

MAY 13 - 14
2019

International Conference on
**DERMATOLOGY AND
COSMETOLOGY**

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*Theme: Scientific Strategies and Preventive
Care for Skin, Hair and Nails*

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@dermatologyconf



#IDC2019



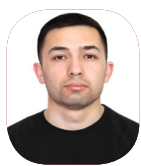
International Conference on
DERMATOLOGY AND
COSMETOLOGY

Theme:
Scientific Strategies and Preventive Care for Skin
Hair and Nails

MAY 13-14, 2019
TOKYO, JAPAN

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Ricardo Hoogstra

University of Buenos Aires (UBA),
Argentina



Saleh Aljabri

Odette Cancer Center
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Timothy Falla

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Yensheng Wang,

Yale University
USA



Yi-Guo Feng

Xi'an Jiaotong University
China

Thank You
All...

Welcome Message



Dear colleagues,

The goal of the International Conference on Dermatology and Cosmetology (IDC 2019) is to promote all latest scientific advances relevant to skin, hair and nail health and disease through education and scholarly exchange of scientific information. This exciting meeting will bring together a diverse group of senior researchers and clinicians, as well as clinical trainees from all over the world. Variety of multidisciplinary scientific sessions will be focused on the important topics such as skin cancer; inflammatory skin diseases; advances in cosmetic, reconstructive and oral and maxillofacial surgery; innovative approaches to drug delivery through skin barrier; novel drugs for the treatment of dermatological diseases.



The program includes the keynote presentations and lectures by renowned invited speakers combined with hands on workshops, interactive sessions, poster sessions. Overall it will provide the opportunity for clinicians and researchers to learn about cutting edge therapies, interact, and possibly initiate productive international collaborations in the fields of dermatology and cosmetology.

Looking forward to seeing you in Tokyo and wishing you a great meeting!

Irina Budunova
Northwestern University, USA

Welcome Message



Dear colleagues,

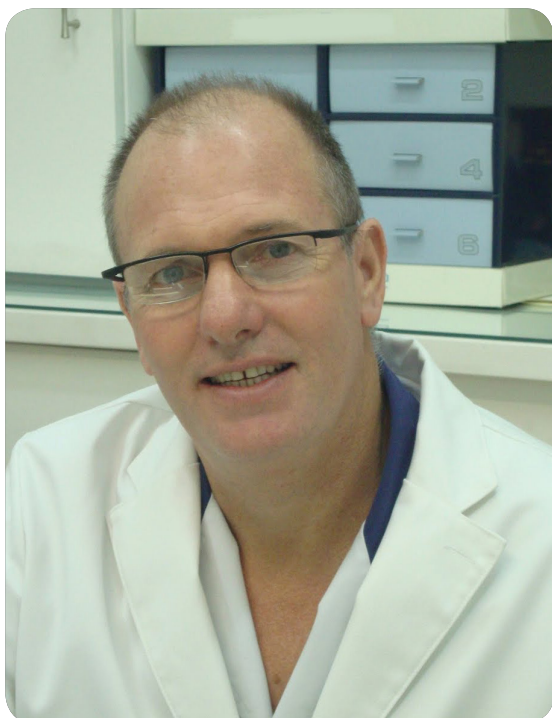
The International Conference on Dermatology and Cosmetology will be held in May this year in Tokyo, Japan. In various scientific sessions, different interesting topics from these fields will be presented. This includes topics such as skin cancer, allergies and atopic dermatitis as well as interesting questions about the effect of cosmetic products. New methods of drug delivery into and through the skin barrier will be presented that are important for dermatology and cosmetology.



Keynote lectures introduce the different methods and procedures, followed by lectures by leading scientists. Researchers from all over the world have announced their participation. For this interesting conference, I wish us an active participation and exciting discussions.

Jurgen Lademann
Charite - University Medicine Berlin, Germany

Welcome Message



Dear colleagues,

This year Tokyo will receive Medical doctors and scientists around the world to participate in The International Dermatology and Cosmetology congress.

I am glad to invite you to be part of this incredible meeting which will be held on May 13th and 14th, 2019.

The most advanced techniques and research in this field will be presented.

I am going to talk about my personal technique of Eyelid surgery without skin resection.



Ricardo Hoogstra MD
University of Buenos Aires (UBA), Argentina

keynote speakers



Makoto Senoo
Boston University School of
Dental Medicine, USA



Desmond Fernandes
University of Cape Town
South Africa



Jurgen Lademann
Charite- University Medicine
Berlin, Germany



Irina Budunova
Northwestern University
USA



Ricardo Hoogstra
University of Buenos Aires
(UBA), Argentina



Hassan Zahouani
Halmstad University
France

About MAGNUS GROUP

Magnus Group (MG) is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conference and workshops can be well titled as 'ocean of knowledge' where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the world, without compromising service and quality.

About IDC 2019

Magnus Group takes prodigious pleasure to invite you to participate in the 'International Conference on Dermatology and Cosmetology' scheduled on May 13-14, 2019 in Tokyo, Japan.

On this prosperous occasion, our committee takes immense privilege to invite the participants from all over the world to take part in this conference with the theme "Scientific Strategies and Preventive Care for Skin, Hair and Nails". The conference aims to review their knowledge, experience and share new ideas amongst the professionals, Industrialists and students from research areas of Dermatology and Cosmetology and take active part in the interactive discussions and technical sessions at the conference. The conference also provides a space for the companies and the institutions to present their services, products, innovations, innovative ideas and research work & results.

Scope of the congress: IDC 2019 will furnish you on the latest trends and keeps you up to date on the newest advances in Dermatology and Cosmetology. A unique aspect of the event is to emphasize research and clinical practice that include skin, hair, and nail health and much more offering deeper coverage of interventional procedures for those in the field of dermatology and cosmetic industry.



DAY 1

KEYNOTE FORUM

INTERNATIONAL CONFERENCE ON

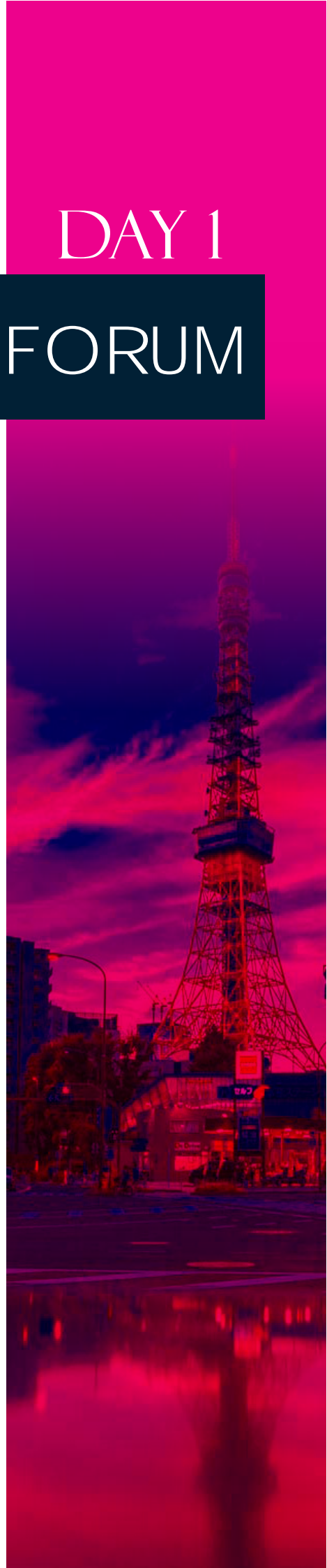
DERMATOLOGY AND COSMETOLOGY

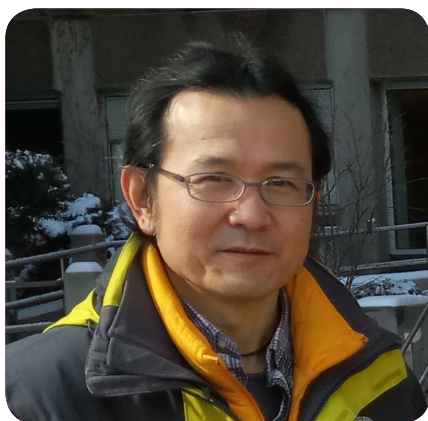
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Biography

Dr. Makoto Senoo is Associate Professor in the Department of Molecular and Cell Biology at the Boston University School of Dental Medicine. Dr. Senoo is a pioneer in the p63 field since its discovery in 1997. His lab focuses on intrinsic and extrinsic regulation of homeostasis and diseases of epithelia with a long-term goal of developing stem cell-based therapeutic options.

Role of the transcription factor p63 in regenerative capacity of skin stem cells

Makoto Senoo, PhD.

Boston University School of Dental Medicine, USA

Homeostasis and regeneration of the skin are maintained by self-renewal, proliferation, and differentiation of tissue-specific stem cells. We have shown previously that the transcription factor p63 plays an essential intrinsic role in regulating self-renewal of skin stem cells. In this keynote speech, I will present three short stories developing in our laboratory surrounding the control of homeostasis and regeneration of the skin.

- (1) Control of the cell cycle progression in skin stem cells by p63.
- (2) Regulation of dermal adipocytes by skin stem cells via paracrine signaling.
- (3) Rapid enrichment and expansion of skin stem cells for regenerative medicine.



Biography

Ricardo Hoogstra is 62 years old. He was born in and lived in Buenos Aires, Argentina, in 1981 he began his residence of general surgeon. in 1984 Vascular surgery, In 1985 Plastic and reconstructive surgery. He was chief of plastic surgery of Penna Hospital Buenos Aires, Argentina. Since 1995 he began to work with different kind of Laser technology. He performed several meeting about laser, use and security. His research with engineers in laser and anatomopathologies brought the best way of using laser. Many M.D around the world come to his clinic in Bs. As. Argentina to get training. Also he flew to different countries to train professors and their staff. He developed new techniques to removed cysts and tumors without skin removed using laser technology. He found new treatments for the acne and rosacea using technology. He thinks with his research he can help people to bring solution to difficult diseases until now have very little improvement, also can reduce the skin sequelae produced for conventional surgeries in many dermatologic pathologies.

Aesthetic Blepharoplasty without skin Resection

Ricardo Hoogstra M.D

University of Buenos Aires (UBA), Argentina

Aesthetic Blepharoplasty is one of the most frequent procedures. Despite of its simplicity, complications are very frequent also in the hands of very expert plastic surgeons. The most frequent side effect of upper blepharoplasty is the descend of the eyebrow, which give to the patient aspect of tiredness, sadness and oldness. Other side effect is the extensive scar. To avoid this kind of complications since 1995 I began to develop a technique to remove the upper eyelids fat bags through a stab incision and tightening the upper and lower eyelid skin with carbon dioxide laser. Since 2016 I began to tightening the skin with HIFU alone or associated with CO2 laser.

Audience Take Away:

- Most medical doctors around the world perform blepharoplasty most of them with skin resection, most of them has a lot of complications and unhappy patients.
- My personal technique will help to avoid complication, to increase their work and to be pioneering in the world.



Biography

Prof. Jurgen Lademann is an internationally recognized researcher who is focused on the interface between dermatology, pharmacology and biophysics. Originally a physicist, he has been head of the department of "Experimental and Applied Physiology of the Skin" at the Hospital for Dermatology, Venereology and Allergology, at the Charité – Universitätsmedizin Berlin since 1996. He was appointed professor for dermatology in 2001.

The areas of specialization for his research include

- Penetration routes for topically applied substances
- Hair follicles as a penetration route and reservoir of agents
- Nanoparticles
- Optical measuring methods
- Measuring Antioxidants
- Low temperature plasma

Prevention of skin aging and skin cancer by sun-screens: UV or light protection

Jurgen Lademann

Charite - University Medicine Berlin, Germany

Skin aging is determined not only by genetic aspects but mainly by environmental factors and the lifestyle of each individual. Solar UV-radiation, nicotine and alcohol consumption can cause free radical formation in human skin. In small concentrations free radicals are important for signaling processes, but if their value is exceeding the critical radical concentration, these highly reactive molecules are able to destroy cells or cell compartments. The human organism has developed a protection system against the destructive action of free radicals in form of the antioxidative system. Antioxidants can neutralize free radicals before they can damage the tissue or tissue components.

At the Center of Experimental and Applied Cutaneous Physiology spectroscopic methods were developed to determine the concentration of antioxidants in human skin noninvasively. Based on these measurements the action of free radicals could be estimated by the degradation of the antioxidants. Most antioxidants are not produced in the human organism. They have to be ingested by a healthy diet rich in fruits and vegetables.

The antioxidative potential of the human organism is a fingerprint of the volunteers as determined by their nutritional and stress behaviour. Stress factors like sleepiness, illness, alcohol consumption or psychological stress is reducing the concentration of antioxidants in the skin. This was demonstrated by comparing differences in the nutritional and stress behaviour of German and Korean citizens. It is well known from the literature that UV irradiation generates free radicals which are reducing the antioxidants in the skin. The same effect could be detected for infrared light, the energy of which is insufficient to produce free radicals by itself. It was found that the infrared radiation stimulates mitochondria which produce free radicals. These results were confirmed by optical spectroscopic methods and also by paramagnetic resonance spectroscopy. Based on these findings it could be demonstrated that 50% of the free radicals produced by sun radiation in human skin are formed by visible and infrared light. As people applying sunscreens with high protection on the beach are protected against sunburn, these people stay much longer in the sun than if they remained unprotected. In this case the free radicals produced in the unprotected visible and infrared spectral range of the sun radiation form amounts much higher than the critical radical concentration responsible for skin damage. Protection mechanisms of sunscreens in the visible and infrared spectral range are discussed in the presentation.

DAY 1

SPEAKERS

INTERNATIONAL CONFERENCE ON

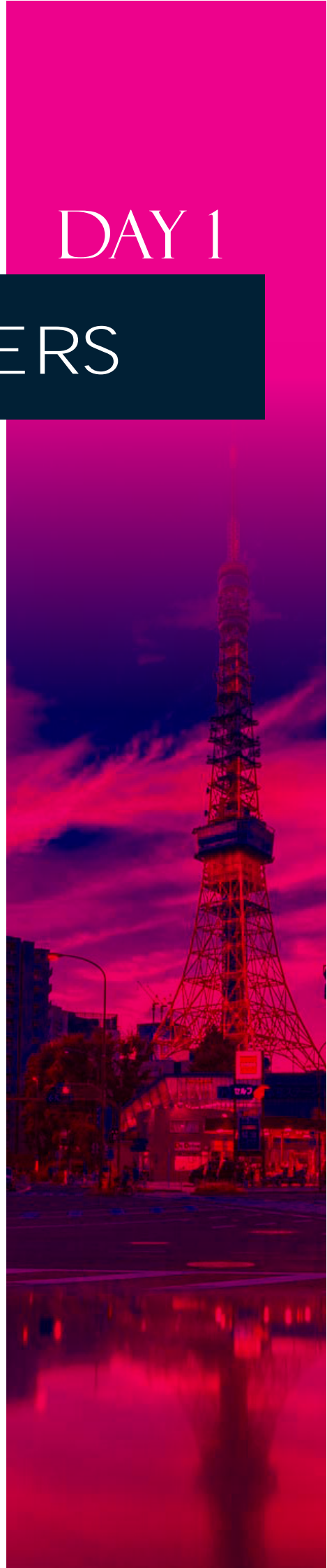
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Uncoupling oncogenic and tumor-suppressive activin functions in melanoma

Olivier Dubey, Prudence Donovan, Susanna Kallioinen, Sina Nassiri, Julien Faget, Etienne Meylan, Prof. Daniel B. Constam Dr. sc. nat*

Ecole Polytechnique Fédérale Lausanne (EPFL), Switzerland

Melanoma and squamous cell carcinoma and many other cancerous cells frequently secrete Activin-A, a TGF β -related factor that normally regulates wound healing and the menstrual cycle. Activin-A accumulation in plasma associates with poor prognosis e.g. in lung adenocarcinoma and may lead to systemic muscle wasting, and its overexpression locally within skin keratinocytes can accelerate squamous cell carcinoma progression, at least in part by stimulating tumour angiogenesis. However, in normal human melanocytes, mammary epithelial cells and liver hepatocytes Activin-A primarily inhibits cell proliferation. How cancer cells might co-opt this factor to unleash oncogenic signals and whether the underlying mechanism is druggable remains to be determined. Using human and mouse melanoma grafts, we found that lentiviral expression of constitutively active mutant receptor in such pre-clinical models potently restores cytostatic and cell death signaling, indicating that evasion of tumour-suppressive activity likely involves inhibition of autocrine signaling. In sharp contrast, Activin-A secretion and paracrine signaling stimulated primary and metastatic growth instead of suppressing it. We show that such oncogenic activity is mediated by inhibition of cytotoxic CD8 T-cells, and we shed light on the underlying mechanism. Targeting paracrine Activin-A signaling emerges as an attractive new avenue to stimulate anti-tumour immunity in a subset of human melanoma and possibly other solid cancers.

Audience Take Away:

- While TGF β and related factors are hotly pursued as drug targets of specific antibodies and small molecule inhibitors, the efficacy of such treatments will critically depend on the ability to untangle desirable from unwanted effects. Our work highlights the importance of giving due consideration not only to TGF β itself but equally to Activin, and to the clear distinction between cell autonomous and non-autonomous signals.
- We demonstrate for the first time and in a disease-relevant context directly opposite outcomes for the same signaling pathway depending on whether a ligand signals autocrine (tumor suppression), paracrine (tumor promotion) or endocrine (cachexia). Our findings and related work from other labs imply that teaching about TGF β should incorporate aspects of how the bioavailability of such ligands and their transport/diffusion in tissue are regulated.
- Innovative strategies targeting the tumor microenvironment to overcome intrinsic and acquired resistance to immunotherapies are arguably the top priority in current cancer research. Our work suggests that among the plethora of pleiotropic Activin-A activities, a hitherto underappreciated role in adaptive tumor immunity and its interplay with tumor angiogenesis and oxygenation likely determine the final outcome of signaling in skin cancers and possibly other tumor types.
- Our findings point to an additional layer of complexity in targeting Activin/ TGF β signals that has been largely ignored so far. In particular, we argue that it might be important to block signaling preferentially in specific subsets of target cells that mediate immune suppression, rather than within the cancer cells.

Biography

Daniel Constam studied natural sciences at ETH Zürich. After a doctoral thesis in neuroimmunology (ETH & Univ. Zürich), postdoctoral research as an EMBO fellow at Harvard University identified proteases that activate TGF β -related precursor proteins. In 2000, he became a group leader at the Swiss institute for experimental cancer research ISREC (Lausanne). Since 2007, he has been an Associate Professor at the EPFL School of Life Sciences where his lab currently studies the function and regulation of TGF β signaling pathways in development and cancer.

New perspective combining peeling mesotherapy mesobotox and microinsulated radiofrequency as combo treatment for acne

Anggi Y. Utami, MD

Indonesian Medical Aesthetic institution, Indonesia

Acne is a common inflammatory skin disease that affects pilosebaceous skin units. This usually long-standing disease can have severe psychological effects and can leave patients with severe skin scarring. There are a number of pathophysiologists who are recognized to be responsible for acne which is also the target of acne therapy. In this review, various treatment options are discussed.

Acne has been extensively studied with regard to the mechanism of disease and treatment options. The increased resistance of *Propionibacterium acnes* to available antibiotics, there is a need for new treatment methods.

Relatively little attention has been given to the role of antioxidants in acne vulgaris. Here, the author discusses the role of antioxidants, active substances that inhibit enzyme 5 alpha reductase inhibitors, botulinum toxin, and microinsulated radiofrequency in the pathogenesis of acne by specifying active ingredients that can contribute to clinical changes in acne treatment. To investigate this effect, we conducted a preliminary study by applying the active substance with a microneedling technique mixed with active ingredients of peeling, mesobotox and microinsulated radiofrequency.

This presence, along with positive results from the authors' preliminary study, shows the need for further exploration of the use of topical antioxidants in limiting free radical oxidation in the treatment of acne. This paper is designed to stimulate academic discussion about new ways of thinking about acne conditions

Audience Take Away:

- The audience will learn New way of thinking about the disease stat of acne, Combining peeling, Combining mesotherapy, Mesobotox. The use of microinsulated radiofrequency

Biography

Anggi Y. Utami is the Founder of a medical aesthetic institution LEMBAGA ESTETIKA MEDIK www.kursusestetika.com at 2009, the first educational institution taught aesthetics for general practitioners and beauty salons in Jakarta and throughout Indonesia. and up to 2019 the aesthetic institution has more than 1700 student from Indonesia, Malaysia, vietname, philiphina, brunai Darussalam.

Science-based skin care to prevent aging and pigmentation with special reference to Japanese skin

Desmond Fernandes M.B.;B.Ch.;F.R.C.S.(Edin)

University of Cape Town, South Africa

Without doubt, by understanding the molecular changes in skin that cause photoaging and the processes that induce intrinsic ageing, we can then devise a scientific strategy of treatment. Foremost amongst the molecular changes is the destruction of vitamin A, which is naturally found in photo-protected skin in relatively high quantities. Exposure to light, and particularly UVA light, induces changes in the molecular structure of vitamin A. By absorbing the energy of photons, the double bonds are altered or broken, and while the photo-protective effect can even equate to an SPF value of 20 or more, the loss of vitamin A is the major stress on skin cells. DNA is damaged, collagen and elastin formation is depressed, but Matrix Proteinases are promoted to destroy dermal matrix. The melanocyte axis is affected and results in excessive pigmentation. Langerhans cells are attenuated, which impairs skin immunity and permits the formation of skin cancers. The antioxidant status is severely affected as well. I will show how, by replacing vitamin A and antioxidants, one can restore a youthful appearance and blemish-free skin. Adding selected peptides to products can give significant rejuvenation. By enhancing penetration with cosmetic skin needling and a combination of low frequency sonophoresis and iontophoresis one can reverse these physiological changes and rejuvenate skin.

Audience Take Away:

- a) By recognising the chemical changes induced by photoaging the audience will understand how to select cosmetic products that are targeting the damage from exposure to light.
- b) The patient looks to the doctor to give balanced and effective advice on cosmetics to use.
- c) By encouraging patients to use effective cosmetics, doctors also enhance the results that they achieve
- d) Many doctors are unfortunately unaware of real cosmetics that work and either sell or advise products with ingredients that either don't work physiologically or are in adequate concentration to be effective

Biography

Desmond Fernandes is a Plastic Aesthetic surgeon and in early 1980's he recognized the importance of scientific skin care and formulated skin care specifically for my patients. This was commercialized and registered with various national departments of health around the world and eventually was judged by Aesthetic Everything as the best medical skin care in USA in 2018. He researched enhanced penetration through skin, and then patented low-frequency-sonophoresis and iontophoresis for use by skin care practitioners in 1998. He was awarded the INNOCOS prize for Innovative Cosmetic Formulation in 2016. He was listed as one of the ten top plastic surgeons in the world for his work on scarless face and neck lifting. His research in medical needling from 1994 continues and is now used around the world.

Effects of lipopolysaccharide on the maintenance of skin homeostasis and improvement of skin problems including atopic dermatitis

Chie Kohchi, Ph.D.

Macrophi Inc., Japan

The skin is directly exposed to the environment, and its homeostasis seems to be maintained by a crosstalk between the skin resident bacteria and environmental bacteria. Kasahara et al. reported that many bacteria that are found in forests and farms live on the skin of people with good skin condition (30th IFSCC congress). Additionally, Gueniche et al. reported that a solution of *Viteoscilla filiformis* isolated from a hot spring is effective in improving atopic dermatitis (AD). Moreover, the balance of resident bacteria on the skin differs between patients with AD and healthy individuals. Myles et al. reported that symptoms improved when *Roseomonas mucosa* collected from the skin of healthy individuals was transplanted onto the skin of patients with AD.

Interestingly, although Gram-positive bacteria are overwhelmingly present as the skin resident bacteria, Gram-negative bacteria, such as *Roseomonas* and *Viteoscilla*, are effective in improving AD. Gram-negative bacteria are characterized by having lipopolysaccharides (LPS) with a strong innate immune-activating ability in the cell membrane. LPS have long been known to cause sepsis when present in the blood. However, LPS are abundant in the intestines and environment, and their effect is completely different when present in blood compared to their effect on oral and dermal ingestion. As Bufo et al. reported that the exposure of LPS during early childhood and the onset of allergy are inversely correlated, it is thought that oral and percutaneous LPS ingestion is safe and has a positive role in maintaining the homeostasis of the body.

Therefore, we randomly assigned a moisturizing cream containing *Pantoea agglomerans* LPS and a placebo cream to 25 patients with mild AD, and evaluated the disease transition under a double-blind protocol. Evaluation was carried out using the eczema area and severity index (EASI) score by a dermatologist and self-evaluation using the visual analog scale on itching and skin condition. As a result, no statistically significant difference was noted in the EASI score, but self-evaluation on itching and skin condition showed a statistically higher improvement rate in patients using LPS cream.

In the skin, not only typical immune cells but also keratinocytes express receptors for LPS (toll-like receptor 4). When keratinocytes were stimulated with LPS, no expression of inflammatory cytokines was noted; however, the promotion of autophagy involved in turnover, the augmentation of filaggrin, which is a barrier function protein, and the induction of β -defensin (in vivo antibacterial substance) were observed. When Langerhans cells were stimulated with LPS, no expression of inflammatory cytokines was noted; however, the expression of inflammatory chemokine thymus and activation-regulated chemokine decreased. Treg cells activated by LPS affect neutrophils, which leads to inflammation in suppressive direction.

Taken together, LPS, which is a component of Gram-negative bacteria, contributes to the maintenance of the skin homeostasis, and it may be effective as a part of the routine skin care of patients with mild AD.

Audience Take Away:

- Contribute to research on the mechanism of maintenance of skin homeostasis
- Provide a new viewpoint for the treatment of mild atopic dermatitis
- Contribute to the development of skin care cosmetics for patients with mild atopic dermatitis
- Contribute to the development of anti-aging cosmetics

Biography

Acquired a Ph.D. of Engineering at Graduate School of Engineering, Hiroshima University. After that, engaged in research at Pfizer Pharmaceutical Co., Ltd., Japan Society for the Promotion of Science (Cancer Special Researcher), Bioengineering Research Center, Teikyo University (Assistant), Isotope Center, Hiroshima University (Assistant), and School of Medicine, Kagawa University (Visiting Professor). Since 2007, the representative director of Macrophi Inc. Research contents are physiological function related to innate immune activation of orally percutaneously ingested lipopolysaccharide (LPS). Macrophi Inc. manufactures and sells LPS as a functional material for food or cosmetics.

Morphometric study of facial wrinkles and aesthetic skin as derma roller treatment combined with Platelet Rich Plasma (PRP)

¹Oyunsai Khan Surmaajav*, Ph.D., ²Amarsai Khan Bazar, Ph.D., ²Batbayar Badral, Ph.D., ³Erdenetsogt Dungubat, Ph.D.

¹Anagaakh Uurlag LLC, Mongolia

²Mongolian National University of Medical Sciences, Mongolia

³International University of Health and Welfare, Japan

Background: Facial wrinkles are a multifactorial, complex process that negatively affects individuals' appearance, consequently their quality of life. The treatment for these wrinkles varies with the degree of severity. This prospective study aimed to evaluate the clinical effect of dermaroller alone and dermaroller combined with platelet rich plasma therapy (PRP dermaroller), to treat facial wrinkles, and to quantitatively evaluate histological changes of the skin that occur in the two different cohorts.

Methods and materials: Twenty health women aged 43-48 years with scores ranging 2 and 4 on the baseline facial fine wrinkle grading scale were enrolled in this clinical study. Nineteen of the patients were treated with a pure dermaroller on the one half of face, and with a dermaroller that included a platelet rich plasma on the other half of the face. Three treatments, each in a 4-week interval were performed. Standard photographs and skin biopsies were obtained from the treatment area at baseline and 8 weeks after the final session. Comparisons of the treatments were analyzed using clinical and histological findings.

Results: The degree of baseline facial fine wrinkle grading scale after treatment revealed statistically significant effects of the PRP dermaroller treatment side compared to the side of pure dermaroller treatment side. At 8 weeks after the final session, the wrinkling grade on the PRP dermaroller side and pure dermaroller side showed significant differences ($p < 0.05$). Microscopic evaluation of haematoxylin eosin and Masson's trichrome stained sections revealed significant differences in dermal fibers, epidermal thickness, papillaries and skin glands.

Conclusion: Significant changes were noted between treatments of facial wrinkles with pure dermaroller and PRP dermaroller. Dermaroller combined with platelet rich plasma is promising novel method of facial rejuvenation.

Audience Take Away:

- Morphometric techniques in this research aimed at measuring size, shape, and the relation between size and shape (allometry) of skin morphologic components. Until now there is no accepted standards for morphometric studies exist in the dermato-pathology, and this is considered an important and significant area for further investigations. This study method should employ objective, quantitative techniques that are preferably computer assisted. Skin Morphometry is well suited for detecting Epidermal & Dermal and BM abnormalities because images are aligned with respect to skin layers' microscopic patterns. In summary, this improves research accuracy and design a valuable image database which often get involved in teaching and research in their expert area.
- For the clinician wishing to utilize PRP in practice, there are several important considerations that need to be made based on the conflicting meta-analyses for different conditions and the paucity of guidelines developed by professional organizations. Based on our review, it appears that combined use Dermaroller and PRP may provide some benefit in patients who have skin wrinkles and cellular aging changes respectively.
- On doing facial rejuvenation, the audience can be offered to use dermaroller drug as well as avoiding injection is advisable. The study conducted by us shows that dermaroller has positive effects on treating wrinkles, spots and scars since it has a plenty of benefits ranging from stimulating collagen induction, repairing skin irregularities such as wrinkles, delivering drug in the skin to increasing reconstruction of skin.

Biography

Oyunsai Khan Surmaajav received Ph.D from Heilongjiang University of Chinese Medicine, Harbin, China, a master's degree and a bachelor's degree from Mongolian National University of Medical Sciences. She is a surgeon at Dr. Suma's clinic, she works as a focus specifically on the skin rejuvenation and facial plastic and reconstructive surgery. She is a member of ISAPS (International Society of Aesthetic Plastic Surgery) and MAOMS (Mongolian Association of Oral and Maxillofacial Surgery).

Rejuvenation by New Thread Lifting (SLONA lifting) and Filler(S signature filler)

Wonseok, Choi., M.D. Ph.D

V Plastic and Aesthetic Clinic, Korea

Minimal invasive surgery is currently the most popular field in the field of cosmetic surgery. Especially, Botulinum toxin, Filler, and Thread treatment is the most commonly performed minimal invasive procedures.

One of the key treatments is Filler and Thread.

Filler must have excellent elasticity and cohesiveness, yet has a good mold.

Thread should not have the complication of the procedure and with no downtime of the patient.

I would like to introduce Non-invasive Facial Living and Non-surgical Rhinoplasty, which are commonly performed in Korea, using S-signature® filler and SLONA® thread.

I'm sure it will help your hospital in a simple and immediate way.

Audience Take Away:

- Can think about prompt and quick procedure for face lifting, filler and non-surgical rhinoplasty
- Prompt applicable procedure for non-invasive face lifting and non-surgical rhinoplasty.
- Very patient and doctor friendly procedure (no downtime and less complication and high doctor time efficiency)

Biography

Chief, V plastic surgery, Korea

Korea board certified plastic surgeon

Doctor of Philosophy (M.D., Ph.D.)

KAIST College of business, MBA

Advisory and adjunct professor of Catholic medical university of Daegu, Korea

Scholarship Committee of Korea Plastic Research Society of Botulinum toxin, Filler and thread

Scholarship Committee of Asia Pacific Antiaging Course (APAAC)

Korea Government (Korea Health Industry Development Institute) Medical Korea Awards

Efficacy of kinesio taping in the early postoperative period

Haejin, Jung, M.D., Hyung Woo Yim, M.D.*

Forever Plastic Surgery Clinic, Korea

Objective of the study

Kinesio taping (KT) is used worldwide to prevent and treat musculoskeletal injuries.

This study is to investigate whether the application of KT prevents or decreases bruises, swelling, and pain after surgery, thus improves patients' postoperative morbidity.

Materials and methods

An open-label, randomized clinical trial.

KT was applied directly after surgery and maintained for 10 days.

Patient surveys and physician ratings were obtained

12 Sprague-Dawley male rats were also used to evaluate the bruise healing effect of KT.

Results

The study included 231 patients

187 females and 34 males; mean age, 39.5 yrs.

KT Application decreased the swelling by more than 50% during the first 2 days after surgery.

In bruise-induced rat model, histological evaluation revealed that the microcirculation of injured subcutaneous tissue was accelerated after KT application.

Conclusions

KT after surgery is a simple, less traumatic, and effective approach for managing postoperative bruise, and swelling that are free from systemic adverse reactions, thus enables early return to normal daily life.

Biography

Hyung Woo Yim is working at the Forever plastic surgery clinic, Korea

New mini invasive technique of rejuvenation and adelgazamiento (visual) of the lower third facial and top cervical third

Gerardo Rafael Manuell Lee MD

Hospital Sedna, Mexico

The Facial Contour technique is presented for cases in which there is an imbalance between the volume of the lower third, and the appearance of excess fat of the lower facial and cervical third, by means of a cutaneous ligament replacement technique, and micro-lipotransference through minimal incisions.

Methods

Traction of the auriculo-platysmal fascia is performed, through the rotation and traction of the auricular pavilion and the facial SMAS, with minimal incisions and fixation to the deep fascia and periosteum, this technique has been carried out in two modalities: the first with traction exclusive of the fascia in the retroauricular areas and minimal atrial rotation, and the second with rotation of the auricle and atria platysmal fascia. In the same surgical time, the necessary volumes of micro-grafts in the facial region are restored, with special emphasis on mandibular angle and melolabial groove.

The procedure is carried out under local anesthesia with sedation, which favors a shortening in the recovery period (lower 96 hrs).

In specific cases, a chin implant is placed through a submental skin incision.

Results

32 cases were followed surgically with follow up of up to 4 years, with excellent results in 80%, good in 13.3%, and regular in 6.6%. The 15 cases with micro-lipograft application in predetermined amount, presented over its life, in a percentage higher than 80%.

This last year, 10 cases were intervened in which this procedure was combined with a face lift, with excellent results in all cases.

The areas with notable changes were: mandibular angle, facial cervical angle, upper third of the neck, mandibular line and jowls area.

In addition, a clear aspect of facial thinning was observed, especially in the cheeks and in the upper cervical third.

Conclusions

The traction and fixation of the auricle platysmal fascia to the periosteum of the mastoid process, either alone or in conjunction with the rotation of the auricle, produces a remarkable retensioned of the cervical region mandibular angle and mandibular line that is maintained over time without need to perform dissection or removal of skin tissue. In association with atrial rotation, and retroposition of the same, it is possible to retensioned the SMAS of the cheek and the auriculo - cheek fascia that provides a tense and natural appearance of the cheek.

The retensioning of the structure of the three-dimensional SMAS helps to correct facial skin tension, while the application of microlipoinjertios in predetermined quantities produces natural and long-lasting results (more than 4 years).

The procedure is safe and results in short convalescence, minimal morbidity, and in most cases, no ecchymosis.

Biography

Dr Gerardo Manuell is currently working at the Hospital Sedna, Mexico.

Treatment of vitiligo patients with high doses of oral vitamin D3 combined with melanocyte stimulation and pigment cell transplantation is safe and efficacious

Ulrich AMON*, Raul YAGUBOGLU, Laura BAIER, Beatrice RÖLLIG, Christine PFEIFFER

International Center for Skin Diseases DermAllegra, Germany

Vitiligo is a complex autoimmune skin disease resulting in varying patterns and degrees of depigmentation. The genetic and etiologic background are thought to be multifactorial. As in other autoimmune diseases regulation of immune dysfunctions through vitamin D seems to be important also in vitiligo. A recent meta-analysis revealed that vitamin D receptor (VDR) Apal polymorphism increased the susceptibility risk of vitiligo. Our own work demonstrates a correlation of BsmI VDR polymorphism in > 60 % of all vitiligo patients. We and others have shown a positive correlation between serum 25(OH)D deficiency and the incidence of vitiligo. Using these pathogenetic facts in our Vitiligo Center, we are prescribing high doses of oral vitamin D3 according to Finamor DC et al. (Dermatoendocrinol 2013; 5:222-34). Patients are receiving oral vitamin D3 supplements of 20.000 to 60,000 IU once daily according to their body weight and their parathormone level at baseline for at least six months in association with a low-calcium diet (avoiding dairy products and calcium-enriched foods like oat, rice or soya “milk”) and sufficient hydration (minimum 2.5 L daily). As published before, also in our sample serum creatinine and calcium does not change significantly and urinary calcium excretion only increases within the normal range. Combining oral vitamin D3 with subsequent melanocyte stimulation using UVB 311 nm irradiation stabilization of vitiligo can be reached in > 95 % of all patients. Pigment cell transplantation using non-cultured melanocyte cell suspensions is the further step in our treatment protocol for selected patients.

The presentation will show that our therapeutic strategy for vitiligo using oral high-dose vitamin D3 therapy is very effective and safe for vitiligo patients.

Audience Take Away:

- The audience will be able to use high doses of oral vitamin D3 for vitiligo and other autoimmune diseases
- The audience will be able to evaluate the potential risks of high doses of vitamin D3 as well as using safety criteria in their own daily practice or clinic
- The audience will be able to use an effective treatment combination for vitiligo patients leading to significant improvement of satisfaction of both patients and physicians

Biography

Professor Amon studied law and medicine at the Universities of Innsbruck, Freiburg i. Br, Marburg and the Guy's and St. Thomas's Medical School, London, England. Post-Doctoral Fellowship in the Department of Experimental Dermatology at Hoffmann - La Roche in Basel. Dermatological training at the Department of Dermatology Medical University of Lübeck. Direction of a laboratory for experimental allergology. 1996-2012 Medical Director of the Dermatology Clinic Hersbruck (Nuremberg). Parallel in 2005, founding of the DermAllegra International Center for Skin Diseases, a private practice clinic in Pommelsbrunn-Hohenstadt (Nuremberg). There, Professor Amon is now working full-time and additionally heads a center for clinical trials there. Clinical priorities are autoimmune and inflammatory skin diseases and laser surgery. Another activity and research focus is the micronutrient medicine and vitamin D.

Successful use of grenz rays for disseminated superficial actinic porokeratosis

Egle Ramelyte, MD^{a,b,c} Matilda Bylaite-Bucinskiene, MD^c, Reinhard Dummer, MD^{a,b} Laurence Imhof^{*}, MD^{a,b}

^aDepartment of Dermatology, University Hospital Zurich, Zurich, Switzerland

^bFaculty of Medicine, University of Zurich, Zurich, Switzerland

^cVilnius University, Centre of Dermatovenereology, Vilnius, Lithuania

Disseminated superficial actinic porokeratosis (DSAP) is a rare keratinization disorder with potential malignant transformation, for which present treatment strategies show limited success. In a retrospective study the response of DSAP lesions to grenz ray radiotherapy (RTx) was evaluated. Data of patients treated with RTx at University Hospital Zurich, Switzerland, between 2004 and 2015, were reviewed. Patients with DSAP, who received at least 1 RTx treatment session and who had been followed up for at least 4 weeks were included in the further data analysis. The study cohort consisted of 8 patients with a median age of 73 years. All were treated with grenz rays for DSAP. 7 of 8 patients showed complete clinical clearing of the lesions.

Audience Take Away:

- Various topical, surgical, destructive, and systemic therapies have been described to treat DSAP. None showed any resounding success so far.
- Results from this study along with an obvious clinical improvement in all patients shows that grenz ray radiotherapy is a promising therapeutic option in elderly patient with DSAP.

Biography

Laurence Imhof is the Director of Aesthetic Dermatology and Physical Therapy at the Department of Dermatology, Zurich University Hospital. Her clinical and scientific focus is on laser medicine, photobiology and radiation dermatology. She was trained in Washington DC, Miami FL, South Korea and Singapore, and in courses held at the Harvard Medical School (Boston, USA). She is a member of many national and international societies (e.g. ASLMS, ESLD, EADV) and serves as a scientific advisor for the Swiss Society for Laser Medicine. She leads training courses regarding physical therapy and aesthetic medicine in Zurich University Hospital and is a lecturer in numerous national and international congresses and courses.

Efficacy of biophysical energies on healing of diabetic wounds

Rachel Lai-Chu KWAN*, R.P.T., M.Phil., Gladys Lai-Ying CHEING, R.P.T., Ph.D.,

Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong

Chronic wound is a common complication seen in people with diabetes, and is the leading cause of non-traumatic lower limb amputation. Diabetic polyneuropathy and microangiopathy that happens in people with diabetes may impair the wound healing process, thus the wound can get stuck in various phases of healing and eventually become a chronic non-healing wound. Early management on diabetic wounds is crucial to save the limbs from amputation. Common treatments for diabetic foot ulcers may involve surgical revascularization or frequent debridement. However, a significant proportion of diabetic foot ulcers do not heal with the conventional treatment approaches. Diabetic wounds in particular those with biofilm has been difficult to treat because of increasing antibiotic resistance. Biophysical energies have been used in clinical setting to promote diabetic wound healing. These biophysical energies include a variety of treatments ranging from electrical stimulation to the use of electromagnetic field, and extracorporeal shockwave to photo energies and ultrasound. It has been used to promote tissue repair and has been found to enhance fibroblast activity and angiogenesis. Previous studies showed promising effects of biophysical energies in treating diabetic foot ulcers. Electrical stimulation, phototherapy and ultrasound interventions have shown positive findings in promoting healing of diabetic foot ulcers in human. Moreover, based on the percentage of original wound size affected by the biophysical energies in animal studies, both pulsed electromagnetic field and low-level laser therapy demonstrated a significant clinical benefit compared to the control or sham treatment. Our research team has shown that pulsed electromagnetic field produce a favorable influence on accelerating wound closure, decreasing wound depth and increase microcirculation in people with diabetes. Pulsed electromagnetic field could also promote early wound healing and myofibroblast proliferation in diabetic animals. The results indicate potential benefits of biophysical energies in diabetic wound management.

Audience Take Away:

- The audience will be able to understand the efficacy of biophysical energies in treating diabetic foot ulcers.
- The clinician will be able to incorporate biophysical energies in their treatment plan for people with diabetic wound.
- This research provides insight in future studies on biophysical energies for people with diabetes.

Biography

Ms. Kwan obtained her BSc (first class honors) and MPhil in Rehabilitation Sciences at The Hong Kong Polytechnic University, during which she worked extensively on diabetic researches. After practicing as a physiotherapist in different clinical settings for several years, she was determined to pursue her career in academia. Her research interests focus on applying advanced technology in the assessment and treatment of diabetic complications, in particularly, chronic diabetic foot ulcer. Her work is on both basic research done in animals and clinical studies. Ms. Kwan is active in publishing scientific papers in peer-reviewed international journals.

E-BABE- complications, unfavorable results and critical analysis of the double eyelid procedure

Adolfo Napolez M.D.

Southern Illinois University School of Medicine, USA

The Double Eyelid Procedure is one that is potentially fraught with unfavorable results as well as numerous complications due to the fact it is a procedure based predominantly on symmetry, precision and tissue characteristics with errors measured in millimeters. Coupled with significant expectations often times unrealistic from the patient's perspective. Who may routinely view a normal, expected outcome as an unfavorable result.

Potentially unfavorable results can range from crease size dissatisfaction, relapse to a single eyelid, asymmetry, multiple creases as well as high or thick fold.

Whereas, possible complications can range from ectropion, ptosis, ocular injury, hypertrophic scarring, milia as well as suture granuloma.

There is probably no other facial cosmetic surgical procedure that is more dependent on exactness and precision, coupled with patient expectations and visibility then the Double Eyelid operation.

Biography

Adolfo Napolez M.D. graduated from Southern Illinois University School of Medicine followed by a General Surgery Residency at West Penn Hospital in Pittsburgh, Pennsylvania, and followed that up with a Burn Surgery Chief Residency at Cook County Hospital in Chicago, Illinois and finally a two year Fellowship in General Cosmetic Surgery, highlighting Asian Cosmetic Surgery.

He is a member of the American Academy of Cosmetic Surgery, American Society of Cosmetic Breast Surgery, as well as a member of the California Academy of Cosmetic Surgery.

Dr. Napolez has published articles in 5 different Medical Journals, as well as a chapter Author in a textbook on Asian Facial Cosmetic Surgery.

He has twice been selected as one of America's Top Surgeons in Cosmetic Surgery, as well as a Top Doctor in Plastic Surgery Practice Magazine.

Dr. Napolez recently presented at the 5CC Cannes (France) 2015, 6th 5CC Aesthetic and Laser Conference and is scheduled to speak later this year in both Manchester, United Kingdom, and Barcelona, Spain.

DAY 1

SYMPOSIUM

INTERNATIONAL CONFERENCE ON

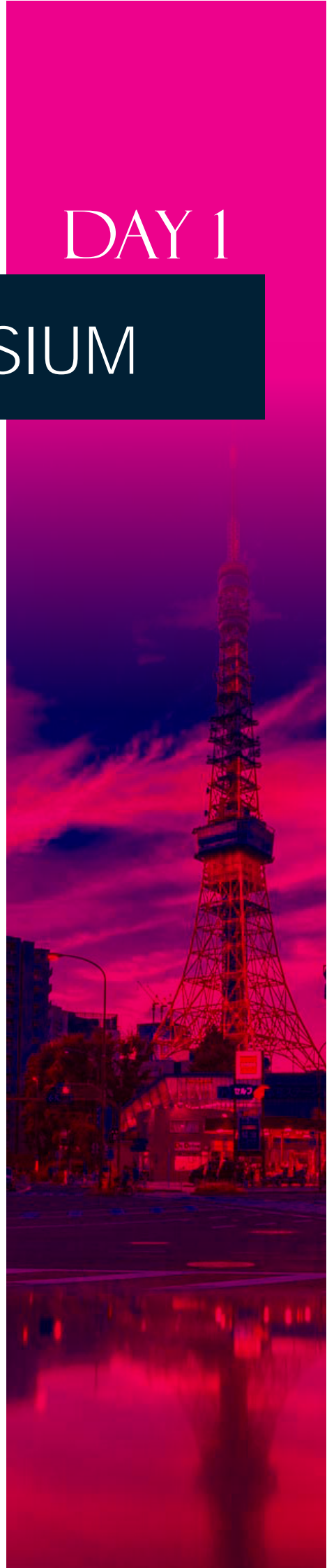
DERMATOLOGY AND COSMETOLOGY

MAY

13-14, 2019

TOKYO, JAPAN

IDC 2019



True causation of intractable atopic dermatitis and actually effective treatment by mite fauna investigation of patients' homes followed by environmental improvement

Hideo Nakayama MD*, Akiko Kumei MD, KoRon Chen MD & Masatoshi Takaoka PhD

Meguro Chen Dermatology Clinic, Japan

There is enough accumulated evidence to conclude that house dust mites (HDM) are the most significant causes of atopic dermatitis (AD). HDMs are known to increase serum IgE and RAST scores for Dps and Dfs, and will often show positive results among AD patients when a patch test using three crushed HDMs or a petrolatum-base test using many HDMs is performed.

However, HDMs are invisible to the naked eye as they measure less than 0.3 mm, and therefore even when thousands of HDMs are present in the interior of the patients' homes, they live quietly without causing any noise, and therefore their presence cannot be detected by the patients.

The newly developed Methylene Blue Agar method (MBA) can reveal how many HDMs are present in each household furniture, and through this method, they can be reduced to less than 50/m² per 20 seconds aspiration for all furniture and mattresses. It could dramatically improve severe symptoms of AD for patients who have even suffered for more than ten years. Because HDM of less than 50/m² means the mite number 1 or 0 at 10 cm×10cm area, and it was under threshold of provocation of eczema of AD.

Audience Take Away:

- Effect of allergen control with atopic dermatitis
- Mite fauna investigation
- How to decrease HDM to less than 50/m² to bring cure for years to come

Biography

Hideo Nakayama MD Graduated from Keio University, School of medicine in 1961, Chief Dermatologist of Saiseikai Central Hospital: 1970-1995, Visiting Lecturer of Keio University Hospital: 1970-1995, Chief Dermatologist of Nakayama Dermatology Clinic: 1995-2015, Adviser doctor of Meguro Chen Dermatology Clinic: 2015-2018.

DAY 2

KEYNOTE FORUM

INTERNATIONAL CONFERENCE ON

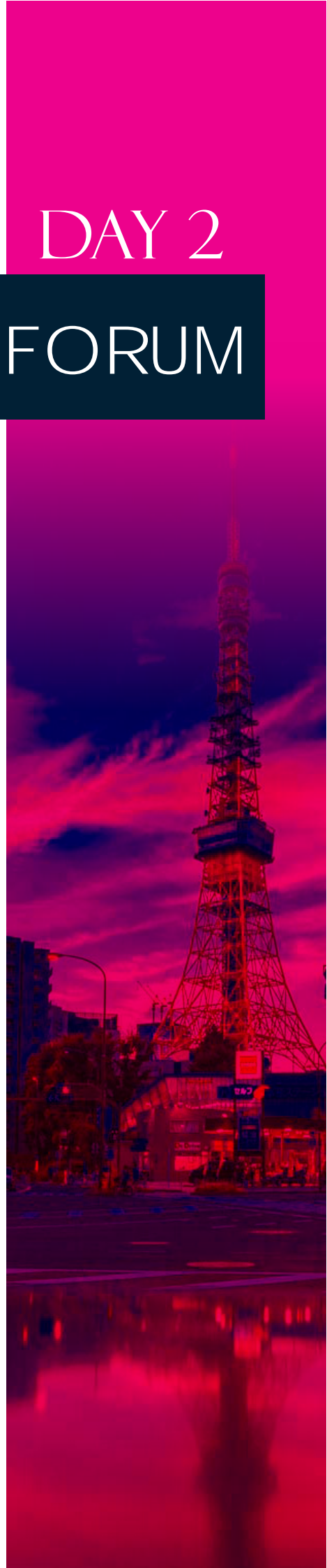
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Biography

Dr. Irina Budunova obtained her MD degree from Pirogov State Medical University, and Ph.D. degree from National Cancer Center (Moscow, Russia). In 1992 she moved to USA, and worked at M.D. Anderson Cancer Center (Smithville, TX, USA), at AMC Cancer Research Center (Denver, CO, USA), and at the Department of Dermatology at Northwestern University (Chicago, IL, USA). Currently she is a Professor at Northwestern University. The major focus of Dr. Budunova's research is the Glucocorticoid Receptor (GR) signaling in skin. She was actively involved in the development of alternative GR ligands, and GR-targeted therapies to improve glucocorticoid therapeutic index, and decrease their catabolic affects.

PI3-Kinase inhibitors represent a novel class of drug repurposing candidates to prevent/alleviate glucocorticoid-induced skin atrophy

Irina Budunova, M.D., Ph.D

Northwestern University, USA

Skin atrophy is a major adverse effect of topical glucocorticoids and is a serious clinical problem. We recently reported that several negative regulators of Akt/mTOR signaling including REDD1 (regulated in development and DNA damage 1) and FKBP5 (FK506 binding protein 5) are strongly induced by glucocorticoids in human and mouse skin, where they act as key drivers of steroid-induced atrophy. We hypothesized that REDD1 and Fkbp5 inhibitors may act as anti-atrophogenes, and could be used to protect tissues against catabolic effects of glucocorticoids. To search for anti-atrophogenes, we used the drug repurposing approach, and bioinformatically screened LINC project library (<http://lincproject.org/LINC/>) for repressors of REDD1 and FKBP51 expression. Unexpectedly, we identified phosphoinositide-3-kinase (PI3K)/mTOR/Akt inhibitors as a major pharmacological class of REDD1/FKBP51 repressors. We have chosen several PI3K/Akt/mTOR inhibitors, including LY294002 and five others, and showed that all of them indeed blocked basal and glucocorticoid-induced REDD1 and FKBP51 expression in human keratinocytes and in mouse skin. Further, PI3K/mTOR/Akt inhibitors modified global effect of glucocorticoids on transcriptome, shifting it towards therapeutically important transrepression; negatively impacted glucocorticoid receptor (GR) phosphorylation, nuclear translocation, and GR loading on REDD1 and FKBP51 gene promoters. Evermore, topical application of LY294002 together with glucocorticoid fluocinolone acetonide (FA) protected mice against FA-induced proliferative block and skin atrophy but did not alter the anti-inflammatory activity of FA in ear edema test. These results built a foundation for development of safer GR-targeted therapies for inflammatory skin diseases using combination of glucocorticoids with PI3K/mTOR/Akt inhibitors.

Audience Take Away:

Molecular mechanisms of adverse effects of topical glucocorticoids, and genes critically important for steroid skin atrophy (atrophogenes)

- Drug repurposing as a novel approach for the search of novel drugs with desired properties
- Unexpected class of compounds (PI3K/Akt/mTOR inhibitors) that prevent steroid atrophy in skin (anti-atrophogenes).
- This work has a strong translational potential to make the glucocorticoid receptor targeted therapies in skin safer, and to improve therapeutic index of glucocorticoids.



Biography

I am a plastic, Aesthetic and reconstructive surgeon and I started needling skin in 1994 with both tattooing devices and simple needles. This developed into Medical and surgical rollers by 1998 when I realised that needling was an alternative to laser treatments. I theorised that needling caused the release of platelet derived growth factors and most likely TGF-beta-3. Vitamin A also stimulates TGF-beta-3 probably from keratinocytes and is an ideal way to prepare skin for needling. Aust did the first laboratory research in skin needling and confirmed the importance of TGF-beta-3. My continuing research focuses on the most effective frequency, depth of penetration and the topical ingredients that facilitate the most impressive results.

The dermal roller in aesthetic dermatology in 2019

**Desmond Brian Fernandes M.B.; B.Ch.;
FRCS (Edin)**

University of Cape Town, South Africa

Skin needling is emerging as one of the most important, affordable ways to treat scars, lax skin, stretch marks and to rejuvenate photoaged skin. It is safe for all colours of skin and never causes permanent colour changes. Fernandes considered it the alternative to laser resurfacing but today more and more people are saying it's the "poor/sensible" dermatologists' laser - but with better results. Fernandes started with pen-type of devices but moved to rolling devices for better results. There is a wealth of misinformation about roller-type needling versus mechanical pen-style needling. Both are useful but rollers are easier and safer to use. Mechanical devices need good training and constant care to avoid overtreatment. It seems one cannot over-treat with the Roller.

Matthias Aust first showed that activated platelets produce growth factors such as TGF-beta-3 instigate regeneration and rejuvenation of the dermis. Very much deeper needling may recruit Mesenchymal Stem Cells that may take regeneration up a quantum leap. Furthermore Zeitter (with Aust) has shown that needling at 7 day intervals gives even greater changes. Aust also proved that topical vitamin A and C in particular almost quadruple the results. Experience since 1994 shows that the Vitamin ACE oil is clinically safe in many thousands of cases. Selected peptides help to induce the perfect cocktail of changes for rejuvenation and smoothening out troubled skin. We will show that skin needling, and especially Dermal Rolling is the safest and most effective way to rejuvenate skin and to smoothen stretch marks, acne and burn scars of all skin colours.

Audience Take Away:

- The audience will gain confidence in this extremely useful technique that can be used in the most un-sophisticated environment.
- They will learn that victims of burn scars can get enormous relief from skin needling and avoid complicated reconstructive surgery.
- From an aesthetic point of view skin needling is the safest way to rejuvenate skin
- By following established programs and simple affordable skin care they can treat acne scars, wrinkles stretch marks and even dense burn scars.



Biography

Hassan ZAHOUANI is a full Professor in the Laboratory of Tribology and Dynamic of Systems. (CNRS – UMR 5513) his PhD is in Bioengineering Sciences from the University of Besancon France in 1989. He obtained the Habilitation of Direction of Research from the University of Lyon in 1997. He is Associate Professor at Halmstad University, Member of EEMCO: European Group on Efficacy Measurement and Evaluation of Cosmetics and other Products.

He is leader of the team “Bioengineering of Skin and Aging”. His main activities concern the development of the Bio-engineering of the skin, multi-scale imaging, tissue engineering, Bioprinting of skin, mechanical and imaging of stem cells, mechano-transduction, ageing effect and the engineering of tactile perception. He is the President of the French Society of Skin Engineering and Imaging since 1999.

Assessment of skin tension by non - contact palpation and multi-scale imaging: Effect of age and cosmetics

Hassan Zahouani

Central School of Lyon, France

Changes of dermal collagen and elastin content are characteristic for skin aging as well as for pathological skin conditions. The formation of lines and wrinkles in light-exposed areas throughout the body, such as the face, throat and hands are a well-known sign of skin aging. Both intrinsic and extrinsic factors influence lines and wrinkles.

When analysing the mechanics of skin in vivo, a significant property is its natural tension. Discovered by Dupuytren, and mapped by Langer, the non-uniform skin tension lines exist from birth to old age. Langer has identified these lines by puncturing the skin with a circular device. The wounds then assume an elliptical shape and by joining the major axes of the ellipses a system of lines can be drawn, some authors propose other methods to obtain these lines, such as wrinkling of the skin by Borges. Skin resistance to traction predominates in the Langer's lines direction and varies with body site. On all body sites, the skin tension is greater in the direction of Langer's lines.

The diagnosis of the condition of cutaneous tension is measured in this work by a device of palpation without contact. The developed device is based on measuring surface waves propagation initiated by a controlled air stream stimulus. Using solenoid valves we adjust the flow output duration and general form over the output pipe of 2 mm inner diameter, pressure out of 2 bar and 3ms of pulse duration. The magnitude of the strain response at the impact point by the air stream is measured by a laser displacement sensor. The laser line consists of 800 sensors over a length of 7 millimeters and can be positioned in different directions to identify the anisotropy of the propagation velocity of the elastic wave.

In our research work in skin bioengineering, different approaches combining skin tension diagnosis, multi-scale imaging (OCT, Bi-photon confocal microscopy and imaging of surface topography) have been developed both in-vivo, on biopsy and on artificial skins derived from tissue engineering. In-vivo studies have identified the loss of tension of elastin and collagen fibers during aging and gender effect. Palpation of the state of mechanical firmness and imaging of the face was studied for four weeks, with measurements of elasticity in three directions at the end of each week. Results show significant increase in facial firmness of 30 Caucasian women

Audience Take Away:

- The palpation of skin tension is very important for understanding skin pathophysiology, which can help medical diagnosis and treatment, state of healing, loss of skin tension and diagnosis of collagen pathologies:” e.g. scleroderma, Cutis Laxa, Marfan diseases” and skin cancer.
- Most skin pathologies result in changes of their elastic properties and/or thickness. The diagnosis of skin cancer is commonly detect-

ed by the changes in stiffness of the tumour compared with its surrounding tissue, such as an increase in the stiffness of squamous cell carcinomas and malignant melanomas and a decrease in elasticity of basal cell carcinomas. Therefore, the evaluation of the elastic properties of skin tissues is important for the early diagnosis and the treatment of many skin diseases. Currently, most skin diseases are diagnosed qualitatively based on a visual inspection and/or palpation by a dermatologist who has significant training and clinical experience in the field. During manual palpation, pathological tissue regions can be identified by having a different strain response to an imposed stress compared with its surrounding healthy tissue. The magnitude of the strain response depends on the nature of the pathology. This method of diagnosis has high variability among dermatologists; therefore, a fast, and non-invasive technique capable of analysing and quantifying the state of skin tension

- The new imaging devices: Optical Coherence Tomography (OCT) and Bi-photon Confocal Microscopy allow today to perform an optical noninvasive deep biopsy, to visualize the different skin layers. The latest development of OCT predicts a depth of 400µm with excellent resolution. These advances will enable the Dermatologist to make non-invasive biopsy of skin.

DAY 2

SPEAKERS

INTERNATIONAL CONFERENCE ON

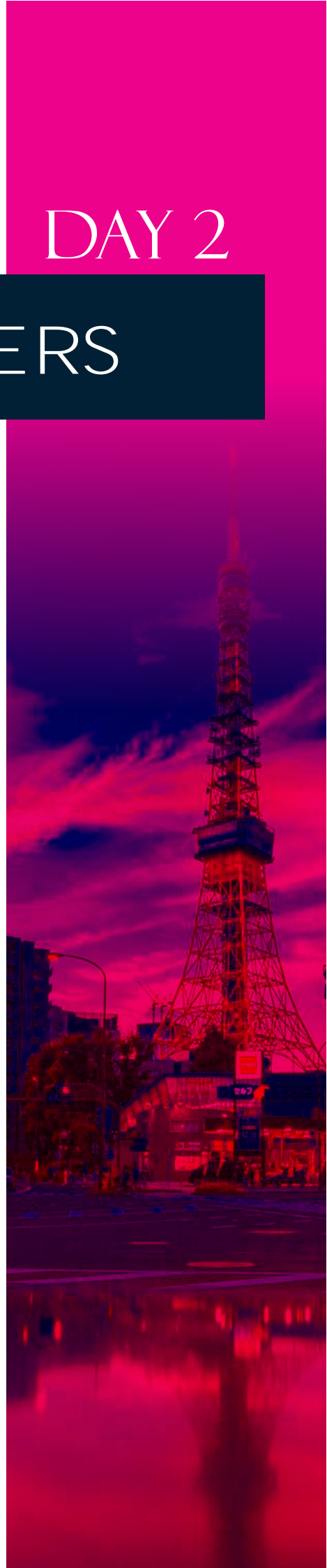
DERMATOLOGY AND COSMETOLOGY

MAY

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Radiation-induced skin toxicity in breast cancer patients: A systematic review of randomized trials

Saleh Aljabri, MBBS,* Caitlin Yee, BSc(C), Katie Wang, BSc, Rashi Asthana, PhD(C), Leah Drost, BSc(C), Henry Lam, MLS, Justin Lee, MD, Danny Vesprini, MD, Eric Leung, MD, Carlo DeAngelis, PharmD, Edward Chow, MBBS, MSc, PhD, FRCPC

Sunnybrook Health Sciences Centre, Canada

Background: Skin toxicity is one of the most common side effects of Radiation Therapy (RT) in breast cancer patients, and is associated with increased morbidity. Almost 30% of patients receiving RT experience radiation dermatitis (RD); however, no definitive guidelines are available its management with treatments being variable among institutions. Furthermore, RD may differ according to the RT delivery technique. This review evaluates the methods and findings of randomized trials examining the different management strategies for RD.

Methods: Medline, Cochrane, and Embase databases were searched up to August 2017. Randomized trials that compared the effects of ≥ 2 treatments for RD in breast cancer patients who received external beam RT were eligible. Review articles, retrospective studies, case reports, case series, and nonrandomized trials were excluded. Studies of patients with cancer other than breast cancer were excluded, as were studies of intraoperative radiotherapy.

Results: After application of the eligibility criteria, a total of 96 out of 3534 studies were included in the final analysis. Of these, 27 assessed the skin toxicity associated with different modes of RT delivery. Patients who underwent intensity-modulated radiation therapy (IMRT) in all studies experienced significantly less RD compared with those receiving conventional RT. Five studies compared accelerated partial breast irradiation (APBI) and whole-body irradiation (TBI). Although 4 found that patients receiving accelerated partial breast irradiation (APBI) experienced less RD, the fifth and largest study reported significantly worse skin toxicity. One study reported significantly milder skin reactions for patients treated in the supine position, but was contradicted by another study that found the prone position was associated with less RD. Patients receiving simultaneous boost experienced significantly less RD than those treated with sequential boost. Fifty studies compared the effectiveness of various topical products for the prevention and treatment of RD. These included nonsteroidal creams and ointments, steroid and hormone-based creams, barrier products, hyaluronic acid (HA) cream, aloe vera gel, nonmetallic powder, and silver sulfadiazine cream. Among the nonsteroidal creams, oil-in-water emulsions, aqueous creams, and heparinoid cream were significantly better than no treatment in preventing RD. Recombinant human epidermal growth factor cream, boron-based gel, and sucralfate cream were superior to placebo creams. Topical steroid treatments were shown to be more effective than no treatment, emollients, aqueous creams, and petrolatum gel in preventing RD. Several barrier products demonstrated efficacy in preventing and treating RD. The most common scale used to rate skin toxicity where RTOG (n=39) and CTCAE (n=24).

Conclusion: The development of new topical treatments and supplements for the prevention and treatment of RD has been slow. None of the products have been consistently proved effective across large, randomized studies. However, modes of RT delivery such as IMRT and hypofractionation are now widely used and have been shown to decrease skin toxicity. Other methods of positioning might also cause less RD than conventional treatments. Moving forward, continued research into improved modes of RT delivery in addition to products aimed at RD prophylaxis or treatment are important in reducing RD incidence and severity in breast cancer patients.

Audience Take Away:

- Different modes of RT delivery have been found to produce varying degrees of RD, with studies suggesting that IMRT, APBI, and simultaneous boost being associated with less RD
- There is contradicting evidence in ABPI versus TBI, and supine versus prone positions in relation with RD incidence
- There is inconsistent evidence on the efficacy of different products in the treatment and prevention of RD, and further studies are needed to validate existing products
- A standardized scoring system is needed to compare the efficacies of different RD prevention and treatment strategies.

Biography

Saleh Aljabri is originally from Saudi Arabia, but grew up in Scotland before returning to complete his medical degree in 2011 from King Saud University in Riyadh. As a medical student, Dr. Aljabri cofounded the Save A Life campaign for organ donation; he also serves as a aboard member of the New East Philanthropic Foundation.

During his internship at Khalid university hospital, his focus was on Dermatology. Following that, he worked at a resident in the dermatology department at Security Forces Hospital. Dr. Aljabri is interested in autoimmune skin diseases and has attended many clinics in the National Center of Vitiligo. In October 2017, Dr. Aljabri completed the Saudi Dermatology residency program.

Diagnostic dilemma in cutaneous tuberculosis

Ranthilaka R. Ranawaka MBBS MD

Consultant Dermatologist, General Hospital Kalutara, Sri Lanka

The incidence (new and relapse) rate of tuberculosis in Sri Lanka in 2016 was 40.9 per 100,000 population (8332 new and 328 relapse cases). Out of 8332 diagnosed patients with TB, 2525 (30.3%) were in extrapulmonary sites. The annual risk of TB incidence at the national level remains 1.8 percent. Still continue to be a major health issue in Sri Lanka.

Cutaneous TB is classified according to their clinical presentation (cutaneous or subcutaneous) which depends on host immune response. Lupus vulgaris and warty TB (TVC) are the most common clinical manifestations in our setting while other manifestations of cutaneous TB such as scrofuloderma, tuberculous gumma, orificial TB, acute miliary TB, and tuberculids were seldom seen in Sri Lanka. Cutaneous TB can mimic other granulomatous diseases clinically and histopathologically.

I present here images and workup of 30 patients who were histopathologically and therapeutically confirmed to have cutaneous TB. Although positive results of ESR, Mantoux reactivity, and TB cultures facilitate the clinical diagnosis, negative results should not exclude the diagnosis of cutaneous TB. More than 50% clinical improvement noted within 4 weeks of anti TB therapy while total disappearance noted within 8 weeks of anti-TB therapy in 80% of cases.

Therefore alternative cause should be considered if the clinical response to anti-TB drugs is inapparent within 4 weeks. In the situation of limited investigative facilities, clinicohistopathological correlation with therapeutic response is the key to confirming cutaneous TB.

Biography

Dr. Ranthilaka Rasika Ranawaka (MBBS, MD-Dermatology), Consultant Dermatologist, Ministry of Health, Sri Lanka.

Reviewer in International Journal of Dermatology, British Journal of Dermatology, Mycopathologia, Indian Journal of Pharmacology, British Journal of Medicine and Medical Research, Clinical and Experimental Dermatology, Indian Journal of Dermatology, Indian journal of dermatology, Venereology and Leprology

Guest speaker at South Asian Regional Conference of Dermatologists, Venereologists, Leprologists (SARCD) 2013 (Sri Lanka) and 2015 (India)

More than 22 publications, presented more than 60 abstracts nationally and internationally.

Areas of research interest are, cutaneous leishmaniasis, cutaneous tuberculosis, Non-dermatophyte onychomycosis, Leprosy, Tropical dermatology, Psoriasis, Acne, Alopecia areata

Guidance on the use of alternative test methods for the safety assessment of cosmetics and quasi-drugs

Hajime Kojima*,¹ Yoshiaki Ikarashi,¹ Tokio Nakada,² Akiko Yagami,³ Hiroaki Todo,⁴ Yukiko Hoshino,⁵ Fumihiro Kubo,⁵ Jihei Nishimura,⁵ Yuki Nakajima,⁵ Hitoshi Sakaguchi,⁶ Masahiro Yamaguchi,⁶ Mariko Sugiyama⁶, Masato Hatao⁶

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⁶ Japan Cosmetic Industry Association, Japan

Japanese cosmetic companies have largely stopped animal testing voluntarily and now hope that the use of new ingredients without it will be approved by the Ministry of Health, Labour and Welfare (MHLW). Many procedures for regulatory acceptance still require animal testing, and it is difficult to gain approval even for additives to quasi-drug products without data from animal testing. Given the current situation, Japanese Center for the Validation of Alternative Methods (JaCVAM) has attempted to promote the development of guidance for the use of alternatives to animal testing.

In accordance with a notification issued by Japan's MHLW in 2011, the JaCVAM has accelerated applications for new in vitro test methods. To take advantage of this opportunity to strongly impact testing throughout Japan, researchers have been coordinating guidance on the use of alternative test methods for the safety assessment of cosmetics and quasi-drugs since 2012. Dermatologists and representatives of cosmetic companies as well as specialists from both the Pharmaceuticals and Medical Devices Agency (PMDA) and the National Institute of Health Sciences (NIHS) have drafted guidance documents for a number of alternative test methods based on OECD test guidelines and JaCVAM evaluation documents.

Unfortunately, there are still many types of testing for which in vitro test methods are limited. In particular, we have no in vitro test methods to evaluate weak or moderate skin irritation and big concerns to do human voluntary tests without animal testings. The time has come to accelerate the development of and guidance for the use of in vitro test methods for cosmetic and quasi-drug ingredients.

Audience Take Away:

- Explain current situation of cosmetic industries in associated with 3Rs
- Explain applicability and limitation of alternative to animal testings
- A human voluntary test is useful to evaluate skin irritation and skin sensitization of a cosmetic ingredient and product?
- A human voluntary test without animal testings is acceptable ethically?

Biography

Hajime Kojima, Ph.D., is the secretary general of Japanese Center for the Validation of Alternative methods (JaCVAM) and the section chief of Division of risk assessment, Biological Safety Research Center (BSRC) in National Institute of Health Sciences (NIHS) contributing to the identification and evaluation of in vitro test methods for their potential validation, in the field of genotoxicity and local toxicity (skin and eye). He holds several publications in refereed journals dealing with in vitro toxicity assay as well as validation study. Until now, he has contributed to be approved more than 10 test methods developed by Japanese in the OECD Test Guidelines.

Skin aging and prevention: Illustrated by histopathological marker actinic elastosis

Daisy KOPERA, MD, MBA*, Prof.; Margareta J. RIEGLER, MD; Sebastian MANNWEILER, MD, Prof.

Medical University Graz, Austria

Intrinsic skin aging occurs with time chronologically. Cumulative external factors (depicted as the “Exposome”) contribute to skin aging by accelerating the change of texture leading to a decrease in elasticity and the development of the typical leathery appearance showing wrinkles and rhytides. The most impressive change in the histological appearance of uv-damaged skin is „clumping“of elastic fibres in upper dermal layers, so called actinic elastosis.

This histopathological study aims to prove that uv-light represents the essential external influence on skin aging by examination of skin biopsies from uv-exposed skin areas versus non-uv-exposed areas.

This could pave the way for fundamental discussion on the added value of preventive actions against visible signs of skin aging like wrinkles and rhytides by application of various kinds of uv-protection to exposed skin from an early age, consequently saving expenses for an array of costly aesthetic procedures.

Biopsies were taken from the neck (uv-exposed) and the buttocks (non-uv-exposed) of eleven under 25-year-old and 30 over 80-year-old corpses within a day after death. In histological slides dermal thickness and presence of elastosis were measured and graded according to a new metric score. Histopathological examination of HE and Elastica-vanGieson-stained slides was performed measuring dermal thickness and using a new metric score for classification of actinic elastosis (RiKoMa-score).

We found statistically significant more actinic elastosis in the skin of the necks of over-80-year-olds compared to their buttocks and the skin of under 25-year-olds whether uv-exposed or not.

Audience Take Away:

- The Audience will better understand the necessity of preventive skin care in order to avoid all signs of skin aging and of non-melanoma-skin-cancer?
- The Audience will benefit from this knowledge in order to give better care to their patients. This research is fundamental for further clinical studies on prevention of Skin Aging. The practical value of this research is applicable to each and every person in our societies in order to pertain healthy skin in old age.

Biography

Daisy KOPERA, MD, MBA, Prof. trained in Dermatology at Universities of Graz AUSTRIA and Regensburg, GERMANY, and finished her residency in 1992. As a Professor of Dermatology she specialized in Skin Aging and Aesthetic Dermatology and chairs the Center of Aesthetic Dermatology at the Medical University in Graz, AUSTRIA. She has been an expert in Hair- and Scalp Diseases, Facial Dermatoses, Laser application in Dermatology for many years. Her scientific focus aims on prevention of Skin Aging.

Eyebrow transplant and/or eyebrow microblading, different options to augment or restore the brows

Julieta Peralta-Arambulo

Philippine Dermatological Society, Philippines

Eyebrow contour provides facial expression and is significantly important to a person's appearance, contributing to the femininity or masculinity of the face. Without them, a person feels incomplete, self-conscious, and unnatural and this can cause great distress and anxiety for the individual

As a hair transplant specialist I find that patients have different eyebrow goals that it becomes important and necessary to offer the medical, non-surgical and surgical treatment options now available to provide a satisfactory solution.

Eyebrow transplantation is an advanced and very difficult procedure, however in the hands of experts, it is highly effective and successful when restoring or augmenting the eyebrows. The procedure is performed by strip follicular unit transplantation (FUT) or by follicular unit extraction (FUE). The goal is to create a satisfactory and natural- looking transplanted eyebrow shape according to the patients' desire. The procedure is even more challenging and difficult in patients who prefer the FUE technique

The surgeon must pay attention to the details of the procedure, including keeping the ultra-fine grafts viable, using an implanter to reduce trauma during graft placement, and planting at an acute angle, with hair curl correctly oriented towards the epidermis. In my experience even after just one session, patients are satisfied and happy with the results.

But not all patients like surgery and not all are suitable candidates for surgery like in conditions called Alopecia Areata. The good news is cosmetic tattoos have been used for decades by men and women to camouflage their balding and thinning eyebrows and this has become an art form now used by dermatologists, hair restoration specialists and cosmetic surgeons with better outcomes.

Eyebrow microblading a semi - permanent cosmetic tattoo, is now a popular non- surgical treatment option to create the natural look of a fuller eyebrows and it can be used as an adjunct to eyebrow transplant procedure. Microblading re- creates each and every eyebrow hair mimicking real hair. In my practice, its use has been applied to a wide variety of pathologies of the hair, medical and surgical alopecias involving the eyebrows. Just like hair transplant, micropigmentation procedure requires knowledge, innate artistic passion and a highly experienced practitioner to generate excellent cosmetic outcomes. The tactile skills developed through experience with the choice of instrument that deliver the right color of pigment at the right depth and duration of the injections is, I believe, the important factor to simulate the human hair for camouflage in partial or complete hair loss of the eyebrows.

Eyebrow Transplant and Eyebrow Microblading are both a perfect combination of a masterful technique and art form. In my experience they are both safe and effective procedure and proper selection of patients is essential to produce a natural look undetectable by other people.

Audience Take Away:

- As a hair transplant specialist I find that patients with eyebrow concerns have different goals that it becomes important and necessary to offer the medical, non-surgical and surgical treatment options now available to provide a satisfactory solution.
- Audience will strive to work for excellence, in whatever field they choose
- My contribution, chapter on Eyebrow transplant technique in the 2nd edition of the book entitled: "Practical Aspects of Hair Transplantation in Asians"
- List all other benefits. - Understanding the art and technology involve in eyebrow transplant and microblading and offer different options of enhancement to our patients.

Biography

Dr. Julieta Peralta- Arambulo, is a graduate of the Far Eastern University Nicanor Reyes Medical Foundation and completed her Dermatology specialty training in the Skin and Cancer Foundation of the Philippines in 1988. Having earned the distinction of a Board-certified Dermatologist, she became a Diplomate in 1990 and Fellow in 1993 of the Philippine Dermatological Society (PDS). She also is a consultant at the Skin and Cancer Foundation Philippines.

She practices mainly as hair transplant specialist and performs the 2 techniques in hair transplant surgery: namely Strip FUT and FUE (Follicular Unit Extraction). She is a member of the International Society of Hair Restoration Surgery and Asian Association of Hair Restoration Surgeons; a Founding President of Asian Hair Restoration Center and currently the Head of hair transplant service at the Wellness and Aesthetic Center of The Medical City in the Philippines.

In 2014, Dr. Arambulo received the privilege and honor to be the first and only Filipino Diplomate of the the American Board of Hair Restoration Surgery (ABHRS).

ABHRS (<http://www.abhrs.com>).

Her favourite topic to lecture is eyebrow transplant and cosmetic tattoo and had the privilege to be one of the contributing authors , chapter on her technique on Eyebrow transplant in the 2nd edition of the book ” Practical Aspects of Hair Transplantation in Asians”.

E-BABE- Double eyelid procedure: Orbicularis-levator fixation technique

Adolfo Napolez M.D.

Southern Illinois University School of Medicine, USA

Asian eyelids have several characteristics that distinguish them from the eyelids of people from European and African descent. These include 1) low, poorly defined or absent lid creases, 2) pronounced fullness to the upper and lower lids, 3) narrow palpebral fissures and 4) epicanthal folds. The extent to which these anatomic variants are present, determines the height and prominence or absence altogether of the upper lid crease in the Asian eyelid. Asian blepharoplasty is the most common Cosmetic Surgery procedure done in the Far East, with many variants noted.

Here we will discuss in detail the patient selection, preparation, anesthesia, and surgical technique utilized in the Orbicularis-Levator Fixation Technique for the creation of the double eyelid in the Asian patient.

Biography

Adolfo Napolez M.D. graduated from Southern Illinois University School of Medicine followed by a General Surgery Residency at West Penn Hospital in Pittsburgh, Pennsylvania, and followed that up with a Burn Surgery Chief Residency at Cook County Hospital in Chicago, Illinois and finally a two year Fellowship in General Cosmetic Surgery, highlighting Asian Cosmetic Surgery.

He is a member of the American Academy of Cosmetic Surgery, American Society of Cosmetic Breast Surgery, as well as a member of the California Academy of Cosmetic Surgery.

Dr. Napolez has published articles in 5 different Medical Journals, as well as a chapter Author in a textbook on Asian Facial Cosmetic Surgery.

He has twice been selected as one of America's Top Surgeons in Cosmetic Surgery, as well as a Top Doctor in Plastic Surgery Practice Magazine.

Dr. Napolez recently presented at the 5CC Cannes (France) 2015, 6th 5CC Aesthetic and Laser Conference and is scheduled to speak later this year in both Manchester, United Kingdom, and Barcelona, Spain.

Same patient, same site: Using different topical medicine

Yi-Guo Feng PhD & MD*, Xiao-Min Gao
Xi'an Jiaotong University, China

Topical use is the main advantage for dermatological therapy due to the outer-layer features of skin. Consequently numerous preparations are available for the dermatosis. However, the efficacy evaluation of different preparations accurately is always very difficult. The traditional and accepted method (until now it is also popular in practice) to observe treatment effect of cream is to apply one kind of drug to a group of patients with a specific disease who received different systemic approaches that might influence the effect of topical appliance. Here we show 3 very severely affected psoriatic patients, with several years of history, whose lumbar regions were marked into six different areas being applied with six different kinds of cream, respectively in the following seven days. To our great surprise, most of the creams have similar effects, even the vehicle cream without any medicine component. I coined the SPSS rule which stands for the acronym of same patient, same site or symmetrical site for different creams. This method avoids the influences of different systemic medicine, patients' personal response, anatomical sites and disease duration on the efficacy evaluation of topical preparations. I propose it be implemented in the future evaluation of topical preparations.

Audience Take Away:

- Design clinical trial of topical medicine according to the SPSS rules
- New concept of effect evaluation
- SPSS will give surprise

Biography

Yi-Guo Feng is working in Dept of Dermatology, the Second Affiliated Hospital, Xi'an Jiaotong University, Associate professor, Dip-ICDP-UEMS, as an observer in St Thomas' Hospital in London for a year in 2009. He published more than 20 papers in English. Edited several Chinese Dermatological books. Major in dermatopathology and genodermatosis.

Innovation in dermatological skin care

Timothy Falla* (PhD), Katie Rodan (MD), Kathy Fields (MD)
Rodan + Fields, USA

The use of a daily skincare regimen, that delivers dermatologic benefit, has a greater impact on how a person's skin feels, looks and behaves on a daily basis than any other aspect of what a person might do to their skin. The combination of OTC and novel cosmetic ingredients has enabled companies to provide the individual user with innovative formulations that produce demonstrable visible results. The explosion of information and data now available globally has empowered the consumer to understand more, expect more and to see more when it comes to their skincare products. To match those expectations companies are creating powerful formulations to effectively cleanse, treat, protect and moisturize the skin. Consistent use of a daily regimen can lead to reproducible results particularly in the four key skincare focus areas; aging, sensitivity, acne and sun damage. Hydration is essential to all four areas but in particular aging skin, with new innovation bringing water molecules into the top layers of skin not only producing a more efficient and younger functioning environment but also assisting the uptake of other key ingredients. Hyaluronic acids and glycerin are still the key molecular drivers in this area but innovative delivery of such compounds has developed significantly in the last few years leading to vast improvements in skin hydration. Improving texture and tone with alpha-hydroxy acids such as glycolic, lactic and malic acids have now been joined in the marketplace by less irritating options such as polyhydroxy acids lactobionic acid and gluconolactone. Redensification has for some time been driven by the retinoids with retinoic acid and retinol but with improved stabilization chemistry retinaldehyde is providing a less irritating highly efficacious option. In addition, retinoids also help address other cosmetic issues such as aspects of acne and brightening. Sensitive skin remains a major skincare concern for many and there are now a broad range of ingredients targeting this multifactorial issue. Targeting barrier function, inflammation and sensory nerve abnormalities is key along with protecting the skin from being triggered into a sensitive condition. Clinically proven formulations, that people want to use every day, that provide the right ingredients in the right concentration delivered in the right way, can significantly benefit how an individual's skin looks and feels. This is the basis a multi-step science approach skincare.

Audience Take Away:

- An understanding of the importance and benefits of daily dermatological skincare
- The latest innovations in dermatological skincare and how they work
- A resource to draw from when considering skincare recommendations to patients
- The ever-expanding role of skincare for an information / data inspired generation
- The application of skincare to a range of skin types varying in skin condition, tone, age and gender

Biography

Dr. Timothy Falla is the VP of R&D at Rodan + Fields. For over 25 years Dr. Falla has worked in the discovery and development of prescription drugs, OTC dermatology products and skincare products and has been with Rodan + Fields since 2011. Previously he served as CSO of Helix BioMedix Inc., where he was responsible for introducing innovative technologies into more than 100 dermatological products targeting acne, rosacea, hyper-pigmentation, photoaging and inflammation. His work has resulted in more than 30 patents and patent applications and over 100 peer reviewed publications. Dr. Falla holds a Bachelor of Science in Applied Biology and a PhD in Molecular Epidemiology.

Developing a genetic risk index for peanut allergy

¹Aida Eslami PhD, ²YingYu BSc, ²Yuka Asai MD, PhD, ¹Andrew Sandford PhD, ³A Ann E Clarke, MD, ¹Denise Daley PhD*

¹University of British Columbia, Canada

²Simon Fraser University, Canada

Over 200 single nucleotide polymorphisms (SNPs) have been found to be associated with food allergy (FA) in genome-wide association studies (GWAS). A Genetic risk score (GRS), is an index that can be derived from genome-wide association studies to summarize the genetic risk encompassed by a set of SNPs, and is useful in risk stratification and prediction. Our objective was to use information from the Canadian Peanut Allergy Registry (CanPAR) GWAS study [1] to develop a GRS and evaluate the positive predictive value of the GRS in CanPAR and the Canadian Asthma Primary Prevention Study (CAPPS).

Methods

Our study aims to use the food allergy (FA)-associated SNPs using p-value thresholds ranging from 1.0×10^{-4} to 1.0×10^{-6} to generate a GRS using a weighted sum of the number of risk alleles (with values 0/1/2). Weighting each SNP by the natural log of their respective odds ratio (OR). We then evaluated the area under the curve (AUC) which is used to determine the effectiveness of the classification and the positive predictive value (PPV). The AUC value ranges from .5 to 1 with .5 being a poor classifier and 1 a perfect fit.

Results

Table 1 Summary of GRS risk model by three different p-value thresholds

p-value Threshold	# of SNPs selected			Statistical measures	
	Genotyped	Imputed	Total	AUC (95% CI)	PPV
1.00E-04	105	233	338	0.803 (0.78-0.82)	0.74
1.00E-05	18	51	69	0.694 (0.67-0.72)	0.62
1.00E-06	6	18	24	0.650 (0.63-0.68)	0.60

Conclusions

We have demonstrated that with 336 SNPs we can achieve an AUC of .80, a threshold used for biomarkers. However, for medical diagnosis and treatment an AUC of .95 is desired. We are currently working to identify the p-value threshold and number of SNPs necessary to reach an AUC of .95.

Audience Take Away:

- Audience will learn about Genetic Risk Scores and how they are derived.
- Audience will learn about the positive predictive (PPV) value of a GRS and the reproducibility of these indices in an independent replication sample.
- Audience will hear discussion about the feasibility and practicality of applying GRS to childhood diseases and this might impact clinical practice and public policy.

Biography

Dr. Daley completed a PhD in Epidemiology and Biostatistics at Case Western Reserve University in 2003, followed by post-doctoral training at the University of British Columbia from 2003-2008. In 2008 she was awarded a Tier II Canadian Research Chair (genetic epidemiology of common complex diseases), renewed in 2013 and she is currently an Associate Professor in the Faculty of Medicine at the University of British Columbia. Dr. Daley's interests are in the study of complex diseases such as asthma, food allergy, allergic disease, cancer and heart disease, with a focus on gene-gene and gene-environment interactions.

Dr. Daley is studying genetic susceptibility to asthma and other allergic conditions and the complex epigenetic mechanisms that may be involved. She is working to determine what contribution gender, genes, and environment make to the development of asthma and how the epigenome responds to environmental exposures such as tobacco smoke.

First autologous human stem cells and hair restoration

Kelvin Chee Ling Tan
Elegant Clinic, Malaysia

Involving using of human stem cells in Androgenetic Alopecia that holds a great promise. There are numerous sources of autologous human stem cells being used for the treatment for AGA. A recent new discovery source of autologous human stem cells is harvested from human hair follicles. Hair follicles are known to contain a well-characterized niche for adult stem cells : Mesenchymal stem cells in the dermal sheath and the bulge, which contains epithelial and melanocytic stem cells. Stem cells in the hair bulge, a clearly demarcated structure within the lower permanent portion of hair follicles, can generate the interfollicular epidermis, hair follicle structures, and sebaceous glands.

A new method to isolate human adult stem cells by mechanical centrifugation of punch biopsy from human hair follicles without culture condition. Area of punch biopsy at the mastoid process along the hair line demarcation bilaterally. Human follicle stem cells (HFSCs) is used, to improve the hair density in patients affected by Androgenetic Alopecia AGA in stage 2–5 as determined by the Norwood-Hamilton classification scale and few cases of Alopecia Areata.

It has shown that the isolated cells are capable to improve the hair density in patients affected by androgenetic alopecia (AGA) and in some cases of Alopecia Areata.

Biography

Dr Kelvin Tan was raised up in Auckland, New Zealand and completed high school and college in New Zealand. Dr Kelvin obtained his Medical Degree (MBBS) from Kasturba Medical College in 2007. He is specialized in Hair Restoration and Hair line reconstruction. Then he pursued further in Fellowship and Board Certification of Anti-Aging & Regenerative Medicine in USA and other Aesthetic Medicine Qualifications in USA & South Korea. Dr Kelvin is currently the Founder and Medical Director of Elegant Clinic Malaysia and he has been practicing medicine since 2008. He has worked as an Independent Consultant and Aesthetic Physician at Dermatology Centre for 4 and half years, Mahkota Medical Centre, a Multidisciplinary Specialist Hospital in the southern city of Melaka, Malaysia. He is the PRP (Regenlab) Key Leader Opinion (KOLs) and Certified Trainer in Asia Pacific (Regenlab) in Hair loss treatment and skin rejuvenation. He is also the KOL and Trainer for Neauvia biostimulate fillers. He is also the Future Leader for Juvederm, Allergan Medical Institute (AMI)

Successful treatment of Morbihan disease

Marianna Drozhdina, PhD, MD
Kirov State Medical University, Russia

Morbihan disease is a rare condition, manifested centrofacial, solid, permanent edema, accompanied by multiple telangiectasias, papules-pustular elements, with a primary lesion of the middle 1/3 of the face. Typical is a dark red edema with a purple tint, turning into induration. Subjective symptoms are usually absent, except in cases of complete closure of the eye slit. The pathogenesis of the disease is not well understood. There is a view that the Morbihan disease is a severe manifestations of rosacea with a part in the pathogenesis of vasoactive peptides in the gastrointestinal tract (VIP, pentagastrin), causing tides. Provoked by alcohol tide reactions associated with lack of enzymatic destruction of alcohol, particularly in individuals of the Eastern nationalities. At the pathogenesis of the disease also plays a role in increasing the level of mediator substances (endorphins, bradykinin, substance P), which change the tone of blood vessels, increase permeability, causing characteristic vascular changes and mast cells, which important in the development of edema. Other authors argue that the disease is a consequence of abnormalities in the lymphatic vessels of the face. It is believed that the basis of the pathological process in this disease is the destruction of the connective tissue of the perivascular dermis, especially elastin, which leads to a loss of integrity of the walls of blood vessels in the release of fluid that causes swelling and compression of granulomas of the vessels of the face. There are data that have demonstrated the presence of an immunological component in some patients by the type of urticaria in combination with local lymphatic disorders.

Clinically the disease is characterized by a slowly growing dense erythema and edema in the middle part of the face, with accentuation in the periorbital region, the lower 1/3 of the forehead, nose and cheeks. Laboratory results are non-specific. Histological picture reveals atrophy of the epidermis, discrete edema of the middle and deep dermis, inflammatory infiltrates consisting of lymphocytes, histiocytes and neutrophils in the perivascular and perifollicular areas, superficial fibrosis. Differential diagnosis is carried out with orofacial granulomatosis, sarcoidosis, Hansen's disease, lupus erythematosus. Such changes may occur as a result of side effects with long-term use of barbiturates, chlorpromazine, diltiazem.

Currently there are no uniform standards for the treatment of Morbihan disease. Therapeutic schemes using lymphatic massage, drugs, thalidomide and high doses of broad-spectrum antibiotics (doxycycline, minocycline), oral prednisolone and metronidazole with little effect are offered.

The report presents a case of successful treatment of the disease Morbihan from the author's personal archive with photos before, during and after treatment. The patient received systemic isotretinoin Lidose from the calculation of 0.3 mg/kg/day for 7 months, then - maintenance therapy for 16 mg 2 times a week for 2 months, then 8 mg 2 times a week for 1 month. At the same time, the patient received ketotifen 2 mg/day for 10 months. Local treatment – cream with ivermectin 1% - 1 every day for 5 months, then – gel based on azelaic acid 1 once a day a month. As a result of the treatment, the patient almost completely resolved swelling and hyperemia of the face, periorbital induration, there was a complete opening of the eye cracks, decreased the number of telangiectasia, resolved papular pustular elements, greatly improved the quality of life of the patient. Observation of the patient within 2 months after the end of therapy showed no signs of relapse.

Audience Take Away:

- In the case of registration of the patient with the disease Morbihan in practice, the audience will have an idea about the successful experience of applying the scheme of treatment of this disease.

Biography

Professor Marianna Drozhdina graduated from the State Institution of Higher Professional Education "Kirov State Medical Academy" in 1997, clinical internship in the specialty "Dermatovenereology" - in 1999. From 1999 to 2005 worked in the Kirov Region Dermatovenereologic Hospital as a doctor of the Department of venereology, and as an assistant at the Department of Dermatovenereology Kirov State Medical Academy. From 2005 to 2013 - Deputy Dean of the Faculty of Medicine, Kirov State Medical Academy. PhD graduated in 2009. From 2012 to present - Professor of the Department of Dermatovenereology and Cosmetology Kirov State Medical University. From 2013 to 2016 - Head of the department of International Affairs Kirov State Medical University. At the Department of Dermatovenereology Kirov State Medical University conducts practical seminars and lectures at students of medical, pediatric and dental faculties, clinical residents and practicing doctors. Publications: 40 in different sections of Dermatovenereology: syphilis, sexually transmitted diseases, bullous dermatoses, atopic dermatitis, mycoses, scabies et al. The annual participant of international conferences and seminars on dermatology: Salzburg-Weill Cornell Seminars (OMI AAF - 2013, 2016, 2018), ISA-2013, 2015, 2017 (Munich, Germany), Bio Bridge - 2014 (Venice, Italy). Organizer of annual international conferences in Kirov State Medical University "Actual issues of dermatovenereology and aesthetic medicine", Kirov, Russia (2015, 2016, 2017), ISD (Taipei, Taiwan, 2018). Investigator of several international clinical trials. 2012-2015 studied at the program "Management in Higher Education" in the National Research University "Higher School of Economics", Russia with the assignment of a Master's degree.

Anterior Cheek elevation with barbe wire: 15years

Lee kyungho M.D.,Ph.D.

Hoya Aesthetic Surgery Clinic, Korea

Concerning the charms of beautiful cheeks of womens are no need to be mentioned. Many surgical approaches can be done successfully, but frequent unnatural looking wind blownd surgeried faces are encountered. Specifically for many faced asin ladies. My Challenges for rejuvenation of ant.cheek will be presented as is & followed.

1 to 10, 15 years Long term results will be presented. In the early performed cases some failed by extrusion of barbed sutures, and facial enhancement results.

But by altering the surgical conepts I designed and performed technics according to the facial shapes of patients. I found out both operating surgeon and patients, both were enjoying the procedures. Another worries were: Will this could be optimal proceures? Or Can I do it for the same area again?

Audience Take Away:

- Concept of Asian ladies cheek charms
- Another powerful lasting enhancement
- Understang the surgical conepts can be new surgical weapons
- Very possibly researching and teaching can be designed for both patiens and surgeon
- Practical solution for cheek
- Powerful adjuvant treatment for enhancement of beautiful cheek charms charms

“Natural looking ant.cheek deep lifting by barbed sutures”

Using barbed sutures is not a new one, But it can elevated full layers of cheek, Thus natural & non-surgical looks.

Biography

1989 korean board cerfied for plastic surgery

~1998,fulltime faculty staff of yeongnam univ. dept. of plastic surgery

~ hoya plastic surgical clinic,Taegu city,south korea

2003-2004, international board member for education committee of american society of plastic surgeons representing asia and Australia (1 only)

2002-2006 international speaker for botox (allergan)

Pathogenetic aspects of photo-aging and modern methods of treatment

Khodjaeva Nigora Bakhromovna

Republican Specialized Scientific and Practical Centre of Dermatovenereology and Cosmetology, Uzbekistan

Aging of the skin is an actual problem of modern dermatology and cosmetology. Currently, it is widely accepted to consider such types of skin aging as natural, postmenopausal and photoaging separately from each other. While natural aging of the skin is a genetically programmed process, photoaging of the skin results from its chronic damage by UV rays, causing premature development of heliodermatitis or actinic dermatosis, which reduces the quality of life. In international practice, photoaging of skin at different levels is the most common issue among the dermatological and cosmetological problems. It represents a pronounced cosmetic defect, which often leads to psycho-emotional discomfort. This circumstance, in turn, reduces the quality of life of patients, leads to various social problems associated with limiting the choice of profession, employment and social perspective, and to financial difficulties due to the duration of treatment and its high cost. The purpose of this research is to study molecular genetic factors, when photoaging occurs, and to improve the pathogenetic method of therapy.

Materials and methods: There were 107 patients, aged from 18 to 68 years, with photoaging illness. 82.2 percent of which were women and 17.8 percent were men.

A number of research methods were used, including clinical, statistical, morphological, molecular – genetic, and ELISA analyzes.

In conclusion, the use of complex PRP-therapy in combination with hyaluronic acid in patients with photo-aging significantly improves the trophism of the skin and restores its structure. Epidermal formations, especially dermal lesions, are reduced. Normalization of the concentration of growth factors in patients with photo-aging of the skin, who received the combined therapy, is proved by the effective action of the growth factors on the biological molecules, which are of paramount importance in the structure of the skin.

Biography

Khodjaeva Nigora Bakhromovna was born in 1985, graduated from Tashkent Medical Institute in 2009, got Master degree in 2012 in field of Dermatovenereology in the same institute. She actively participates in national and international conferences as a member of the Association of Dermatovenereologists of Uzbekistan. At this time holds a position of junior research scientist at the clinic of the Republican Specialized scientific – practical – medical Centre of dermatology, venereology and cosmetology under the Ministry of Health of the Republic of Uzbekistan.

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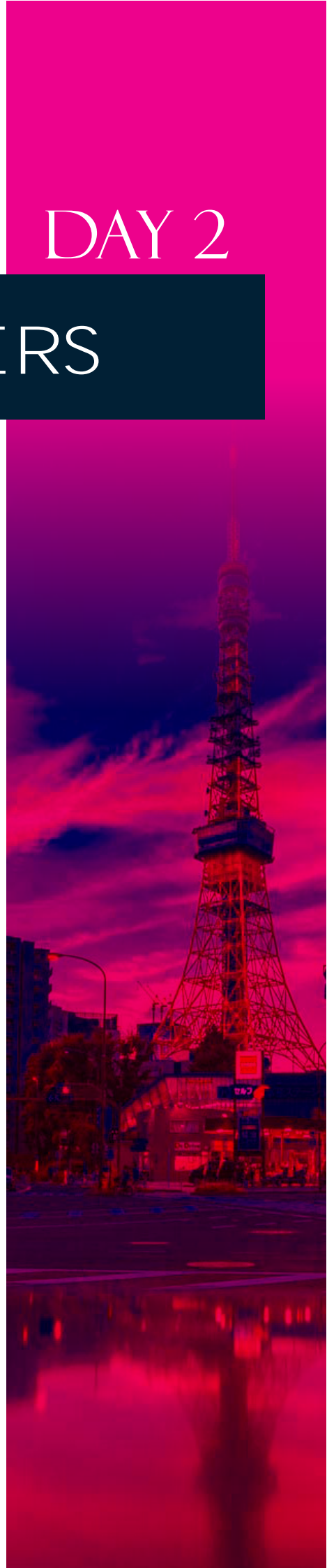
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Modified laser toning with IPL, QS-ND: Yag combination for Melanosis of face and neck

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Introduction: Dermal Pigmentation of face and neck is a common refractory condition of varied etiology with minimal effective remedial modalities available. Inspired by the study of combined IPL plus 1064nm QS- ND: Yag treatment for melasma by Cunha et al from Brazil, where they showed moderately good results in decreasing melasma pigmentation, we conducted a study on three patients of refractory melanosis of face and neck with the a similar combination of laser lights.

Material and Methods: Out of the three patients, two were of lichen planus pigmentosus (LPP) of primarily neck and face of recent onset while third one was of toxic melanosis of face and neck of long duration. There were two females and one male with age ranging from 32- 58 yrs. They were given a first session of IPL with 1) 560nm filter with a pulse of 50 ms and fluence of 22 J/cm, 2) 590nm filter with 50 ms pulse and fluence of 12 J/sq cm and 3) 530nm filter with 50ms pulse and fluence of 24-30 J/sq cm (different areas of face and neck) followed by four sessions of 1064 nm QS- ND:Yag in a dose of 500mJ (LPP cases) and 300mJ Toxic melanosis at an interval of two weeks each. Photographs were taken at baseline, at the end of treatment and two months after end of treatment.

Results: Two of the patients with LPP pigmentation showed moderately good results by decrease of pigmentation of almost 70- 80%, while the third one did not show much difference.

Conclusion: Combined treatment with IPL plus QS-ND: Yag laser provides an option for the otherwise refractory melanosis of LPP while the toxic melanosis remains a poor responder. Larger studies are required to further assess this modified laser modality of IPL combined with QS-ND: Yag.

Limitation of study: Exact similar parameters of dosing were not used because of tolerance by the individual patient.

Biography

Dr NL Sharma MD was Professor and Head of Dermatology Deptt in IG Medical College Shimla India and RPG Medical College Tanda Kangra India till 2011. He has got about 150 research papers and about three fourth of them cited in PUBMED. His main work is in clinical Dermatology with main emphasis on Deep mycoses and Cutaneous leishmaniasis. He has delivered several talks in National Conferences of India and awarded Shroff Oration, and Best Teacher Award in National Conferences (Dermacons) of India

Presently Dr Sharma is Director-Consultant in National Skin Clinic at Palampur Himachal Pradesh India, where he is practicing Clinical Dermatology as well as Laser cosmetology.

Cutaneous eruption as a prognosis indicator for cancer patients treated with EGFR tyrosine kinase inhibitors: A systematic review and meta-analysis

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Importance: Clinical symptom is often a direct method to evaluate the treatment effects. With the emergence of new EGFR-targeted drugs in market and its wide utilization, this study aimed to determine whether adverse skin event as a survival indicator for patients treated with EGFR-TKIs.

Method: PubMed, EMBASE, Scopus, trial register and Cochrane Library were searched on November 11, 2018 to identify studies reporting survivals outcomes (OS, PFS). Two investigators performed study selection independently and assessed risk of bias with ROBINS-I method. Data were pooled with random effects models and further subgroup by cancer types. Funnel plot, Egger's test and Begg's test were performed for detection of publication bias. Sensitivity analysis was performed by excluding potential outliers.

Results: There were 24 studies identified with 4696 patients included. Skin adverse event was found to be significantly associated overall survival rate (HR, 0.48; 95% CI, 0.43-0.53; $P < 0.00001$; $I^2 = 83\%$) and progression free survival rate (HR, 0.59; 95% CI, 0.41-0.85; $P = 0.004$; $I^2 = 88\%$). Subgroup analysis suggested among NSCLC patients skin AE was significantly associated with overall survival (HR, 0.39; 95% CI, 0.25-0.60; $P < .0001$; $I^2 = 86\%$) but not progression free survival (HR, 0.65; 95% CI, 0.29-1.45; $P = 0.29$; $I^2 = 95\%$). Among other cancer types patients, skin AE was significantly associated with overall survival (HR, 0.59; 95% CI, 0.41-0.84; $P = 0.004$; $I^2 = 70\%$) and progression free survival (HR, 0.61; 95% CI, 0.41-0.91; $P = 0.02$; $I^2 = 80\%$). Begg's test and Egger's test suggested no evidence of publication bias. Sensitivity analysis also showed similar results.

Conclusions: On average, skin eruption groups had 52% lower risk of death and 41% lower risk of progression in cancer patients treated with EGFR-TKIs. This association should be further incorporated with cancer survivorship care planning.

Keywords—*skin rash, EGFR, overall survival, progression free survival*

Biography

Yensheng has completed his MD at Chang-gung Memorial Hospital, Taiwan in 2015 and completed his internship at Massachusetts General Hospital, Department of Dermatology in 2018. He devoted to clinical studies that discover investigation techniques and treatments for allergic diseases and cancers. Yensheng is current a graduate student at Yale University School of Public Health and a collaborate research scientist at Wellman Center of Photomedicine.

Nanostructured Lipid Carriers gel for dermal delivery of Pranoprofen

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Pranoprofen (PF), 2-(5H-[1] benzopyrano- [2, 3-b]-pyridin-7-yl) propionic acid, is a nonsteroidal anti-inflammatory drug used in ophthalmology. Recently, some articles have reported the effect of this drug for the treatment of skin diseases. Nanostructured Lipid Carriers (NLC) are one of the colloidal systems that have been most widely studied over the past few decades with the aim of improving the penetration and delivery of drugs in the skin.

Propose: Development and evaluation of carbomer gel bearing pranoprofen loaded nanostructured lipid carries as a means of exploring novel formulations to improve the biopharmaceutical profile of this drug for skin disorders.

Methods and Results: The PF-NLC were optimized by a factorial design and characterized physiochemically, subsequently these systems were incorporated in a matrix of carbomer gels and studies such as release, ex vivo permeation using human skin, in vivo biomechanical properties and irritation test were carried out. Moreover, stability studies were determined using a Turbiscan Lab®.

The PF-NLC-gels exhibited physicochemical characteristics and morphological properties suitable for dermal application. Also, the release profile showed a hyperbola Kinetic model. No signs of skin irritancy were detected. The measure of the Trans epidermal water loss (TEWL) and stratum corneum hydration (SCH) showed an occlusive and a moisturizing effect. For the stability, formulations were stable for a period of 6 months. Taking into account these results, the PF loaded in nanostructured systems could be a new alternative for the treatment of skin disorders.

Audience Take Away:

- The PF-NLC and PF-NLC-gels could be effective systems for the delivery and controlled release of the drug in the skin, also improving the biopharmaceutical profile of the drug, facilitating the contact of the PF on the skin and improving its dermal retention. Then reducing the dermal oedema and enhanced the anti-inflammatory effect to this drug, also this is a new route of application for this drug, could be effective to treat different inflammatory disorders in the skin as rosacea or atopic dermatitis.

Biography

María Rincón has completed her University Degree in Pharmacy – University of Salamanca. Spain. 2002 – 2007, Master in “Management and Production in Pharmaceutic Industry” – University of Salamanca. Spain. 2007-2008., Doctorate programme in Neurosciences “Morphologic and functional organization of Nervous System” – University of Salamanca. Spain. 2007-2009. She has done her Doctorate programme in Development and control of drug delivery systems “Lipid nanostructured systems of pranoprofen for dermal application” – University of Barcelona. She is a specialist in Industrial Pharmacy through national public examination (FIR) – University of Barcelona. 2015 – 2017.

Determination of antinuclear antibodies in patients with psoriasis

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Introduction – ds-DNA-IgG and ss-DNA-IgG are antinuclear antibodies (ANA) designed to determine autoimmune antibodies of class G (IgG) to double-stranded (undenatured) DNA (ds-DNA) and single-stranded (denatured) DNA (ss-DNA) in human serum. The aim of the study was to determine the level of dsDNA-IgG and ssDNA-IgG antinuclear antibodies in patients with psoriasis.

Materials and methods - there were 68 patients with psoriasis, 25 of which (36,8%) were women and 43 patients (63,2%) were men. In the age aspect, patients were divided: under 14 years - 1 (1,47), from 15 to 25 - 11 (16,7%), from 26 to 40 - 26 (38,23%), from 41 to 60 - 23 (33,82%), over 61 years old – 7 people (10,29%).

Results - ANA were found in 26 patients (38,24%) with psoriasis. At the same time, dsDNA-IgG values were higher than normal values in 8 (11,76%) patients (group 1), ssDNA-IgG were elevated in 18 (26,47%) patients (group 2), in 2 (7,69%) patients (group 3) were increased both indicators.

Elevating of indicators of ds-DNA-IgG and ss-DNA-IgG, depending on age; occurred in 1 (3,85%) patient under 14 years, in 2 (7,69%) from 15 to 25, in 9 patients (34,61%) from 26 to 40, in 11 (42,30%) from 41 to 60, in 2 (7,69%) over 61 years old.

It is known that metabolic syndrome (MS) is a complex of metabolic disorders, which in each patient, depending on the individual genetic predisposition, may be manifested by obesity, hypertension, coronary heart disease and type 2 diabetes mellitus.

Conclusion - Thus, the obtained data indicate a high frequency of ANA ds-DNA-IgG and ss-DNA-IgG in patients with psoriasis with varying degrees of positivity, depending on the activity, the extent of the process, the presence of complications, the severity of the metabolic syndrome and the presence of another accompanying pathology.

Biography

Inoyatov Avaz Shavkatovich graduated bachelor's degree from the 2nd Tashkent Medical Institute in 1997, he studied clinical internship in the field of dermatology and venereology. In 2008, he received his PhD on the topic "Polymorphic light eruption" at Republican scientific practical medical centre dermatovenereology and cosmetology. He proposed in his work a classification of photodermatosis and carried out work on the preventive therapy of patients with polymorphic photodermatosis. He is a member of the Association of Dermatovenereologists and cosmetologists of Uzbekistan and a member of EADV. He specializes in photo aging and photodermatosis. Is the chief of the clinic medical center of dermatology and cosmetology.

The effect of ageing and menopause on facial puffiness

Nkengne, Alex, PhD, Robic, Julie, PhD, Lua, Bee Leng,* PhD
Clarins Laboratories, Singapore

Facial puffiness commonly experienced by women may not pose a health risk but it can be a cause of cosmetic concern. The objectives of this study were to determine whether self-perceived facial puffiness can be measured objectively, and also to understand how it is affected by ageing and menopause.

Materials and Methods: 150 Chinese women were recruited with ages between 20 to 60 years old who self-perceived to have facial puffiness at least two to three times a week. Various skin parameters and 3D imaging were measured and taken at two time points within a day (the first visit occurred when the participants perceived they had facial puffiness; the second visit occurred when the participants perceived their facial puffiness had subsided. The participants were given a rating scale to self-evaluate their puffiness and firmness at different regions of the face.

Results: The water content and skin thickness were significantly higher in the upper eye lid region of the face during the first visit. The overlapping of 3D images of volunteers using color map analysis showed that there is significant increase in “distance” between visit one and two at the upper, lower eye lid, jowl and nasolabial regions. Skin elasticity was also significantly different between visit one and two. There was significant increase in water content and skin thickness in the lower eye lid region in women who were greater than 40 years old.

Conclusion: This was the first study to show that self-perceived facial puffiness can be measured and skin elasticity changed significantly when puffiness had subsided. Ageing and/or menopause had an impact on the eye puffiness.

Audience Take Away:

- Audiences will be able to gain more knowledge about Asian consumer’s perceptions of facial puffiness vs objective measurement and dermatologist grading. Most interestingly, we showed that the facial puffiness has an effect on skin elasticity and this is the first finding in the literature demonstrating such a relationship.

Biography

Bee Leng Lua received her PhD in cell and molecular biology from the National university of Singapore. She started her career as a post doctorate at A*star, and subsequently moved to Johnson & Johnson as a Scientist in both Pharmaceuticals and Consumer Research. thereafter she established a skin research laboratory in Suntory, understanding how oral supplements can improve skin health. To date, she is a R&D director (APAC) at Clarins taking care of all research activities in APAC region. Her research interest includes understanding skin physiology, AI and developing new facial gadgets or tools for consumers.

Circadian rhythms modulation of senescent skin fibroblasts and impact on the biological functions

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Introduction:

A wide range of behavioral processes and physiological functions in the body are varying in a highly controlled and periodic manner in function of day time. This oscillatory system, called circadian rhythms is highly synchronized and allows organisms to adapt to their environment. Molecular effectors known as clock genes (e.g.: Clock, Bmal1, Per1, Cry1) have been identified and allow the control of those rhythms. As a barrier between external environment and the body, skin takes a major part in protecting homeostasis against environmental variations such as temperature and UV radiation. In this respect, studies of circadian rhythms in skin are particularly relevant to evaluate how disrupted clock signaling may influence skin troubles. It has already been shown that disturbance of biological clock is influencing skin diseases like psoriasis or atopic dermatitis and that biological clock is evolving with age. The purpose of this study was to understand the link between age, rupture of circadian rhythms and skin essential functions.

Methods:

Fibroblasts of 3 young healthy donors (27-33 years old) were cultured and senescence was induced by H2O2 during 2 hours. Circadian gene expression was synchronized by a short dexamethasone treatment. Cells were monitored across a kinetic of 83 hours with sampling time points during day and night. mRNA were extracted and a reverse transcription step converted mRNA to cDNA. cDNA have been used in the Biomark system which allows high throughput real-time qPCR (96 samples across 96 genes). In addition to clock genes, other genes were selected to cover different skin cell functions such as elasticity, structure, barrier function and immunity. Expression was normalized thanks to 4 housekeeping genes. Results were expressed in fold induction using $\Delta\Delta Ct$ where Ct corresponds to the number of cycles required to generate a signal above predefined threshold.

Results:

Observation of gene expression across the time revealed 2 main phases (before and after 53 hours of experiment) in young cells. These two phases were less pronounced for senescent cells. This may be due, at least in part, to a difference in cell proliferation capacity. The analysis of clock genes (PER2, PER3, NR1D1) showed circadian rhythms in fibroblasts. Some functional genes (for example COL7A1, LOXL1, TNC) were expressed in a rhythmic manner and some other genes did not show expression following cycles. COL7A1 (type VII collagen), LOXL1 (lysyl oxydase) and TNC (Tenascin C) appeared less expressed, while MMP1 (metalloprotease1) is overexpressed in senescent cells compared to young cells all along the kinetic. Finally, rhythmic expression of COL7A1 and LOXL1 is lost with senescence.

Conclusion:

The model of young and senescent fibroblasts coupled to targeted transcriptomic analysis is an interesting tool to study aging and understand how signaling and molecular pathways are modulated. In senescent fibroblasts, we showed firstly a modification of rhythmic cycles and secondly, a disturbance of structure molecules essential to tissue cohesion. The results of circadian rhythms on fibroblasts allow considering the use of cosmetic active ingredients at specific time periods to repair homeostasis in skin.

Biography

Bee Leng Lua received her PhD in cell and molecular biology from the National university of Singapore. She started her career as a post doctorate at A*star, and subsequently moved to Johnson & Johnson as a Scientist in both Pharmaceuticals and Consumer Research. thereafter she established a skin research laboratory in Suntory, understanding how oral supplements can improve skin health. To date, she is a R&D director (APAC) at Clarins taking care of all research activities in APAC region. Her research interest includes understanding skin physiology, AI and developing new facial gadgets or tools for consumers.

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