented. Up till now liposuction is the best treatment option we have in patients with progressive disease. Though the results demonstrate a long lasting positive effect, it should be pointed out that surgery cannot cure lipoedema completely in all patients; in case of a (reduced) persisting oedema formation, decongestive therapy and compression is still necessary in many patients, although at longer intervals and to a much lower degree.

Biography

Dr. Axel Baumgartner is a board certified surgeon with an additional specialization in emergency medicine. He worked for 8 years in the Department of General and Vascular Surgery in Berlin and Lueneburg. During his long career Dr. med. Baumgartner also qualified as Senior Emergency Physician and still continues to work in the emergency services. In 2012 he started his career at the Hanse-Klinik in Lübeck, solely doing liposuctions on lipoedema patients and became the director of the clinic in 2017. Hanse-Klinik has been scientifically active in the field of lipoedema for over 20 years. Dr. Baumgartner was involved in several scientific studies on lipoedema concerned with the long-term effect of liposuction on lipoedema patients over a period of 8 and 12 years. These studies have contributed significantly to the development of today's therapy guidelines. Due to his numerous publications relating to lipoedema and presentations at national and international congresses he is well known and appreciated and in a constant scientific dialogue with experts worldwide. He also takes an active part in advising self-help groups and conducts training courses on lipoedema for medical suppliers and companies throughout Germany.

Dr. Bharti Magoo
Golden Touch Clinic, Mumbai, Maharashtra, India

Xeroderma pigmentosa

Definition: Xeroderma Pigmentosa in general terms is defined as the over production of melanin resulting in dry, flat, and dark patches.

Causes: The causes can be several right from actinic keratosis, Dennie-Morgan folds, Acanthosis Nigricans, post inflammatory pigmentation, neurodermatitis or Lichen Simplex Chronicles to PCOS, aging, and other idiopathic causes.

Pathology: Keratinocytes multiply with exposure to UV radiation and sunlight in the absence of Vitamin D, Vitamin A, Vitamin B complex and other vitamins. This gives rise to squamous cell epitheliomata by division of stem cells in the basal layer of the epidermis. They die in the granular layer and become flattened, anucleated, brick-like cells. They also affect sebum production making them dry, scaly, and leathery.

Treatment: The skin generally tends to repairs itself over time. However, the Fitzpatrick Classification determines the line of treatment. A variety of treatments are available since every case is different and has to be evaluated based on the patient's history and needs. With a combination of external and internal treatment options, impeccable results can be achieved.

Audience Take Away Notes

- With my presentation, I am going to outline the treatment plan based on the cause which will help my fellow colleagues further help their patients overcome this difficult problem successfully
- Although simple, these are thoughtfully designed to be practical, and promise achievable results
- With my decades of experience having dealt with various such cases, not only will the patients benefit but also the community at large with more doctors being able to offer support efficiently while also earning their name and money

Biography

Dr. Bharti Magoo studied medicine at Mumbai University and got her degree in 1977. Shortly after, she opened up her own practice in Mumbai and has since done several specialized courses in USA, France, London, and other parts of the world. As a true global citizen, she soon started hosting presentations showcasing her work and case studies in various conferences around the world. In the recent past, she is the proud two-time winner for EuroMedicom's Anti-Aging and Beauty Trophy for Best Clinical Case in Paris, France in 2013 and again in 2014.

Bobko Svetlana*, Potekaev N. N, Zhukova O.V

Moscow scientific and practical center of dermatovenereology and cosmetology, Moscow, Russian Federation

Successful treatment of combination of eosinophilic granuloma of the face and prurigo on trunk

Introduction & Objectives: Unusual combination of prurigo on trunk and arms and eosinophilic granuloma on the face was revealed in a patient 73 years old. Long history of differential diagnosis and search for the adequate treatment for many years was ended in results of the biopsy and long list of medications including topical and systemic glucocorticosteroids, antiviral treatment, as well as Dapsone that allow long remission.

Materials & Methods: Patient 73 years old applied with complains on rash on the skin of the face and trunk with itch. She was ill during 7 years when first noted rash on her back than later – face. According to the histological examination of the biopsy of the face, eosinophilic granuloma of the face was diagnosed. The treatment by systemic and topical glucocorticosteroids, tacrolimus, valtrex gave a temporary effect, the use of dapsone 100 mg during 6 months gave a long remission. Concomitant diseases: nodular goiter, ischemic heart disease, hypertension, torticollis. Occupational hazards: she worked as a painter, had allergic reactions to varnishes and paints.

Results: During the treatment the patient noticed improvement on the skin of face and trunk – reduction of the lesions and itch.

Conclusion: Long use of Dapsone under control of blood examination gave a good result to make the long existing eosinophilic granuloma more stable and avoid exacerbation.

Audience Take Away Notes

- The presentation will give the information about diagnistics and treatment if prurigo with resistant to traditional therapy form. The doctors will better differentiate the skin disease and find the adequate treatment. The case illustrates an unique experience of successful treatment of prurigo by dapson

Biography

Bobko Svetlana MD, PhD senior research fellow of Moscow scientific and practical center of dermatovenereology and cosmetology. Graduated with honours from Moscow Medical Academy named after I.M. Sechenov in 2008, after residency of dermatovenereology in Moscow Medical Academy named after I.M. Sechenov 2008-2010, had posgraduate study at dermatology department of Sechenov Moscow State Medical University, due to Russian Federation President Scholarship for studying abroad worked in 2011-2012 in Dermatological Clinic of Muenster University Hospital. Defended thesis in 2013 (scientific mentor A.N. Lvov, A.B. Smulevitch) Psychogenic itch: aspects of clinical systematics, complex therapy and prophylaxis, since 2014 till now is working in department of clinical dermatovenereology and cosmetology of Moscow scientific and practical center of dermatovenereology and cosmetology. In 2015 was a scientific secretaty of 16 ESDaP congress in Saint-Petersburg. In 2017 got Michael Hoenstein Memorial Scholarship by European academy of Dermatology and Venereology. In 2017 got travel grant of international Forum for the Study of itch (IFSI) to attend 9th World congress on itch. A member of Task groups of EADV of pruritus and psychodermatology. Reviewer of JEADV, Fronties, Clinical dermatology and venereology. Member of National alyans of dermatovenereologists and cosmetologists, Moscow society of dermatovenereologists and cosmetologists named after A.I. Pospelov,

Member of EADV, Member of ESDaP, Member of ISD, Member of IFSI, Member of DDG, member of EAAD. Coauthor of IFSI-guideline of prurigo. In 2016 paricipated in clinical Study of EADV — validation of itch questionnares for patients (organized by S. Staender), and in 2017 in European Prurigo Project by EADV. Secretary of Local ethics committee. Author of more than 30 publications. Speaker of local and foreign conferences and congresses.

Dr. Bouhanna Pierre, M. D
Centre CMCC Paris, France

Hair transplantation for post breast cancer androgenetic alopecia

Introduction: Alopecia is one of the most common adverse events caused by numerous anticancer agents. Alopecia in cancer patients has a significantly negative psychological and social impact. The incidence of alopecia in patients treated with targeted therapies or endocrine therapy is not anecdotal. Some cases were reported assessing the low efficacy of Minoxidil in endocrine-therapy induced alopecia.

Objectives: The aim of this study was to assess the efficacy and safety of hair transplantation in the treatment of endocrine-therapy induced alopecia.

Materials & Methods: Women with breast cancer, suffering from endocrine-therapy induced androgenetic alopecia, have been grafted with follicular unit long hair transplant technique. With this technique under local anesthesia a strip of unshaven hair is harvested from the donor area, segmented into follicular units under stereomicroscope and transplanted into the recipient area. The donor area is close with sutures or staples leaving a nearly invincible fine linear scar. The efficacy on global hair coverage was assessed by both investigator and patient themselves. In addition, hair density, thickness and growth rate were assessed with a digitalized phototrichogram on the donor area (Trichoscale®).

Results: 10 patients, 42 to 72 years old, with androgenetic alopecia due to endocrine therapy. Hair coverage was improved by 50 to 70%. The long term follow-up, up to 3 years, showed the permanent efficacy of hair transplantation. Neither transplantation failure nor side effect, except frontal oedema during the 3-4 days after surgery, has been reported.

Conclusions: Endocrine-therapy alopecia is not rare. Its clinical pattern is similar to androgenetic alopecia. Hair transplantation has demonstrated its efficacy for the long term treatment of this alopecia. Since no shaving is needed with follicular unit long hair technique, this is particularly recommended in women. The advantages of hair transplantation are the long-lasting effect, the poor side effects and the absence of compliance issue.

Biography

Dr. Pierre Bouhanna is an exclusive hair dermatogic surgeon, director of the Paris University Diploma for scalp pathology and surgery, consultant at the Paris hospital St Louis (Sabouraud), member and teacher in the training comitee of the ISHRS. He has invented and published the phototrichogram, the multifactorial classification, the follicular unit long hair micrograft (FUL). Through the publications of 11 books and more than 140 articles, he has also developed the specific implantation for Africans and Asians and for the beard, the post-radiotherapy alopecia and the newest hair growth research. In 2015, he has received the prestigious ISHRS Platinium Award.

Dr. Chajra Hanane, Ph.D[1]*, Thibaut Saguet[1], Corinne Granger[2], Lionel Breton[3], Pedro Contreiras Pinto[4], Mickael Machicoane[1], Jean Marc Le Doussal[1]

[1]Activen, Lausanne, Switzerland
[2]Stella Polaris Europe, Paris, France
[3]CILIA Consulting, Paris, France
[4]PHD trials, Lisboa, Portugal

Exploring the facial skin rejuvenation properties of XEP®-716 miniprotein: A precision analysis using confocal laser scanning microscopy and AI based quantification

Skin aging arises from both intrinsic and extrinsic factors. Aged skin appears uneven, rough and wrinkled. Microscopically, aged skin exhibits decreased keratinocyte turnover, flattening of the dermal-epidermal junction and a thin dermis featuring a reduction in collagen fibers.

The aim of this study was to demonstrate the rejuvenating effects of XEP®-716, a miniprotein exhibiting growth factor-like effects on skin cells, utilizing the non-invasive technique of Confocal Laser Scanning Microscopy (CLSM) and an VISIA-CA®'s Artificial Intelligence based software (Canfield).

Skin structures were evaluated with the Vivascope 1500 CLSM system in a double-blind, randomized, placebo-controlled clinical trial, using a split-face design. Images of DEJ, dermal papillae and collagen content were captured after twice-daily topical application of a cosmetic formulation containing either 2.5% or 5% XEP®-716 miniprotein solution, versus a placebo at 28 and 56 days.

Using a dedicated software, we were able: To quantify DEJ thickness corresponding to the height of epidermis indentation in the dermis; to count the number of edged dermal papillae corresponding to the density of epidermal indentation in the dermis; and to measure the size of collagen fibers. The VISIA-CA® system estimated the volunteers' age based on facial image analysis.

The results demonstrated XEP®-716 miniprotein's ability to rejuvenate the DEJ and dermis. The DEJ appeared more undulated and tightly attached to the dermis. A denser deposition of newly synthesized collagen was observed in the papillary dermis, a common characteristic of younger skin. The skin ages estimated by AI confirmed this rejuvenation ability, with statistically significant improvements over both placebo and baseline.

Audience Take Away Notes

- The audience will learn about what is a Miniprotein, a new class of actives for dermatological and cosmetic indications
- The Miniprotein named XEP-716 that will be presented is a TGF-beta like growth factor having skin rejuvenative properties. Indeed, the clinical results will show in mature skins the rejuvenation of dermo-epidermal junction and dermis demonstrated by two non-invasive methodologies : the Laser Scanning Confocal Microscopy (LSCM) and the ultrasonography. The results will show also that artificial intelligence applied to estimate the ages on clinical images can be a powerful tool to confirm this rejuvenative property

Biography

Dr. Chajra Hanane holds a PhD in Biotechnology from the University Claude Bernard Lyon, France. She has more than 10 years of industrial experience in medical devices and tissue engineering for pharmaceutical applications at Symatese. Dr Chajra joined the cosmetic industry in 2013 where she worked for well-known raw material suppliers specialized in the development of innovative active ingredients (Induchem, Givaudan and Clariant). Since 2023, Dr Hanane Chajra is the Product Development and Innovation Manager at Activen, a Swiss company specialized in the discovery and development of miniproteins for cosmetic and dermatological applications. She has published more than 30 research articles in scientific journals and a book chapter.

Dr. Daisy Deuri
AIIMS Bathinda, Punjab, India

Shrouded in scales – A harrowing case of harlequin ichthyosis

Introduction: Harlequin Ichthyosis (HI) is a severe and fatal presentation of ichthyosis with an autosomal recessive inheritance. Infants with Harlequin ichthyosis have a high mortality rate, majority of neonates die shortly after birth from infection, heat loss, dehydration, electrolyte imbalances, or respiratory distress. Here we report a case of Harlequin Ichthyosis as it is a rare disorder and not frequently seen.

Description of the Case: A newborn baby, born to 2nd degree consanguineous marriage, presented with armour-like thick, whitish–yellow plates of scales with deep red fissuring. Eyelashes and eyebrows were missing with ectropion, eclabium, and flattening of the ears and nose were noted. A clinical diagnosis of Harlequin ichthyosis was made. Due to a lack of facility, a mutation analysis was not carried out. The patient was then transferred to the Neonatal Intensive Care Unit (NICU) and treated in a humidified incubator and medicated with intravenous antibiotics, topically emollients and fusidic acid were given. The patient unfortunately died at the age of 2 days mostly due to respiratory failure, fluid loss and septicemia.

Discussion: Harlequin Ichthyosis (HI) is very rare and the most severe form of congenital ichthyosis presenting at birth with autosomal recessive inheritance. It is due to mutations in ABCA12 gene encoding an Adenosine Triphosphate-Binding Cassette (ABC) transporter. The affected newborn is encased in armour-like thick, white–yellow plates of scales with deep red fissuring. The skin is stretched tightly, the face loses its normal appearance with ectropion, eclabium and flattening of ears and nose. Eclabium and taut facial skin prohibit suckling by the infant. The extremities are swollen due to constriction by massive thickening of skin which can eventually lead to auto-amputation. Complications include hypernatremia, heat intolerance, joint contractures, sepsis, delayed growth and development, erythroderma and painful palmoplantar keratoderma. Differential diagnosis include Neu–Laxova syndrome which presents with taut, scaling skin and features of microcephaly, syndactyly and other congenital malformations. Mortality is mostly due to respiratory, infectious, hypoglycemic and dehydration. Treatment includes intensive care to provide sufficient nutrition, monitor and manage body temperature, correct fluid and electrolyte imbalances and treat respiratory dysfunction, pneumonia, or sepsis. Infants should be kept in humidified incubators and treated topically with light emollients. Systemic retinoids like acitretin (1 mg/kg/day) helps in shedding of the large, keratotic plates within weeks as well as improvement of the ectropion and eclabium. Although it is a rare disorder, mutation screening for the ABCA12 gene and genetic counselling for families, particularly those with consanguinity marriages would be beneficial, so that early diagnosis can be made and managed effectively.

Biography

Dr. Daisy Deuri graduated from Vydehi institute of Medical Sciences and Research Centre, India in 2018 and did her MD in Dermatology from SSIMS&RC, India in 2023. She is now currently working as Senior Resident in AIIMS Bathinda. She has participated in many Continuing Medical Education (CME) events, seminars and did many paper and poster presentations in both national and international conferences. She has 3 publications and has won various awards. She has passion for teaching for the under graduate and post graduate students. Her areas of interest are dermatosurgery, vitiligo and leprosy.

Darianne Zimmer, BS[1]*, Vivian Li, MMS[2], Michelle Sobotka, MS[3], Kelly Frasier, DO, MS[4], Julia Vinagolu Baur, MS, MBA[5]

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Enhancing comfort in dermatology and cosmetics with augmented reality

Augmented Reality (AR) presents a promising avenue for improving pain management and enhancing patient comfort during dermatological cosmetic procedures. Current research suggests that AR interventions, such as immersive visualizations and virtual environments, effectively mitigate pain perception and reduce anxiety levels in patients undergoing various cosmetic treatments, including laser procedures and injectables in dermatology. Future research should concentrate on refining AR applications tailored specifically to dermatological settings, considering factors such as procedure type, patient demographics, and individual preferences. Additionally, investigating the integration of biofeedback mechanisms and real-time physiological monitoring into AR platforms could optimize pain management strategies by providing personalized interventions based on patient responses and pain thresholds. Long-term studies assessing the sustained benefits, patient satisfaction, and treatment outcomes associated with AR-based pain relief in dermatology are essential for validating its clinical utility. Technical considerations regarding device compatibility, usability, and data security must be addressed to facilitate the widespread adoption of AR technology in cosmetic dermatology practice. Collaborative efforts between dermatologists, technologists, and human-computer interaction experts are necessary for advancing this innovative approach and optimizing patient care in cosmetic dermatology.

Ejigayehu Kassa Mekonnen
Laba Media and Communications Addis Abeba, Ethiopia

Exploring the social impact of skin allergies: A comprehensive analysis

Skin allergies are a common and distressing health problem affecting a significant portion of the population. Their impact extends beyond physical discomfort, often leading to psychological and social consequences. This research aims to investigate the social impact of skin allergies, with a particular focus on the face as a primary indicator of personal identity in society.

Through a comprehensive review of existing literature, this study will examine the various dimensions of the social impact caused by skin allergies. It will explore the psychological distress experienced by individuals due to altered facial appearance, such as low self-esteem, feelings of embarrassment, and decreased social confidence. Additionally, the research will investigate how these negative emotions can further contribute to social isolation, withdrawal from social activities, and impaired interpersonal relationships.

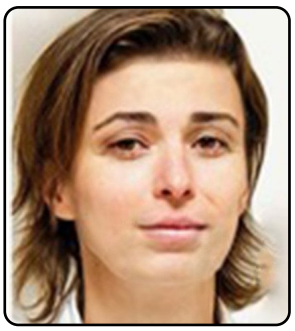
Furthermore, this study will shed light on the societal stigmatization and misconceptions surrounding skin allergies. It will explore the biases and discrimination faced by individuals with skin allergies, including workplace discrimination, reduced employment opportunities, and limited educational prospects. The research will also examine the impact of media portrayal and societal beauty standards on the self-perception and social integration of individuals with skin allergies.

To gather empirical data, a mixed-methods approach will be employed, combining qualitative interviews and quantitative surveys. The qualitative interviews will provide in-depth insights into the personal experiences and emotional struggles faced by individuals with skin allergies, while the surveys will offer a broader perspective on the prevalence and severity of the social impact within the larger population.

The findings of this research will contribute to a better understanding of the social implications associated with skin allergies. This knowledge can drive the development of more effective support systems, awareness campaigns, and policy initiatives aimed at reducing the social burden on individuals with skin allergies. Ultimately, the research strives to promote inclusivity, empathy, and improved quality of life for those affected by skin allergies in our society.

Biography

Ejigayehu Kassa Mekonnen, a Journalist and have a special interest in film and Television programs, she has been serving for different electronics media enterprises as producer of Tv programs and director of educational films. Most of her productions are focused on the issue of vulnerable children, women and disabilities. She received Masters of Film production/ MFA/ from Addis Ababa University. One of her short films entitled' Eremat' has been awarded by the Embassy of United states of America and she has also a short film entitled 'self portrait 'for presentation at European film festival. Despite her health problems due to a serious skin disease that she had contracted years ago, she made a film of her daily experiences as a lesson.



Dr. Elena Giardini, MD
Private Practice Padua, Italy

A new regenerative medicine concept for face and neck rejuvenation: Combined use of stem cells and two laser technologies for fractional phototermolysis and rapidly healing the injured tissue

Background: Stem cells represent a powerful new tool in regenerative medicine since they can promote regeneration of aged tissues by replacing apoptotic and necrotic cells with healthy ones and show antiapoptotic and antinfiammatory properties; many reports have well demonstrated clinical and histologic evidence of the potential benefit of fractional phototermolysis in the treatment of photo damaged skin.

Objective: This report evaluated the efficacy of combination of stem cells and two laser technologies for face and neck rejuvenation: The wavelength 1450 nm for micro coagulation and the wavelength 980 for stimulation the production of neo-collagen and elastin.

Methods: 450 patients with mild to high cutaneous photodamage received 4 successive laser treatments and stem cells applications at 3 weeks intervals. Clinical improvement of treatment areas was determined by comparative analysis of photographs at baseline and 1, 6, 12, 24 months post treatment. At each time a specific skin software allows to evaluate wrinkles density, skin dark and light, spot density etc.

Results: A greater than 85% clinical improvement in photo damage at the 24 month follow up was achieved in nearly 95% of patients. All patient reported improvement of the texture of the skin and visible reduction of wrinkles with no side effects with a very high patient satisfaction rate.

Conclusion: These first clinical results seem to show that combined use of this laser technology and stem cells offers a new effective and safe modality for face and neck rejuvenation.

Audience Take Away Notes

- In the author's opinion the audience will be able to learn about a new regenerative medicine technique for face and neck rejuvenation and to integrate it into clinical practice
- Knowledge of this new technique will be able to help audience obtain very natural results while reducing invasiveness
- This research could be used by other faculty to expand their own research or teaching

Biography

Dr. Elena Giardini received her degree in Medicine and Surgery from the University of Padua and has worked for surgeries in both Italy and the USA. She is a Board Certified Aesthetic Plastic Surgeon, member of the Italian Society of Plastic, Reconstructive, Regenerative and Aesthetic Surgery (SICPRE), of the International Society of Aesthetic Plastic Surgery (ISAPS), of the the American Society of Laser Medicine and Surgery (ASLMS) and International Member of the American Society of Plastic Surgeons (ASPS) Dr. Elena Giardini is also a Technical Consultant for the Court of Padua for Plastic Surgery and a speaker at international events. At the ISAPS World Congress in September 2022, Dr. Elena Giardini presented the world's first non-invasive Regenerative Medicine technique for face and neck rejuvenation. Her pioneering technique does not require fillers or botox and is set to revolutionise the world of cosmetic surgery. For the non-surgical rejuvenation technique, she received the ISAPS Olympiad Athens 2023 Award.

Dr. Frederick H. Silver[1,2]*, Tanmay Deshmukh[2], Hari Nadiminti[3], Kelly Ritter[3]

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Vibrational OCT as a tool to study melanomas and other skin lesions using telemedicine

Vibrational Optical Coherence Tomography (VOCT) is a new technique to image and measure the stiffness (elastic modulus) of cells, dermal collagen, blood vessels, and fibrotic tissue in skin and skin lesions. The technique applies acoustic sinusoidal sound waves noninvasively at frequencies of between 50 and 300 Hz and uses the reflection of infrared light to measure the displacement of skin as a function of applied sound frequency. The maximum displacement at different sound frequencies defines an acoustic spectrum that characterize normal skin and skin lesions. Normal skin has resonant frequencies at 50 Hz (normal cells), 100 Hz (dermal collagen), and 150 Hz (blood vessels). Cancerous skin lesions have new resonant frequency peaks at 80 Hz (cancer associated fibroblasts), 130 Hz (new thin blood vessels) and 250-260Hz (fibrotic tissue). Differentiation between normal skin, Actinic Keratosis (AK), Basal Cell Carcinoma (BCC), Squamous Cell Carcinoma (SCC), and melanoma can be made using the ratio of the 50 Hz, 80 Hz, 130 Hz and 250-260 Hz peak heights and machine learning techniques. Skin cancers are characterized by large 80 Hz, 130 Hz, and 250-260 Hz peaks not found in normal skin and AKs. Differences in melanomas with different amounts of pigment are determined based on the pixel intensity versus depth plots obtained from OCT images of lesion cross-sections. 3D reconstruction of lesion OCT images, loss modulus of skin and skin lesions, and 3D maps of component stiffness versus depth are additional measurements that will be presented.

Images and VOCT acoustic spectral data can be obtained and analysed remotely allowing skin lesion identification over the internet. The only requirement is that an assistant focus the device on the area of skin to be analysed using the camera and OCT images. Once this is done the device will automatically run data collection and save it in the cloud in a protected site. Once the data is collected it can be reviewed as simply as a color-coded image or analysed using machine learning techniques.

Audience Take Away Notes

- The morphology of OCT images of skin and skin lesions and their interpretation
- The location of cellular, collagen, blood vessel, and fibrotic tissue peaks in vibrational spectra of tissue
- How to create 3D stiffness maps of lesions and to determine the location of lesion margins and depth
- Machine learning comparison of vibrational data and histopathological analysis of skin lesions
- The use of VOCT to differentiate between suspicious lesions and skin cancers and determine margins
- Use of VOCT to noninvasively analyze end point of cosmetic procedures

Biography

Dr. Frederick H. Silver is a Professor of Pathology and Laboratory Medicine at Robert Wood Johnson Medical School, Rutgers, the State University of New Jersey. He did his Ph.D. in Polymer Science and Engineering at M.I.T. with Dr. Ioannis Yannas, the inventor of the Integra artificial skin, followed by a postdoctoral fellowship in Developmental Medicine at Mass General Hospital in Boston, MA with Dr. Robert L. Trelstad, a connective tissue pathologist. Dr. Silver invented a new technique termed Vibrational Optical Coherence Tomography (VOCT). US and European patents have been granted on VOCT to Rutgers.

Dr. Harshini Penala*, Dr. (Col) Ashok Rao Matety, Dr. M. Bhagyashree

Department of DVL, RVM Institute of Medical Sciences and Research Center, Siddipet, Telangana, India

Global health alert: Tackling the unchecked topical steroid pandemic in India

Topical Corticosteroids (TCS) are an indispensable entity in the dermatologist's armamentarium. Atrophy, telangiectasia, acneiform eruption, striae, and hypopigmentation are commonly seen in cutaneous adverse reactions. The availability of TCS over the counter, coupled with insufficient dermatological training among non-dermatologists, including general practitioners, many of whom lack credibility, contributes significantly to their misuse. Despite ongoing attempts by the Indian government to reclassify TCS as prescription-only medications, they persist in being readily accessible without prescription.

Audience Take Away Notes

- Presenting real-life scenarios, our objective is to sensitize our audience to the significant consequences of unregulated steroid use
- This helps the audience in tangible understanding, emotional impact, increased awareness, and policy advocacy
- By understanding the real-life impact of unregulated steroid use, designers can create more empathetic and effective messaging, visuals, or user experiences that resonate with the audience
- By grounding the design in real-life scenarios, designers can ensure that their representations of the issue are authentic and true to the experiences of those affected by unregulated steroid use. This accuracy helps to build credibility and trust with the audience, making the design more effective in conveying its intended message
- Hearing about the consequences of steroid misuse firsthand can highlight nuances and subtleties that may not be apparent from a purely theoretical or academic perspective

Biography

Dr. Harshini Penala is currently completing her final year residency in the Department of Dermatology, Venereology, and Leprosy (DVL) at RVM Institute of Medical Sciences and Research Center, Telangana, India. She obtained her MBBS degree from Rajiv Gandhi Institute of Medical Sciences, Adilabad, Telangana, India. Dr. Penala's professional interests lie in clinical dermatology and dermatosurgery, which she intends to pursue through a fellowship program. Dr. Penala has demonstrated her academic prowess by winning the poster competition twice at a state conference in India. Additionally, she has been recognized as a recipient of the Dermacon scholarship for the year 2024. She has presented numerous papers and posters at both state and national conferences, contributing significantly to the field of dermatology in India.

Dr. Harshini Penala*, Dr. (Col) Ashok Rao Matety, Dr. M. Bhagyashree

Department of DVL, RVM Institute of Medical Sciences and Research Center, Siddipet, Telangana, India

Paving the way for dermonutritional wellness in India

Cutaneous manifestations often serve as the initial indicators of an underlying nutritional pathology. Recognizing its complex origins, our intervention extends beyond mere multivitamin tablets. It's a holistic strategy encompassing patient engagement and tailored nutritional guidance. When I say nutrition, I'm not talking about exotic foods. From the humble 'Rice & Dal' to other local staples, we unveil the nutritional powerhouses that lie within everyday meals. I also propose the creation of a nutrition pamphlet at every dermatology clinic aimed at educating our patients. Approximately half of our dermatology cases involve dermatophytes, while the other half comprises inflammatory conditions such as nutritional dermatosis, acne, psoriasis, vitiligo, and autoimmune diseases. In these cases, diet plays a crucial role. The pamphlet aims to enhance awareness and provide guidance on maintaining a balanced diet for better skin health.

Audience Take Away Notes

- By addressing the role of diet in skin health alongside traditional dermatological treatments, healthcare providers offer more comprehensive care to their patients, potentially leading to improved treatment outcomes and overall satisfaction
- In a developing country like India, access to nutritionists is often limited, leaving valuable dietary information out of reach for many. It shouldn't be a privilege reserved for the wealthy to understand their nutritional needs. We can bridge this gap by providing everyone, regardless of socioeconomic status, with access to comprehensive nutritional information, including the macro and micronutrient content of local ingredients and condiments
- By integrating skin health and nutrition, this initiative aims to promote comprehensive care and empower individuals to make informed lifestyle choices for better overall well-being

Biography

Dr. Harshini Penala is currently completing her final year residency in the Department of Dermatology, Venereology, and Leprosy (DVL) at RVM Institute of Medical Sciences and Research Center, Telangana, India. She obtained her MBBS degree from Rajiv Gandhi Institute of Medical Sciences, Adilabad, Telangana, India. Dr. Penala's professional interests lie in clinical dermatology and dermatosurgery, which she intends to pursue through a fellowship program. Dr. Penala has demonstrated her academic prowess by winning the poster competition twice at a state conference in India. Additionally, she has been recognized as a recipient of the Dermacon scholarship for the year 2024. She has presented numerous papers and posters at both state and national conferences, contributing significantly to the field of dermatology in India.

Hephzi Bah Konadu Agyeman
Ghana Atomic Energy Commission, Ghana

Fungi infection on the skin

Purpose of Review: Fungal skin infections can happen anywhere on your body. Some of the most common are athletes foot, yeast infections, ringworm and jock itch. This presentation aims to highlight on recent findings about soft tissue infections, risk factors and therapeutic options for fungi causing skin.

Recent Findings: Recently, the occurrence of fungal infections is very rampamt. This fungi infection occurs in two parts either primary or secondary skin infections and not only on systematic infections. Fungal pathogens which include Aspergillus fumigatus, Candida spp. and Dermatophytes. Antifungal resistance has become a major issue and covers several fungal. Multidisciplinary usage of newly targeted, immunomodulatory therapies may predispose patients to have fungal infections through mimicking an immunosuppressed status caused by genetic factors or the disease itself. Nonimmunosupressed patients, although less frequently than those with immunosuppression may also be vulnerable.

Summary: Systematic mycosis which is associated with skin and tissues should be discuss with Physicians. Antifungal resistance can affect the success of the treatment. The use of antifungal susceptibility test should be used when disseminating fungal infecti

Dr. Hitha BS, MBBS, MD, (DVL)
Senior Resident, Department of Dermatology, Venereology and Leprology, Belagavi Institute of Medical Sciences, Belagavi, Karnataka, India

Comparative study between punch exicision and electrocautery in the treatment of trichoepithelioma

Trichoepitheliomas are benign cutaneous neoplasms that occur mostly on the face. There are 2 presentations - a hereditary multiple form affecting the nasolabial sulci, nose, and forehead of young adults and a non-hereditary solitary form affecting adults. Various treatments like electrocautery, cryotherapy, dermaabrasion, TCA application, Retinoic acid, radiation therapy, CO2 laser and surgery have all been used for the palliative of the trichoepitheliomas.

Aim and Objectives: To compare the cosmetic efficacy of punch excision and electrocautery in the treatment of trichoepitheliomas.

Materials and Methods: In the treatment of 5 multiple trichoepithelioma patients attending JJM Medical college from May 2019 to Oct 2020, two modalities of treatment that is punch excision and electrodesiccation were tried in each patient at two different sites simultaneously. Disposable punch instrument of sizes between 2mm to 4mm were used. Electrodesiccation was done using angle tipped needle electrode. Treatment duration, response to treatment and follow up were analysed.

Results: All the patients were young female between 17 to 21yrs. Lesions treated with punch excision of various sizes (max 4mm) gave good results in a follow up after 1 month with minimal scarring whereas lesions treated with electrodesiccation led to scarring in 1st month follow up and eventually scarring decreased with subsequent follow up of 1 month gap and gave good cosmetic response.

Conclusion: Both punch excision and electrocautery are equally effective treatment options for trichoepithelioma, but results with punch excision is achieved quite early with respect to the electrocautery.

Audience Take Away Notes

- They can learn what procedure to use to get quicker results
- To achieve patient satisfaction early
- This research could be used by other faculty to expand their own research or teaching
- This provides a practical solution to a problem that could simplify or make a designer's job more efficient
- It will improve the accuracy of a design, or provide new information to assist in a design problem

Biography

Dr. Hitha BS, studied Bachelor in medicine and bachelor in surgery at the Mysore Medical College, Karnataka, India and graduated as MBBS in 2019. She then joined the post graduate in Dermatology department of JayaJagadguru Murugarajendra Medical college, Davangere, Karnataka, India and graduated in 2022. Have 5 oral paper presentations and 8 poster presentations at the national conference, India. Right now working as Senior Resident in the department of Dermatology, Venereology and Leprology in Belagavi Institute of Medical Sciences, Belagavi, Karnataka, India.

Izadora Lapenda[1]*, Rafaela de Moraes Souza, MD[2]

[1]Division of Dermatology, Hospital Universitario La Paz, Madrid, Comunidad de Madrid, Spain

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Effect of educational video in patients undergoing mohs surgery: A systematic review of randomized controlled trials

Background: Mohs Micrographic Surgery (MMS) is a microscopically controlled skin cancer treatment. Patients often struggle to recall important information from in-person discussions, prompting exploration of digital solutions. This systematic review aims to assess the impact of educational videos on patients undergoing MMS to provide a foundation for future research and education.

Methods: PubMed and Cochrane were searched from inception to May 2024 with the following terms educational video, instructional video, educational multimedia, multimedia tool, mohs surgery, mohs micrographic surgery, mohs procedure, mohs technique. Only randomized controlled trials were included. We adhered to the Preferred Reporting Items of Systematic Review and Meta-Analyses (PRISMA) guidelines.

Results: A total of five randomized controlled trials were included. All studies demonstrated that a brief educational video could improve a patient's knowledge and/or comprehension and/or understanding of MMS, which was the main outcome in most studies. Among the four studies that outlined satisfaction as an outcome, Arzeno et al and Das et al showed that the mentioned intervention increased patients' satisfaction, while Mann et al and Delcambre et al did not find a statistically significant difference in satisfaction between intervention and control. None of the three studies reporting anxiety scores found a substantial decrease in this endpoint after the instructional video. Additionally, most patients in Das et al and Delcambre et al indicated that they would recommend the video to peers with similar diagnosis.

Conclusion: In summary, educational videos have demonstrated their effectiveness in enhancing conventional patient education by significantly boosting patients' knowledge and/or comprehension and/or understanding of Mohs micrographic surgery. Further investigation should prioritize the comprehensive assessment of secondary benefits.

Audience Take Away Notes

- Dermatologists and healthcare professionals can utilize the findings to enhance patient education strategies in their practice, specifically for patients undergoing Mohs micrographic surgery. They can incorporate educational videos as part of pre-operative education to improve patients' understanding of the procedure
- Dermatologists and healthcare providers can utilize this to optimize patient education efforts, leading to improved patient satisfaction, reduced anxiety, and potentially better surgical outcomes. By integrating educational videos into their practice, they can enhance patient understanding and engagement, ultimately contributing to more effective patient care
- This research provides valuable insights into the effectiveness of educational videos in enhancing patient education in dermatologic surgery. Other faculty members and researchers in dermatology, surgery, medical education, and communication studies can use this research as a foundation for further investigations into the efficacy of multimedia interventions in patient education and engagement

- Incorporating educational videos into patient education can simplify the process of conveying complex information about Mohs micrographic surgery to patients. Designers involved in creating these educational materials can use this research to tailor their videos to effectively communicate key information, potentially leading to more efficient patient education and improved patient outcomes
- The research suggests that educational videos can improve patients' comprehension and understanding of Mohs micrographic surgery. Designers can use this information to create videos that accurately convey important surgical information, leading to improved patient understanding and potentially better adherence to post-operative care instructions
- Improved patient satisfaction
- Enhanced patient engagement and understanding
- Potential reduction in patient anxiety
- Better adherence to post-operative instructions
- Potential for improved surgical outcomes
- Contribution to evidence-based practice in patient education and surgical care

Biography

Izadora Lapenda, a medical student at Faculdade Pernambucana de Saude in Brazil, aspires to become a dermatologist in the United States. Having completed USMLE Step 1 and 2CK, she initiated a mentorship program guiding peers and physicians on effective study strategies for the exams. In medical school, she established a social project, organizing monthly fundraisers, and later became volunteer for a project dedicated to aiding children with genodermatoses. Recently delving into research, she has presented her work in Berlin, New York, and San Diego. Izadora is dedicated to medical excellence, community service, and advancing dermatological care through academia and volunteerism.

Jonathan Yao, MD*, Judith Hellman, MD
Veritas Dematopathology, United States

Optimal depth of bipolar radio frequency penetrance to achieve therapeutic results for the treatment of axillary hyperhidrosis and the first reported histopathological evidence of apoeccrine gland's seminal role in the pathophysiology of axillary hyperhidrosis

Introduction: Bipolar Radio Frequency (RF) is a minimally invasive, non-surgical and non-pharmacological systemic dermatological procedure for skin contouring, tightening, and restoration of photodamaged skin. RF has also shown to be effective in the treatment of Axillary Hyperhidrosis (AH). The exact therapeutic mechanism, targeted micro-anatomical structures and depth penetrance not yet fully elucidated.

Objective: The aim is to evaluate histopathological effects of and clinical outcomes from RF-MN in treating AH.

Methods: Limited data set with three individuals with severe AH were treated with a series of 3 passes at 4-week interval spanning a total of three months with RF with Micro Needling (MN) with set penetration at a depth of 2.5 mm. The treatment naive and post treatment areas were biopsied and the tissue specimens processed for conventional histopathology evaluation.

Results: All three patients failed to report and achiever therapeutic clinical improvement. One patient reported worsening of signs and symptoms of AH and declined post treatment biopsy. Histopathology reveal RF-MN ablative effective to a depth of 2.5-3.0mm. The eccrine straight ducts in the mid-reticular dermis were affected with dropout in the absolute number of ducts: patient A 5 to 2 and patient C 4 to 1. The eccrine and apocrine glandular component situated at a depth of 3.5-4.0mm were unaffected by RF-MN. To achieve therapeutic effect, the sweat production glandular units must be affected by RF-MN and with the corresponding penetrance depth.

As a response to the eccrine straight duct destruction by RF, a compensatory reactive apoeccrine gland metaplasia was noted. There was a significant shift in the ratio apoeccrine gland to total glandular components from naive state to post treatment state with ratios of 1:4 to 1:1 and 1:2 to 1:1. Although RF-MN set at 2.5-3.0mm reached the level of the eccrine straight ducts, the compensatory increase in apoeccrine glands and sweat production nullified the benefits gained from the destruction of the ducts and failed to achieve therapeutic response.

Conclusion: Optimal therapeutic RF-MN penetrance is thus determined to be at 3.5-4.0mm which corresponds location of the main perspiration production micro-anatomical structures of eccrine and apocrine glands. In response to RF-MN effacement of eccrine straight ducts, reactive apoeccrine gland metaplasia is discovered and quantified for the first time in modern medical literature. The apoeccrine gland produce sweat at a higher rate and volume than both the eccrine and apocrine components. The increase in flow and volume of sweat produced by the apoeccrine glands thus negated the treatment effects of RF-MN set at suboptimal depth. In addition, this is the first time in which histopathological quantitative analysis isolated apoeccrine gland as playing a key role in the pathophysiology of axillary hyperhidrosis.

Julia Vinagolu Baur, MS, MBA[1]*, Vivian Li, MMS[2], Michelle Sobotka, MS[3], Darianne Zimmer, BS[4], Kelly Frasier, DO, MS[5]

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[5]Nuvance Health Vassar Brothers Medical Center, United States

Managing parental expectations of acne vulgaris and atopic dermatitis in pediatric and adolescent dermatology

Parents often accompany pre-teen/adolescent children aged 12-17 for dermatology visits regarding acne vulgaris and atopic dermatitis. Oftentimes, parents will voice their concerns regarding their child's skin condition and the same concern is not reflected when the child is asked for their own thoughts. Some parents will be quick to ask for additional treatments and pharmacological agents to treat their child's condition due to the distress and frustration the skin condition causes the parent, while the adolescent may be less inclined to aggressively treat their acne or eczema. Many adolescents may feel shy and insecure about any skin blemishes, and parental concerns can sometimes escalate these feelings or insecurities. While most dermatologists will try to find a compromise between what both the parent and adolescent are requesting in terms of treatment modalities, there remains an additional challenge of managing parental expectations when their child's skin does not reflect the progress they had hoped to achieve since their last visit. This paper discusses ways to manage realistic expectations with the parent, in addition to the patient, in order to reduce parental comments causing self-consciousness and low self-esteem that may be associated with the chronicity of acne vulgaris and atopic dermatitis.

Dr. Jyoti Aneja
Medical Director and Chief Consultant, La Grace, Mumbai, India

Ear lobe repair, now a lunch-break affair

Introduction: The earlobe is an anatomical structure of small dimensions without specific function, but with a significant aesthetic role. It is the most defining part of the structure of an ear. Age however alters the shape, width and length of the lobe due to sagging, can lead to ear lobe ptosis, deflation, vertical rhytides and earlobe tears. And thus in comparison to other aesthetic elements of the ear, it demands correction.

Piercing of the earlobes has been performed in both sexes for thousands of years for social, religious and cosmetic purposes, in the most primitive as well as the most affluent culture. Prolonged traction due to heavy earrings, traumatic clefts, age related sagging, and many more such reasons warrant ear lobe repair.

With an abundant blood supply and without cartilaginous tissue, the challenge underlying its reconstruction is related to the difficulty in obtaining a longstanding and aesthetically acceptable outcome. Also, most patients expect a expedient repair so that they can soon enough wear earrings.

Procedure: Hyaluronic Acid dermal fillers can be used to inject into the ear lobe defects for a quick correction. With the help of a 27-30g needle, under the effect of a local anaesthesia, by linear threading and serial puncturing technique, around 0.2-0.4ml of filler would suffice to correct the defects in one lobule.

The procedure, in skilled hands does not last for more than a few minutes with the benefit of immediate results. The results can be precisely titrated by varying the volume and site of injection. it also gives the advantage of preserving the primary perforation without the need to go through a re-puncture at a different site.

Results: Immediate post procedure pictures in comparison to pre procedure pictures, show a drastic improvement with filling of the defect effectively.

Conclusion: Being minimally invasive with a zero downtime, and comparable results to an invasive corrective surgery, this surely is a worthy option for treatment.

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The illusion of perfect skin: Growing up in a generation of social media, filters, and photo editing

As if the transition into adolescence is not already challenging enough, growing up in a generation of filters, Photoshop, and Facetune force today's youth to regard their body image, skin imperfections, and self-esteem in a whole new light. Carefully curated and edited photos of children, pre-teens, and adolescents create an unattainable illusion and unrealistic beauty standard of perfect skin. With constant access to cell phones and social media applications, children, pre-teens and adolescents alike are subject to criticism, dissatisfaction in their skin's appearance, and mental health issues from the constant comparison to false standards of beauty. Research has indicated that young individuals who frequently use beauty filters are much more likely to later pursue cosmetic surgery and alter their features and skin color. Additionally, research shows the more time children, pre-teens, and adolescents spend on social media, the more apt they are to experience depression, anxiety, and disappointment in their own skin. Filters and photo editing software are widely used and create a skewed reality of what children, pre-teens, and adolescents feel they should look like to the rest of the world. The influence of social media is largely accompanied alongside a negative body image and psychosocial ramifications that coincide with striving towards the fantasy of perfection. This presentation highlights the latest research on the effects of social media on skin perception in children, pre-teens, and adolescents and offers suggestions and guidance for future research on how to reinforce positive body image and normalize skin imperfections in a world largely unaccepting of a natural, unfiltered look.

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Anterior knee schwannoma: An atypical location and presentation of lower extremity schwannoma

Background: Schwannomas, benign tumors originating from Schwann cells, are a relatively uncommon occurrence within the realm of peripheral nerve tumors. However, the manifestation of a schwannoma in the anterior knee region is an even rarer phenomenon, with only a limited number of documented cases in the existing medical literature.

Patient History: A 24-year-old female sought consultation with a dermatologist due to the presence of a slow-growing superolateral knee mass. The mass, which had been progressively enlarging over a period of three years, exhibited characteristics of being mobile, firm, spherical, and devoid of tingling, radiation, or sharp pain. The patient reported minimal pain without radiation, specifically when the knee was subjected to soft external stimuli. The dermatologist suspected the patient had a lipoma or an epidermal cyst. The patient's mother has a history of keloid, therefore surgical options need to be carefully decided with labs and test results.

Treatment Plan: Upon examination, an orthopedic surgeon recommended excision of the mass under local anesthesia. The decision for surgical intervention was driven by the suspicion of the mass being attached to the bone.

Results of Pathology Testing: Pre-operative imaging, specifically Magnetic Resonance Imaging (MRI), revealed a soft tissue mass composed of multiple cystic structures.

Biopsies: 'Left knee soft tissue mass' received on formalin is a tan, partially encapsulated, soft tissue mass measuring 2.0 x 1.6 x 1.0 cm. The exterior surface is inked blue. The specimen is serially sectioned, revealed a tan, gelatinous, well-circumcised lesion occupied the entire specimen. The specimen is entirely and sequentially submitted across cassettes A1 and A2.

Laboratory Data: Microscopic examination of the biopsied tissue revealed a well-defined proliferation of spindled cells, showcasing Verocay bodies with distinct Antoni A and Antoni B areas. Importantly, there were no identified atypical nuclei or increased mitotic activity, contributing to the characterization of the lesion as benign.

Diagnosis: Based on the comprehensive pathology findings, the conclusive diagnosis for the presented case is an anterior knee schwannoma. The rarity of this specific location for a schwannoma underscores the uniqueness of the patient's condition, necessitating further exploration into the clinical implications and management strategies for such atypical presentations. The patient's surgical scar developed into a keloid, which might be due to genetics. Early intervention and recommendation by the provider would have resulted in a smaller surgical scar which would result in a smaller keloid scar and faster treatment.

Audience Take Away Notes

- Experts in Dermatology would be able to learn about an unusual presentation of schwannoma that may confound the diagnosis and delay treatment. Although schwannomas are benign, as they grow they can impinge the nerves. Learning from this abstract, providers can keep an eye out for unusual abnormalities and avoid misdiagnoses
- The patient presented the abnormality to her dermatologist and was misdiagnosed as a lipoma or a cyst
- This research can be expanded on with other cases of growth that mimic a lipoma or a cyst. The patient in this case presentation also is under treatment because the surgery scar turned into a keloid, most likely due to genetics but it would be interesting to see if the surgical removal of schwannomas has been linked to an increased risk of keloid formation
- The best solution for anterior knee schwannomas that grow to an uncomfortable size is surgical removal, but if the patient was diagnosed earlier as she has a family history of keloid, the surgical scar would be smaller. In that case, her keloid would be much smaller and easier to fix. Therefore, early and accurate diagnoses of growing lesions is important
- This will improve accuracy as more cases will be found of schwannomas that mimic lipomas
- The benefits to this study are accurate diagnoses, early intervention, early prevention of scar formation, and patient satisfaction

Biography

Megha Rajput is a second-year medical student at William Carey University College of Osteopathic Medicine. She has been mentored in dermatology and research by Dr. Howard Maibach for the past three years. Her passions in medicine have been geared towards dermatology which led her to edit a chapter in the Handbook of Cosmetic Dermatology and present her Skin Pollutant research at the Pediatric Research Alliance Conference in Atlanta. She is originally from Houston, Texas, and values family time outside of her academic pursuits.

Dr. Mohammad Sajid Mughal
Founder & Chief Consultant - Zayn Skin Clinic, India

A revolution in hair loss treatment - Early FUE hair transplant using cutting-edge techniques

FUE hair transplant was done in multiple individuals with early hair loss, Grade 2-4, and those with miniaturization. Usage of blood vessels of pre existing grafts for the newly transplanted hair was conceptualized and VEGF along with other growth factors were used for prevention of immediate telogen phase after transplant. Grafts were stored in a peptide rich solution during the procedure. Followup of hair transplant was done with growth factor serum therapy monthly for four months to shorten the post telogen phase.

It was observed, FUE hair transplant, if done in early stages of balding or in miniaturization resulted in better results with thicker long-lasting hair and also the introduction of growth factors in serum therapy helped maintain the results for a longer duration and also to prevent further expansion of the balding area. The per-existing hair fall also got under control with the introduction of hair transplant at early stages and usage Combination growth factor therapies.

Transplants done in early stages specially during miniaturization decreased the chances of the existing hair going extinct in the near future. Hair transplant can be used as a first line of treatment in early baldness and miniaturization. It can also prevent further loss and patients can observe dreamy results from the correct timing of transplant in combination with the growth factor therapies.

Audience Take Away Notes

- Apply new techniques to achieve great results in FUE hair transplant
- Understand and put in practice the right age & stage of hair transplant
- This research could be used by other faculty to expand their own research or teaching
- This provides a practical solution to a problem that could simplify or make a designer's job more efficient
- It will improve the accuracy of a design, or provide new information to assist in a design problem

Biography

Dr. Mohammad Sajid Mughal studied MBBS at TSMU, Ukraine in 2008 and did his post graduate diploma in dermatology from Cardiff University, UK in 2014. He then joined Inlaks hospital in Pune, India as a fellow and started his own clinic - Zayn Skin and hair clinic in 2016. He also worked as a faculty in Indian Institute of Aesthetic Medicine and has also been attending and presenting as a faculty in multiple platforms and international conferences like IMCAS, AMWC, ICAD, 5CC etc., over a period of last 6 years.

Dr. Nageswary Nadarajah[1]*, Faraz Imran[2]

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Is it really sweet? A challenging case of treatment resistant sweet's syndrome in a patient with crohn's disease

Sweet's Syndrome (SS), or acute febrile neutrophilic dermatosis, is a rare cutaneous manifestation in Inflammatory Bowel Disease (IBD). It is characterised by a sudden onset of painful erythematous plaques, or nodules in the face, neck and upper extremities alongside pyrexia. This condition can improve with systemic corticosteroids and controlling IBD activity. However, treatment can be challenging when recurring SS flare-ups occur during well-controlled IBD. Herein, we present a 40-year-old female with stable pancolonic Crohn's disease developing an acute onset of painful erythematous nodules on the face and forehead, with 38°C fever and leukocytosis. This occurred three weeks following administration of Upadacitinib (second-generation JAK kinase inhibitor). Conventional and biologic DMARDs were previously used but discontinued due to infective chest complications. A clinical diagnosis of neutrophilic dermatosis was confirmed with a skin biopsy result demonstrating dense neutrophilic dermal infiltrate. The symptoms improved within a day of high-dose oral Prednisolone 40 mg, once daily but it was difficult to wean off as it provoked SS flare-ups. Additionally, similar less severe skin lesion flare-up occurred in the past following Adalimumab (Humira) injections, suggesting the possibility of a dysregulated cytokine balance exacerbated by biologic medications. Subsequently, a trial of Anakinra was commenced which is currently helping taper the oral steroids without a flare-up so far. This case report highlights the complexity in treating multi-system pathologies and suggests SS flare-ups may not always directly correlate with IBD activity.

Audience Take Away Notes

- New treatment option for treatment resistant Sweet's syndrome which can cause a catastrophic impact unto patients' lives if not controlled
- It can help health professionals broaden their knowledge on this condition enabling early and efficient management of this uncommon skin condition
- This case study can help provide a platform for new research opportunities to explore newer treatment strategies for treatment resistant Sweet's syndrome

Biography

Dr. Nageswary Nadarajah studied Medicine at the University of St Andrews, Scotland and University of Manchester, England, United Kingdom, graduating in 2017. She has completed Foundation Years in Medicine and Core Medical Training. She is currently gaining clinical and research experience in Dermatology.

Dr. Nsrein Ali[1,2]*, Syeda Tayyiba Rahat[3], Mira Makela[3], Maryam Nasserinejad[4,10], Tiina M. Ikaheimo[5], Tommi Jaako[6], Matti Kinnunen[6], Jyrki Schroderus[6], Sylvain Sebert[4,10], Mikko Tulppo[7,8], Anni I Nieminen[9], Seppo Vainio[2,3,10,11,12]

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Sweat as new blood – The EVs centric view

Sweat is a body fluid that is secreted continuously and imperceptibly by the body; analogous to the use of urine, saliva, and tears in clinical diagnoses, sweat could offer a medium for measuring, non-invasively, homeostasis in both healthy and disease conditions. Recent reports have started to point towards an extended role of the molecular constituents of sweat, such as urea, certain ions or salt concentration, raising possibilities that the skin may also offer a novel means of monitoring organ functions based on their secreted analytes or the response of skin cells to them.

Cell secreted Extracellular Vesicles (EVs), carrying components like RNA, DNA, proteins, and metabolites, serve as candidates for developing non-invasive solutions for monitoring health and disease, owing to their capacity to cross various biological barriers, and become integrated into human sweat. However, the evidence for sweat associated EVs providing clinically-relevant information to use in health parameters monitoring and disease diagnostics remains to be determined. Developing cost-effective, easy, and reliable methodologies to investigate EVs molecular load and composition in the sweat may help to validate their relevance in clinical diagnosis.

We used clinical grade dressing patches with the aim to accumulate, purify and characterize sweat EVs from healthy and diseased participants who were recruited to take part in two distinct pilot studies.

Data revealed that sweat EVs can be purified using routinely used clinical patches, setting the foundations for larger-scale clinical cohort work. Furthermore, the metabolites identified in sweat EVs also offer a realistic means to identify relevant biomarkers, which are associated with sport performance and disease. Our studies thus provide proof of concept towards novel methodologies that will focus on the use of the sweat EVs and their metabolites as non-invasive approaches to monitor wellbeing and changes in diseases and to further develop new generations of wearable sensors.

Audience Take Away Notes

- Clinical patches can be used for larger-scale clinical cohort-studies to collect sweat for disease diagnosis and health monitoring non-invasively and without requiring any physical activity from healthy or diseased subjects

- Our technology offers an easy and cost-effective approach that can be used in basic research institutes, clinics, but also in cosmetic research market for testing new cosmetic products on the skin via monitoring biomarkers
- Owing to their distinct properties, EVs are widely studied, and numerous reports suggest that EVs may offer the foundation for identifying the molecular patterns of frequently occurring diseases. For this, researchers from different scientific background can use our methodology for exploring the potential of EVs in association with their focus, but also for teaching purposes including technician, nurses, students from basic sciences or medical faculties
- This provides a practical solution to a problem that could simplify or make a designer's job more efficient
- It will improve the accuracy of a design, or provide new information to assist in a design problem

Biography

Dr. Nsrein Ali studied Biology at the University of Tichreen in Syria. She then joined the laboratory of Prof. Alain Taieb at the University of Bordeaux, France. She received her PhD in Biotechnology in 2011 that focused in Cellular and Molecular Biology from INPL, Nancy, France and INSERM U1035/University of Bordeaux Segalen, Bordeaux, France. Nsrein is a pioneer of the use of the skin as a sensory organ for developing non-invasive approaches to monitor health and diseases. Her research is the first to reveal biomarkers in skin, sweat, and sweat EVs associated with health and disease states. Nsrein is a member of a new EU project (2024-2028) developing a sweat sensor for decentral health-monitoring, and member of two European Cost Actions (CA21108 and CA20110). Currently, Nsrein is a senior researcher at the Faculty of Medicine, Health Sciences and Technology Unit, at the University of Oulu, Oulu, Finland.

Dr. Poornima Bukke*, Dr. Bhagyashree, Dr. (Col) Ashok Rao Matety

DVL, RVM Institute of Medical Sciences and Research Centre, Hyderabad, Telangana, India

Denovo in denovo: Emerging challenges of leprosy in the postelimation era

Background: Erythema Nodosum Leprosum (ENL), is an immune-mediated type II leprosy reaction occurring as a complication in 50% lepromatous leprosy and 5-10% borderline lepromatous leprosy patients. Histoid leprosy, a rare variant of lepromatous leprosy, occurs with irregular or inadequate therapy, dapsone monotherapy, or rarely denovo. The occurrence of denovo histoid skin lesions following denovo ENL has not been previously reported in literature. We report two cases who presented for the first time with ENL and histoid lesions, with no history of taking dapsone or antileprosy treatment earlier, in the post-leprosy elimination era.

Case Report One: A 65 year old farmer, presented with multiple tender evanescent erythematous well-demarcated firm nodules over bilateral upper limbs and lower legs since 2 months. Two weeks following which he developed few discrete dome shaped skin-coloured nodules on normal looking skin over posterior trunk. There is history of tingling numbness over lower limbs with swelling, mild intermittent fever with chills, difficulty in holding objects, buttoning his shirt and slippage of slippers since 2 months. No similar complaints in past. No family history or contact with a known case of leprosy.

Moderate uniform non tender thickening of multiple nerve trunks. Hypoaesthesia over palms and soles, wasting of hand muscles and trophic ulcer over right foot. A clinical diagnosis of Type II reaction with histoid leprosy, ulnar claw hand deformity and trophic ulcer over foot, not on treatment was made.

Baseline investigations were normal. Slit skin smear and histopathology were suggestive of ENL with histoid leprosy. The patient was put on Multibacillary Multidrug Therapy (MBMDT) and Tab Prednisolone 40 mg, od and is on regular follow-up.

Case Report Two: A 44-year old farmer presented with numerous tender erythematous evanescent nodules few showing ulceration on the body since 2 year, that used to resolve in 3-4 days on taking unknown medication. Skin coloured to hyperpigmented dome shaped nodules over normal looking skin on upper limbs and posterior trunk since six months. Non tender thickening of multiple nerve trunks. Patchy loss of sensation over dorsum of hands, forearms, legs and feet.

No significant past history. No family history or contact with known case of leprosy. Baseline investigations were normal. Slit skin smear and histopathology suggested ENL with histoid leprosy. The patient has been put on multibacillary multidrug therapy (MBMDT) and Tab. Prednisolone 20 mg, od and is on regular follow-up.

Audience Take Away Notes

- This a rare presentation of denovo ENL with denovo histoid leprosy, not reported previously in literature
- Histoid lesions suggest resistant bacilli and an intense lepromatous activity, complicating management and increasing the risk of transmission

- The emergence of such cases in India, which declared leprosy eliminated in 2005, underscores need for continued vigilance and enhanced awareness in the post-elimination era to effectively address these atypical manifestations and curb the endemic

Biography

Dr. Poornima Bukke, a second year dermatology resident at RVM Institute of Medical Science and Research Centre, Hyderabad, India. She graduated with distinction from Osmania Medical College. She is a member of IADVL National Resident Committee (NRC) 2024 and has worked as the South Zone Coordinator for the NRC 2023. With a penchant for dermatosurgery, clinical and cosmetic dermatology, she presented papers and posters at national and state conferences. She spoke on 'Navigating Opportunities in Dermatology: A guide to stay updated' at DERMACON 2024. Beyond medicine, she's an avid reader and basketball player, embodying a passionate enthusiasm for entrepreneurship and technology.

Dr. Poornima Bukke*, Dr. Bhagyashree, Dr. (Col) Ashok Rao Matety

DVL, RVM Institute of Medical Sciences and Research Centre, Hyderabad, Telangana, India

Expect the unexpected: An unusual occurrence of basal cell carcinoma in two distinct cases

Background: Basal Cell Carcinoma (BCC) is the most common malignant cutaneous neoplasm worldwide (80-90%), typically associated with sun exposure. Congenital Melanocytic Naevi (CMN) are common skin lesions harbouring the risk of malignant transformation, usually melanoma or other malignancies reflecting the nevus' cell lines. However, occurrence of BCC on Congenital Melanocytic Nevi (CMN) is an unexpected and infrequently documented phenomenon, with only one case of BCC on CMN that has been reported in 2017. We present two unique cases that defy conventional expectations: BCC arising on a CMN and BCC mimicking Squamous Cell Carcinoma (SCC).

Case Report One: A 61-year-old female presented with a clearly demarcated hyperpigmented plaque with central ulceration over face. The lesion was present since childhood. Initially asymptomatic, the lesion evolved into a symptomatic state over the past 5 months. A provisional diagnosis of malignant melanoma on CMN was made. Dermoscopy revealed ambiguous findings. Surprisingly, histopathological examination was indicative of an Adenoid basal cell carcinoma.

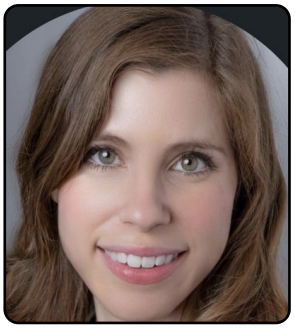
Case Report Two: A 88 year old male patient presented with a well-defined hyperpigmented plaque with central depigmentation and ulceration over face. Initially asymptomatic, the lesion evolved into a symptomatic state over the past 6 months. A provisional diagnosis of squamous cell carcinoma was made with a differential diagnosis of basal cell carcinoma. Dermoscopy revealed ambiguous findings. Histopathological examination indicated a basal cell carcinoma.

Audience Take Away Notes

- The occurence of BCC in such scenarios is a rareity
- These case reports underscore the necessity for heightened awareness among dermatologists regarding the potential for BCC to present in atypical scenarios
- Urges the need for a high index of suspicion
- Reemphasizes the importance of our age old biopsy in an era of digitalization
- Urges the need for a high index of suspcion especially in cases of clinical and dermoscopic dilemma
- No conflicts of interest

Biography

Dr. Poornima Bukke, a second year dermatology resident at RVM Institute of Medical Science and Research Centre, Hyderabad, India. She graduated with distinction from Osmania Medical College. She is a member of IADVL National Resident Committee (NRC) 2024 and has worked as the South Zone Coordinator for the NRC 2023. With a penchant for dermatosurgery, clinical and cosmetic dermatology, she presented papers and posters at national and state conferences. She spoke on 'Navigating Opportunities in Dermatology: A guide to stay updated' at DERMACON 2024. Beyond medicine, she's an avid reader and basketball player, embodying a passionate enthusiasm for entrepreneurship and technology.



Rebecca Lapides[1]*, Hannah Porter[2], MD, MBA, MS, Nadeem Marghoob[2], DO, Nathan Bombardier[2], MD, Julia Barker[2], MD, Todd Holmes[2], MD, Joseph Pierson[2], MD

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Coalescing tender nodules on the anterior chest: An atypical presentation of hidradenitis suppurativa

Hidradenitis Suppurativa (HS) is an inflammatory skin condition that is characterized by inflamed nodules and abscesses that can form sinus tracts under the skin, typically in skin fold areas, that are tender and drain pus. Efficient diagnosis and early intervention is critical for this condition, as initiating treatment can keep the lesions under control and prevent worsening of nodules that can cause significant discomfort and permanent scarring. Here, we present a case of an unusual presentation of hidradenitis suppurativa in a 41-year-old male who presented to the emergency department with a chief complaint of a tender, purulent anterior chest cutaneous mass, which pathology later confirmed was consistent with an HS lesion. While HS typically occurs in regions with skin folds, this case illuminates an atypical presenting area – the anterior chest wall. Thus, clinicians should keep HS on the differential for such lesions, as the location of the affected area should not rule in or out HS as a diagnosis.

Audience Take Away Notes

- Hidradenitis suppurativa is an inflammatory skin condition
- Hidradenitis suppurativa can present in atypical areas of the body
- Clinicians should consider Hidradenitis Suppurativa on the differential diagnosis for any lesions that suggest follicular occlusion is involved in the pathogenesis, regardless of location on the skin

Biography

Rebecca Lapides is a medical student who recently finished her third year at the Robert Larner, M.D., College of Medicine at the University of Vermont. She graduated from Purdue University in 2019 with a Bachelor of Science Degree in Nutrition Science. She has been conducting research in dermatology for about 3 years. She will be completing her 4th year of medical school and graduating in May, 2025. She will be applying to dermatology residency programs in September, 2024.

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Personalized and precision medicine to secure the national biosafety: Towards individualized cosmetics, reconstructive plastic surgery and the modern beauty of the future to come?

Personalized Precision Medicine (PPM) as a New Model of Healthcare Services is the Unique Entity demonstrating an Integration of Fundamental & Clinical Science, Bioengineering & Translational ART, and IT Armamentarium, and Illustrating application of sets of the different tools at the Population, Community and Individuals, significantly optimizing the cost and efficacy of prophylactic, preventive and rehabilitative treatment for those who had fallen ill (patients) or for persons-at-risk. This strategy would give a real opportunity to secure preventive, prophylactic, therapeutic and rehabilitative measures whose personalization could have a significantly positive influence on demographics.

PPM as being the Grand Challenge is rooted in a big and a new science generated by the achievements of: (i) systems biology & and (ii) biodesign-inspired translational medicine, whilst integrating platforms of OMICS-technologies, whose data is analysed, mined and clinically interpreted by a set of algorithms and software of bioinformatics, blockchain and Artificial Intelligence (AI). PPM is a goal of healthcare, in which diagnostic and treatment decisions are informed by each person's unique clinical, genomics-related, OMICS-supported portfolio, and IT tools. Meanwhile a combination of genomic and phenotypic biomarkers and thus translational tools of the next step generation are becoming of great significance to be translated into the daily practice.

Individuals to be under regular monitoring that helps to detect pathological shifts at subclinical stages have a higher life expectancy and are able-bodied up to 8–15 years more than those under traditional treatment. This means that the society would save more than US$20,000–40,000 per person annually. At the community level, the annual savings from each individual may vary from several thousands to several tens of thousands U.S. dollars. The latter needs to develop a Personalized Health Plan addressing lifestyle, risk modification and disease management, and Personalized Health Management & Wellness Program, to support safe and effective deployment of the new enabling diagnostic and therapeutic technologies not to

treat but to get cured and to keep yourself healthy, fresh, lovely attractive and young!!!

You as The Grant Art-related Physicians (GARP) would need your adaptability more than ever to implement PPM-related innovations into your brilliant art practices.

Regarded as innovators and early adopters, cosmetologists and plastic surgeons stand at the forefront of novel medical advancements, incorporating new technologies into their practice with ease. And being cosmetologists, you must be prepared for the integration of patient and system factors. And thus teams of highly skilled plastic and reconstructive surgeons, cosmetologists and physicians of the next-step generations would tailor the care of each patient to meet their specific needs, whilst offering personalized treatment plans, guiding the patient through each step of the multistage process, providing the highest level of care to all of the patients and achieving natural and aesthetically beautiful results via natural and engineered bio-products.

For instance, skin nanobiosensors are already used in the cosmetics industry, or moisture sensors to measure their skin hydration. The market for skin sensors technologies will reach $275 million by 2030! And in tandem with digitization comes the demand for personalization. Skin sensors would play a crucial role soon - both in helping the consumer quantify changes that are imperceptible to the naked eye, but also with the possibility of sending valuable big data back into profiled research and targeted development for the next generation of products.

For instance, developed by the L'Oreal, the Perso smart skincare system is capable of providing individualized skincare solutions via a four-step process taking into account the specificities of the user's skin, local weather conditions, and the user's product preferences. According to L'Oréal, the device is also able to make custom formulas for lipstick and foundation.

Amorepacific presented a 3D face mask printing system coupled with the 3D printing system developer Lincsolution. The latter uses a smartphone app to instantly measure individual users' facial dimensions and print a personalized hydrogel mask that caters to individual facial features and skin conditions.

P&G Ventures, the startup studio within Procter & Gamble, returned to CES 2020 to showcase the development of Opte Precision Skincare System. This personalized handheld inkjet printer can instantly make the appearance of skin's hyperpigmentation disappear and fade spots over time.

The integration of AI technology and the capture of Big Data techniques should foster the next great leaps in cosmetic medicine and plastic surgery as segments of the Art Medicine, allowing you to capture the detailed minutiae of PPM. For instance, Individualized & Optimal Wound Care relies on timely treatment decisions, which require an evaluation of multiple characteristics and patient-specific factors that can be made more efficient with the use of AI, which, in turn, can be used to predict the percentage of affected tissue and wound healing time, helping surgeons formulate treatment plans, avoid wound infections, and enhance patient care.

AI-based imaging has also the potential to improve breast cancer prevention strategies by differentiating between risk levels of breast lesions while incorporating patient-specific information to deduce the optimal course of action. And final diagnostic accuracy can be greatly improved by AI-based image detection, which can reduce the error rate from 3-4% to 0.5%. In the future, precise monitoring of patient photographs may allow surgeons to monitor post-operative progress with real-time updates and save patients an in-person visit. Meanwhile, although such technologies are not yet available in plastic surgery, there is significant potential for AI-assisted plastic and reconstructive surgery in the near future to come.

Meanwhile, Opte's digital camera scans the skin and instantly analyzes each image using a proprietary algorithm to detect tonal imperfections not visible to the human eye. The device then precisely deposits droplets of Spot Optimizing Serum on target areas until there is a perfect color match with the surrounding skin tone.

To utilize PPM resources and optimize the response to targeted therapies, molecular, clinical, genetic, and epigenetic factors will need to be taken into consideration in future research trials. With the emergence of novel preventive rehabilitative safety therapies from current clinical trials, dermatologists will be able to implement them into their daily practice and switch from a generalized “onedrug- fits-all” approach to more personalized “client-specific” management.

The individualized molecular profiling and analysis could also tell you what kinds of foods to eat for younger, more radiant skin. Based on all of these measurements, you’ll get targeted product recommendations (across brands) for your skin’s unique needs, down to different products for specific areas of your face, skin and body as a whole. In the wellness sphere, precision tests are also used to define slow or fast metabolizers. While genomic-based customized nutrition is already being implemented, PPM-based diets might lack sufficient evidence for full integration into the full-set cosmetic setting.

Cosmetology require doctors to make treatment decisions based on patient self-reporting, which poses challenges including patient recall or recognition of exacerbating factors, leading to a trial-and-error approach to management and additional consultations. Meanwhile, a lack of particular medical guidelines has been identified by the majority of responders as the predominant barrier for adoption, indicating a need for the development of best practices and guidelines to support the implementation of PPM. Implementation of PPM requires a lot before the current model “physician-patient” could be gradually displaced by a new model “medical advisor-healthy person-at-risk”. This is the reason for developing global scientific, clinical, social, and educational projects in the area of PPM to elicit the content of the new branch.

So, just keep you on the way to feel and to understand that the Grand Change and Challenge to secure our health and wellness are rooted not in Medicine, and not even in Science! Just imagine WHERE?! In the upgraded Hi-Tech Culture! And only Creative Minds would be able to Re-Imagine Healthcare, to Transform Procedures and Prescriptions, and to Augment Physician Capabilities. This approach (PPM) mentioned should be based on postulates which will change the incarnate culture and social mentality!

Audience Take Away Notes

- To learn more about the impact of PPM in the daily practice of cosmetologists, plastic surgeons and beaty experts
- To outline individualized strategy for the practice of cosmetologists to use PPM resources in their own practice
- For constructing their training lecture of the next step generation in the area of beaty future
- To define a scope of the ways to overcome barriers stopping down the solvation of the cosmetology-related problems
- It will improve the accuracy of a design, or provide new information to assist in a design problem

Biography

Dr. Sergey V. Suchkov, MD, PhD was born in the City of Astrakhan, Russia, in a family of dynasty medical doctors. In 1980, graduated from Astrakhan State Medical University and was awarded with MD. In 1985, Suchkov maintained his PhD as a PhD student of the I.M. Sechenov Moscow Medical Academy and Institute of Medical Enzymology. In 2001, Suchkov maintained his Doctor Degree at the National Institute of Immunology, Russia. From 1989 through 1995, Dr. Suchkov was being a Head of the Lab of Clinical Immunology, Helmholtz Eye Research Institute in Moscow. From 1995 through 2004 - a Chair of the Dept for Clinical Immunology, Moscow Clinical Research Institute (MONIKI). In 1993-1996, Dr. Suchkov was a Secretary-in-Chief of the Editorial Board, Biomedical Science, an international journal published jointly by the USSR Academy of Sciences and the Royal Society of Chemistry, UK. At present, Dr. Sergey Suchkov, MD, PhD, is: Professor, and Chair of the Dept for Personalized Medicine & Precision Nutriciology of the Institute for Global Health of RosBioTech, and Professor of Dept of Clinical Immunology, A.I. Evdokimov Moscow State Medical and Dental University (MGMSU), Russia. Secretary General, United Cultural Convention (UCC), Cambridge, UK. Dr. Suchkov is a member of the: New York Academy of Sciences, USA. American Chemical Society (ACS), USA; American

Heart Association (AHA), USA; European Association for Medical Education (AMEE), Dundee, UK; EPMA (European Association for Predictive, Preventive and Personalized Medicine), Brussels, EU; ARVO (American Association for Research in Vision and Ophthalmology); ISER (International Society for Eye Research); Personalized Medicine Coalition (PMC), Washington, DC, USA.

Shakhnoza Mavlyanova*, Khakimov D. R

Republican Specialized Scientific and Practical Medical Center for Dermatovenerlogy and Cosmetology of the Ministry of Health of the Republic of Uzbekistan, Uzbekistan

Innovative phototherapy for dry skin

Dryness/xerosis of the skin is one of the urgent problems in practical dermatology, due to a frequent symptom of many skin diseases, such as atopic dermatitis, psoriasis and lymphoproliferative skin diseases. The search for optimal methods of external therapy for dry skin is a love direction in the dermatological practice of the world.

The aim of the study was to evaluate the combined therapy of phototherapy with lanolin-siliceous cream fatiderm in patients with dry skin.

Results of the study: To assess the clinical efficacy, the patients were divided into 2 groups: group I (73 patients with AD who received phototherapy in combination with fatiderm cream) and group II (55 patients who received topical corticosteroids). The results of clinical studies showed that the DISHS index in both groups averaged 25.6+0.04 and 26.1+0.05 points, respectively, the pH corneometry averaged 14.3+0.4, which characterized severe dehydration skin.

After the complex therapy in patients of the I - group, the index of the degree of DISH decreased by 2.7 times and averaged 9.4 + 0.05 and the degree of dehydration averaged 52.8 + 0.6, while in the II - group, the index of DISH amounted to - 16.3 + 0.06 and the degree of dehydration averaged - 26.7 + 0.3. In patients of the I-group, the skin-pathological process in the dynamics has significantly resolved, the skin in the lesions has significantly moistened, the itching has stopped. Microbiological studies have shown a decrease in the degree of colonization of opportunistic microorganisms staphylococcus spp. 4.3 and 3.2 times after treatment in both groups, respectively ($P<0.05$).

Conclusion: The analysis of the obtained results indicates that the innovative method of phototherapy with the use of fatiderm lanolin-silicone cream contributed to an increase in therapeutic efficacy by 1.9 times, which can be recommended for practical dermatology.

Dr. Shankar Lal Garg

Editor, Research Journal of Biotechnology and Professor, Director, World Researchers Associations Sector AG/80, Scheme 54, A. B. Road, Vijaynagar, Indore 452010, India

Recent trends of organic cosmetics

Beauty industry came in equal proportions from premium and mass brands. Skin-care and hair-care dominated the global market and future potential lies especially in facial moisturizers, anti-agers and face masks. Most important is the sophistication of beauty habits. Opportunities for growth include popular beauty formats in one market which could take off in another. The young population is eager to try new brands. Fragrance is at the heart of beauty ritual and accounts for 30% of products sold, followed by hair-care at 20%, skincare at 10% and colour at 5%. Beauty brands must also take into account high heat and humidity which can affect the way products react on the skin.

Smart technology is responsible for the development of new beauty tools which help to boost the efficacy and functionality of the beauty routine. Efficacy improvements and personalization are key growth drivers of the ongoing beauty device boom. These days, many women go outside for beauty treatments and even invite the people at home for hair removal, hair treatments, skin lightening or tanning, body treatments, hand and nail treatments and facials.

People are now changing their beauty looks according to how they look in selfies. People want to look good on their own stage cosmetic companies must adapt to this. From organic food to clothes to cosmetics – it certainly seems that the world society is slowly making leaps towards going all-organic.

Perhaps the most glaring setback to organic products is the high cost. Organic cosmetics and personal care products are more than 40-50% higher than conventional cosmetics. United Nations Environment Program(UNEP) has set the theme as Seven Billion Dreams, One Planet, Consume with Care, to tell the world to choose what they consume wisely, responsible and ethically. Come on, let all of us should Save Earth and should make our living planet to be more beautiful and more organic to live.

Audience Take Away Notes

- Audience will learn how to be organic
- This research could be used by other faculty to expand their own research or teaching
- It will Save Earth and Save Environment

Biography

Prof. Dr. Shankar Lal Garg is a reputed academician, researcher and editor of various journals. He has planted 35000 trees on a barren rocky hillock in India to treat the people from various diseases and to produce sustainable organic products for health care and beauty. 70 students have done Ph.D. under his supervision. He has published many papers in indexed journals and he has travelled to more than 75 countries.

Dr. Sowmya Dogiparthi[1]*, MD, DVL, FAM, Vijayakumar Sukumaran[2]

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Natural economical fillers for rejuvenation

At the age of thirty, one starts to notice changes in our appearance, especially the face and neck. Pre disposing factors such as genetics, stress, and smoking, poor skin care can lead to pre mature aging. This aging is predominantly seen around eyes, prominent naso - labial folds and saggy neck/prominent neck lines. Such sudden changes in one's appearance can lead to low self esteem; thus reducing self confidence. Till day a quick fix for such concerns are the expensive hyaluronic acid injections (fillers). But unfortunately due to high expenses of such procedures many avoid them. An alternate to such procedures is your own blood!

So PRF stands for Platelet Rich Fibrin and is derived from your own blood. The solution contains a concentrated mix of fibrin, growth factors, and white blood cells. Platelet-Rich Fibrin (PRF) under-eye is a method that uses platelets and other growth factors found in the body. Indeed, PRF includes a high concentration of different cytokines that aid in tissue regeneration and stem cell repair.

When we inject the PRF into the targeted areas, we can stimulate the natural healing process. As a result, PRF can improve skin tone, texture, and volume. a small amount of blood is drawn and placed into a specialized centrifuge that separates PRF from red blood cells. The end result is your unique PRF. The solution is then injected into the desired area. Once injected, the platelets bind with the fibrin scaffold, releasing growth factors as the PRF is activated. The healing process begins. This helps create new collagen production, skin cell growth, and blood vessel to develop.

In a way, think of PRF injections as your unique, personal, natural skin rejuvenation serum. Besides aesthetic concerns; PRF can be used to accentuate the healing process of ulcers.

Audience Take Away Notes

- Platelet rich fibrin therapy and its uses
- An aesthetic physician will only need minimum equipment in their workspace to carry out the procedure, and it is economical for the patients
- This procedure can be carried out by general surgeons and plastic surgeons
- In Hyaluronic acid filler injections can lead to granuloma formations in long term. In PRF since it is autologous it is absolutely safe
- A new way to rejuvenate the skin without fear

Biography

Dr. Sowmya Dogiparthi, is a renowned Dermatologist/Cosmetologist from India. Who has received multiple awards for her expertise in the field of dermatology, She has been invited as speaker for many national & international conferences. She has authored in dermatology textbooks along with multiple publications under her name. She graduated in MD Dermatology from Sri Ramachandra University, Chennai India in 2011. At present runs her own clinic; Dermipure Dermaclinic. Works as a professor in Shri Satya Sai Medical college and a Senior Consultant at Apollo Hospitals.

Dr. Suliman Ali
Leicester Royal Infirmary, NHS, Leicester, United Kingdom

Gene expression profiling in melanoma- Finding its niche

Aim: There are several issues with current methods used to aid prognostication and management in cutaneous melanoma. Gene expression profiling is a novel prognostication method that has been developed to be the future for prognostication in cutaneous melanoma patients. They have considerable promise, but also current limitations that stop them from fully being implemented into clinical guidelines. This literature review aims to find out why these GEP's for cutaneous melanoma have not found the same utility as GEP's used in other cancers.

Method: I conducted a literature search using Medline, Embase and pubmed as well as looking at the GEP's manufacturers website to analyse why certain GEP's are being implemented into clinical guidelines whereas others aren't.

Results: The reason for the lack of national implementation shown to melanoma GEP's range from technical issues with studies advocating for these GEP's, to no study ever proving the clinical utility in using these new models. However, the fault could also lie with researchers not yet highlighting its USP, of having a high negative predictive value. This would mean, these GEP`s can be used as a rule out test to identify patients who don't have a high risk of developing nodal metastasis and consequently a worse prognosis and so can forgo a sentinel lymph node biopsy and the complications associated with them.

Conclusions: GEP'S should focus on being used specifically as a rule out test if they want to be incorporated into clinical guidelines.

Audience Take Away Notes

- Audience will learn about the ongoing issues have been identified with current methods used to aid prognostication and management in cutaneous melanoma. These include issues with: The staging criteria by The American Joint Committee on Cancer, the management guidelines dictated by the National Comprehensive cancer Network and the costs associated with performing unnecessary sentinel lymph node biopsies
- They will also learn about Gene expression profiling that has been developed to be the future for prognostication in patients with cutaneous melanoma, and I will use the most popular ones (the 31-GEP and CP-GEP) as a case study telling them about their limitations that stop them being implemented into clinical guidelines and why they shouldn't be solely used
- I will explain the reasons for these GEP's not having the same utility as GEP's used in other cancers. This includes a range of factors from technical issues with studies advocating for these GEP's, to no study ever proving the clinical utility in using these new models. However, the fault could also lie with researchers not yet highlighting its USP, of having a high negative predictive value
- I would explain what the GEP's can be used for such as a rule out test to identify patients who don't have a high risk of developing nodal metastasis and consequently a worse prognosis and so can forgo a sentinel lymph node biopsy and the complications associated with them

- Lastly I would list several key ingredients that have been identified to what makes a successful GEP, such as developing a GEP with a specific purpose in mind, which the audience can take back with them and implement to their own practice

Biography

Dr. Suliman Ali graduated from Imperial College London in 2021 with a MBBS and a first class BSc in Business management. During his time in Imperial he was involved in many academic societies where he frequently contributed to research and organized conferences. Since graduation he has enrolled in Surgical training in the UK's NHS which is what he is currently doing.

Thiago Sasso Carmona de Souza[1]*; Mariana Sasso Carmona de Souza[2]; Caio Marcio Correia Soares[1]; Pedro Aguiar Soares[3]

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Morselized cartilage graft: An analysis of the area and perimeter measurements of this versatile option for modern rhinoplasty

Introduction: One of the biggest issues in the field of rhinoplasty is the use of grafts, one of which is the morselized cartilage graft. Few studies to date have sought to demonstrate the changes in size suffered by cartilage after the morselization process.

Objective: To compare changes in area and perimeter of septal and auricu- lar cartilages after being submitted to two degrees of morselization.

Material and Methods: This was a cross-sectional, comparative, and analytical study. Septum and ear cartilages were separated into two groups: Septal Cartilage Group (SCG) and Auricular Cartilage Group (ACG), and evaluated in their intact, and morselized grades 1 and 2 forms. Area and perimeter measurements were taken and compared.

Results: A total of 29 cartilages were analyzed, being 20 septal and 9 auricular. There was a significant increase in the measurements in the SCG according to the degree of morselization. Similar results were also obtained in the ACG, but only with a tendency towards significance. When comparing the two groups, no significant dif- ferences were identified.

Discussion: Morselized cartilages are important options in rhinoplasty. The increase in the degree of morselization leads to larger grafts, but it is also linked to a decrease in cartilage viability. Despite being structurally distinct, auricular and septal cartilages showed a similar behavior of their measurements after morselization. Such information can help surgeons in choosing their grafts, providing more predictable results.

Conclusion: Morselization leads to an increase in the area and perimeter of the cartilage, being greater according to the degree of the process, without significant differences between grafts of septal and auricular origin.

Audience Take Away Notes

- Presenting this versatile graft, widely used but little studied, to the facial plastic surgeon
- A better understanding of the morselized cartilage graft may favor the resolution of common problems during rhinoplasty surgery
- Optimization of the use of grafts in modern rhinoplasty

Biography

Dr. Thiago studied medicine at the UFPR-Brazil. He attended residency in otorhinolaryngology at HC-UFPR. He specialized in facial plastic surgery, performing his fellowship at the IPO Hospital. He studied body dysmorphic disorder and how it could affect patients who are candidates for aesthetic procedures on the face. With that, Dr. Thiago has published several works in relevant international journals on the subject, in addition to participating as a speaker in several international congresses. Dr. Thiago also acts as head of the facial plastic surgery service at the Hospital Cajuru, in addition to being a reviewer for 3 international journals.

Thomas Ondet, Ph.D*, Emmanuel Doridot, Msc, Caroline Ringenbach, Msc, Philippe Mondon, Ph.D

Sederma, Le Perray en Yvelines, France

Control of melanocyte senescence and environmental niche for reducing appearance of lentigo and hypomelanotic macule side effects

Ageing and repeated sun exposure increase formation of oxidising radicals that randomly attack lipids, proteins, and DNA of skin tissue and cells, leading to premature ageing and cell death. Chronic damage such as accumulation of mutations into melanocytes drives their senescence altering their physiology and the regulation of melanin production that either goes into overdrive (lentigo) or conversely, stops (hypomelanotic macula).

Lentigos are highly visible dark macules whose number and size increase with age. Fading out these hyper melanotic spots, is essential because they strongly impact skin appearance making it look older than it really is.

Hypomelanotic spots also increase with age and sun exposure. Less apparent than lentigos, they result from a progressive senescence of melanocytes and their death. They create a circular depression with a smooth bottom and no apparent pigment, due to the UV-damage on underlying extracellular matrix. For both spots, reducing Radical Oxygen Species' (ROS) consequences and formation of senescence are pivotal as well as protection of the melanocyte niche composed of neighbouring keratinocytes, fibroblasts, and extracellular matrix.

Chemical peels, laser therapy, retinoids or corticoids are often proposed to solve these unsightly spots but can be damageable for skin or invasive. Some plant extracts are well known for their protective role versus ROS. Monarda Didyma Leaf cell culture extract (MDL), obtained by a new and safe way of production, rich in polyphenols such as rosmarinic acid and prunin, was shown to control ROS production into melanocytes, singlet oxygen formation and lipid peroxidation. It also protects the niche of melanocyte in moderating matrix proteases' synthesis (elastase, MMP-2 and -3) by fibroblasts whereas it triggers hyaluronan, collagen-I, -IV, -VII and -XVII productions into keratinocytes and skin explants. MDL strongly moderates activity of the Senescence Associated-β-Galactosidase into melanocytes. It reduces interleukin-6 and -8, part of the so called SASP (Senescence Associated Secretory Phenotype), it preserves dendrites shape and numbers, and it reduces Dickkopf-1 protein production, all of which are characteristic of senescence. Clinical studies performed on 52 volunteers, for two months, versus a placebo control, indicated that MDL significantly reduces dark spot pigmentation and skin pigmentation heterogeneity while it improves complexion evenness. In parallel, volume and depth of hypomelanotic spots are reduced while skin flexibility and elasticity are significantly improved versus placebo.

Our results indicate that the improvement of unsightly characteristics of both dark and hypomelanotic spots can be obtained in controlling ROS productions and senescence of melanocytes. Furthermore, in addition to a direct action on this cell type, it seems of interest to improve its microenvironment for a better control of its homeostasis, melanin production and secretions.

Audience Take Away Notes

- This work highlights the interest of the niche of the melanocyte as an important actor of its physiology and pathology. Audience will see that protection of both microenvironment and cells is a holistic strategy to reduce pigmentation disorders
- The audience will be able to design new products to offer to their customers: innovative and noninvasive solutions to sun related pigmentary disorders. Plant cell cultures are innovative, sustainable and safe way to produce cosmetic ingredients
- Indeed, all the inputs regarding melanocyte's metabolism can be used for teaching and also for further research around solutions to protect skin's sun capital

Biography

Thomas Ondet, PhD, has been group leader at Sederma for 3 years in charge of epidermis, dermis and melanogenesis research. Prior to Sederma, he has a 10-year experience in skin biology acquired during his PhD on innate immunity in keratinocyte and then at Imagine Institute in genetic skin diseases. He also worked at Johnson and Johnson on cutaneous adverse drug reaction following oncology treatments among other topics.

Dr. Thomas Schnibbe[1]*, Elena Baiardi[1], Carmen Kalbermatter[1], William Vincent Jacques Hariton[2], Elias Imahorn[1], Stefan Baertschi[1]

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Next generation designer culture media for cell therapy balancing energy homeostasis and proliferative capacities enabling long-term in vitro expansion of epithelial cells

Since inception, CELLnTEC is dedicated to developing fully defined, animal- and human component-free media to culture epithelial cells for research and cell therapy that closely mimic the in vivo state. This is achieved by protecting the ground state of cellular self-renewal with extrinsic and selective small molecule activators or inhibitors. Withdrawal of these factors supports differentiation. We have now continued R&D to engineer the next generation of designer media by specifically targeting pathways balancing energy homeostasis and proliferative capacities. Compared to our standard media, the new proprietary medium supports human keratinocyte growth in a superior way as was tested for cells from four different donors grown on plastic and without feeders. Remarkably, survival of the human keratinocytes could be extended up to >90 population doublings. Starting from fresh adult skin, cells in P0 exhibited impeccable morphology and increased colony forming efficiency. The latter was tested in a direct comparison with our own standard media and those of other leading commercial providers. In P1, the human keratinocytes plated in the new medium showed oexcellent colony forming efficiency, outcompeting all other tested media by at least 1.5-fold. Superior isolation efficiency together with increased proliferation rates and especially extended longevity allows for rapid cell amplification, which likely also applies for epithelial airway, bladder, or cornea cells. Since the human keratinocytes are grown in a fully defined, animal component-free cell culture medium, they also are perfectly suited for applications in cell therapy and regenerative medicine.

Biography

Dr. Thomas Schnibbe is CEO of CELLnTEC Advanced Cell Systems, Switzerland, a pioneering developer and manufacturer of fully defined precision media for primary and stem cell research, and supplier to the regenerative medicine industry. Dr. Schnibbe obtained his PhD at the Max Planck Institute for Molecular Genetics, Berlin, and an MSc in Biotechnology from the Technical University of Braunschweig, Germany, with study and research stays at the Technical University of Munich and the Helmholtz Centre for Infection Research, Braunschweig, Germany, and Kyoto University, Japan. With more than 20 years of experience in the biotechnology industry, Dr. Schnibbe previously held senior positions in both business and technology development at QIAGEN, Chiron Corporation (now part of Novartis), and in technology consulting in Europe and the United States.

Vasiliki S. Lagouri

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Perrotis College/American Farm School, Marinou Antipa, Thessaloniki 551 02

Pomegranate's gift to skin: Unpacking the anti-aging and anti-inflammatory power of polyphenols

Introduction: The quest for radiant, healthy skin is a universal pursuit, and dermatologists constantly explore natural solutions to enhance their patients' well-being. Today, we delve into the promising world of pomegranate polyphenols, unlocking their potential benefits for diverse skin concerns.

Pomegranate (Punica granatum L.) is one of the oldest edible fruits in the Meditterranean area and has been used extensively in the folk medicine. Popularity of pomegranate has increased tremendously especially in the last decade because of antimicrobial, antiviral, anticancer, potent antioxidant and antimutagenic effects of the fruit. Polyphenols, represent the predominant class of phytochemicals of pomegranate fruits, mainly consisting of hydrolysable tannins, gallotannins, ellagitannins and Ellagic Acid (EA).

The present study was performed

1. To evaluate the pomegranate antoxidant/free-radical scavenging properties of the juice, peel and seed extracts of two cultivars from mainland Greece by using a) free radical scavenging (DPPH) and b) Ferric Reducing Antioxidant Power (FRAP) assays
2. To extract and measure the pomegranate polyphenols a) Total Phenols (TP), b) Total Flavonoids (TF), c) Hydrolysable Tannins (HT) and d) Ellagic Acid (EA) by using protocols of spectrometric and chromatographic methods.

Audience Take Away Notes

- **Antioxidant Arsenal:** Pomegranate boasts a wealth of polyphenols, nature's powerful antioxidants. These warriors combat free radicals, shielding skin from environmental assaults and premature aging. Dermatologists can leverage this knowledge to recommend pomegranate-rich products or even dietary guidance for patients seeking protection against sun damage, wrinkles, and hyperpigmentation
- **Hydration Hero:** Polyphenols' anti-inflammatory properties can alleviate skin irritation and dryness. This translates to calmer, plumper skin for patients with conditions like eczema or dermatitis. Dermatologists can incorporate pomegranate extracts into treatment plans or suggest topical options to soothe inflammation and promote optimal hydration
- **Collagen Champion:** Studies suggest pomegranate polyphenols stimulate collagen production, the skin's structural scaffolding. This translates to improved skin elasticity and firmness, a boon for patients combating fine lines and sagging. Dermatologists can advise on incorporating pomegranate-based products or supplements to support collagen synthesis and achieve a more youthful appearance
- **Microbiome Maestro:** Emerging research hints at the potential of pomegranate extracts to positively modulate the skin microbiome, the ecosystem of friendly bacteria crucial for healthy skin. This opens doors for exploring how such modulation can benefit various skin conditions. Dermatologists can stay informed about these developments and potentially integrate them into future treatment approaches

- **Beyond Aesthetics:** Pomegranate's anti-inflammatory and antioxidant properties offer potential benefits beyond aesthetics. Its wound-healing capabilities and potential role in managing conditions like psoriasis warrant further investigation, highlighting its broader therapeutic potential. By staying aware of such research, dermatologists can contribute to holistic patient care

Applications and Benefits:

Enhanced patient consultations: Armed with this knowledge, dermatologists can offer personalized advice on incorporating pomegranate into patients' skincare routines, considering their individual needs and potential interactions with existing medications.

Expanding treatment options: Pomegranate extracts offer promise as complementary or alternative therapies for certain skin conditions, potentially reducing reliance on conventional medications and their side effects.

Collaborative research opportunities: Dermatologists can collaborate with other fields to explore the deeper mechanisms of pomegranate's action and develop evidence-based recommendations for optimal skin health.

Conclusion: The results of the present study are very promising optimizing skin health in Dermatology Practice. Pomegranate polyphenols emerge as exciting allies in the dermatologist's toolkit. By understanding their multifaceted benefits, we can empower patients to achieve healthier, more resilient skin, both aesthetically and therapeutically. Let us continue to explore the power of nature and translate its wisdom into solutions for vibrant, healthy skin for all.

Biography

Vasiliki Lagouri, BA, MSc, PhD received her three degrees from Aristotle University of Thessaloniki and National and Kapodistrian University of Athens, Greece: a BA from the Chemistry Department of Aristotle University of Thessaloniki, where she was awarded by the National Fellowships Foundation, the highest undergraduate honor, MSc in Medicinal Chemistry from Department of Pharmacy National and Kapodistrian University of Athens, and a PhD in Food Chemistry from Chemistry Department of Aristotle University of Thessaloniki. Post-graduate grants were awarded from the National Fellowships Foundation and Mpodosakis Foundation of Greece. She has more than 20 years research and academic experience at the Departments of Food Science and Technology, International Hellenic University of Thessaloniki and the Departments of Chemistry and Pharmacy, National and Kapodistrian University of Athens, National Hellenic Research Foundation of Athens and Perrotis college/American Farm School of Thessaloniki. She has 21 publications and 25 conference participations in the fields of food chemistry, medicinal chemistry, olive oil and natural products (number of citation 1006, h-index = 10 Google Scholar).

Vivian Li, MMS[1]*, Kelly Frasier, DO, MS[2], Michelle Sobotka, MS[3], Darianne Zimmer, BS[4], Julia Vinagolu Baur, MS, MBA[5]

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[2]Nuvance Health Vassar Brothers Medical Center, United States
[3]Midwestern University Arizona College of Osteopathic Medicine, United States
[4]University of California, Riverside School of Medicine, Riverside, California
[5]State University of New York, Upstate Medical University, Syracuse, New York

New age masculinity: The rise of male cosmetology

The landscape of male cosmetology is experiencing a notable shift, marked by a rising trend of men seeking cosmetic treatments for various aesthetic concerns. This paradigmatic evolution is driven by shifting societal norms, increased awareness of grooming and self-care, and advancements in cosmetic procedures tailored to male anatomy. While historically dominated by female clientele, the male cosmetic market is witnessing a surge in demand for treatments ranging from injectables and laser therapies to hair restoration and skincare regimens. Specific concerns for males, including addressing signs of aging, enhancing facial contours, and combating hair loss, underscore the importance of gender-specific approaches in cosmetic dermatology. Future research should focus on unique anatomical and physiological differences between male and female skin, optimizing treatment outcomes, and tailoring cosmetic interventions to meet the distinct needs and preferences of male patients. Additionally, addressing societal stigmas and misconceptions surrounding male cosmetology is crucial for fostering inclusivity and promoting holistic approaches to male grooming and self-image enhancement.

Dr. Vsevolod Akulinkin
The Peoples Friendship University of Russia, Moscow, Russian Federation

Melanoma diagnostics in dermatocosmetological practice

Melanoma, a malignant tumor of melanocytes, is one of the most aggressive forms of skin cancer and poses significant diagnostic challenges in dermatocosmetological practice. Early detection and accurate diagnosis are crucial for improving patient outcomes. This presentation discusses the advancements in melanoma diagnostics, emphasizing non-invasive techniques and their integration into cosmetic dermatology settings.

We review the latest diagnostic tools, including dermatoscopy and digital imaging, which allow for detailed examination of suspicious lesions. The role organising national event like early melanoma diagnostics day in national healthcare improvement is also explored. Moscow has established an effective system for the detection, differential diagnosis and monitoring of melanoma in patients. Additionally, we highlight the importance of professional training in the interpretation of diagnostic results to reduce the incidence of false positives and negatives.

The presentation concludes with recommendations for a multidisciplinary approach, combining dermatocosmetological expertise with advanced diagnostic technologies, to achieve early and precise melanoma detection, ultimately leading to better prognoses and patient care.

Audience Take Away Notes

- Melanoma-provoking factors
- Role of a national event in melanoma diagnostics
- Equipment used in Russian dermatological centers
- Melanoma related statistics based on dermatological practice in Russia

Biography

Dr. Akulinkin is presenting the Peoples' Friendship University of Russia. In his field of interest there is dermatology and research of optical methods used for diagnostics of pathologic damages. Dr. Akulinkin has presented previously at 4th Edition of International Conference on Dermatology and Cosmetology (IDC 2023) in Tokyo, Japan and on 8th MEIDAM Conference & Exhibition scientific program in Dubai, OAE. He has as well participated in training program at BANOBAGI Dermatology Clinic in Seoul, South Korea.

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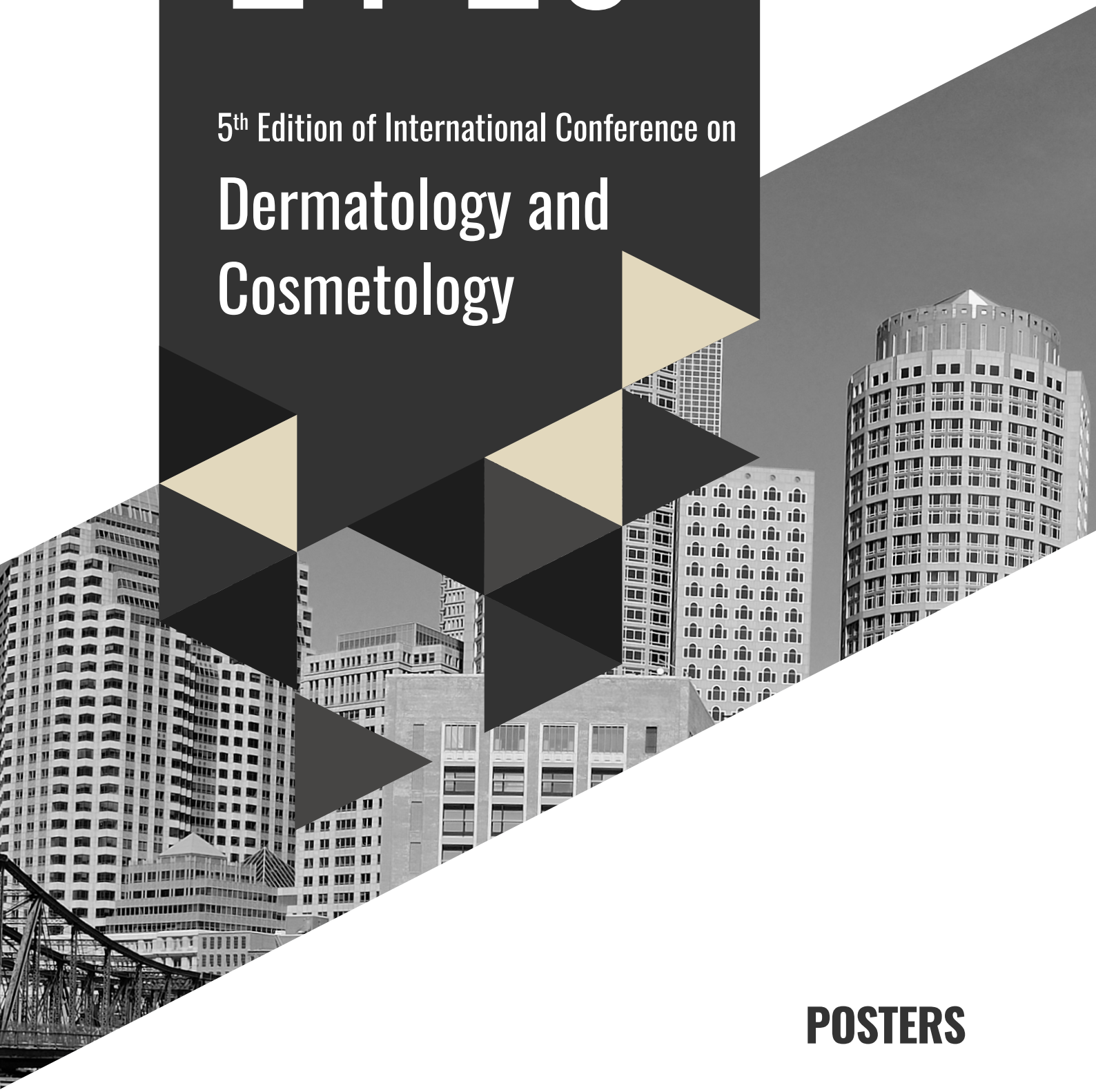

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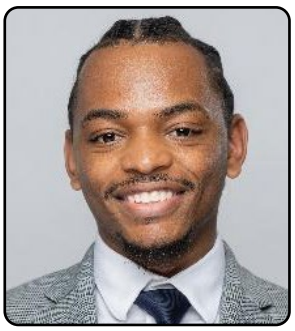

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Fibrous scar: Barriers to longitudinal care

Context: Cutaneous pathological scars, including keloids and hypertrophic formations, disproportionately affect ethnic minority communities, posing challenges to individuals' psychological well-being and self-esteem. Patients in under-resourced neighborhoods are particularly impacted by these skin conditions. The lack of consistent results of treatment causes patients to question the value of investing time and resources in continued medical supervision aiding in the addition of barriers including transportation, finance, and language.

Objectives: This research aimed to investigate the barriers of longitudinal care of fibrous scarring. Additionally, it sought to investigate the overall effects, psychological comorbidities, impact on quality of life, and financial constraints seen across fibrous scarring population.

Methods: A comprehensive literature review was conducted on PubMed Central using specific search terms and Boolean phrases. The studies selected for review met the inclusion criteria of English language, availability of abstracts and full text. Studies that did not meet these criteria were excluded.

Results: No studies have yet been conducted that analyze the barriers facing longitudinal care of fibrous scarring. Literature review articles updating techniques utilized in improving care mention these barriers without specified studies to reference for improving care.

Conclusions: Understanding the factors that influence decisions regarding scar treatment is crucial for implementing more effective therapies for patients with pathological scars. However, there is a significant gap in research regarding the accurate identification of barriers to patient care. Further studies are needed to address this gap and develop a comprehensive understanding of the obstacles patients face in accessing and adhering to longitudinal treatments. By gaining insight into these barriers, healthcare providers can develop more tailored and patient-centered approaches to care, ultimately leading to improved outcomes and the establishment of a generalized model for longitudinal treatment.

Keywords: Fibrous Scar, Longitudinal Care, Barriers, Keloid.

Audience Take Away Notes

- This abstract highlights the critical gap in research concerning the obstacles hindering individuals from effectively managing fibrous scarring care. Beyond clinical trials, consistent follow-up is pivotal for favorable treatment results. Future studies aim to pinpoint these barriers, empowering healthcare providers to offer tailored guidance for enhanced patient adherence. Identifying these hurdles will enable physicians to enact clinic-specific policies tailored to address the unique needs of their patient population

Biography

Clarence Sams is a first-year medical student at Charles R. Drew University of Medicine and Science, from Brooklyn, NY. Within the CDU MD Program, Clarence passionately pursues dermatology, serving as the founder and president of the CDU MD Dermatology Interest Group. His mission is to address disparities in dermatological diseases, offering educational presentations to expand medical students' understanding of disease presentations. Clarence's research focus lies in dermatological related scar formations prevalent in minority skin types, and projects related to barriers in minority populations concerning longitudinal dermatological care, developing workshops to enhance knowledge of skin conditions and treatments in the community.

Therese Anne Limbana was born and raised in the Philippines. She migrated in the US to work as a nurse and served as a front-liner during the global pandemic. She worked in Albany Medical Center and the Memorial Sloan Kettering Cancer Center at the Intensive Care Unit and Endoscopy Department. Therese received a Bachelor’s degree in Nursing, Cum Laude from St. Paul University, and her MD from West Visayas State University, both in the Philippines. Her goal is to live life in service, and in life-long learning. She is currently working on her Doctor of Osteopathic Medicine degree from New York Institute of Technology College of Osteopathic Medicine, graduating in 2025. She aims to be a dermatologist and has authored numerous peer-reviewed publications in dermatology and psychiatry.

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Assessment of autologous serum skin test and efficacy of autologous serum therapy in chronic urticaria

Background: Chronic urticaria is a common distressing dermatoses which affects the patient's quality of life to a great extent, causing restrictions in daily life activities and social life, due to unrelenting symptoms and reduced Dermatology Life Quality Index (DLQI). Treatment of chronic urticaria remains unsatisfactory with long term requirement of medications having potential side effects. Autologous Serum Skin Test (ASST) is a useful diagnostic aid in identifying chronic autoimmune urticaria with a sensitivity of approximately 70 % and specificity of 80%. Autologous Serum Therapy (AST) is potentially curative modality in patients with chronic urticaria.

Aims and Objectives: The aim is to assess the autologous serum skin test in chronic urticaria and to evaluate the efficacy of autologous serum therapy in chronic urticaria

Materials and Methods: A prospective, non-randomized uncontrolled study of 50 patients with chronic urticaria was conducted in a tertiary care center attached to a medical college over a duration of one year, after obtaining approval from institutional ethics committee. After receiving written informed consent from participants, ASST was performed in all the patients followed by 8 weekly intramuscular injections of autologous serum. Under aseptic precautions, 2ml of patient's venous blood was taken from antecubital vein, collected in a sterile glass tube and allowed to clot for 30 minutes at room temperature. The serum was then separated by centrifugation at 2000 rpm for 15 minutes. Approximately 0.05 ml of autologous serum was injected intradermally over flexor aspect of left forearm. Equal amount of normal saline (negative control) was injected intradermally over flexor aspect of right forearm. Results were read after 30 minutes. The test was considered positive if wheal and flare occurred over the serum injection site with a diameter of at least 1.5 mm or more than that of saline-induced response. Every week for eight consecutive weeks, 5 ml blood was drawn, serum separated and 0.05 ml/kg body weight of patients serum was injected deep intramuscularly in alternate upper outer quadrant of the gluteal region.

Results: Out of the 50 patients with chronic urticaria, 60% (30) patients were ASST positive of which 19 were females and 11 were males; whereas 40% (20) were ASST negative of which 13 were females and 7 were males. Significantly higher proportion of ASST(+) patients were classified as severe as compared to the ASST(-) patients at baseline and it was statistically significant(66.7 vs. 45%;p = 0.01). At the final follow up visit (12th week), 35.7% (10) patients were completely clear, 32.1% (9) had only mild diseases in the ASST positive patients whereas in the ASST negative patients 23.5% (4) were completely clear and 29.4% (5) had mild improvement. Among ASST positive patients, 35.7% (10) showed complete remission and 32.1% (9) showed marked improvement whereas in ASST negative patients 23.5% (4) showed complete remission and 29.4% (5) showed marked improvement. These observations were found to be statistically significant (p value 0.02). Five (10%) patients were lost to follow up.

Conclusion: Autologous serum therapy was found to be safe, simple, well-tolerated and cost-effective in significant proportion of ASST positive patients with chronic urticaria.

Audience Take Away Notes

- Treatment of chronic urticaria remains unsatisfactory with long term requirement of medications having potential side effects. Autologous Serum Skin Test (ASST) is a useful diagnostic aid in identifying chronic autoimmune urticaria with a sensitivity of approximately 70% and specificity of 80%. Autologous Serum Therapy (AST) is a safe, simple, well-tolerated and cost-effective in significant proportion of ASST positive patients with chronic urticaria

Biography

Dr. Daisy Deuri graduated from Vydehi institute of Medical Sciences and Research Centre, India in 2018 and did her MD in Dermatology from SSIMS&RC, India in 2023. She is now currently working as Senior Resident in AIIMS Bathinda. She has participated in many Continuing Medical Education (CME) events, seminars and did many paper and poster presentations in both national and international conferences. She has 3 publications and has won various awards. She has passion for teaching for the under graduate and post graduate students. Her areas of interest are dermatosurgery, vitiligo and leprosy.

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Gut harmony: Dancing short-chain fatty acids and skin health in the microbiome orchestra

Emerging evidence suggests a significant interplay between gut microbiota composition and skin health, particularly through the modulation of systemic inflammation and immune responses. Of particular interest is the role of Short-Chain Fatty Acids (SCFAs), microbial metabolites produced during fermentation of dietary fiber in the gut. SCFAs, such as butyrate, acetate, and propionate, have been shown to exert immunomodulatory effects by regulating the differentiation and function of immune cells, including T regulatory cells and dendritic cells, thus influencing cutaneous immune homeostasis. Additionally, SCFAs can regulate skin barrier function through their effects on keratinocyte differentiation and lipid production. Future research should focus on specific mechanisms by which gut-derived SCFAs impact skin health and disease, including their interactions with the skin microbiome and their potential as therapeutic targets in dermatological conditions characterized by dysregulated inflammation and barrier dysfunction. Moreover, exploring the influence of dietary interventions, prebiotics, and probiotics on gut microbiota composition and SCFA production holds promise for novel approaches in promoting skin health and managing dermatological disorders.

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The safety of JAK inhibitors in elderly patients with inflammatory skin disorders

Introduction: In the aging population, inflammatory skin disorders are prevalent, attributed to physiological changes like compromised skin barrier function, immune system alterations, and neurodegenerative issues. Conventional treatments, including immunosuppressive therapies and biologic agents, pose challenges in the elderly due to age-related factors. This retrospective study focuses on evaluating the safety of Janus Kinase (JAK) inhibitors in elderly patients with inflammatory skin disorders.

Methods: Conducted in the Department of Dermatology at the Veterans Health Service Medical Center, this study obtained Institutional Review Board approval. The medical records of elderly patients treated between January 2021 and June 2023 with JAK inhibitors and other modalities (corticosteroids, cyclosporine, methotrexate, dupilumab) were retrospectively reviewed. Inclusion criteria involved a diagnosis of inflammatory skin disorders and the ability to assess adverse events through electronic medical records. Demographic and clinical data, treatment duration, and adverse events were collected and compared among treatment groups.

Results: Among eligible patients, 15% received JAK inhibitors (65% upadacitinib, 35% baricitinib). Comorbidities were prevalent, with hypertension and diabetes mellitus being the most common. JAK inhibitors showed a higher incidence of adverse events compared to some medications, with abnormality of laboratory finding being the most common. However, the severity was predominantly mild, and the discontinuation rate due to adverse events was the lowest in the JAK inhibitor group.

Discussion: Comparisons among treatment groups revealed that JAK inhibitors exhibited a higher incidence of adverse events, but the severity was milder than in some other treatment groups. Cardiovascular complications were absent in JAK inhibitor-treated elderly patients, and the incidence of severe adverse events was lower compared to other treatments. JAK inhibitors demonstrated favorable safety outcomes in elderly patients, suggesting their potential as a safe alternative in this population.

Conclusion: This retrospective study sheds light on the safety profile of JAK inhibitors in elderly patients with inflammatory skin disorders, emphasizing their favorable outcomes compared to conventional immunosuppressive and biologic agents. Despite study limitations, these findings underscore the need for further research, particularly with long-term real-world data, to comprehensively assess the safety of JAK inhibitors in this demographic.

Audience Take Away Notes

- **Enhanced Understanding of JAK Inhibitor Safety in Elderly Patients:** The audience will gain insights into the safety profile of Janus Kinase (JAK) inhibitors in elderly patients with inflammatory skin disorders. The study provides a comprehensive analysis of adverse events, severity, and discontinuation rates, contributing to a nuanced understanding of the risk-benefit profile of JAK inhibitors in this demographic

- **Informed Decision-Making in Treatment Selection:** Dermatologists will be equipped with valuable information for making informed decisions when selecting treatments for elderly patients with inflammatory skin disorders. The study's comparative analysis of JAK inhibitors against conventional therapies offers practical insights into the safety considerations that can guide therapeutic choices
- **Contribution to Dermatological Research and Teaching:** Faculty in dermatology and related fields can leverage this research to expand their understanding of JAK inhibitors' safety, especially in comparison to conventional treatments. The study offers a basis for future investigations into the long-term safety and efficacy of JAK inhibitors, contributing to the academic advancement of dermatological research and teaching
- **Practical Implications for Treatment Planning:** The findings provide practical implications for dermatologists involved in the treatment of elderly patients with inflammatory skin disorders. The demonstrated favorable safety outcomes of JAK inhibitors suggest a practical solution for incorporating these agents into treatment plans

Biography

Jiyoon Baek obtained her bachelor's degree from the College of Medicine at Chungbuk National University in South Korea in 2020. She completed her internship at Veterans Health Service Medical Center in 2021. Since 2021, she has been undergoing residency training in the Department of Dermatology at Veterans Health Service Medical Center, Seoul, Korea. She has published three papers in the Korean Journal of Dermatology and has participated in two or more clinical studies.

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Gut feelings: Unveiling the skin's microbial metropolis via bile acid boulevard

Recent studies have unveiled a novel aspect of gut microbiota dynamics influencing skin health and dermatology: the gut-skin axis mediated by microbial metabolites, particularly bile acids. These bioactive molecules, primarily metabolized by gut bacteria, exert systemic effects on host physiology, including modulation of immune responses and inflammatory pathways. Furthermore, bile acids have been found to impact skin barrier integrity and lipid composition, implicating their role in dermatological conditions such as atopic dermatitis and psoriasis. Future research directions should explore the intricate mechanisms underlying bile acid-mediated gut-skin crosstalk, including the identification of specific microbial species and enzymatic pathways involved in bile acid metabolism. Moreover, exploring the therapeutic potential of targeting the gut microbiota-bile acid axis holds promise for innovative interventions in skin diseases, warranting further investigation into microbiota-targeted strategies and their clinical efficacy.

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Artificial intelligence in dermoscopy: Advancements, challenges, and future directions for early skin cancer detection

Our review provides a comprehensive review of the role of Artificial Intelligence (AI) in dermoscopy for the early detection of skin cancer. The study examines the recent advancements in AI and machine learning algorithms employed in the analysis of dermoscopic images, offering insights into their accuracy, limitations, and challenges. A critical examination of the current state of AI applications reveals their potential impact on clinical practice, as they contribute to the timely identification of skin cancer. Additionally, we highlight areas for further research, emphasizing the need for refining algorithms, addressing obstacles, and exploring new avenues to enhance the effectiveness of AI in dermatological diagnosis. The synthesis of existing knowledge and identification of gaps in research provide a foundation for future investigations aimed at optimizing AI-based tools for skin cancer detection.

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Measuring transepidermal water loss: Tewameter®, vapometer®, H4500®, and battery-free sensors®

Background: Tewameter®, Vapometer®, H4500®, and battery free NFC sensors are effective in measuring TEWL and each may be preferential instrument for different indications.

Purpose: Compare current alliteration on four such instruments, and identify which has been documented for use during measurement of a specific physiological indication.

Methods: Compiled 20 recent publications that narrowed to those exploring the specific TEWL instrument specific condition. Search engines and 1-2 word phrases were used to identify such studies.

Results: Tewameter depicted TEWL decreases while scars healed and appears an efficient TEWL tool in this compromised skin. VapoMeter appears reliable for measuring hyperhidrosis disability. H4500 is a practical instrument that may provide similar results in measuring TEWL as Tewameter and VapoMeter. Finally, battery-free sensory tags appear reliable to measure a trend in TEWL levels.

Conclusion: Tewameter, VapoMeter, Model H4500, and Battery-free sensor tags measure TEWL; each may be better equipped to handle certain skin conditions. Sensory tags are portable compared to the well-used tools like Tewatmere and Vapometer. More detailed comparative instrument efficiency assays in differing conditions should aid comparison of data from one instrument to an other for differing experimental circumstances.

Background: Stratum corneum acts as a protective structure against harmful exogenous agents and transepidermal water loss documents the efficiency of skin water barrier function (Gardien et al., 2016). Tewameter®, Vapometer®, H4500®, and battery free NFC sensors are currently used to measure TEWL. A common technique used to measure TEWL utilizes open chamber diffusion (De Paepe et al., 2005). A limitation to open chamber systems are external confounding variables and vertical probes positioned on skin (Gardien et al., 2016). Other less expensive instruments, are more portable: Tewameter, Vapometer, H4500, battery free NFC sensors, and hollow cone probe are effective in measuring TEWL, but each may be better for different experimental skin conditions. H4500 is the least expensive of the four and sensory tags the most portable. Tewameter and Vapormeter are the most studied and documented for particular skin conditions. A review of recent studies on these devices was conducted to compare them and understand their individuality.

Methods: Research studies were obtained through search engines: Pubmed, Science Direct, and Google Scholar. Strategically, one word or a short phrase was used to search research studies to find more inclusive data. Human studies were chosen over animal studies. The most recent articles were gathered with the oldest study done in 2016 and the latest in 2020. To narrow down search results, key terms were used that decreased the studies identified. Terms included: transepidermal water loss, tewameter, vapometer, sensors, and probes. After obtaining 20 articles that provided a broader understanding of the tools used to record TEWL, seven were reviewed.

Results: Tewameter utilized on burns: Gardien investigated the relationship between TEWL and burn scars in 55 adults with healthy, scared, and collateral skin. Tewameter TM300 is an open chamber system and is especially helpful when measuring compromised skin such as burns scars (Gardien et al., 2016). Water loss increases with burn scars severity (Gardien et al., 2016). Mean TEWL in burn scars was significantly higher than healthy skin with a p-value lower than (Gardien et al., 2016). The correlation between TEWL and burn scars decreased at the r-value of -0.61 documenting that as scar heals, there is decreased water loss (Gardien et al., 2016). The p-value at the 3-month mark was .021 and at the 12-month mark, 0.002 showing a rapid increased correlation (Gardien et al., 2016). Water loss decreases as skin heals from scars and is accurately depicted with Tewameter measurements.

VapoMeter: Axillary hyperhidrosis takes an emotional, financial, and social toll (Larson, 2011). Larson, used a VapoMeter to measure the course of hyperhidrosis and recovery before and after axillary shaving. Eight (8) patients qualified for study and the patient's age was between 18 and 31 years. Vapometer measured 473 g/m2/h preoperatively and 58 g/m2/h documenting TEWL decrease. Thus Vapometer was an effective tool to measure TEWL, diagnose hyperhidrosis, and confirm surgical success.

H4500: H4500 is a closed chamber system like Tewameter. Fifteen healthy volunteers were enrolled and measurements taken from volar forearms before and after producing artificial barrier damaged skin using stratum corneum tape stripping (Kikuchi et al., 2017). Barrier damage was also produced by 0.5% aqueous sodium lauryl sulfate solution. The results show a confidence interval of 0.835 to 0.978 which means that when utilizing Vapometer, Tewameter, and H4500, all found correlated TEWL measurements on healthy and barrier damaged skin.

Battery-Free NFC sensors: Ali utilized a Near Field Communication (NFC) enabled, battery free, sensor in smartphones like android. These sensors included a skincare sensor tag that measured skin wettedness factor (SWF), and was then plugged into two equations on the smartphone app that computed TEWL levels (Ali et al., 2020). The experiment was collected on eight subjects indoors and six outdoors. Readings were taken multiple times daily and resulted in a trend of increased SWF correlated with increased TEWL. This was an expected result that suggested that the sensors correctly measured TEWL. During the outdoor hours, due to the heat the subjects released more eccrine sweat and therefore had a higher SWF and TEWL levels. This device is portable, battery free, and appears reliable to measure trends in TEWL levels.

Discussion and Conclusion: This manuscript summarized recent experimental data used to measure TEWL and barrier efficacy. The first study focused on testing the Tewameter TM300 and showed that this instrument appeared reliable to use on burn scars. Using Tewameter to measure TEWL multiple times during the healing process assessed healing. Future research can focus on investigating such instruments with a larger sample size, different body sites, and different scar types.

VapoMeter was effective in documenting healing; Gardien et al. showed accurate readings taken periodically over months. The readings, if decreasing in number and therefore decreased TEWL, will provide patients reassurance that they are healing.

H4500 may provide similar results when compared to Tewameter and Vapometer. Kikuchi et al. found a confidence interval range documenting the correlation between the TEWL measurements between the three tools, but for future studies, it is important to focus on skin conditions that might preferentially be recorded with each instrument. Burn scars and axillary hyperhidrosis are conditions that used Tewameter; Vapometer respectively and it would be beneficial to test H4500 on such skin types to assess if the tool is just as effective in measuring TEWL. It is a practical tool for measuring TEWL on healthy skin and artificially barrier-damaged skin by tape stripping, but it would be relevant to understand if the barrier damage was more extreme would H4500 function efficiently.

NFC-enabled battery free sensory tags in a smartphone device that also has an application on the phone to calculate TEWL and SWF is an interesting new and compact device that could have a future in measuring

TEWL. Due to its novel nature, it should be compared to devices like Tewameter and Vapometer and compared in a larger population and clinical research situations.

In conclusion, Tewameter, VapoMeter, Model H4500, and Battery-free sensor tags measure TEWL effectively. Each maybe better equipped to handle certain skin conditions. Sensory tags are portable compared to the well-used Tewameter and Vapometer. The value of current TEWL measurements suggests not only the need for more informative comparative data, but also methods for comparing data from one instrument to another.

Keywords: Transepidermal Water Loss, Tewameter, Vapometer, Sensors, and Probes.

Summary Table:

Study	Purpose	Sample size	Outcome measures	Relevant Findings
Gardien et al., 2016	Investigate Tewameter efficiency	55 adult patients with either scar, healthy, or contralateral skin	TEWL mean values using Tewameter were graphed on Bland-Altman plots to get r value to understand overall correlation is positive or negative	-Tewameter accurately depicted TEWL decrease while scar heals into healthy skin. -R value of -0.61 indicated that water loss decreased as skin healed, proving reliability of Tewameter.
Larson, 2011	Understand Vapometer and how it can measure sweating in g/m2/h	8 patients (16 axillae) with average age of 22 years underwe nt axillary surgery	VapoMeter readings in g/m2/h were obtained before and after axillary	-VapoMeter is a reliable replacement for the previous method of measuring the disability associated with hyperhidrosis which was patient history. - Average preoperative reading was 473 g/m2/h and six months later the average postoperative reading was 58 g/m2/h
Kikuchi et al., 2017	Test H4500 a closed less expensive chamber system	Measured volar forearms 15 healthy volunteers before and after artificial barrier damage	Using a 95% confidence interval and a p value score to find the correlation between H4500 and TEWL	- After using Tewameter, VapoMeter, and H4500, confidence interval of 0.835 - 0.978 was found between measurements between all three devices.

Ali et al., 2020	Testing if the battery free NFC enabled android	8 subjects indoor and 6	TEWL computed using Ficks Law on the	-Result showed an increase in TEWL when subjects were outside due to sweating which also resulted in increased SWF,
	smartphone application can measure TEWL and SWF	subjects outdoor	smartphone app(gm/cm2(s))	suggesting validity of the sensor. -After many trials a pattern of higher the rate of skin moisture, higher TEWL rate was concluded.

Biography

Megha Rajput is a second-year medical student at William Carey University College of Osteopathic Medicine. She has been mentored in dermatology and research by Dr. Howard Maibach for the past three years. Her passions in medicine have been geared towards dermatology which led her to edit a chapter in the Handbook of Cosmetic Dermatology and present her Skin Pollutant research at the Pediatric Research Alliance Conference in Atlanta. She is originally from Houston, Texas, and values family time outside of her academic pursuits.

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Can pregnancy improve or exacerbate atopic dermatitis? Considerations for management of skin sequelae in the context of global health inequities

Globally, Atopic Dermatitis (AD) is the most common skin disorder in pregnancy and accounts for 36-59% of obstetric skin disease. The pathogenesis of AD in pregnancy is unclear. The prevailing theory suggests the immunity shift from Th-1 to Th-2 during pregnancy leads to AD exacerbations in gravid patients. Surprisingly, AD improves during pregnancy for some. The impact of AD must also be contextualized by a health equity lens, given its increased prevalence and severity in Black and Latinx populations. While clinical understanding of AD during pregnancy is unclear, current understanding of its disproportionate impact on gravid patients of color remains obscure.

A systematic review of Pubmed and Web of Science was conducted. Keywords included atopic dermatitis, eczema, pregnancy, and persons of color. Approximately 100 studies were reviewed and 22 studies were selected based on relevance after review of titles and abstracts. In total, 11 manuscripts met inclusion criteria which included the following: (1) published in English and (2) discussed the AD course in pregnancy, (3) treatment for AD in pregnancy, or (4) AD in melanin-rich skin.

Results suggested that 30-50% of gravid patients with pre-existing AD experienced an exacerbation of symptoms while 20% experienced improvement. Literature on the pathogenesis maintained that the progression of AD during pregnancy is due to a transition from cell-mediated to humoral immunity. Few studies explored treatment modalities for gravid populations. There was minimal data on the unique sequelae of AD in melanin-rich patients.

Current literature indicates the shift from a Th1 to Th2 immune response, fueled by the increase in estrogen and progesterone, can exacerbate pre-existing AD and cause de novo AD in gravid patients. Clinical understanding regarding the associated predisposing factors is even less clear, complicating providers' ability to identify at-risk individuals. Maternal AD is positively associated with premature rupture of membranes, staphylococcal neonatal septicemia, staphylococcal infections in the gravid patient. Untreated and poorly controlled AD leads to increased maternal stress which elevates risk of fetal AD development. Treating AD is well-established for the non-gravid patient. Data on treatment modalities for AD in pregnancy is sparse, likely due to difficulties in researching gravid populations for maternal and fetal safety concerns. Options for preferred treatment strategies are biased as some clinicians are conservative with AD management in gravid patients. Some patients report hesitancy in continuing their prepartum dermatological medications during pregnancy for fear of harming the fetus. This underscores the need for providers to counsel patients prepartum about progression, safe treatments, and for this counseling to become a fixture in prepartum protocol. There remains many questions regarding why 1 in 5 pregnant patients with AD experience an improvement of symptoms suggesting an avenue of exploration for improved treatment options and disease management. AD poses a disproportionate burden of disease among communities of color.

However, the paucity of data on the disease progression and impact on gravid patients of color leaves uncertainty about this widening health inequity. Ongoing assessment with a global health equity lens will enable personalized prepartum AD guidance and management for all patients.

Audience Take Away Notes

- Understand how pregnancy can exacerbate or improve atopic dermatitis and the underlying pathophysiology of its diverse disease courses in the gravid patient
- Explore the maternal and fetal complications linked to prepartum atopic dermatitis
- Discuss available treatment options for atopic dermatitis during pregnancy and their respective safety profiles
- Feel empowered to offer accurate and comprehensive prenatal guidance on atopic dermatitis to patients post-presentation
- Understand the global health inequities associated with atopic dermatitis and its impacts on communities of color

Biography

Mehar Maju, MPH is in her third year of medical school at the University of Washington School of Medicine pursuing her MD. She received her MPH from UCLA Fielding School of Public Health in 2019 with a concentration in Community Health Sciences. For the last 7 years, Mehar has conducted research at the intersection of Global Health, Asylum Medicine, and Population Health. She is pursuing a career in Dermatology with the intention of improving knowledge and research regarding Global Health Dermatology.

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Scalp cooling success in a black woman

Chemotherapy-Induced Alopecia (CIA) is emotionally distressing and plays an important role in body image, emotional state, and quality of life. Forty-seven percent of women consider CIA the most taxing part of receiving chemotherapy, and 8% would forgo chemotherapy due to the fear of alopecia. In 2017, Scalp Cooling (SC) devices received U.S. FDA approval after studies demonstrated efficacy in preventing CIA. This improvement has not been generalizable to black patients, however. Only a few black patients have participated in SC trials. Here, a 65-year-old black woman diagnosed with Stage I breast cancer underwent four cycles of intravenous docetaxel and cyclophosphamide chemotherapy using a proprietary device. Distinctively, she had chemically relaxed hair and slightly modified the standard hair preparation protocol. She used SC throughout her treatments and experienced 40% hair loss, attaining the criteria for success. The efficacy of SC largely depends on the patient's race/ethnicity, hair type, SC system, proper cap fitting, chemotherapy regimen, dosing, and adherence to directions. Factors contributing to successful SC may include straight hair, taxane-based chemotherapy, gentle hair care practices, and modified hair products. Additional research and improvements in the cap design may be needed to alleviate the psychosocial effects of CIA in black patients.

Audience Take Away Notes

- This report demonstrates that scalp cooling can be successful in patients with ethnic hair
- Modifications to the protocol more appropriate for different hair types may result in improved success
- Additional research and improvements in the cap design may be needed to alleviate the psychosocial effects of CIA in black patients

Biography

Michaela Crawford is a fourth-year medical student at Meharry Medical College in Nashville, TN. She is from Birmingham, Alabama and graduated from Xavier University of Louisiana in New Orleans, LA. Her interests include skin of color, alopecia, atopic dermatitis, and health equity. In her free time, she enjoys teaching yoga and volunteering at outreach events.

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The educational & financial considerations in atopic dermatitis

Background: Atopic Dermatitis (AD) is a chronic, pruritic inflammatory cutaneous disease that affects people of all ages and demographics. This condition significantly affects patient quality of life. With the rise of new biological and over-the-counter treatments, we sought to explore whether patients' education and income level affect their accessibility to these regimens and knowledge of their disease. This study examines whether education level and income play a role in caring for one's atopic dermatitis.

Methods: A cross-sectional study was performed in patients with AD at an academic facility. The survey was conducted through phone calls, during which patients answered questions based on their experience with AD. The survey collected data on disease severity, demographics, comorbidities, residential community, and other factors contributing to their quality of life. Statistical analysis was performed with SPSS.

Results: Sixty-four patients participated in the survey, with a response rate of 78%. Responders were predominantly female (55%), with a mean age of 41. Participants were 48% White or Caucasian, 36% Black or African American, and 16% Asian or Asian American. Self-reported disease severity was labeled as mild (17%), moderate (33%), or severe (50%). Yearly income levels were reported as less than $50k (23%), $50-100k (14%), $100-150k (16%), more than $150k (20%), and 27% declined to answer. Regarding education, 36% had less than a college degree, 42% earned a college degree, and 22% earned a postgraduate degree. No significant association was found between income level and affordability of treatments (p=0.317), missed treatments and education level (p=0.067), nor education level and treatment regimen difficulty (p=0.936). Even though no statistical association was found between disease understanding and education level (p=0.263), results illustrated a stepwise increase between patient understanding and educational achievement.

Conclusions: Our findings suggest greater educational achievement correlates with a greater understanding of AD. A larger sample size may be necessary to gain statistical significance. In addition, improved patient counseling may be useful for enhanced outcomes across education levels. Further studies may be needed to test the efficacy of various patient instruction strategies to determine the best approach for each level of education.

Audience Take Away Notes

- Income level has no significant association on affordability of treatments
- There is a stepwise increase between patient understanding and educational achievement
- Physicians may try different methods of patient education based on each patient’s educational achievements
- Further research may be needed to determine the best approach for each patient’s educational level

Biography

Michaela Crawford is a fourth-year medical student at Meharry Medical College in Nashville, TN. She is from Birmingham, Alabama and earned a Chemistry degree from Xavier University of Louisiana in 2020. She is passionate about medical education and inclusivity in research, and currently serves as President of Meharry's Dermatology Interest Group. Her interests include skin of color, alopecia, atopic dermatitis, and health equity. In her free time, she enjoys teaching yoga, mentoring her peers, and volunteering at outreach events.

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Reasons contributing to the formation of dystrophic diseases of the genitals in women

Dystrophic Diseases of the Vulva (DDV) include an extensive group of diseases of the female external genitalia, which are based on the processes of collagen disorganization.

The high frequency of domestic stress (67.0%) could be dictated by the presence of DDV due to increased anxiety and suspiciousness, just as emotional stress itself could contribute to the formation of the disease. These conditions also contribute to low adherence to treatment and the formation of a vicious circle when the mutual influence of the peripheral process on the central nervous system is fixed and vice versa.

The main parameters of monitoring were: control of condition (well-being); compliance with preventive measures; control of the dose and duration of medications used at home; intensification of therapy. The study design included a comprehensive clinical and laboratory examination of the patient in order to identify the main causes of the disease, provision of detailed information about the disease and possible consequences (information letters, booklets, information about new diagnostic and treatment methods) and subsequent interaction with the patients during a long period of clinical observation. To study the effectiveness of therapy, we used the following methods of interaction with patients: surveys using specially designed tests, SMS notifications, online counseling, and telephone calls.

The results of microscopic examination of the genital tract discharge showed that among the examined patients, 54 (61.4%) had fungi of the genus Candida, 25 (28.4%) had signs of bacterial vaginosis (Gardnerella vaginalis). Ureaplasma Urealyticum was detected from 29 (32.9%) out of 88 examined persons. Other bacterial pathogens were also detected: in 13 (14.8%) cases, Staphylococcus epidermidis was isolated, in 39 (44.3%) - Enterobacter, in 7 (7.9%) - Streptococcus haemolyticus, in 2 (2.3%) - Streptococcus saprophyticus and in 3 (3.4%) - Staphylococcus aureus.

When examining scrapings of Urogenital Tract (UGT) separated by PCR diagnostics for the presence of viruses, it was revealed that among 88 patients, in 11 (12.5%) cases, Herpes Simplex Virus type II (HSV-II) was detected, in 14 (15.9%) - Herpes Simplex Virus type I (HSV I), in (13.6%) - Cytomegalovirus (CMV), in 21 (23.8%) - Human Papillomavirus (HPV) 16/18, in 3 (3.4%) - Human Papillomavirus 31/33 (HPV 31/33), in 2 (2.3%) cases - Chlamydia trachomatis, in 3 (3.4%) Mycoplasma Genitalium. In general, in 61.4% of patients with dystrophic diseases of the vulva, concomitant pathogenic and conditionally pathogenic microflora was detected in the lesions.

The most common pathogens in dystrophic diseases of the genitals were Ureaplasma urealyticum (32.9%), HPV type 16/18 (23.8%) and Candida albicans (61.4%), Gardnerella vaginalis (28.4%), Staphylococcus epidermidis (44.3%), which may indicate both their starting and aggravating role in the origin of dystrophy. In any case, the identification of these pathogens requires the introduction of antibacterial, antiviral, antifungal drugs into complex therapy.

Conclusion: Thus, based on the use of modern methods of increasing adherence to therapy in patients with dystrophic diseases of the vulva, such as testing using specially designed questionnaires and monitoring the condition through online consultation, we were able to significantly improve the effectiveness of the therapy. After several courses of complex therapy, the need for online consultations decreased and it was enough to send SMS notifications about reminders of certain treatment and preventive measures.

Thus, the direct involvement of STIs in the development of genital neoplasms has not yet been proven, however, there are a number of works, including ours, indicating an increased incidence of some STIs in dystrophy and the initial stages of dysplasia of the vulva, vagina, and cervix. The mechanism of influence of STIs on the formation of vulvar dystrophy can be both direct and indirect.

Audience Take Away Notes

- The algorithm of treatment of genital warts recommended by us will significantly individualize the approach to treatment, reduce the number of complications and relapses of the disease. It can be useful for obstetrician-gynecologists, dermatovenereologists, oncologists

Biography

Poroskhonova Delya Fozilovna, dermatovenereologist, Doctor of Medical sciences. Leading specialist of the Republican Scientific and Practical Medical Center of Dermatovenereology and Cosmetology of the Republic of Uzbekistan on STIs and reproductive disorders. Author of more than 310 scientific papers. Has about 30 years of experience Research interests: chlamydial-mycoplasmal, papillomavirus infections, dystrophic diseases of the genitals, genital warts, laser therapy for diseases of the skin and urogenital tract.

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Nano moisture marvels: Hyaluronic acid delivery via lipid carriers for skin hydration supercharge

The integration of nanotechnology into dermatology holds immense promise for advancing targeted drug delivery systems and optimizing topical formulations for enhanced skin hydration. One notable example is the utilization of Nanostructured Lipid Carriers (NLCs) for delivering Hyaluronic Acid (HA) to the skin. This approach enables precise control over HA release kinetics, enhancing its penetration into the deeper skin layers and prolonging its moisturizing effects. Current research indicates that HA-loaded NLCs exhibit superior hydration efficacy compared to conventional formulations, offering potential therapeutic benefits for various dermatological conditions characterized by skin dryness and impaired barrier function. Future research endeavors should focus on refining NLC formulations to maximize HA bioavailability, investigating their compatibility with different skin types and pathologies, and exploring synergistic combinations with other active ingredients for enhanced therapeutic outcomes. Additionally, understanding the mechanisms underlying NLC-mediated skin hydration and evaluating long-term safety profiles are imperative for advancing the clinical translation of this innovative nanotechnology-based approach in dermatology. Integration of advanced imaging techniques and computational modeling could provide valuable insights into the dynamics of NLCs in the skin microenvironment, guiding the development of tailored strategies for personalized skincare regimens and addressing unmet clinical needs in dermatological practice.

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