ABSTRACT JOURNAL

ABSTRACTS of the
9TH 5-CENTINENT-CONGRESS
AUGUST 30 – SEPTEMBER 2, 2018
<table>
<thead>
<tr>
<th>DAY 1</th>
<th>TEACHING COURSES AND RESIDENTS &amp; FELLOWS DAY</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 - 11.00h</td>
<td>New Aspects in Female and Male Rejuvenation</td>
<td>5</td>
</tr>
<tr>
<td>09.00 - 18.00h</td>
<td>Residents &amp; Fellows Day</td>
<td>5</td>
</tr>
<tr>
<td>14.30 - 16.30h</td>
<td>The Links Between Nutrition, Stress &amp; Aging</td>
<td>8</td>
</tr>
<tr>
<td>14.30 - 16.30h</td>
<td>The Who, What, Why, When and How of Social Media Marketing</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 2</th>
<th>SCIENTIFIC SESSIONS</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 - 11.00h</td>
<td>Essential Anatomy for Facial Injections &amp; Thread Treatments (organized by IMCAS)</td>
<td>11</td>
</tr>
<tr>
<td>11.30 - 13.30h</td>
<td>Acne &amp; Facial Redness - My Best Results</td>
<td>19</td>
</tr>
<tr>
<td>14.30 - 16.30h</td>
<td>Chemical Peeling Around the World (organized by IPS)</td>
<td>24</td>
</tr>
<tr>
<td>17.00 - 18.30h</td>
<td>Dealing with Skin Cancer</td>
<td>30</td>
</tr>
<tr>
<td>17.00 - 18.00h</td>
<td>Online Marketing</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAY 3</th>
<th>ABSTRACT AWARD &amp; SCIENTIFIC SESSIONS</th>
<th>37</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00 - 11.00h</td>
<td>Free Communication: Abstract Award</td>
<td>38</td>
</tr>
<tr>
<td>09.00 - 11.00h</td>
<td>Facing the Future of Facial Rejuvenation &amp; Lifting</td>
<td>44</td>
</tr>
<tr>
<td>11.30 - 13.30h</td>
<td>Partner Country Update: United Kingdom</td>
<td>50</td>
</tr>
<tr>
<td>12.30 - 13.30h</td>
<td>Live Demonstration – Mesotherapy</td>
<td>54</td>
</tr>
<tr>
<td>14.30 - 15.30h</td>
<td>Partner Country Update: Spain</td>
<td>55</td>
</tr>
<tr>
<td>14.30 - 16.30h</td>
<td>Combinations – Better Together</td>
<td>56</td>
</tr>
<tr>
<td>15.30 - 16.30h</td>
<td>Partner Country Update: Spain</td>
<td>60</td>
</tr>
<tr>
<td>17.00 - 18.30h</td>
<td>Focus Session - The Male Patient</td>
<td>61</td>
</tr>
<tr>
<td>SUNDAY</td>
<td>SCIENTIFIC PARTNER DAY</td>
<td>65</td>
</tr>
<tr>
<td>SEPTEMBER 2, 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09.00 - 13.30h</td>
<td>DASIL Dermatologic &amp; Aesthetic Surgery Course 2018</td>
<td>66</td>
</tr>
<tr>
<td>11.30 - 13.30h</td>
<td>Reconstructive &amp; Cosmetic Surgery Panel</td>
<td>69</td>
</tr>
<tr>
<td>14.00 - 16.00h</td>
<td>Esthetic Xpress (EX) Symposium: Advances in Indian Aesthetics</td>
<td>70</td>
</tr>
</tbody>
</table>

The meeting covers all aspects of energy-based systems, injectable fillers, neurotoxins, as well as other facets of aesthetics – from peels to scars to photodynamic therapy. In addition, we have courses on the business of medicine – from social media to practice management and everything in between. In other words, there is something for everyone at the 5CC, and we are thrilled to be once again hosting the 2018 edition in the beautiful city of Barcelona, Spain.

In addition to many new programs and initiatives, we are pleased to release all of the abstracts that several of our wonderful 5CC faculty have shared with us in this journal. Abstracts, which showcase the stories and talents of our esteemed faculty and guests from all over the globe.

Planning and organizing an international congress is not easy and finding new ways to teach and explore the various facets of our business remains a challenge for everyone associated with meetings and congresses, no matter where they are from. The 5CC has achieved a global reach and that will always be one of our prime focuses – to have leading clinicians from all over the globe present cutting edge technology and science. We are pleased to announce that in 2018 we will have over 200 incredible dermatologists, plastic and facial plastic surgeons, and aesthetic experts from over 30 countries worldwide.

Best regards

Michael H. Gold, MD
Congress President
NEW ASPECTS IN FEMALE AND MALE REJUVENATION

THE EFFECTS OF MICRO-ABLATIVE FRACTIONAL CO₂ LASER ON CELLULAR SENEQUENCE OF VAGINAL MUCOSA

Virginia Benítez Roig • Spain

Laser applications in medicine and surgery have been known for more than five decades. Plastic surgeons, dermatologists, aesthetic doctors, gynaecologists and other specialists have used the technology for cutting, coagulation, tissue vaporisation, biomodulation, as well as other specific treatments where selective photothermolysis has played an important role. The use of energy-based equipment (EBE) is recent for the treatment of problems which cover the lower urinary tract of women and publications on this subject have been increasing the need to position both the laser and the radiofrequency in a place which is based on scientific evidence.

To evaluate the effect of the pixelated CO₂ laser on the vaginal mucosa, a prospective study was carried out with twenty menopausal patients who had GMS (genitourinary menopause syndrome). A sample was taken from each of them to measure the telomere length using a buccal swab and a vaginal swab prior to the laser radiation of the vagina, as well as a 4mm biopsy punch in the vaginal right lateral wall to assess collagen, elastin and hyaluronic acid. A total of two sessions, one month apart, were performed using the pixelated CO₂ laser. The control was carried out two months after the second session. The preliminary results of the study are presented.

BLEACHING AND REGENERATION OF EXTERNAL INTIMATE AREA

Abraham Benzaquen • Spain

This case report exposes our personal experience with a protocol developed in our clinic with the aim of achieving a bleaching of the perineal area in combination with a regeneration and rejuvenation of the whole surrounding area, published in the book “Cirurgia estética genital masculina y femenina” by Dr. Ramon Vila-Rovira.

The results present our particular protocol, which is a combination of different chemical peels at once, together with penetration of several drugs using microneedling and its particular skin stimulation.

PATHOGENESIS OF SKIN AGING

Ashraf Badawi • Canada

Facial Rejuvenation is becoming a widely demanded service in the Cosmetic Dermatology and Aesthetic Surgery fields. Many techniques and procedures are being practiced to improve the skin condition and appearance.

The pathogenesis of skin aging and the factors influencing it should be kept in mind to select the suitable technique/procedure. In most of the cases, the pathology is multilevel and affecting more than one layer of the skin and dealing with only one layer would not give the optimum outcome. Even in cases where the patient is presenting by a dermal problem, it would be helpful to improve the epidermal structure. Proper understanding of the key elements of skin aging affecting the different skin components is a key in success when it comes to skin rejuvenation.

LASER TATTOO REMOVAL

Matthias Bonczakowitz • Germany

Since 2013 picosecond lasers have been the gold standard for tattoo-removal. All colors can be treated with this technique successfully. In this session you will learn about everything we need for a proper tattoo-removal. I will show you different tattoos from both amateur and professional artists and tell you about the necessary methods to remove them – which wavelengths are used for which color and why we need different spot sizes for specific tattoos.

We are going to cover all regions of the body: neck, upper trunk, lower trunk, upper arm, lower arm and legs and we will discuss possible side effects and pitfalls. Many completely removed tattoos will be shown.
WHAT IS LIGHT-EMITTING DIODE PHOTOTHERAPY (LED-LLLT) AND HOW DOES IT WORK? R. Glen Calderhead • South Korea

Phototherapy, or low-level light therapy (LLLT), has been around for more than 4,000 years as heliotherapy but in 1968 the first papers appeared on phototherapy with lasers, rather than phototherapy. Three decades later, the NASA Space Medicine Laboratory developed a new phototherapy source, the NASA light-emitting diode (LED), LED array-based systems delivering proven and useful wavelengths have been developed, are being increasingly and successfully applied as LED-LLLT in a number of medical fields, and have attracted a great deal of attention for being comparatively inexpensive, quasi-monochromatic, and offering the ability to treat a large area of tissue in a single hands-free session in a safe and effective manner.

The first law of photobiology states that without absorption of light energy, there can be no reaction. Absorption depends on the target and depth of the target or targets in living tissue, and these factors are mostly determined by the wavelength of the light, as is target selection. If incident light of low enough intensity is absorbed in the target cell so that no heating of the target cells results, then the energy from the photons is added to the general energy level of the cell. The cell is then photostimulated (photobiomodulation), and all functions of the cell are enhanced.

The range of indications of LED-LLLT is large, and increases continuously. LED-LLLT can be used for all aspects of wound healing, iatrogenic or traumatic, and is excellent for non-healing ulcers of all etiologies. Problem skin conditions, such as acne vulgaris and rosacea, respond well to LED-LLLT. Skin rejuvenation is another fast-growing application, and all functions of the cell are enhanced.

It has been well demonstrated by V. Lambros that skin does not move as we believe, but follows the changes of the deep fat structures. Therefore, we have to try to correct these changes, but without creating an abnormal anatomy. Restoring volume losses can be achieved by deep, pre-periosteal injection of volumizing fillers, to lift up the anatomical structures, and/or direct repositioning of the fat compartments through tensioning threads. The skin, which follows fat displacement, is therefore repositioned and tightened, in a physiological way that cannot be maintained through simple superficial pulling.

REASSORBABLE VS. NONREASSORBABLE

Anatomical changes due to aging are now better known: deep fat volume loss, permanent muscular contraction, apparent skin flaccidity following sliding of the deep elements. Use of sutures to reposition these displaced tissues are very popular, but need to be designed in such a way as to avoid excess collagen, and surgically to avoid complications.

SUTURES & THREADS

Pierre Nicolas • Spain

ANATOMY APPLIED TO SUTURES AND THREADS

Knowledge of the physiology of facial aging allows us to understand the changes in the "youth appearance" anatomy. Changes involve muscles, which become thinner and permanently contracted, thus leading to displacement of peri-muscular fat compartments.

Superficial fat, i.e. subdermal layer, between dermis and SMAS, accounts for 57% of total facial fat, and has two components: the Hypoderms, third layer of the skin, and the fat in superficial compartments. It does not change with age, but with weight.

Deep Compartment fat, in its different sub SMAS layers, loses about 11% of its volume every year as from the age of 30, and is displaced through muscular movements and contracture, its sliding being stopped by the facial ligaments. All these changes lead to the formation and deepening of the functional folds, naso-labial and genio-labial.

Anatomical changes due to aging are now better known: deep fat volume loss, permanent muscular contraction, apparent skin flaccidity following sliding of the deep elements. Use of sutures to reposition these displaced tissues are very popular, but need to be designed in such a way as to avoid excess collagen, and surgically to avoid complications.

COMBINING SUTURES AND THREADS WITH OTHER MODALITIES

Knowledge of the physiology of facial aging allows us to understand the changes in the "youth appearance" anatomy. We have to try to correct these changes, but without creating an abnormal anatomy.

The role of the sutures and threads is to reposition the displaced elements, more than tightening the skin, which does not achieve lasting results. But this will not compensate for the deep fat loses, nor treat efficiently the changes in the quality of the skin. Restoring normal volume is best achieved by deep, pre-periosteal injection of fillers. This allows for lifting up the anatomical structures.

Then direct repositioning of the fat within the compartments is obtained with tensioning threads/sutures, provided they demonstrate a strong anchoring in the weak fatty tissues. The skin, which follows fat displacement, is repositioned and tightened.

The quality and duration of the threads is of primary importance for achieving proper type I collagen stimulation, the main component of normal skin. But we have also to address these superficial layers, with different means, like mesotherapy with different products including PRP directly injected within the fatty tissue. BB devices aim at creating a retraction of the collagen through heat, fractioned lasers, radiofrequency, focialized ultrasounds, etc.

Precise indications are explained, and an algorithm for treatment is presented.

SUTURE AND THREAD COMPLICATIONS AND THEIR MANAGEMENT

Inserting any product within the human skin induces a reaction, either to eliminate or to encapsulate it. This reaction can be beneficial, provided the injected product presents the ability to induce a positive reaction.

Unfortunately, it appears through clinical practice that many products induce unwanted and unfavorable reactions, including those allegedly supposed not to induce such complications.

Here are presented the mechanisms leading to these reactions, and why some products do not achieve the expected results. Complications are described, and specific treatments indicated. A comparison based on these findings allows for a better choice of a specific thread, according to the desired effects.

THE PHOTODYNAMIC THERAPY: APPLICATION IN DERMATOLOGY

Leihong Flora Xiang • China

Photodynamic therapy (PDT) with topical aminolevulinic acid (ALA) is an emerging modality for the treatment of skin disorders, such as acne vulgaris and photaging. Topically applied ALA is taken up by epidermal cells and metabolized via the protoporphyrin pathway to protoporphyrin IX (PpIX), which is a photosensitizer that accumulates in the photosensitive units. Following exposure to intense visible light, PpIX is excited into a triplet state, which reacts with oxygen to produce singlet oxygen and reactive radicals, causing membrane damage and cell destruction. Blue light (415nm) is the most effective wavelength activating protoporphyrin, and protoporphyrin IX could be activated with significantly lesser peaks at 509, 544,584 and 635 nm. Red light is less effective of activating protoporphyrin, but has good tissue penetration and anti-inflammation and regeneration effects. Red light induced cytokines releasing from macrophages, and stimulated proliferation of fibroblasts.

As a result, the ALA-mediated photodynamic reaction directly kills the photosensitive P. acnes and specifically damages the photosensitive glands, thus leading to clinical improvement of acne lesions. The mechanism of ALA-PDT in the treatment of photaging might be related with heat shock protein (HSP) and MMP. Photosensitizer generated by oxidative stress, can induce HSP-70 expression. HSP-70 can inhibit apoptosis induced by PDT and protect cells against stress. HSP-72 is a member of HSP-70 family. Under the stress (e.g. UV radiation, H2O2, heat shock, and alcohol), the level of HSP-72 increased and inhibited the JNK and p38 signal transduction pathway. Irradiation with ALA and red light on cultured fibroblasts induced the expression of the mRNA of MMP-1 and MMP-3. Differences of electron microscopic changes between pre-and post-treatments indicates changes in collagen ultrastructures and more type I collagen fibrils found in the ALA-PDT group.

THE PHOTODYNAMIC THERAPY: APPLICATION IN DERMATOLOGY

Leihong Flora Xiang • China

Photodynamic therapy (PDT) with topical aminolevulinic acid (ALA) is an emerging modality for the treatment of skin disorders, such as acne vulgaris and photaging. Topically applied ALA is taken up by epidermal cells and metabolized via the protoporphyrin pathway to protoporphyrin IX (PpIX), which is a photosensitizer that accumulates in the photosensitive units. Following exposure to intense visible light, PpIX is excited into a triplet state, which reacts with oxygen to produce singlet oxygen and reactive radicals, causing membrane damage and cell destruction. Blue light (415nm) is the most effective wavelength activating porphyrin, and protoporphyrin IX could be activated with significantly lesser peaks at 509, 544,584 and 635 nm. Red light is less effective of activating porphyrin, but has good tissue penetration and anti-inflammation and regeneration effects. Red light induced cytokines releasing from macrophages, and stimulated proliferation of fibroblasts.

As a result, the ALA-mediated photodynamic reaction directly kills the photosensitive P. acnes and specifically damages the photosensitive glands, thus leading to clinical improvement of acne lesions. The mechanism of ALA-PDT in the treatment of photaging might be related with heat shock protein (HSP) and MMP. Photosensitizer generated by oxidative stress, can induce HSP-70 expression. HSP-70 can inhibit apoptosis induced by PDT and protect cells against stress. HSP-72 is a member of HSP-70 family. Under the stress (e.g. UV radiation, H2O2, heat shock, and alcohol), the level of HSP-72 increased and inhibited the JNK and p38 signal transduction pathway. Irradiation with ALA and red light on cultured fibroblasts induced the expression of the mRNA of MMP-1 and MMP-3. Differences of electron microscopic changes between pre-and post-treatments indicates changes in collagen ultrastructures and more type I collagen fibrils found in the ALA-PDT group.

THE PHOTODYNAMIC THERAPY: APPLICATION IN DERMATOLOGY

Leihong Flora Xiang • China

Photodynamic therapy (PDT) with topical aminolevulinic acid (ALA) is an emerging modality for the treatment of skin disorders, such as acne vulgaris and photaging. Topically applied ALA is taken up by epidermal cells and metabolized via the protoporphyrin pathway to protoporphyrin IX (PpIX), which is a photosensitizer that accumulates in the photosensitive units. Following exposure to intense visible light, PpIX is excited into a triplet state, which reacts with oxygen to produce singlet oxygen and reactive radicals, causing membrane damage and cell destruction. Blue light (415nm) is the most effective wavelength activating porphyrin, and protoporphyrin IX could be activated with significantly lesser peaks at 509, 544,584 and 635 nm. Red light is less effective of activating porphyrin, but has good tissue penetration and anti-inflammation and regeneration effects. Red light induced cytokines releasing from macrophages, and stimulated proliferation of fibroblasts.

As a result, the ALA-mediated photodynamic reaction directly kills the photosensitive P. acnes and specifically damages the photosensitive glands, thus leading to clinical improvement of acne lesions. The mechanism of ALA-PDT in the treatment of photaging might be related with heat shock protein (HSP) and MMP. Photosensitizer generated by oxidative stress, can induce HSP-70 expression. HSP-70 can inhibit apoptosis induced by PDT and protect cells against stress. HSP-72 is a member of HSP-70 family. Under the stress (e.g. UV radiation, H2O2, heat shock, and alcohol), the level of HSP-72 increased and inhibited the JNK and p38 signal transduction pathway. Irradiation with ALA and red light on cultured fibroblasts induced the expression of the mRNA of MMP-1 and MMP-3. Differences of electron microscopic changes between pre-and post-treatments indicates changes in collagen ultrastructures and more type I collagen fibrils found in the ALA-PDT group.
THE LINKS BETWEEN NUTRITION, STRESS & AGING
Patrizia d’Alessio • France

Aging is an increasingly “hot” topic of medical, societal and biotechnological concern. Stress has been recognized to play an important role in the acceleration of cells’ replicative senescence and in hastening intrinsic genetically predisposition to develop disease. Relationships between neuro-endocrine interactions, chronic inflammation and premature aging have been identified but need to be better elucidated. However, this has already given rise to such concepts as inflammaging and silent or cold inflammation. Moreover, stress is an important factor boosting intimate mechanistic connections between the immune system and the autonomic nervous system branches balance.

Several causes have been identified that are likely to shorten our life and/or healthspan. Yet, by 2030 the second cause of death worldwide is foreseen not to be infectious diseases, cardiovascular disorders nor cancer, but over-dosage of such legal antalgics as codeine, regularly prescribed by physicians. Since 2016, in fact, the ascending line in life expectancy has been shown to regress in men because of the consequences of drug abuse. In OECD countries, disability, absenteeism, sickness benefits and Major Depressive Disease (MDD) have thus been identified by the Horizon 2020 work program 2018-2020 as major topics. This gave rise to a proposal dubbed “Mental Illness in the Workplace” (SC1-BHC-22-2019): “Mental health conditions such as depression, anxiety and stress represent substantial financial costs for employers and employees, as well as a significant loss for society at large”. An important renewal to this rather preoccupying picture is coming from the increasing knowledge about epigenetics and its relationship with nutrition. Indeed specific food constituents have been identified as able to modulate gene expression by interfering with DNA methylation or histone acetylation.

Thus, improvement of diagnostics based on the estimation of apparently unrelated biological markers, a better understanding of the value of primary prevention, has allowed for the development of personalized strategies adapted to the genetic profile of patients. Today it seems indeed possible to create a sensible improvement in available tools for interventions matching multi-factorial approaches including nutritional interventions and combining pharmacological and non-pharmacological approaches.

The workshop will provide a synthetic written resume addressing those essential points.

THE WHO, WHAT, WHY, WHEN AND HOW OF SOCIAL MEDIA MARKETING
Wendy Lewis • USA

Busy aesthetic clinics all agree that it takes a tremendous amount of time and effort to develop and maintain a robust social media presence that resonates with your target audiences. It also takes a good strategy, a sufficient budget, and the right tools to make it happen. It also takes a modicum of patience because growing your followers on all social platforms does not happen overnight.

As strategic thinkers, we are persistently searching for new and innovative ways to gain a competitive edge. But the digital world is in a constant state of flux, which continues to present new challenges for aesthetic practitioners who have limited time to learn the ropes and stay on top of the trends. What is the best way to navigate Snapchat? How can clinics connect with their actual patients online in an ethical manner? What methods really work to convert fans and followers to paying patients? When is the right time to outsource your social media? These and many other common questions shall be addressed and discussed during this intensive course geared towards beginners to experienced social media marketers.

It is natural to hit the proverbial wall at some point and wonder if what you are doing is best practice and what you may be missing out on. If you find yourself in that situation, and most of us do at some point, this interactive course offers a candid conversation about what works and what doesn’t, with actionable tips, timesaving hacks, and tried and true tactics that will help spark your creative energy.

WHO – Define your target audiences; who are you trying to reach, what platforms are they most active on, and who is responding well to your social voice?

WHAT – What is the optimal type, format, style, and key messages of content that will resonate with your target audiences, and what will make your clinic stand out from the crowd?

WHY – Determine if one or more strategies are working better than others by tracking results and find out why so you can use these findings as a road map to engage in the best initiatives and measure success.

WHEN – Figure out when your target audiences want to hear from you and when they will be most receptive to specific buckets of content to maximize your efforts on the best days, times, and in the optimum formats.

HOW – The ‘How’ part of the social media equation includes how to recruit and expand the right internal team and external vendors to get it all done efficiently and cost-effectively.
Knowledge of the physiology of facial aging allows us to understand the changes in the ‘youth appearance’ anatomy. Changes involve muscles, which become thinner and permanently contracted, thus leading to displacement of peri-muscular fat compartments.

Superficial fat, ie subdermal layer, between dermis and SMAS, accounts for 57% of total facial fat, and has two components: the Hypodermis, third layer of the skin, and the fat in superficial compartments. It does not change with age, but with weight. Deep Compartment fat, in its different sub SMAS layers, loses about 1% of its volume every year as from the age of 30, and is displaced through muscular movements and contracture, its sliding being stopped by the facial ligaments. All these changes lead to the formation and deepening of the functional folds, naso-labial and genio-labial.

It has been well demonstrated by V. Lambros that skin does not move as we believed, but follows the changes of the deep fat structures. Therefore, we have to try to correct these changes, but without creating an abnormal anatomy. Restoring volume losses can be achieved by deep, pre-periosteal injection of volumizing fillers, to lift up the anatomical structures, and/or direct repositioning of the fat compartments through tensioning threads. The skin, which follows fat displacement, is therefore repositioned and tightened, in a physiological way that cannot be maintained through simple superficial pulling.

Vascular lasers are an integral part of laser dermatology and have evolved over the years in terms of technology and clinical applications. The pulsed dye laser is considered the gold standard vascular laser with hundreds of published clinical studies in its use in both primary vascular conditions and non-vascular conditions, some which may have a vascular component.

We present a novel vascular platform with a large spot size of 15 mm enabling deeper penetration and wider coverage in addition to a higher repetition rate. The platform has a 1064 nm Nd:YAG to allow for versatility for deeper vessel treatments. This novel platform is the most versatile vascular platform currently available and initial case studies will be presented.

Today, our world is challenged by many aspects connected with health including the raising of chronic diseases as hypertension, diabetes, heart diseases or cancer. On the other hand, we assist at an explosion of chronic skin diseases as atopic dermatitis, psoriasis, acne or rosacea, which is associated with an important negative impact on health care systems.

Chronic skin diseases are associated with an important negative impact on quality of life patients, including difficulties in finding a job, anxiety and depression, suicide tendencies and social phobia, embarrassment and low self-esteem, stigmatization and bullying and low performances at school or job. The holistic approach of patients with chronic skin diseases include a specific lifestyle and diet, sun protection and skin care adapted, and acute intervention followed by maintenance treatment.

Recent researches showed that chronic skin diseases not only impair patients’ psycho-social well-being but also influences major life-changing decisions (MLCDs). A ‘health-related major life changing decision’ (HR-MLCD) is a person’s decision, that is influenced by having a chronic disease and that has a profound long-term impact on the course of the person’s life, in the context of the person’s circumstances and expectations*.

The principles of personal development, respectively time management and setting goals, specific routines for morning and evening, reducing stress through relaxation, meditation, exercise and visualization, could be
adapted to the chronic skin diseases in order to reduce the negative impact and have a better integration of the patients in society. We propose a specific adaptation to the patients with acne in order to have a better long-term approach.

**TREATMENT OF KELOIDS USING SUPERFICIAL RADIATION THERAPY (SRT)**

David J. Goldberg • USA

**BACKGROUND/OBJECTIVE**

Keloids are among the most common and difficult cosmetic issues. Despite their high prevalence, treatment is often unsatisfactory; recurrence is frequent. Intralesional glucocorticoid injection, surgical excision, compression, cryosurgery, silicone gel sheeting, 5-FU, and various combinations of these have all been used with varying success. Previous work has shown the advantage of adjuvant radiation over intralesional steroids. In this study, we evaluated the success of surgical excision followed by adjuvant triple fraction office-based superficial radiation therapy (SRT).

**METHODS**

20 subjects underwent surgical excision of previously resistant keloids. All wounds were treated within 24 hours with a single 1300 cGy total dosage fraction of superficial radiation therapy. Subjects were followed for 6 months.

**RESULTS**

18 subjects showed total resolution of their keloids at 11 months. 20 subjects underwent surgical excision of previously resistant keloids. All wounds were treated within 24 hours with a single 1300 cGy total dosage fraction of superficial radiation therapy. Subjects were followed for 6 months.

**CONCLUSIONS**

The approach to keloid treatment has long been a long-time challenge. In this study, we demonstrated excellent outcomes by combining surgical excision and fractionated superficial radiation therapy. Treatment is delivered over the course of a week. All patients expressed high satisfaction. SRT has become the treatment of choice for keloidal scars.

**LASER TREATMENT OF PIGMENTED LESIONS IN ASIANS**

Taro Kono • Japan

Since the introduction of selective photothermolysis, Q-switched lasers have been used for the treatment of pigmented lesions. The Q-switched ruby, alexandrite and YAG lasers are highly effective in the treatment of dermal pigmented lesions, but in dark-skinned patients such as Asians, the risk of complications such as erythema, blistering, and post-inflammatory hyperpigmentation are increased.

Previous studies that compared the response of lentigines in Asian skin using Q-switched vs. long-pulsed lasers found that post-inflammatory hyperpigmentation was less when using longer pulses. Long-pulsed lasers and IPLs are effective with minimum complications. The lack of down time associated with the use of IPL can be of particular advantage for some patients, but to achieve a satisfactory outcome, several sessions are typically necessary. To balance cost-effectiveness and clinical outcome, one approach is to treat several test areas with different devices.

Q-switched lasers are the first line treatment of dermal pigmented lesions, such as nevus of Ota, Mongolian spots, AD(M) and tattoo. The Q-switched laser is considered particularly effective in dark skinned patients given its longer wavelength and lower risk of adverse effects. Complications such as post-inflammatory hyperpigmentation can occur and hypopigmentation becomes obvious according to the treatment sessions. Laser toning plays a role in melasma, however, melasma is still not completely curable. Picosecond laser is more effective than Q-switched laser with less complications.

**LASERS FOR ONYCHOMYCOSIS**

Keyvan Nouri • USA

**INTRODUCTION**

In the armamentarium of available treatment strategies for onychomycosis, lasers have recently been explored as viable treatment modalities for this common nail pathology. The FDA has currently approved the 532 nm, 630-680 nm, short pulse 1064 nm and 1320 nm Nd:YAG lasers, Q-switched Nd:YAG 1064 nm laser, 870/930 nm combination and 980 nm diode lasers for the treatment of onychomycosis. Although the literature evaluating the efficacy of lasers on treating onychomycosis is scant, additional treatment options include ultraviolet (UV) light, photodynamic therapy (PDT), the femtosecond infrared titanium sapphire 800 nm laser, the 1219 infrared laser, BroadBand Light from a filtered flash lamp, and ablation with the CO2 laser. Additional randomized controlled trials should be conducted to evaluate the efficacy of lasers in treating onychomycosis.

**OBJECTIVES**

This lecture will provide a succinct approach to treatment of onychomycosis with lasers or light therapy, as well as short background on each of the laser modalities being studied for this indication. Pre-operative, intra-operative, post-operative and special patient considerations will also be covered.

**CONCLUSION**

Lasers and light therapies are exciting and upcoming treatment options for the treatment of onychomycosis. This lecture will provide attendees with a general understanding of the different types of lasers used for the clearance of nail dystrophy caused by onychomycosis.

**HOW TO BUILD YOUR PRACTICE FROM THE GROUND UP**

Kai O. Kaye • Spain

Plastic and Aesthetic Surgery is shifting more and more into private practice. Many young doctors have the desire to build up their own private clinic or practice, but training on business legal aspects, marketing, practice & team building is still rare in the academic university setting where medical training is normally delivered. This presentation will give an insight in a personal 10 years’ experience of building up a private clinic for Plastic Surgery and aesthetic medicine from scratch and will put emphasis on showing the up the most important pearls and pitfalls to succeed in a competitive, growing market.

**ELASTIC THREADS FOR BREAST REMODELING**

Maurizio Bertlanda • Italy

**INTRODUCTION, AIM OF THE WORK**

Author describes a minimal-invasive technique to reshape ptotic breasts (as natural as with implant) without scars nor tissue undermining.

**MATERIAL AND METHODS**

The technique consists of using a two components elastic thread with double tips needle to be placed in different concentric circling into subcutaneous tissue, under local anesthesia.

**EXCLUSION CRITERIA**

Autoimmunity disease, extremely big breast and 4th degree ptosis.

**RESULTS**

Technique is new and results till now are positive with patient satisfaction.

**CONCLUSION**

Elastic thread breast reshaping is the only non invasive technique that permits to obtain good results without implants, without evident incision, without scars and without tissue undermining.

**SCARLESS CONTOURING OF THE BREAST: CREATING AN „IMPLANT” WITHOUT ONE**

Diane Duncan • USA

While most efforts have been directed towards the skin envelope of the breast in the past, new data shows that the framework of the breast – the gland and soft tissue – is the scaffold upon which the breast is shaped. The case studies presented show a new approach to breast lifting: restoration of the collagen framework within the soft tissue plus heat mediated soft tissue contraction. With this approach, no skin is excised. Bipolar radiofrequency-based energy was applied in the subcutaneous plane of the breast following infusion of tumescent fluid. However, if the skin envelope needs to be reduced by more than 25%, a surgical excisional approach would be indicated.

An implant type shape can be achieved by considering and targeting 4 elements.

1. Lateral extension of the breast can be corrected with directional bipolar RF for skin only, or in combi- nation with liposuction for those with some lipodystrophy.
2. Rounding of the lateral and medial breast is achieved by using vertical curved strokes to further narrow the breast.
3. Bottoming out is addressed by using 2 sets of passes at 90 degrees to each other. This region responds well to treatment.
4. Modest fill of a hollow upper pole can be achieved using this same method. Some horizontal strokes are needed in order to get more significant correction.

Patients must wear a support bra 24/7 for 2-3 months in order to get a good result.
Correction of implant problems can also be achieved with the RF lifting approach. The eventual migration of soft tissue over the implant, then downward is a common problem. This can be corrected using the above techniques. A new application for RF in breast lifting is that it produces a more voluptuous body shape. One of the most important determinants of the ideal body shape is a small waist to hip ratio. This is the ratio of the circumference of the waist at its narrowest point to the circumference of the hips at the maximum projection of the buttocks. In the majority of cases, a waist to hip ratio of 0.7 is considered to be the most attractive but this depends, to a large extent, on cultural and personal interest. For example, in Latino populations, even a smaller ratio of 0.56 is considered ideal. It is possible to obtain an overall more attractive body shape by manipulating the volume in the buttocks and hence reducing the waist to hip ratio. Various surgical options are available for buttock augmentation including fat transfer as in the Brazilian Butt lift and buttock implants. However, there is a demand for non-surgical options with no downtime and relatively longer lasting results. In terms of injectable substances, only two viable options exist; Hyaluronic acid replacement fillers and Poly-L-Lactic Acid (PLLA) collagen stimulating filler. Although highly viscous Hyaluronic acid affords impressive augmentation, the substance is subject to enzymatic degradation by hyaluronidase enzyme and hence optimal results last barely 6-8 months. Poly-L-Lactic acid, on the other hand, exerts its action by inducing soft tissue formation and as such results last a minimum of 2 years. Conclusion: RF breast lifting can succeed in improving contour in carefully selected patients.

**Non-Surgical Buttock Augmentation with Poly-L-Lactic Acid Injections**

Maria Khattar • Dubai

The concept of ideal female body shape has changed over time from the hourglass figures of the 1950’s and 60’s to the thin square shapes of the 1980’s and 90’s. Nowadays, we have now come full circle to where we are seeing resurgences in the demand for more voluptuous body shapes. Patients were injected with PLLA, suspended in distilled water, after standardized markings. The procedure was repeated monthly for a total of three to four times. Pre and post treatment photos were taken with the Canfield Vectra photographic system and volume calculations were made. Clear evidence of neo-collagenesis was shown in each case. PLLA is a safe and effective option for non-surgical augmentation of the buttocks.

**Inverse Abdominoplasty**

Tunc Tiryaki • United Kingdom

The inverse approach, starting from the upper incision above the umbilicus, eases the procedure immensely, shortens the dissection time and length, reduces the duration of the procedure and diminishes any need of a vertical scar. The created median skin excess due to vertical abdominal wall shortening, and the midline tension due to cephalic relocation of the umbilicus, fashioned a double skin-fold deformity which results in a false rectus muscle illusion.

**Methods/Technique**

Between 2007-2016, 367 consecutive patients have been operated with described technique. In all patients the dissection was started with a seagull incision from the mid-abdomen, above the umbilicus. The abdominal wall plication with helical spring sutures produced a vertical shortening of the Linea Alba and elongated the midline of the superior flap inferiorly. The combination of this elongation and the lateral tension created skin excess in the midline, which was further divided into two skin folds by the cephalic relocation of the umbilicus. Consequently, a double rectus muscles illusion was fashioned.

**Results/Complications**

The follow-up was 2 to 68 months. 12 patients had wound healing problems and were revised. One patient had pseudomonas infection, which was successfully treated. Eighteen patients had seroma formation. Aesthetic results were evaluated by 81 % of the patients as excellent/very good.

**Conclusion**

Inverse abdominoplasty with a mid-abdominal outset is a safe, short and comfortable technique without any need of a vertical scar even in hardest cases. Concomitantly, a better reverse lifting of the groin is also obtained as well as a beautiful abdomen is fashioned.

**Mastopexy Augmentation Simplified: A Starter’s Kit for Implant Selection and Step by Step Surgical Technique**

Tunc Tiryaki • United Kingdom

**Background**

Mastopexy augmentation is considered a complicated operation due to many reasons and even discussions continue whether to perform these two procedures at one stage or two. This perception is affirmed more with the traditional understanding of this operation as a combination of two contradicting procedures. In reality, the apparent complicity of this procedure is related to the fact that this operation has more parameters to be calculated compared to other breast procedures.

**Method**

We screened our cases done in last 10 years and tried to simplify the mastopexy augmentation procedure by decreasing the number of the parameters. In order to be able to do it, we classified the surgical parameters in two basic groups, namely, parameters related to the implant and to the breast. At the first stage, we described an easy method to select the proper implant based on the current literature. Secondly, we analyzed the surgical approaches to mastopexy, reducing these to two basic philosophies.

**Results**

In all cases, the procedure was performed in single session, with the mean age of 36. The mean operative time was 125 minutes and the reoperation rate was less than 5% in 5 years follow-ups.

**Conclusion**

The perception of this procedure as a complicated surgery is due to excessive number of the parameters to be taken into consideration. By analyzing and reducing these variables, this operation can be performed relatively easily with low complication rates and short operative time.
HOME-USE DEVICES: NEW THOUGHTS & NEW DEVICES IN 2018
Michael Gold • USA

Home use devices (HUDs) continue to grow and expand and have proliferated greatly into the general patient population who are looking for new methods of self-improvement without relying totally on our services. This presentation will describe the different categories of HUDs and how if you embrace them, incorporate them into your practice and into your treatment routines, we can achieve the best results for our patients. This presentation will show the latest in-home cleansing devices, devices for treating acne and psoriasis, devices for rejuvenating the skin, devices for hair removal, devices for skin tightening, and even devices for fat reduction and feminine rejuvenation.

We, as clinicians, will not stop this influx of new HUDs into the marketplace, but it is our job to assure that they are safe and efficacious and that our patients’ well-being is always kept at the forefront for these new technologies.

POSITIONING AND VALUE OF PRESCRIPTION HUD
Dirk-Harald Gröne • Germany

More and more devices become consumer friendly and for at home use (HUD). The global market for HUDs increased 11% each year (data as of 2015). The growth of the skin care home use devices (H-UD) market is fueled by:

- Economic factors
- Savvier and more educated consumers
- DIY (do-it-yourself) trends and other factors influencing market growth such as:
  - Affluent customers receptive to these products
  - Increased PR buzz
  - More people staying at home to treat themselves
  - Diverse range of products on market to tackle different age brackets

The at-home device market lends itself to a wide range of ages with distinct skin-care needs as in teens for acne, men for aging skin, devices for hair removal, devices for skin tightening, and even devices for fat reduction and feminine rejuvenation.

WILL VAGINAL REJUVENATION BECOME THE LARGEST HOME-USE DEVICE MARKET?
Robert E. Grove • USA

The women’s health category has been emerging at a rapid rate for the past ten years as an area of enormous growth potential for aesthetic practitioners, including gynecologists, urologists, plastic surgeons, dermatologists and aesthetic doctors as well as GP’s. There has been a soaring interest in these clinical treatments globally, driven largely by consumer awareness and demand as well as the introduction of new and innovative technologies, and media attention.

Due to the expanding vaginal rejuvenation marketplace for medical professionals, we have witnessed an increasing interest in additional products and services. In particular, there has been an clear need for a home-use device that can serve the triple purposes of an affordable alternative to clinical treatments, an introduction to more invasive procedures, and a complement to the patient experience in-office. The introduction of the vR PLUS from Joylux, Inc. (Seattle, USA) marks the first and only clinically proven home use system that safely addresses delicate vaginal tissues. The device is a unique, innovative, system that utilizes photobiomodulation, thermal energy and vibration in an effective, convenient, ergonomically-designed handheld unit.

As the vaginal rejuvenation market is still in its infancy, we are seeing increasing demand from consumers for adjunctive products and treatments that offer a welcome profit center to aesthetic and medical practices while addressing a large, unmet need. This discussion will highlight the key advantages of this home-use technology and the potential opportunities and future trends in the women’s health/vaginal rejuvenation landscape.

HOME-USE DERMATOLOGICAL DEVICES: AN EVIDENCE-BASED ASSESSMENT OF EFFICACY AND SAFETY
Presenter: Jay Nash • USA
Authors: Jay Nash • USA, Frank Beerwerth • Germany

Given the proliferation of home-use devices, it is critical that efficacy and safety data are assessed to ensure healthcare providers have objective evidence when advising patients/consumers. To this end, randomized, controlled clinical trial (RCT) data is the “gold standard” for evaluating such home-use devices. Light-based hair removal has several RCTs demonstrating efficacy with an acceptable adverse event profile based on a well understood mode of action. Light-based hair growth using low level light therapy (LLLT) or photobiomodulation has RCTs demonstrating efficacy with limited side effects, although the mode of action is not completely understood. Acne treatments using blue light, which kills bacteria responsible for such lesions, has limited RCT efficacy and safety data which would differentiate it from conventional chemistries used to treat this condition, e.g., benzoyl peroxide.

Finally, among the multitude of devices sold as treatment for aging skin, published RCTs are lacking. A limited number of devices, based on fractional photothermolysis mode of action, have reported benefits but the adverse effects seem to be a limitation. The future for refinement and improving existing technologies together with the prospect of greater affordability, demonstrated efficacy, i.e., RCT, and the potential migration of “new” treatments from physician to consumer, makes the home-use device market attractive.

HOME-USE DEVICES: WHAT DOES THE CONSUMER THINK?
Lawrence Newman • United Kingdom

Customers are increasingly using home use devices to complement their salon and spa treatments. This behaviour shift has affected the industry balance, with 45% of consumers stating that devices have directly affected their use of salons/clinics. We surveyed 10,000 HUD customer and our interactions have shown the importance of specialist advice and guidance from a product expert or a medical professional.

In this session, we will explore the journey customers take to find tailored solutions to suit their needs, the different touch points and stumbling blocks across omni-channel experiences and how this differentiates across the changing global marketplace. Whilst manufacturers rightly concentrate on safety and efficacy, it is key to understand the end user, so we can serve their needs with advanced technologies and tailored solutions, both in and out the salon/clinic.

A HUD WITH SIGNIFICANT RESULTS IN ANTI-AGING
Laure Rossignol • France

CARITA is a professional skincare brand which was created by 2 visionary sisters in 1945. They constantly innovated in professional treatments especially by introducing the use of instrumental devices in association with cosmetics.

Inspired by the professional machine used in beauty institutes, CARITA recently developed a Home Use Device, My C.L.E., delivering LED and micro-currents:

- RED LED (630 ± 10 nm) helps in reducing fine lines and wrinkles by stimulating fibroblasts and collagen synthesis.
- BLUE LED (460 ± 10 nm) is involved in reducing the...
excess of sebum and in skin’s imperfections diminution by specifically targeting bacteria responsible for acne.

- **GREEN LED** (525 ± 10 nm) contributes to the reduction of hyperpigmentation by inhibiting melanin synthesis.

- Lastly, MICRO-CURRENTS (from 0.2 mA to 0.6 mA) present numerous anti-aging properties through temporary contraction of skin muscles, and stimulation of elastin and collagen synthesis.

The at-home device market lends itself to a wide range of ages with distinct skin-care needs as in teens for basic cleansing, acne or hair removal, in the 30’s for microdermabrasion or cellulite and in the 40’s with a strong impact on anti-aging.

The anti-aging efficacy of My C.L.E., associated with the CARITA Sérnum Neorphosme Combleur Fondamental, was proven in a randomized clinical study involving 95 Caucasian healthy female subjects, aged from 35 to 65 years, presenting phototypes from I to IV and declaring having aged signs, dull complexion, lack of firmness and slackened cheekbones. The women were randomly divided into 2 groups.

The first group applied the Sérnum Neorphosme Combleur Fondamental once a day, and used My C.L.E. according to a 4-minute protocol, while the second group applied the Sérnum Neorphosme Combleur Fundamen- taly only. Each volunteer was scored by a dermatologist before the treatment, at day 6 and at day 28 for the following items: wrinkles of the crow’s feet area, ptosis of the lower part of the face, fine lines underneath eye area, skin radiance, and strata spinosa, stratum granulosum, and stratum. No statistically significant difference between the 2 groups was observed before the treatment for any of the products used. At day 28, statistically significant difference was observed in favor of the first group for the skin radiance, enhanced cheekbones and skin firmness. The talk considers the likely impact on hair and inten- sity light source (ILS) manufacturers and distributors and probable impact on the marketing of home-use light-base- devices to the general public.

- **LESSONS LEARNED FROM LOW AND HIGH FLUENCE PHOTOCAPILLATION**

  **Presenters:** Natallia Uzunbajakava • The Netherlands.
  **Authors:** N. Uzunbajakava, T. Nuijs, M. van Vlimmeren • The Netherlands, G. Westgate, N. V. Botchkareva • United Kingdom

**INTRODUCTION**

Laser and intense pulsed light (IPL) home-use devices (HUD) for hair removal deliver good hair reduc- tion efficacy albeit they operate at different fluence and treatment regimes compared to professional systems. However, the way that distinct hair follicle (HF) compart-
Tixel is a non-radiant fractional system which creates open channels that exhibit effective transdermal delivery. Tixel is based on direct heat conduction. Heat is transferred from a heating element located inside the system’s applicator by a biocompatible metallic Tip. Tip temperature is 400°C. The Tip comes in contact with the skin for a pre-set time (a few milliseconds), allowing precisely controlled heat transfer to the skin. The amount of transferred heat is controlled by the contact time between the Tip and the skin and the extent of thermal matching. Open channels form in the skin at low Tixel energy settings. A multi-phase process takes place: 1) Simultaneous application of heat and motion result in breakage of the stratum corneum; 2) Limited tissue coagulation is formed under the treatment site; 3) Surrounding tissue dehydration. The combined effect enables effective permeation of hydrophilic and lipophilic molecules dissolved in a liquid-base matrix. This work demonstrates Tixel’s transdermal effect and presents preliminary clinical results with different combinations of Tixel and drugs.

**ACNE VULGARIS TREATMENTS WITH LASERS & EBDS**

Michael Gold · USA

Acne is the most common dermatologic disorder that dermatologists see on a regular basis in our offices. Dermatologists are fortunate to have some new topical and systemic therapies which work extremely well but some patients need more, and this is where EBD’s may play a significant role. These devices work mainly by targeting the P. acnes bacteria found in the pilosebaceous gland. Clinical studies showing the efficacy of several new devices will be reviewed, including the short-pulsed 1064 nm laser and the combination 589/1319 nm laser. This presentation will show how these devices can be incorporated into one’s clinical practice.

**TREATING FACIAL ERYTHEMA WITH A NOVEL SOLID-STATE 589/1319NM LASER**

David J. Goldberg · USA

**BACKGROUND AND OBJECTIVES**

For several decades, the gold standard for the laser treatment of vascular lesions has been the 595 nm pulsed dye laser. This laser, although highly effective, has required cumbersome and costly maintenance requirements to replenish the dye medium. A brand new, novel solid-state laser that emits light at 589 nm has the potential to effectively treat vascular conditions without the maintenance issues that come with the PDL. This study examines the safety and efficacy of a 589 nm solid-state laser used for treatment of facial erythema.

**STUDY DESIGN/MATERIALS AND METHOD**

This study is a single-center prospective cohort study of 30 subjects, 18 years of age or older. Fitzpatrick Skin Types I to IV, with varying degrees of facial erythema. Each subject received 4 full face monthly treatments with a solid-state 589nm laser. Delivered fluences were 10-15 J/cm² with a 46 msec pulse duration using a scanning handpiece. Participants then returned for follow-up one month after the 4th treatment. Efficacy was evaluated by investigator and participant assessments of facial erythema utilizing a scale from 0 to 4 (0 = no erythema; 4 = severe erythema). Digital photographs were obtained at each visit. Safety was assessed by compiling investigator-reported side effects throughout the study.

**RESULTS**

All subjects received at least 1 level of improvement. No complications were noted.

**CONCLUSION**

A new 589nm solid state, non-rhodamine dye, solid state laser represents a novel approach for the treatment of vascular lesions.

**HOW TO COPE WITH COEXISTING ACNE AND ROSACEA**

Lali Mekokishvili · Georgia

Introduction and discussion: Acne and rosacea are the most common chronic inflammatory facial diseases, both, in case of conspicuous facial rash can significantly diminish quality of life of the patient. Despite the frequency of occurrence there is no adequate attention to the co-occurrence of acne and rosacea. In my daily practice, such patients consist about 25% of all primary patients with rosacea, mostly women with late acne. This is the reason why in any case, especially in adult women with redness and papulopustular rash on the face, dermatologist has to distinguish rosacea with late acne, or exclude coexistence of these two diseases. Redness, coarser face, titchy and irritable skin in line with signs of late acne, as well dermoscopy clues of rosacea (polygonal vessels, follicular plugs, superficial scales) can serve as diagnostic criteria.

One of the reasons for the development of rosacea symptoms in acne patients can be long-term use of irritating and exfoliate products for acne and violation barrier function of the skin. These patients are especially difficult because of the long-lasting problem, they are “experienced” and tend to look skeptical at the result of treatment.

**CONCLUSION**

Long-term experience of successful treatment of patients with coexisting acne and rosacea allows me to share some highlights of the management approach:

- Find enough time especially for the first consultation
- Support psychologically – inspire optimism
- Determine the intensity of procedures individually, taking into account not only the severity of the disease but the patient’s lifestyle and gender
- Do not ask difficult tasks – failure to perform can lead to internal conflict, as well as distrust of the doctor
- Choose specific treatment and care approach for different areas of the face in the same patient
- Assign procedures to get a quick effect
- Do not assign all at once, leave a reserve
- Use dermoscopy not only to diagnose, but also to assess the results of treatment
- Always document

**LOW LEVEL LASER THERAPY FOR CIRCUMFERENTIAL REDUCTION OF WAIST, HIPS AND THIGHS**

Michael Gold · USA

Low level laser therapy has been shown to be safe and effective for circumferential reduction of the waist, hips, and thighs, as well as for the temporary improvement of cellulite. This presentation will present the study results of a randomized double-blind clinical trial using LLLT vs. a sham device in evaluating improvement in circumferential reduction. Healthy adult men and women with a BMI of 20-30 kg/m² were enrolled in this placebo controlled, randomized, double-blind study. The LLLT device consists of 6 independent 17 mW, 532 nm green laser diodes (N=27). The sham LLLT device emits similar inert visible light when activated (N=27). Protocol: 3 x weekly 30-min LLLT treatment sessions over a 2-week period, treating the front and back of the target areas for 15 minutes each.

**TO WHAT’S POSSIBLE WITHOUT THE SCALPEL?**
Outcome included a significant difference in test subjects achieving an 11cm reduction in combined baseline hip, waist and thigh circumference reduction, compared to the sham subjects at 3 cm reduction.

There were no adverse events in the study.

© 11.30 - 13.30h
EXPANDING YOUR TOXIN KNOWLEDGE AND USES

**BOTULINUM TOXIN IN OVER 70’s: COULD IT HELP?**

Agustín Alomar Muntañola • Spain

With the current popularity of Botulinum Toxin treatments in relation to erasing frown lines, nowadays the demand includes aged patients in their late 70’s.

It is very important to evaluate the patients’ lines, not only frowning but also resting ones due to atrophies and expression to the patient looking at the lines together with a mirror to evaluate their real expectations.

Clearly understanding Botulinum Toxin can also improve the eye size and the established lines quite a lot.

© 6 YEARS OF BOTULINUM TOXIN EXPERIENCE USING AN ALGORITHM: COMPARISON OF TWO GROUPS OF 500 PATIENTS USING THE ALGORITHM AND NOT

Gabriela Casabona • Spain

**BACKGROUND**

Botulinum toxin (BTX) products continue to be widely used for facial rejuvenation. Variables to consider prior to BTX treatment include the anatomical area to be treated, gender, muscle mass, ethnicity, skin thickness, and the effects of aging. Objective: To describe a treatment algorithm which has been developed for facial rejuvenation to help physicians to easily and systematically customize BTX treatment, and to describe its use in a large number of patients.

**METHODS & MATERIALS**

Prior to treatment digital images of patients were obtained while relaxed and while forming different facial expressions. This information was used to plan the depth, dose and location of BTX injections (onabotulinumtoxin A; Botox®, Allergan, Inc.). Dilution was 100 U of BTX to 1 mL 0.9% preserved saline. Injections were performed with 30 U insulin syringes and 30 gauge needles.

**RESULTS**

The treatment algorithm described here has been used by the author for facial rejuvenation for more than 5 years. It was originally based on published guidelines; however, by carefully noting treatment outcomes, the number and location of injection points and the dose of BTX used have been modified to create the current treatment system.

**CONCLUSION**

Published guidelines for the use of BTX are an excellent starting point for clinicians with little experience; however, each practitioner is likely to develop their own algorithm for achieving good facial rejuvenation outcomes.

© NEW TOXINS IN THE US: WHAT IS MAKING ITS WAY THROUGH THE CLINICAL TRIAL DOMAIN

Michael Gold • USA

Botulinum toxin A transformed the aesthetic and cosmetic arena into heights that no one saw coming when the first toxin was approved many years ago. Newer toxins have emerged into the clinical scene and this presentation will differentiate these newer toxins and show the clinical evidence that has entered into the public domain with respect to these toxins.

In addition, several newer toxins are in clinical trials at this time, and preliminary, public domain data will also be presented. It is an exciting time still for toxins for cosmetic use and we will focus on how some of these newer toxins may make a difference for our patients.

© BOTULINUM TOXINS: NOVEL USES

David J. Goldberg • USA

**BACKGROUND AND OBJECTIVES**

For over two decades, botulinum toxins have been used for hyperkinetic muscle tone and hyperhidrosis. This talk will focus on other uses of botulinum toxins.

**LECTURE**

This talk will focus on the use of botulinum toxins for scar treatment, facial erythema, oily skin and acne.

**CONCLUSION**

Botulinum toxin injections can be used for a wide variety of cosmetic purposes.

© A MODERN APPROACH TO THE AESTHETIC PATIENT CONSULTATION

Gabriela Casabona • Spain

In our days there are many ways of approaching an aesthetic patient and the more we evolve the non-surgical procedures possibilities the more we can offer.

There has to be a special attention not only towards the patient expectation but also a very didactic way of explaining to them what we can achieve and if one or more procedures would have to be combined in order to achieve the results wanted.

There are many ways of approaching and educating our patients: magazines, videos, 3D photos. In my lecture, I will show best practice from my 18 years of experience in my own practice, how I evolved and how do I do it nowadays.

© USING SURVEYS AND QUESTIONNAIRES TO GROW A DERMATOLOGY PRACTICE

Todd E. Schlesinger • USA

This talk is focused on how our practice employs a patient satisfaction survey instrument to gauge patient satisfaction and improve service.

The survey instrument is described, including how it was started, then developed into its current form. The mechanics of sending out the survey and receiving the results are described as well as a review of commercially available survey platforms, including the importance of finding one that is HIPAA compliant. The methods in which we utilize the results, how we react to them, and with whom they are shared are described as well as how to integrate positive results into a marketing plan.

Negative results are also covered including tips on dealing with them and learning from them. Finally, the distinction between external and internal surveys is described and how these two survey forms can be integrated to improve patient as well as staff satisfaction.

© 11.30 - 13.30h
INSIGHTS ON PATIENT MANAGEMENT

© 14.30 - 16.30h
CHEMICAL PEELINGS AROUND THE WORLD (ORGANIZED BY IPS)

**COMBINING MEDIUM AND DEEP CHEMICAL PEELING**

Herold J. Brody • USA

Both Medium and Deep Chemical Peeling have withstood the test of time since their inception decades ago. The concept of Segmental Peeling on the same face utilizing the Hetter Phenol/Croton oil formulas for cosmetic units with more severe wrinkles and actinic damage can blend smoothly with Medium Depth peeling techniques on the remainder of the face.

Implementing these techniques are cost-efficient with dramatic results for the novice and the experienced physician. Dr. Greg Hetter has published and outlined concentrations of croton oil from 0.1% to 1.6% for appropriate selection to apply to 1-2 cosmetic units for the novice or experienced peeler in carefully selected healthy patients without contraindications. The deepest medium depth peel of dry ice followed by 35% Trichloroacetic acid gives a superb blending for reticular dermal peeling.

No IV or IM anesthesia is necessary for this peel when performed smoothly and with oral hydration. Perioral Deep peeling will eliminate all wrinkles in this area and can be superior to fractional laser resurfacing for severe wrinkles in this area.

**CONCLUSION**

The mixing, technique, histology and results will be demonstrated with Segmental Peeling technique as an excellent introduction to using deep peeling on limited areas for dermatologists before moving to full face deep peeling.


**PHENOL PEELING 88% COMBINED WITH OLEIC ACID (0.05%) FOR THE TREATMENT OF NON-FACIAL AREAS**

Denise Steiner • Brazil

Peeling is a technique that causes the exfoliation of the skin, triggering a mechanism of regeneration and remodeling of the collagen and, according to the depth, the peeling can be considered superficial, medium or deep.
Chemical peeling is both an interesting and useful procedure for dermatologists. By chemical peeling we can treat a lot of conditions like: melasma, acne scars, photaging.

The phenol croton peeling is used in a lot of combinations like Baker formula to treat the aging skin with excellent results. It is said croton oil improves permeation of phenol making the peeling deeper and more effective. When we combine phenol 88% with croton oil it is impossible to use on body because it can cause hypertrophic scars. The body skin is thinner and with less attachments and because of that there are more difficulties to use deeper peelings.

Our department in Mogi das Cruzes University SP Brazil has studied a new combination of phenol 88% and oleic acid 0,05% to do body peelings. Oleic acid is a metabolic from croton oil but for being a lipophilic agent it can keep the phenol penetration causing less irritation than croton oil peel. Besides, it is a regenerating agent that prevents hypertrophic scars and helps to have a better cicatrization. We can use this combination of phenol 88% and oleic acid 0,05% to treat neck, hands, arms and chest.

Before the procedure we use retinoic acid and sometimes hydroquinone for four weeks to prepare the skin. We use gauze to apply the phenol peeling doing two layers with the same pressure.

During the procedure we can see an intense frost and the complete healing process occurred in 40 days. Patients had pain about 8 to 10 hours after the procedure. The healing lasted almost 15 days. The results were very interesting, and we will present them.

**THE PROTOCOLS FOR DIFFERENT SEVERITY OF ACNE INCLUDING GA PEELING**

Leihong Flora Xiang • China

A HAs are kinds of natural compounds, nontoxic, extracted from fruits, so called fruit acid. Glycolic acid is a kind of AHA with the smallest MW, stimulating stratum corneum renewal and adjusting the arrangement of corneocytes. Glycolic acid peeling could be adjunctive therapy to mild or moderate acne. The regression of the inflammatory and non-inflammatory lesions would be 42% and 30% respectively after four treatment sessions. The treatment session would be 6-8 sessions. The interval time could be 2-3 weeks. The skin test is necessary before treatment and the moisture and sunscreen should be applied after procedure. The sun protection is required within 24-48 h.

**14.30 - 16.30h**

**HAIR – DISEASES, REMOVAL, REGROWTH & RESTORATION**

<table>
<thead>
<tr>
<th>TREATMENT OF COMMON HAIR DISEASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohamed Amer • Egypt</td>
</tr>
</tbody>
</table>

Hair diseases are a very common disorder that each dermatologist faces on a daily basis. How to diagnose the right disorder and to handle such patients needs a lot of effort to sort out the best treatment that helps patients, especially females, whom complain of their hair daily.

Stem cell topical or injection became one of the very commonly used methods to increase hair growth and deal with many hair diseases and gives great result. This talk will cover the effect and results of stem cells injection for hair and updates of the hair diseases management.

**THE ROLE OF SYNTHETIC HAIR IMPLANTS IN HAIR RESTORATION**

Ghislaine Bellin • France

Hair transplant and prosthetic hair implantation suffer from many drawbacks. While hair transplantation is adopted by the medical community as an accepted procedure for hair restoration, the implantation of prosthetic hair fibers is controversial. The commercially available prosthetic hair fibers are in the market since the late 90’s but they are not widely used. The drawbacks include a single hair implantation technique, which leads to long and stiffyphenic procedures and implantation of a significant foreign body. A new and innovative technology is aiming to revolutionize the hair implantation field and change the way it is perceived.

The new technology offers a minimal invasive, simple and quick procedure for simultaneous implantation of many implants, utilizing single button disposable cartridges preloaded with hair implants. The purpose of this presentation is to introduce the new technology, results from a histological study and interim results from an ongoing multi-center clinical study.

**OPTIMIZING HAIR RESTORATION: PREPPING THE GRAFT BED**

Diane Duncan • USA

Hair restoration is a rapidly growing market as millions of people are starting to lose hair. While hair loss can be genetic, disease related, and hormonally influenced, there are no “magic” answers that are currently available. Options available for treatment range from noninvasive supplements, LED lights, and topical preparations to hair transplant, using either the strip method or FUE.

A problem in hair transplantation is a phenomenon called “shock loss”. There is little medical literature on this condition, but it is well known by transplant physicians and technicians. Patients receiving hair transplants can have the disconcerting experience of losing much of the transplanted hair as early as 3–4 weeks post-transplant. This can also occur in the donor area. While much of the hair that falls out comes back, some of it may not. Therefore, optimal preparation of the graft bed is recommended. Just as tangential excision of a skin graft recipient site is performed prior to placing the graft, optimization of the graft site can be achieved prior to placing the hair follicles.

1. Finasteride is commonly recommended to begin 30 days prior to the procedure, as it protects recipient hair, and reduces loss due to genetic programming.
2. Supplemental vitamins have been shown to effectively promote hair “take” and regrowth.
3. Specific topical products such as anti-DHT shampoos can assist in hair retention.
4. Preoperative use of specific LED lights is FDA approved for stimulation of hair regrowth.
5. Prep of the graft bed with a needling/dermaceutical combination is the latest addition to the hair restoration market.

PRP currently is the most popular injectable. It can be used as a standalone, or in combination with transplantation. Relevant data is sparse, with estimates of 16–30% improvement of hair density when used alone. Reproducible quantification of hair density in a specified area has not been demonstrated, so many of these estimates are subjective. New products are being tested as injectables or with microneedling.

CONCLUSION

Pharmaceutical and mechanical prep of the recipient bed can reduce shock loss in hair transplantation patients.

**HOW TO EVALUATE THE EFFICIENCY OF ANTI-HAIR LOSS PRODUCTS?**

Alfonso Fernández-Botello • Spain

Badness statistics worldwide indicate that from 25 years old, men are starting to lose hair. While hair loss can begin to suffer from baldness, with more than 50 years of age 50% of men are bald, and in old age the number increases to 98%. If we also take into account that 95% of women and 81% of men admit that the state of their hair influences their mood, we are talking about a global issue. To try to solve it, we work from the cosmetic point of view in obtaining increasingly effective formulations.

So now, how can we determine said effectiveness? To try to answer this question, the ethical, technical and regulatory criteria applicable to efficacy tests for anti-hair loss and regenerative cosmetic products are presented.

Within the ethical aspects, the minimum requirements to carry out the corresponding tests will be discussed, indicating the possible differences between preclinical and clinical efficacy tests. Below several techniques used to determine the real efficacy of cosmetic products will be outlined. Finally, some cosmetic regulations to be taken into account when carrying out efficacy tests of cosmetic actives at a global level are indicated.

**PROPHYLACTIC TREATMENT WITH AB-103 PROTECTS BREAST CANCER PATIENTS FROM THE DEVELOPMENT OF CHEMOTHERAPY INDUCED ALOPECIA**

Andy Goren • USA

Chemotherapy induced alopecia remains one of the most difficult treatment emergent adverse events faced by cancer patients. Among women, approximately 8% refuse life savings treatment in order to avoid chemotherapy induced alopecia.

To date, the only FDA approved treatment modality for chemotherapy induced alopecia is a scalp cooling device. The device induces scalp vasoconstriction and reduces metabolism in rapidly dividing keratinocytes. The device, while effective, suffers from several shortcomings including: prolonging of chemotherapy sessions, high cost, and discomfort associated with scalp cooling.

As an alternate, a novel topical solution, containing an alpha-1 agonist, was developed. In a small pilot study, applying the topical solution to the skin resulted in reduced perfusion and local metabolic activity; therefore, we hypothesized that applying the topical solution prior to and during chemotherapy sessions could protect cancer pa...
tients from developing chemotherapy induced alopecia. In this communication, we present the results from the first double-blinded placebo controlled study demonstrating the safety and effectiveness of the alpha-1 agonist in protecting breast cancer patients treated with taxanes from the development of chemotherapy induced alopecia.

**MY 4 YEARS JOURNEY IN ROBOTIC HAIR TRANSPLANTATION**

Eduardo López-Bran • Spain

During these 4 years of experience performing robotic hair transplants, we have been able to observe how technology helps to obtain, better results each time.

A key objective of hair transplants is to obtain the highest number of valid follicular units in the shortest period of time. It is also crucial, especially in young patients, to preserve a sufficient donor area in order to be able to perform new hair transplants before the foreseeable advance of alopecia.

Robotic technology is an ally of the Dermatologist-Surgeon to achieve both objectives.

To get the best transplants possible, in addition to the best extraction, it is necessary:

1. An adequate selection of the patient
2. A proper planning of the transplant
3. A realistic design of the area to be repopulated and also according to the possibilities of each patient
4. An adequate conservation of the units during the time that are outside the organism
5. A correct implantation

**MICRONFUSION OF MEDICAMENTS IN THE SKIN IN ANDROGENETIC ALOPECIA**

Juliana Matto Ispier • Brazil

Androgenetic alopecia is a condition with an important psychological impact. Clinical treatments present variable responses and require care for long periods, a factor that decreases the chances of adhesion.

Androgenetic alopecia is the most common cause of follicular miniaturization, which leads to a pattern of non-cicatricial thinning of the hair. It affects genetically predisposed individuals and can be associated with a major impact on quality of life. As a result, there is great interest in the search for viable therapeutic options to assist in treating these patients. The classic clinical approach continues to be advocated, associated or not with surgical treatments such as hair transplant. Among the used medications, the most recommended are topical minoxidil and oral finasteride.

The recently described MMS technique (micronfusion of drugs through the skin) promotes the infusion of medications (drug delivery) associated with the microneedling procedure using the device for performing tattoos and appropriate needles that meet adequate principles of equipment sterilization and disposal of piercing and cutting material. A small sterile container was opened for the insertion of the medication (0.5% minoxidil + dutasteride + growth factors + pool vitamins).

MMS is a procedure that precisely, effectively, and cost effectively delivers active ingredients into the skin. Because it has a low cost of implementation, it presents a horizon of therapeutic alternatives to the dermatologist.

**LASERS FOR HAIR GROWTH**

Keyvan Nouri • USA

Laser light presents a non-invasive treatment option for patients with hair loss. It is known that low-level laser/light therapies (LLLT) or photobiomodulations, such as the US FDA-cleared HairMax Lasercomb®, He-Ne laser, and excimer laser, are relatively affordable, user-friendly, safe, and effective forms of treatment for hair loss.

In this presentation, the mechanisms for laser-induced hair growth and the use of ultraviolet, fractionated, and low-level light therapy (LLLT) for the treatment of male and female pattern hair loss will be discussed.

**WHAT’S NEW IN DIODE LASER HAIR REMOVAL**

Rahul Pillai • India

Lasers hair removal remains one of the most common procedures in cosmetic dermatology and on patients with skin of color, it has always been challenging because of the higher competing epidermal melanocytosis. As a result, to avoid unwanted side effects from laser therapy while maintaining high efficacy levels, the use of the right laser device, appropriate settings and customized pre and post-treatment care is crucial.

With more lasers and more efficient versions of existing lasers in the market, the safety profile has been taken care of without compromising the efficacy while treating darker skin types. Diode lasers along with long pulsed Nd:YAG are considered as the safest hair removal lasers for darker skin types. However, diode lasers still remain the gold standard in laser hair removal.

With the introduction of handpieces of various sizes, it becomes easier to treat the face or chin or back of body and leg with ease and saving time. A smaller handpiece usually delivering higher fluence, is used to treat facial areas while the vacuum-assisted technology of certain lasers or in motion technology help in treating larger surface area with same efficacy with lesser fluence, hence safer and faster and most importantly less painful.

There is also the reintroduction of alexandrite laser. This laser has a very good skin penetration rate and they are known to be effective on fine, thinner hairs. There are lasers with 805nm and 1060 integrated together to treat skin of color and also with 810,940 &1064 nm wavelengths integrated together for the same purpose.

Few companies are coming out with 4 wavelengths in the same laser. It is very clear multiple wavelengths for laser hair removal seems to be the way forward as to addresses fine, thin hair as well as thick coarse hair and to arrive at all hair depths especially on darker skin.

To conclude, laser hair removal still remains challenging especially on ethnic skin types and I believe it takes experience to expertise it. However, the advancement and innovations in this field is progressing and making a treating physicians task easier.
Comparing Protocols: Single-Stage Microfat vs. Integrated Protocol of Lipofilling and Monthly Executed Biorevitalization to Restore Age-Related Facial Volume Loss

Mario Goisis • Italy

Objective
To compare effectiveness and subjective satisfaction of two protocols to execute mini invasive lipofilling (microfat) to restore facial age-related volume loss. During a period of time of 12 months, one group of patients underwent a single stage microfat session on the face, while a second group underwent a second microfat session at least 3 months after the first, furthermore undergoing once a month a session of biorevitalization.

Materials and Methods
Between 1/1/2014 and 11/30/2016 500 patients underwent microfat to restore age related facial volume loss; 250 of them underwent a single stage microfat session under local anesthesia; the remaining 250 patients underwent a second session of microfat at least 3 months after the first session; furthermore, the patients of the second group underwent every month a session of facial biorevitalization. Both the groups underwent the lipofilling by means of a new conception closed system, with a patented cannula. The following facial area have been treated: temporal, lacrimal, malar, cheeks, nasolabial, lips and chin. The session of biorevitalization have been executed using 2,5 cc of a mix of hyaluronic acid and sodium jatrorrhane. All the patients have been evaluated by means of standard photographs and echography before the treatment and after 1, 3, 6 and 12 months. The patients have been asked to express their satisfaction about the treatment by means of a simple questionnaire.

Results
The patients of the multiple session lipofilling and biorevitalization group expressed a significant bigger satisfaction about the treatment, in particular 6 months after the treatment (85% against 45%). Photographic and echographic exams showed a bigger and more stable improvement about the treatment, in particular 6 months after the treatment. The patients of the multiple session lipofilling and biorevitalization have been asked to express their satisfaction by means of a simple questionnaire. The choice of the depth of injection has to be based on the goal of the treatment, whether it is the smoothing of the transition from the temporal to the cheekbone area or restoration of volume. Anatomical challenges should also be taken into account.

Deep-type injections with needle are safer and predictable in their result but must be founded on an anatomical base. Using superficial injections with cannula for the temporal area presents the opportunity to create a smoother transition with limited quantity of filler but the correct insertion point for the cannula has to be selected.

Using HA Filler Injection to Treat Gummy Smile
Peter Peng • Taiwan

Since around 15 years ago, aesthetic treatment using minimal invasive approach has become more and more popular. The most popular treatments are botulinum toxin and HA filler injection. Toxin, filler injection, and the combination of both treatments can treat many aesthetic clinical conditions.

Nowadays, cosmetic dermatologists not only address the static aspect of beauty, but also the dynamic aspect. A perfectly proportioned face and lips with a charming smile is considered beautiful, while excessive expression of gingival tissue of upper teeth (gummy smile) is considered unattractive and requires treatment.

There were a few reports that demonstrated that botulinum toxin could treat the hypertensive levator muscles involved in the formation of gummy smile. However, very little reports address the treatment of gummy smile using filler injection.

In this talk, I will present how to treat gummy smile using HA filler injection and compare it with the toxin treatment.
words thrown in, maybe a blog and a Facebook page, and some Google ads, but you probably relied mainly on word of mouth and referrals to keep your clinic full and thriving. Well, fast forward to 2018 and it’s a whole new world out there. Aesthetic clinics must be fully invested in their digital presence and stay on top of the emerging trends. Social media marketing strategies are in a constant state of flux and the rules keep changing. Since Google and Facebook rule the world, you need to stay current on their newest algorithms and how evolving privacy regulations may affect your marketing tactics in a big way. But who has the time to focus on the nuances of promoting continual growth and better engagement with fans and followers while running a busy clinic, seeing patients, managing staff, learning to provide new treatments, and paying the bills? This course will introduce you to the key elements of a strong digital marketing strategy, and offer up the right steps to be effective on a limited budget. Special attention will be given to the right channels, best practices for posting, how to hire a marketing firm to help you, and pitfalls to avoid.

The first step of any strategic plan is to determine what your goals are and what you want to achieve from your efforts. Digital marketing entails a lot more than just flipping a switch and writing a cheque. Lewis and Baldwin are both veterans of digital marketing and social media and will guide course attendees through the essential steps needed to take your clinic to the next level and stay competitive. Don’t let your clinic get left behind.

**17.00 - 18.30h**

DEALING WITH SKIN CANCER

**FUSION EX VIVO CONFOCAL MICROSCOPY:** A REVOLUTION TECHNIQUE IN SKIN HISTOPATHOLOGY

Presenter: Javiera Pérez-Anker • Spain

Authors: J Pérez-Anker, J. Malvehy, L. Alós, S. Puig • Spain

*Ex vivo confocal microscopy (CM) is a revolution­ary technique that works under two laser modes, fluorescence and re­flectance. It has been used for the analysis of basal cell carcinomas during Mohs surgery. A faster microscope has been developed which simultaneously uses both lasers (fusion mode) and final images are visualized as haematoxylin and eosin histology slides. We aimed to describe features of different tumours identified on reflectance, fluorescence and fusion modes using this novel device.*

From January 2017 to December 2017, we included consecutive tumours which were excised using Mohs surgery in our department. Lesions were evaluated using ex vivo CM after routine Mohs surgery. We included 78 BCCs (35 inflam­titative, 25 nodular, 12 micronodular, 6 superficial). BCCs features on different subtypes were described. Our results suggest that stromal reaction is different in superficial and infiltrative subtypes. Dedrinic and plump cells can be observed in pigmented sub­types. Differences in each subtype can be observed in fluorescent and reflectance lasers.


**EMERGING THERAPIES IN CUTANEOUS ONCOLOGY**

Todd E. Schlesinger • USA

While surgery remains the mainstay of treatment for most types of skin cancer, there have been a number of advancements in the past few years that may change the treatments we choose, especially for advanced basal cell carcinoma, squamous cell carcinoma and field cancerization, where a body area is affected by extensive photodamage or diffuse skin cancer.

Immunotherapy treatments trick our immune systems into attacking cancer cells often with better tolerability than traditional chemotherapy. Photodynamic therapy continues to rise in popularity and be used in innovative ways. Brachytherapy (a form of treatment in which a radiation source is placed inside or near the tumor) is gaining acceptance as the experience grows with its use in practice.

This talk is designed to take the attendee on a short walk through some of these treatments, the data behind them, and where they may fit in to our paradigm of treatment for skin cancer.

**17.00 - 18.30h**

THE SCIENCE OF DERMAL FILLERS

Diane Duncan • USA

Many patients are beginning to complain about the cost ineffectiveness of fillers. They like the effects, but not the mounting costs as prices rise but longevity does not seem to significantly improve. Some note that they cannot keep up, as the rapidity of volume loss overshadows any efforts the take to keep pace with facial aging.

The obvious alternative is fat grafting. Having performed this procedure for 25 years, I feel that it is a viable long-term solution when done well. However, if done in a manner similar to that of fillers, similar complaints arise – a pricey solution for a short-term gain.

The use of human derived adipose matrix (hDAM) is relatively new. When first introduced, the premise was that the dermal matrix would “induce” adipose ingrowth, creating a sort of stem cell effect. To date, volumetric studies from the producers do not corroborate the claim. Personal experience with the product over a 1,25 year use led me to doubt this claim. Patients receiving the product alone noted loss of improvement at 6 months. The product contains a matrix plus growth factors. A small clinical trial was performed to see if combining nanofat with the hDAM might improve outcomes when combined with a moderate volume graft.

10 patients were enrolled. Two patients were self-proclaimed “filler failures”. Fat was harvested and processed into nanofat using the Tulp system. It was then mixed with the acellular adipose matrix at a ration of 7.5/1.5 cc. Average injection volume was 18 cc.

Conclusion: Results are still early. Due to the relatively low volume, mild to moderate improvement is seen in full face treatments, while localized treatments show more

---

**POST-MOHs FACIAL SCAR CORRECTION WITH NON-ABLATIVE FRACTIONAL Q-SWITCHED 1064NM LASER**

Lehavit Akerman • Israel

**BACKGROUND**

Persisting hyper-vascularity as erythema or telangiec­stasia on the face are of major aesthetic concern in many patients post-Mohs. Low fluence non-ablative and/or ablative fractional laser scar correction become a mainstay of treatment options in post-Mohs aiming to improve scar texture, vascularity, pigmentation and thickness.

**MATERIAL & METHODS**

Five patients age range 48 - 65 year old; female (n=3) male (=2) were referred to a private laser clinic within 6-8 weeks post-Mohs procedure to seek functional and aesthetic improvement in their face post-Mohs scar appearance. In all cases, the scar area was erythematous and demarcated with micro-vessels across the skin graft. We used a novel non-ablative fractional 1064 nm Q-switched nanosecond domain (7 nsec) laser with variable focused depth control optical penetration (250-500μm). The patient underwent 3 treatments spaced every 4 weeks.

**RESULTS**

The patients scar appearance was significantly improved from a score of 7 at baseline to 1 at 1.5-month follow-up after the last treatment, as assessed by Vancouver Scar Scale (VSS) (range 0-9). Follow-up results at 1.5 months revealed a significant and dramatic improvement (>75%) in the degree of erythema, hyper-vascularity and overall scar texture based on independent physician clinical assessment using a quartile grading scale (0-25%: no improvement; 25-50%: mild improvement; 50-75%: moderate improvement; >75%: dramatic improvement).

**CONCLUSION**

Q-switched fractional 1064-nm laser is a safe and effective treatment modality for early intervention and aesthetic/clinical improvement in facial post-Mohs scars.
definitive improvement. Results at 1 year show good maintenance of volume. Histology and SEM shows no fat ingrowth in areas previously without fat. However, the combination of nanofat plus matrix shows good takes in a defined framework at three months.

FRIDAY 17.00 - 18.30h
TIPS AND TRICKS FOR ETHNIC SKIN & BEAUTY

TREATMENT OF MELASMA IN DARK SKIN WITH LASER
Jhony Daniel de la Riva • Bolivia

Melasma is a common disease in the entire Andean region of Bolivia between 3,600 and 4,200 meters high. It predominates more in women in a 10 to 1 ratio.

The treatment of melasma performed by our derma clinic team is:
1. Full evaluation of patient
   - State of the skin: Depth of the spots by dermatoscopy
   - Hormonal assessment: interconsultation with gynecology and endocrinology
   - Consumption of medicines: contraceptives mainly
2. Start of treatment/ home treatment
   - Oral and external photoprotection
   - Topical Vitamin C 20%
   - Moisturizers
   - Oral antioxidants
   - Tranexamic acid oral
3. Complementary treatment with Laser
   - Laser Neodinium:Yag 1064nm Gentle MAX
   - Alexandrite 755nm GentleMax Pro Laser
   - CORE 2 CO2 laser fractionated
   - Laser Clear and Brilliant Diode 1440nm

CONCLUSIONS
The treatment of melasma must be carried out in a multidisciplinary manner where several medical specialists intervene to obtain the desired results.

The patient must change their habits regarding sun protection, food stress etc.

The use of different types of laser should be used with great care in dark skin, the type of laser to be used will depend on how the patient reacts to each of these and the experience of the doctor.

RESULTS
We have treated about 500 patients with this treatment protocol and the results obtained are between 60 to 80% of clarification of melasma evaluated with a VECTRA equipment.

The patient is told that we cannot clear the spots completely but that the results are good if we follow the entire treatment protocol step by step. Patient satisfaction 90%.

The treatment of melasma performed by our derma clinic team is:
1. Full evaluation of patient
   - State of the skin: Depth of the spots by dermatoscopy
   - Hormonal assessment: interconsultation with gynecology and endocrinology
   - Consumption of medicines: contraceptives mainly
2. Start of treatment/ home treatment
   - Oral and external photoprotection
   - Topical Vitamin C 20%
   - Moisturizers
   - Oral antioxidants
   - Tranexamic acid oral
3. Complementary treatment with Laser
   - Laser Neodinium:Yag 1064nm Gentle MAX
   - Alexandrite 755nm GentleMax Pro Laser
   - CORE 2 CO2 laser fractionated
   - Laser Clear and Brilliant Diode 1440nm

CONCLUSIONS
The treatment of melasma must be carried out in a multidisciplinary manner where several medical specialists intervene to obtain the desired results.

The patient must change their habits regarding sun protection, food stress etc.

The use of different types of laser should be used with great care in dark skin, the type of laser to be used will depend on how the patient reacts to each of these and the experience of the doctor.

RESULTS
We have treated about 500 patients with this treatment protocol and the results obtained are between 60 to 80% of clarification of melasma evaluated with a VECTRA equipment.

The patient is told that we cannot clear the spots completely but that the results are good if we follow the entire treatment protocol step by step. Patient satisfaction 90%.

The treatment of melasma performed by our derma clinic team is:
1. Full evaluation of patient
   - State of the skin: Depth of the spots by dermatoscopy
   - Hormonal assessment: interconsultation with gynecology and endocrinology
   - Consumption of medicines: contraceptives mainly
2. Start of treatment/ home treatment
   - Oral and external photoprotection
   - Topical Vitamin C 20%
   - Moisturizers
   - Oral antioxidants
   - Tranexamic acid oral
3. Complementary treatment with Laser
   - Laser Neodinium:Yag 1064nm Gentle MAX
   - Alexandrite 755nm GentleMax Pro Laser
   - CORE 2 CO2 laser fractionated
   - Laser Clear and Brilliant Diode 1440nm

CONCLUSIONS
The treatment of melasma must be carried out in a multidisciplinary manner where several medical specialists intervene to obtain the desired results.

The patient must change their habits regarding sun protection, food stress etc.

The use of different types of laser should be used with great care in dark skin, the type of laser to be used will depend on how the patient reacts to each of these and the experience of the doctor.

RESULTS
We have treated about 500 patients with this treatment protocol and the results obtained are between 60 to 80% of clarification of melasma evaluated with a VECTRA equipment.

The patient is told that we cannot clear the spots completely but that the results are good if we follow the entire treatment protocol step by step. Patient satisfaction 90%.

The treatment of melasma performed by our derma clinic team is:
1. Full evaluation of patient
   - State of the skin: Depth of the spots by dermatoscopy
   - Hormonal assessment: interconsultation with gynecology and endocrinology
   - Consumption of medicines: contraceptives mainly
2. Start of treatment/ home treatment
   - Oral and external photoprotection
   - Topical Vitamin C 20%
   - Moisturizers
   - Oral antioxidants
   - Tranexamic acid oral
3. Complementary treatment with Laser
   - Laser Neodinium:Yag 1064nm Gentle MAX
   - Alexandrite 755nm GentleMax Pro Laser
   - CORE 2 CO2 laser fractionated
   - Laser Clear and Brilliant Diode 1440nm

CONCLUSIONS
The treatment of melasma must be carried out in a multidisciplinary manner where several medical specialists intervene to obtain the desired results.

The patient must change their habits regarding sun protection, food stress etc.
In five patients, 3 mm punch biopsies were carried out before, three weeks after and three months after to evaluate neocollagenesis and neoeLastogenesis.

RESULTS
After one treatment session with RF we observed clinical and histological results. In all patients the skin quality was improved. The mandibular line had more definition and we observed some reduction in submental fat. The haematoxylin and eosin and Verhoeff-Van Gieson stans were carried out on all the samples. The collagen was more organised and of better quality and the elastin improved in density.

CONCLUSION
Real-time temperature-controlled RF is a highly reproducible, safe and effective non-surgical treatment for face and neck rhytides and laxity. We also found improvement in other body areas such as the skin on the arms, abdomen and legs. It provides important insights into neoAging, neocollagenesis and clinical outcomes.

■ RADIOFREQUENCY FOR PRE- AND POST ANTI-AGING TREATMENTS
MARC-IGNASI CORRAL-BAQUES · SPAIN

Combined treatment protocols in cosmetic medicine are a growing and common clinical practice, based on their potential benefits with respect to their use in monotherapy.

On facial rejuvenation treatments we are witnessing the increase interest in the use of non-invasive procedures capable of improving not only the efficacy but also the safety on the applied treatments.

Thus, helping to prepare tissues for fillers and strings, reduce secondary effects and increase treatment results. Of special interest is the use of a 448 kHz radiofrequency which has been proven to have sub thermal effects (without rising tissue temperature) that allows its use in acute conditions.

■ MICROINNEEDLING IN VITILIGO TREATMENT

Presenter: Wael Hosam El-Din · Egypt
Authors: Wael Hosam El-Din, Alsheeri Doaa · Egypt

Vitiligo is a chronic acquired disease characterized by total or partial loss of melanocytes that results in development of depigmented macules and patches. It can be treated primarily by medical therapies but in recalcitrant cases various surgical therapies can be used either alone or in conjunction with medical therapy.

Combination of micro needling and topical phenytoin has been found to be promising as phenytoin supresses mitogen-induced activation of lymphocytes and cytotoxic T lymphocytes activity and shift the immune response to the type 2 pathway and it stimulates mela-nocytes and cause hyperpigmentation as a side effect.
What only the most successful practices have in place is a sales funnel, a system that pulls all three together so that they deliver a consistent stream of leads, enquiries and new patients.

Over the course of this session we’ll demonstrate the building blocks you need to create your own sales funnel so that you too can succeed online.
Aging of the temporal region is manifested at different levels: skin and temporal muscle atrophy, dislocation of the temporal-buccal fat package, changes in the contours of the temporal bone. Correction of the temporal region should be aimed at improving the skin quality and the replacement of volume deficit and creating vector lifting.

OBJECTIVE
To reveal the effectiveness of preliminary stimulation of tissue tropic with a combined preparation of hyaluronic acid and sodium succinate in patients with age-related changes in the temporal region.

MATERIALS AND METHODS
The study was conducted on 25 volunteers with age-related changes 2 - 4 (Glogau) with indication. We used simultaneous administration of the combined hyaluronic acid and sodium succinate in a single procedure (0.5 ml was applied for each zone in the technique of surface intrafascial papules from the bone edge of the orbit to the scalp with a 1 cm approach behind the hairline with a 32g needle). After that we used subdermal administration of 0.5 ml for each zone of 25g cannula from the access point located on the zygomatic arch. The recommended course is 2 - 4 procedures with an interval of 3 - 4 weeks. The second session of correction temporal area was injections of HA filler with cannula in the total amount 1 ml with a lifting goal.

RESULTS
42 and 70 days after the start of the course of procedures, patients had “significant” improvement of WSRS, as assessed by a combination of Cog PDO threads and dermal fillers may be the most logical solution. It helps achieve adequate volume with voluminization at an affordable cost.

CONCLUSION
Transplanting micro grafts at a 40 degree angle to the frontal hairline results in superior aesthetic appearance.

[^1]: Authors: Shashank Bhargava, Krishnendra Varma, Ujjwal Kumar • India


deleted by a ring block with half a millilitre of tramcinolone, to impede post-operative swelling. Recipient area is matched with PRP at the level of dermis, helps in better uptake of grafts and lesser Telogen Effluvium in immediate post-operative period, and serves the purpose of hemoostasis as well.

The frontal 2 rows of hairline are primed using 10G needles and slits are made at 40 degree angle, 6.1 cm from the level of Glabella in midline. As the curve glides around to the lateral side, the distance of the hairline should be 9.5-11.5cm from the lateral canthus of the eyes. Temporal angles should be crafted sharply in men as opposed to rounded in women. Single and double hair grafts/(micro grafts) are placed in front 2 rows. Moving fronto-occipitally, 3 and 4 hairs grafts (mini grafts) are implanted where the angles changes from 45-90 degrees till the whir. To achieve an illusion of a denser look, 30-35 follicular units per sq cm are transplanted using implanter needles resulting in an even natural drift.

**FREE COMMUNICATION: ABSTRACT AWARD**

**CATEGORY „AESTHETIC DERMATOLOGY“**

**DOES PLATELET RICH PLASMA REALLY WORK SYNERGISTICALLY WITH MORPONEEDLING AND SUBCISON FOR GRADE 4 ATROPHIC ACNE SCARS?**

Presented: Shashank Bhargava • India

Authors: Shashank Bhargava, Krishnendra Varma, Ujjwal Kumar • India

**BACKGROUND**
Acne scars are most common sequelae of inflammatory process and affect almost 95% of the patients of Acne Vulgaris. Atrophic scars are the most common scars which are a big challenge to correct.

**OBJECTIVE**
To evaluate the role of PRP in treatment of atrophic acne scars.

**MATERIAL AND METHODS**
A total of 30 patients with Grade 4 acne scars were recruited. They were randomly divided into 2 groups of 15 each. Group A underwent 3 sessions of subcision and microneedling while group B underwent 3 sessions of subcision, microneedling and topical application of platelet rich plasma (PRP) 3 weeks apart. Both the groups were assessed for scar grading after 3 months of final session. Patient response was also graded as „poor”, „good”, „very good” or „excellent” with 0-24%, 25-49%, 50-74% and 75-100% improvement respectively in their acne scars.

**RESULTS**
14 out of 15 cases from group A improved by at least 1 grade while all the patients in group B improved; 2 (13.3%) and 5 (33.3%) cases improved to Grade 2 in Group A and B respectively. The improvement correlated with the patient’s assessment of improvement in scars: majority of Group A (60%) and Group B (66.6 %) patients assessed an improvement of 25-49% and 50-74% respectively.

**CONCLUSION**
Topical application of PRP adds to the improvement in Grade 4 atrophic acne scars when combined with microneedling and subcision.

**FREE COMMUNICATION: ABSTRACT AWARD**

**SYNERGISTICALLY WITH MORPONEEDLING AND SUBCISON FOR GRADE 4 ATROPHIC ACNE SCARS?**

Presented: Shashank Bhargava • India

Authors: Shashank Bhargava, Krishnendra Varma, Ujjwal Kumar • India

**RESULTS**
14 out of 15 cases from group A improved by at least 1 grade while all the patients in group B improved; 2 (13.3%) and 5 (33.3%) cases improved to Grade 2 in Group A and B respectively. The improvement correlated with the patient’s assessment of improvement in scars: majority of Group A (60%) and Group B (66.6 %) patients assessed an improvement of 25-49% and 50-74% respectively.

**CONCLUSION**
Topical application of PRP adds to the improvement in Grade 4 atrophic acne scars when combined with microneedling and subcision.

**REJUVENATION OF THE TEMPORAL ZONE AS AN IMPORTANT PART OF THE AESTHETIC PORTRAITS’ RESTORATION**

Presented: Masahiro Anastasia • Russia

**OBJECTIVE**
To reveal the effectiveness of preliminary stimulation of tissue tropic with a combined preparation of hyaluronic acid and sodium succinate in patients with age-related changes in the temporal region.

**MATERIALS AND METHODS**
The study was conducted on 25 volunteers with age-related changes 2 - 4 (Glogau) with indication. We used simultaneous administration of the combined hyaluronic acid and sodium succinate in a single procedure (0.5 ml was applied for each zone in the technique of surface intrafascial papules from the bone edge of the orbit to the scalp with a 1 cm approach behind the hairline with a 32g needle). After that we used subdermal administration of 0.5 ml for each zone of 25g cannula from the access point located on the zygomatic arch. The recommended course is 2 - 4 procedures with an interval of 3 - 4 weeks. The second session of correction temporal area was injections of HA filler with cannula in the total amount 1 ml with a lifting goal.

**RESULTS**
42 and 70 days after the start of the course of procedures, patients had “significant” improvement of WSRS, as assessed by a combination of Cog PDO threads and dermal fillers may be the most logical solution. It helps achieve adequate volume with voluminization at an affordable cost.

**CONCLUSION**
Transplanting micro grafts at a 40 degree angle to the frontal hairline results in superior aesthetic appearance.
The DLQI indicator before treatment for patients in the treatment group was 2.21 ± 0.9 points (p= 0.003). The PASI index was in the range of 5 to 10, with an average of 8.4 ± 0.41 points. The PASI index was calculated using a new optical system for energy deposition in tissues (RecosMAtics) technology. The study was conducted between October 2011 and December 2013, and the follow-up period is 3.5 years, which still continues to this day. We established the length of the period with a view of determining the maximum period of remission. In order to clinically assess the patients' condition, the widely used Psoriasis Area and Severity Index (PASI) and Dermatological Life Quality Index (DLQI) were calculated.

RESULTS

Twenty-two patients (8 male, 14 female) with mild-to-moderate acne were included in the treatment. The mean PASI score was 11 ± 0.08 points (p= 0.002). These parameters were statistically significant (p= 0.002).

The DLQI indicator before treatment for patients in the study group varied from 6 to 10 points and averaged 7.9 ± 0.43 points, and after the course of treatment the mean indicator was 2.21 ± 0.9 points (p= 0.003).

DISCUSSION

The results of the clinical trial confirm the effectiveness of RecosMAtics technology for the treatment of psoriasis vulgaris, and they demonstrate an improvement in the quality of life of patients after the course of treatment.

CONCLUSION

Cooling-vacuum-assisted 1540 nm laser is a safe and effective modality for the simultaneous treatment of acne lesions and scars.
AN ALGORITHM USING BOTULINUM TOXIN INJECTIONS FOR FACIAL SCAR IMPROVEMENT & BETTER SCAR HEALING IN ASIAN INDIAN SKIN – PROSPECTIVE STUDY IN 100 PATIENTS

Presenter: Stuti Khare • India
Authors: Stuti Khare, Dr. Debraj Shome, Rinky Kapoor • India

BACKGROUND
Facial scars, are known to heal poorly with conspicuous scarring owing to abundant facial musculature which is constantly pulled in different directions, not giving the collagen any rest while it matures. Different treatment methods have been tried, however, their effects remain unsatisfactory.

STUDY DESIGN
Prospective Clinical Study.

MATERIALS & METHODS
100 patients with a minimal of 6 months follow up, were recruited. Patients with depressed scars underwent surgery for scar revision. 2 weeks prior to surgical intervention, intra-muscular Botulinum Toxin was injected around the scar, to prevent movement of the facial muscles. From second week after surgery, formulation containing activated Centella Asiatica & Pinus Sylvestris was routinely used, three times a day, for 6 months post the scar revision surgery.

RESULTS
Using Objective Assessment performed by plastic surgeons & Subjective Assessment by patients, scores were obtained which showed satisfactory results in all patients.

CONCLUSION
Our approach of treating facial scars, performing meticulous scar revision surgery in all wide & depressed scars, using Botulinum toxin injections prior to the scar revision surgery to prevent scar widening during healing & using topicals containing C. Asiatica resulted in the wounds being stabilized, better wound healing & prevention of wound widening during healing. Hence, it should be considered as a worthwhile algorithm in treating facial scars.
FACING THE FUTURE OF FACIAL REJUVENATION & LIFTING

ERASE AND REWIND: 8-POINT FACE LIFTING APPROACH
Medhat Abdel Malek • Jordan

The non-surgical face lifting approach is becoming a common aesthetic procedure that is highly recommended by many doctors worldwide. This includes oral surgeons, general surgeons and dermatologists. The level of expertise, success of treatment and patient satisfaction level are highly dependent on adequate training, face anatomy knowledge and basic surgical skills.

There are numerous types of face lifting techniques; the 8-point lifting approach is considered one of the simplest techniques, giving best results whilst minimizing possible side effects. The 8-point lifting approach promotes a lifting effect in individuals, who seek to accentuate certain facial features.

This lecture will spot the light on the holistic approach to 8-point lifting assessment, technique and after care.

A NOVEL TREATMENT COMBINING SUBLATIVE AND NON-ABLATIVE RADIOFREQUENCY TECHNOLOGIES FOR ENHANCED SKIN REJUVENATION
Maurice Adatto • Switzerland

BACKGROUND & OBJECTIVES

Skin rejuvenation for facial enhancement triggers complex physiological healing responses to promote skin renewal via inflammation, re-epithelialization and extracellular matrix (ECM) remodeling. We have previously presented a novel skin resurfacing approach named Sublative Radio Frequency (SRF) capable of inducing controlled thermal impact at the dermal/hypodermal interface. Fractional devices have shorter downtime and fewer adverse effects than ablative devices and greater efficacy than non-ablative devices. Combining non ablative and fractional Sublative treatment can offer higher efficacy than achieved by each procedure alone.

STUDY DESIGN & METHODS

We used physical modeling to describe temperature distribution in the skin induced by the application of combined broadband IR light and bipolar RF. Histology of human facial skin under the impact of Sublative RF evaluated in vivo the biological tissue effects. A biological model for the combined application mechanism of action has been developed. Based on biophysical modeling, combined broadband IR light and bipolar RF applied simultaneously with coding of the skin surface creates reticular dermal tissue islands reaching >50-550°C, surrounded by deep volumetric heating of the entire dermis (45–50°C) with complete sparing of the epidermis. In vivo analysis of fractional SRF demonstrates epidermal tissue ablation up to 150 µm depth beyond which the papillary dermis is affected mainly by coagulation (up to 150 µm deeper and occasionally lateral). A biological model for the combined application will be presented.

RESULTS

The underlying mechanism of action of this unique combination is the synergistic induction of local healing response, leading to modification of connective tissue via collagen remodeling. With SRF, tissue injury leads to inflammatory reaction and the responsive healing process involves ECM remodeling of the upper dermis. Conversely, deep volumetric heating by the non ablative application causes immediate tissue tightening due to collagen denaturation and collagen contraction followed by a delayed healing response of the deep dermis.

CONCLUSIONS

Ongoing clinical studies suggest that this novel approach promotes the desired biological responses leading to a more and better organized younger dermal matrix.

THE THREE STEP FACIAL APPROACH FOR FACIAL REJUVENATION WITH NASHA GELS
Francesca de Angelis • Italy

INTRODUCTION

Full facial approach for facial rejuvenation is often suggested as an alternative to lifting and surgical procedures, but many of the suggested procedures are based on high numbers of ml (sometimes more than 15/16 ml) producing results not always well accepted by patient or economically not affordable or addressing areas of the face that finally end up in modifying one’s facial features.

We developed a systematical approach based on bone structure, fat and ligaments aging, using a limited number of vials with a highly G’ filler that allows a natural and long-lasting rejuvenation in Caucasian patients.

MATERIAL AND METHODS

We selected 25 patients, females, ageing between 45 and 65 years old, with different degrees of ageing. We injected patients using a new method (CPA: Centripetal Progressive Approach) based on the Ronch and Pessa anatomical studies regarding the ageing progression of the fat pads and all the new anatomical studies on ligaments action and deformation during the ageing process. We used 5 to 6 ml per patient, addressing the superficial fat compartments, the deep fat pads and bone, in a systematic and well reproducible approach. We took pictures of our patients before, immediately after, 1 month, 3 months and six months after.

RESULTS

We evaluated our results using a self assessment test and two independent observer that evaluated the picture of the patients, obtained with a 3D system. We reported improvement rates between 50-75% at 1 month, 3 months and 50% at least at 6 months without touch-ups. All the patients and the observer evaluated pictures comparing the “after” pics with the picture of the same patient 10 years before the treatment, to evaluate how close the results was to the “youngest” version of the treasted patients. Patients and observer evaluated the result obtained with the CPA method extremely natural and able to preserve the unique characteristics of each patient.

DISCUSSION

Patient and doctors are in search of new techniques of rejuvenation that allows obtaining a more “natural” and fresh look without producing patients all resembling the same or completely different from whom they feel they were when younger. We studied a new system that can possibly allow a more natural rejuvenation and highly affordable for patient of different countries.

FACIAL REJUVENATION COMBINED WITH MINIMALLY INVASIVE PROCEDURES
Jhanny De La Riva • Bolivia

Facial rejuvenation is one of the most requested procedures in the dermatological and aesthetic consultation in both men and women from 35 years forward where patients begin to perceive the passage of time and want to stop this process because no one likes to grow old.

As a medical specialist, the assessment of each patient is individual, the criteria and experience will show us the best way for these procedures to be effective and the patient to be satisfied with the results.

PATIENT ASSESSMENT

Is important to examine the patient in terms of habits, lifestyle, and general health.

The most important question is to ask the patient “what you not like about your face when you look in the mirror?”. Then start to improve the part that bothers them most.

Analyze as a doctor which third of the face needs to be improved first and give your suggestions as a specialist.

PROCEDURES

Among the minimally invasive surgical procedures used in our center are:

- Transconjunctival blepharoplasty, transcutaneous surgical procedure performed in 15 minutes ambulatory and local anesthesia.
- Fatty face implant combined with platelet-rich plasma surgical procedure performed in 30 minutes ambulatory and local anesthesia.
- Thread lifting and PDO easy application and fast recovery.

Among the complementary procedures we have Laser, Radiofrequency and multifocal Ultrasound Botulinum Toxin, filled with hyaluronic acid.

CONCLUSIONS

These treatments are indicated for patients who do not wish to undergo plastic or aesthetic surgeries or are afraid of surgery or do not have the necessary recovery time.

The change in eating habits are crucial for these procedures to be satisfactory and beneficial for the patient.

The doctor must inform of all the details of the procedures and especially of the expectations and the results of improvement that the patient will have and not offer things that do not go according to the reality.

RESULTS

The results are good if we combine the techniques according to the needs of each patient and above all create awareness that the best rejuvenation of our face is healthy eating, good sleep, regular exercise, photoprotection and reduce stress.
Tissue temperature distribution, thermal relaxation and the total energy delivered to the skin were calculated using a Finite Element method (Comsol multi physics, Comsol USA) followed by precise analytical models.

Finite Element thermal model results were compared with CO₂ laser skin thermal effects obtained from published data.

The presentation will be focused on the physical and clinical effects of the technology.

TIPS FOR DERMABRASION
Hang Li • China

During dermabrasion, in order to avoid pollution to environment and protective operators and patients, a patch of medical sterilizing packing bags as “dust cover” can be used. After local anesthesia, the operator covered the diamond wheel with the unfolded bag. The “dust cover” could help keep out scattered scurf effectively during performing dermabrasion.

The N Butyl-2-Cyanacrylate is a butyl ester of 2-cyano-2-propenoic acid. In medical applications, NBCA is used as an adhesive for lacerations of the skin, and in the control of bleeding from vascular structures. In our practice, NBCA, after dermabrasion, can help alleviate the amount of pain and pruritus obviously. The exudate disappeared in one week. NBCA skin adhesive may represent a novel option of dermabrasion to accelerate wound healing.

STUDY DESIGN / MATERIAL & METHODS
To update the audience with the 3-year personal experience we have in various indications with the 3 main available wavelengths (532, 785 & 1064nm). This ultra-short pulse duration breaks the tattoo pigment into much smaller particles, thus eliminating it more easily and quickly. Regarding pigmented lesions the mechanism is similar, and the shortened pulse duration creates less crusting and swelling afterwards. The improvement on skin texture is achieved by fractioning the beam which creates LIOS in the dermis.

RESULTS
The use of picosecond laser in tattoo removal results in a) less sessions needed, so less time required to clear tattoos (1), b) better clearance of residual pigment c) possibility of removing previous resistant colours (2), as well as paradoxical darkening (3).

CONCLUSION
With this new picosecond technology, a new era is opened not only in the field of laser tattoo removal, allowing better and faster pigment removal, but also in the management of benign pigmented lesions and skin smoothening.

Saturdays • September 1, 2018
When Harry Potter went to Olivander’s wand shop for his magic wand, Mr. Olivander said: “Ah, Mr. Potter, it is the wand that chooses the wizard.” But the clinician is the wizard and he or she must carefully choose their wand, then apply all the knowledge of laser/tissue interaction to achieve the true magic. The ps-laser is still a work of art in progress.

**LASER TREATMENT OF PORT WINE STAINS**
Taro Kono • Japan

Laser treatment of vascular lesions was first developed in 1960s and the risks of scarring and tissue changes were very common in early days. In 1983, the concept of selective photothromolysis revolutionized laser treatment of vascular lesions. According to the principle of selective photothromolysis, the pulse duration of laser light should be equal to or less than the thermal relaxation time of target vessel in order to maximize laser energy deposition within the vessel to cause thermal damage to the treated vessel.

Since then, the pulsed dye laser has become the gold standard in the treatment of Port Wine Stains. Improved efficacy in PWS treatment is expected by utilizing variable wavelengths, variable pulse durations, higher energy fluences with selective skin cooling, and techniques such as pulse stacking in early ages. PWS patients treated using long-pulse pulsed dye laser. Longer pulse durations and higher fluences with skin cooling are required for larger vessels. The ineffective response of PWS to the conventional PDL is due to the sub-optimal irradiation parameters of energy fluence and pulse duration currently used in clinical settings. Skin cooling is essential to avoid complications and get further improvement. New generation PDL are more effective than conventional PDL, whereas controversy still exists as to which wavelength induces the best response of PWS to the treatment.

Radiofrequency (RF) systems represent a well-established modality for skin rejuvenation. External application of monopolar or bipolar handpieces, however, has problems achieving adequate coagulation damage in the deeper dermis, and require aggressive skin cooling to protect the epidermis from electrothermal damage.

The elegant approach of using matrices of insulated microneedle bipolar electrodes, with only the first few hundred micrometers of the needle tip left uninsulated, focuses the fractional RF energy where it is required, delivering high-intensity focused RF (HIFR) to the dermis. The added ability to preselect the needle depth for each pass during a session, coupled with a wide range of intensity and exposure time settings, means the user can create patterns of discrete coagulation with controlled damage volume at varying depths in the dermis. Because this is a fractional approach, the coagulated zones are surrounded by normal uninjured dermal tissue to speed up the wound healing process. The lack of electrothermal damage at the epidermis limits the risk to mechanical microneedling, which is in itself beneficial to epidermal regeneration, and helps to minimize patient downtime.

Compared with the fractional CO2 laser, which produces a “top to down” microablative zone surrounded by residual thermal damage from the epidermis down to the target depth, HIFR delivers damage only at the target depth. That makes HIFR ideal for deeper scar revision for both hypertrophic and atrophic scars, tightening of lax tissue on and off the face, an ideal intervention for treating the photoaged neck, and for excision of scars, even for the less erythematous scars, and for excising excessive scars via use of the new HP pulsed CO2 laser.

The PHACE syndrome, which represents a spectrum of diseases, is defined by the presence of a large segmental infantile haemangioma in association with one or more congenital malformations, usually on the face or head, which over time leaves a lot of bad scarring. In our presentation, in addition to the dozens of different scar treatments, we briefly mention the interesting combination of vascular and surgical lasers in the treatment of PHACE syndrome cutaneous lesions and fibrosis in a young patient as this provides a meaningful example of the optimal synergic efficacy of different systems.

This specific medical combination has frequently guaranteed excellent results in the treatment of unsightly scars without any significant adverse side effects.

**INNOVATIVE LASER TECHNIQUES & PROCEDURES IN THE TREATMENT OF PATHOLOGICAL SCARS**
Presenter: Paolo Bonan • Italy
Authors: Paolo Bonan, Nicola Bruscino, Andrea Bassi, Michelle Taliano, Alice Verrelli, Diletta Vitali, Flavia Facchini, Giuseppe Rampino • Italy

Eldoids, hypertrophic scars, and atrophic scars are disorders with altered dermal matrix deposition for which there are currently limited treatment options. The disfigurement may negatively affect the quality of life of many patients. Various therapies have been employed in treating scars, including non-invasive and invasive methods. Research on new therapeutic approaches has led to the advancement of various lasers for improving all types of scars with variable outcomes.

The ablative lasers such as fractional CO2 and fractional Er:YAG usually prove to be very effective in treating atrophic scars, while the pulsed dye laser appears to be the best choice for keloids, hypertrophic and erythematous scars. In recent years, new non-ablative laser approaches have often provided similar outcomes with shorter downtimes. Given our extensive experience we prefer to combine pulsed dye laser sessions for targeting the vascular component with repeated fractional CO2 sessions, even for the less erythematous scars, and for excising excessive scars via use of the new HP pulsed CO2 laser.

**LED-LLLT ACCELERATES HEALING IN A DOUBLE BLINDED AND CONTROLLED TRIAL IN HUMAN SUBJECTS**
R. Glen Calderhead • South Korea

Low level light therapy (LLLT), originally with laser diode systems but now with LED-based devices, has attracted favorable attention in wound healing. To date however, no strictly double blinded and controlled study has been performed with LLLT for healing of a standardized wound. A study was designed using skin graft donor sites as the standardised wound, and was performed with LED phototherapy in multicenter university hospitals.

Seventy-four subjects from 2 separate sites were enrolled in the study and randomly assigned to the Treatment or Control groups. Standardised split thickness skin grafts were harvested with a dermatome on the subject’s lateral thigh. The donor site wounds were treated with either real or sham 830 nm LED low level light therapy (LED-LLLT): neither the patient nor the clinician knew to which group the subject belonged. Wound healing was followed and assessed with gross assessment and serial clinical photography. The pain score at the donor site wound examined daily and the healing time was compared between the Treatment and Control groups both by gross observation and based on the clinical photography. Data were statistically tested.

Fifty-seven subjects completed the study. There was a significant difference in the healing time between the Treatment group (mean±SD: 10.28±1.63 days) versus the Control group (11.38±2.17 days, p<0.05). The pain score was less for the Treatment group at the end of the study. There were no adverse events in the LED-treated group judged to be in any way related to the treatment.

LED-LLLT significantly shortened the wound healing period in standardized wounds in a controlled and double-blinded randomized clinical trial. No adverse events were reported. LED-LLLT could be safe and effective for accelerating wound healing, benefiting both patients, clinicians and hospitals.

**830NM LED-LLLT ACCELERATES HEALING IN A STANDARDISED WOUND A RANDOMIZED, DOUBLE BLINDED AND CONTROLLED TRIAL IN HUMAN SUBJECTS**
R. Glen Calderhead • South Korea
Burns are injuries of skin or other tissues caused by thermal, radiation, chemical or electrical contact. Burns, being difficult to treat and being among the worst scar seen in clinical practice, can have significant negative physical and psychological impact. Clinically, treatment is challenging despite a wide array of options including corticosteroids, radiation, lasers and surgery.

AIM OF THE STUDY
This study aims to assess the efficacy of fractional CO2 laser treatment in the management of post-burn scars.

RESULTS
Two weeks of fractional CO2 laser treatment. 50% of the post-burn scars were treated with one session every two weeks of fractional CO2 laser treatment. 50% of the lesions were treated with fractional CO2 laser and other part of the lesions left as comparative.

MATERIALS AND METHODS
Twenty patients (17 females and 3 males) affected by post-burn scars were treated with one session every two weeks of fractional CO2 laser treatment. 50% of the lesions were treated with fractional CO2 laser and other part of the lesions left as comparative.

RESULTS
Patient’s response to treatment was assessed clinicaly, by comparing the photographs taken before and after treatment, histopathologically and histometric. Response to treatment was excellent in 60% patients, good in 30% patients and poor in 10% patients. Fractional CO2 laser gives a very good result in the management of patients with post-burn scars.

THE ROLE OF HIGH-FREQUENCY ULTRASOUND ON SCAR TREATMENT
Hang Li • China

The high-frequency ultrasound refers to the ultrasound with frequency more than 20MHz. Its image can well reflect the structure of epidermis and dermis. Under the high-frequency ultrasound, the image of the keloid before treatment showed an increase of dermal thickness, uniform low echo or no echo with a clear boundary. The dermal thickness of the keloid was decreased, and the echo was enhanced and turned even with a less clear boundary after the first-time treatment. High-frequency ultrasound can be used to monitor scar injection therapy. If the drug is injected into the scar, the ultrasound image can help determine whether the drug is entering the dermis.

FACIAL RESHAPING & NECK CONTOURING - WHAT’S NEXT?

FACIAL AND NECK LIFTING WITH ENDO LASER TECHNIQUE USING A 1470NM DIODE LASER AND A 300 MICRONS OPTIC FIBRE
Luigi Mazzì • Italy

INTRODUCTION
The author describes his experience and results with the Endolaser procedure for face and neck rejuvenation. Indications for this technique are initial and middle face and body skin laxity.

MATERIALS AND METHODS
A 5 watts 1470nm diode laser is used. A 300 microns optic fibre is mainly utilized for face and neck treatment, whereas a 200microns fibre is preferred for upper and lower lid. There is no need to use anaesthesia for this procedure. Fibre is directly inserted under the skin and up to five introduction points are used to treat the mid face, two for the neck and one for the mandibular arch and the kids. Laser set up is 50msec “on-time” and 50msec “off-time”. Usually the final amount delivered for a face treatment is about 1000j. While passing through the dermis, these microfibers act like an intradermal light path and transmit radiating near infrared energy in order to immediately induce a lipolysis reaction, correct mild sagging on the face activating shrinkage and new collagen formation and activate the metabolic functions of the extracellular matrix.

CONCLUSION
Endolift is a minimally invasive interstitial laser lifting treatment. Results are stable over a five year follow-up. This technique has been significantly simplified from the beginning; recovery is rapid and the risk of injuring of the branches of the facial nerve is dramatically reduced.

NON-SURGICAL RHINOPLASTY: A SURGEONS PERSPECTIVE
Michael Somener • USA

INTRODUCTION
The nose plays a critical role in the overall aesthetic appeal of the face. Surgical rhinoplasty remains the gold standard for correcting cosmetic and functional nasal defects. However, some are interested in correction of small defects or desire slight modifications from a previous surgical rhinoplasty. In these cases, the use of a hyaluronic acid dermal filler can lead to immediate correction.

MATERIAL AND METHODS
Topical anesthesia was applied to the nose prior to injection. The product is a high density hyaluronic acid (20mg/ml) with a high G prime. A serial small bolus technique is used to move along the dorsum in and progressively conceal a dorsal hump or other asymmetries.

RESULTS
Among the patients treated, subtle irregularities along the nasal dorsum and nasal tip were successfully treated using hyaluronic acid dermal filler. No complications were noted.

CONCLUSIONS:
A nonsurgical rhinoplasty can be an ideal treatment for someone looking to conceal subtle irregularities along the dorsum and nasal tip. The use of a hyaluronic acid dermal filler to correct small nasal irregularities is safe, cost effective, less invasive, and has a fraction of the downtime associated with the surgical alternative.
S The use of absorbable sutures in lifting and volumizing the skin: The US Consensus Report
Michael Gold • USA
Skin lifting and volumization can be achieved by a variety of clinical procedures including the novel absorbable sutures with associated cones made of PLLA and PGLA (in the US).
This presentation will describe the technique used and the US Consensus Report on the use of the absorbable sutures in clinical practice. Who are the best candidates and what are the best practice techniques making this one of the most exciting new procedures for cosmetic physicians.

Moving onwards with threads: Face, neck, breast and thighs
Douglas J. Key • USA
The use of absorbable implanted sutured or coned sutures for tissue lifting and improved contouring continues to evolve. Although this author had prior experience with poly lactic co-glycolic acid/poly-L-lactic acid (PLGA/PLLA), prior presentation S3CC Barcelona 2017, this presentation will focus on the use of Polydioxanone (PDO) suspension sutures.
This is a review of 37 patients who received PDO absorbable suspension suture placement. Results as to Pre and Post procedure photography blind reviewed as to correct order of treatment will be presented as well as suggestions as to co-factors, such as patient selection, number and placement of threads, and other non-invasive aesthetic procedures that may enhance the visual gains of absorbable PDO suspension suture use.

Thread lifting design: Ways to achieve better results with less complications
Peter Peng • Taiwan
There are many signs of an aging face, including sunken volume/depression, wrinkles, folds, laxity, sagging, pigmentation, and changes in skin texture. Among these, sagging is usually treated with surgical intervention of face-lift procedures.
In recent years, the threads lift, one of the minimal invasive approaches available to treat a sagging face, has become more and more popular. For this procedure, patient selection, thread lift design and placement level, and operator techniques form the three key factors to an optimal result and patient satisfaction.
In this presentation, I will share the principles and tips of the thread lift procedure for better results while having fewer complications.

IPL technology: What we know from research from long-term analyses
Michael Gold • USA
Intense pulsed light (IPL) devices really revolutionized the EBD market when they arrived over 25 years ago. IPL technology was developed to treat vascular lesions, found to work well on pigment, and then on collagen and elastin itself, giving us the first real EBD treatment for photorejuvenation.
Over the years, the IPL technology became more and more sophisticated and we are now at a time and place that the IPLs of today are safe, sophisticated, and predictable in giving our patients the results that we all want for their skin.
What’s even more impressive is that, in a review of the largest clinical trial for IPL use over 10 years, those patients who had yearly IPL treatments had continued improvement in their skin, actually showing a lowering of their actual age when photographic analyses were made by blinded investigators. This important clinical trial will be reviewed in detail.

Daylight-activated PDT for organ transplant recipients
Asi Levi • Israel
Organ transplant recipients are especially prone to non-melanoma skin cancer (NMSC) due to immunosuppression. In these patients, skin lesions are usually thicker, more aggressive and more abundant, thus making any treatment utilized less effective.
Photodynamic therapy (PDT) is a non-operative therapeutic modality, which is practiced since the 1990s, in various medical disciplines including dermatology.

Solar keratoses, Bowen’s disease, basal cell carcinoma, and field cancerization are among the most common indications for PDT. One of the major side effects is the considerable pain during conventional PDT.
Daylight-activated PDT, in which natural daylight serves as light source, has proven effective in the treatment of NMSC with substantially less pain than conventional PDT. The current talk will focus on my experience in treating NMSC among organ transplant recipients using daylight-activated PDT.

ALA-PDT for acne: Mechanism and clinical efficacy
Presenter: Leihong Flora Xiang • China
Authors: Ying Ma, Jiang Tao, Leihong Flora Xiang • China
Objective
A study the clinical efficacy of ALA-PDT in the treatment of different severity of acne vulgaris, and investigate the mechanisms of ALA-PDT effect on human sebocytes survival, lipogenesis, and cytokines release to elucidate the mechanism of ALA-PDT in the treatment of acne vulgaris.
CLINICAL TRIALS RESULTS
Split-face study showed that 5% ALA-PDT and red light-irradiation alone can either reduce the numbers of acne lesions, while ALA-PDT had superior efficacy than red light-irradiation alone.
Among the 397 patients completed the study, 262 cases received 3-session PDT treatments and the other 135 received 4-session treatments. The results showed the total effective rate of 3-session and 4-session group is 80.2% vs. 85.9% with no statistical difference (P>0.05).
The total effective cure rate and cure rate of the low dose ALA-PDT procedure are 82.1% and 32.5% respectively. The effective rate of acne patients of grade II, III and IV is 71.5%, 79.6% and 88.2% respectively, which rises proportionally to the severity of acne (P<0.01).
Adverse Effects of ALA-PDT included transient erythema, hyperpigmentation, superficial exfoliation, and crusting, all of which resolved without scar formation.

Mechanism study
ALA-PDT suppresses the cell growth and reduces the secretion of lipids in S295 cells. ALA-PDT suppresses the cell growth by reducing the protein level of P-p70 S6K (T389) and reduce the secretion of lipids via decreasing S6REBP-1 and PPARγ expression. IGF-1 reversed these effects and rapamycin enhanced them. ALA-PDT promoted autophagy to protect S295 survival.

Conclusions
ALA-PDT is effective for severe acne. The mechanism could be that ALA-PDT suppressed the cell growth in S295 cells by mTOR-p70 S6K signaling, and reduced the lipogenesis in S295 cells by mTOR-SREBP-1/PPARγ signaling.

IPL, PDT, LED & LLLT can do for your patients

Biomedical therapy and mesotherapy in minimally invasive aesthetic facial rejuvenation and HRT-free bio-hormonal Revitalization
Dmytro Kodol • Malaysia
Vladymyr Chemkyt • Ukraine
Aging skin and premature deterioration of hormonal profile are two tightly-linked phenomena. According to the recent data 2% of women in reproductive age and 7% of a men’s global population are affected by premature menopause and andropause. Conventionally these conditions are managed by hormone replacement therapy and vast arsenal of invasive aesthetic surgical dermatological procedures. Each of these treatments carries risk of adverse effects and complications, which may cause a significant impact on patient's health.
The objective of our research was to create a safe and effective therapeutic paradigm, which provides hormonal revitalization together with dermal rejuvenation. The inclusion criteria for the study were patients with clinically and biochemically manifested premature menopause or andropause, and early aging skin ( Fitzpatrick II-IV; Global scale II-III). Hormonal disorders were managed by bio-hormonal peptide therapy, the protocol of which was developed by us after years of scientific research and clinical practice. Our proprietary innovative combination of organ-specific peptides for Bio-hormonal Rejuvenation (SB1, NF1, Germany) was formulated of cell extracts from pituitary gland, hypothalamus, adrenal cortex, placenta, liver, and either ovaries (for female patients; n=13) or testis (for male patients; n=13). Aesthetic facial rejuvenation was achieved by applying our proprietary modification of mesotherapy techniques with product containing skin-specific peptides enriched with collagen and elastin (SCHE™ - SB1, NF1, Germany), which was originally formulated based on our clinical research. As second objective of the study we have developed safety protocols...
and guidelines for bio-hormonal and aesthetic rejuvenation. Proposed method of bio-hormonal revitalization has very promising results, though slightly better outcomes in men’s group, compared to women. As a successful result we considered complete disappearance of symptoms and restoration of biochemical hormonal profile to normal range. In terms of skin rejuvenation excellent and good results were achieved in 68%, and moderate results in 22%. No adverse effects were observed in the treated patients. Creating a refreshed and a better version of an individual face requires knowledge of facial anatomy in order to restore facial balance and modify shadows. Injectable dermal fillers are becoming increasingly popular for improving skin contour defects related to aging (volume loss, wrinkles), and also skin quality (elasticity, radiance, firmness). Among the most widely used temporary fillers is hyaluronic acid, cross-linked and non cross-linked. Research data and clinical use of injectable hyaluronic acid based products has shown its biostimulatory effect and efficacy in restoring skin quality. Facial features can be reshaped with great control using these fillers, and also aging changes can be well corrected. These injectable treatments have become a mainstay of rejuvenation in early facial aging patient. Injection technique is critical to obtaining excellent results. TERMS SUCH AS “PRE-REJUVENATION,” “BEAUTIFICATION” AND “POSITIVE AGING” ARE INCREASINGLY BEING STATED AND USED WHEN REFERRING TO TREATMENTS, ACCORDING TO PERSONAL CHARACTERISTICS AND DESIRES OF EACH PERSON. In situations where the procedures used improve structures like the muscular tones, fat pads, extracellular matrix, uniformity of the cutaneous surface and the production of the anchorage and elasticity fibers through the neocollagenesis production, it is possible to achieve the aimed results and expectations. In the lecture it will be presented that therapies that treat the skin “layer by layer” using lasers, microfocused ultrasound, radio frequency and microneedling, potentialed by drug delivery, application of botulinum toxin, bio-stimulators and fillers, promote optimized results, improving the attractive zones and restoring the harmony of areas of the face, neck and upper chest (Décolleté) that require exclusive attention. The combination of the mentioned technologies concurrently treat wrinkles, sagging, dyschromia, loss of facial contour, nasolabial folds, vertical lip lines, tears troughs and other clinical signals that appear, generated by the aging process. Terms such as “pre-rejuvenation,” “beautification” and “positive aging” are increasingly being stated and used when referring to treatments, according to personal characteristics and desires of each person. In situations where the procedures used improve structures like the muscular tones, fat pads, extracellular matrix, uniformity of the cutaneous surface and the production of the anchorage and elasticity fibers through the neocollagenesis production, it is possible to achieve the aimed results and expectations. In the lecture it will be presented that therapies that treat the skin “layer by layer” using lasers, microfocused ultrasound, radio frequency and microneedling, potentialed by drug delivery, application of botulinum toxin, bio-stimulators and fillers, promote optimized results, improving the attractive zones and restoring the harmony of areas of the face, neck and upper chest (Décolleté) that require exclusive attention. The combination of the mentioned technologies concurrently treat wrinkles, sagging, dyschromia, loss of facial contour, nasolabial folds, vertical lip lines, tears troughs and other clinical signals that appear, generated by the aging process.

12.30 - 13.30h PARTNER COUNTRY UPDATE: BRAZIL

■ A NEW LOOK AT INTIMATE FEMALE REJUVENATION Shirlei Borelli • Brazil

In this presentation we will discuss some points that alter the self-esteem and quality of life of women at different ages and especially perimenopause and after menopause with respect to female intimate rejuvenation.

■ OPTIMIZED RESULTS

In this way we understand the rejuvenation of the woman as a whole, not excluding the intimate rejuvenation and its importance.

■ FACIAL COMBINED THERAPIES FOR OPTIMIZED RESULTS Claudia Marçal • Brazil

Nowadays, it is known that when referring to therapies that prevent and treat facial aging, people desire better and faster results with less downtime, in a way not to have their routine affected. In this context, the concept of having a good appearance became more significant than being beautiful, both in the social or professional life. Frequently, the improvement of the image and self esteem leads to a general increase in self-confidence. Through combined therapies with synergistic technologies, it is possible to remodel and contribute to a more proportional, harmonious and beautiful face. As known, the damage caused by extrinsic and intrinsic factors can provoke premature skin aging. Currently, there are various diagnostic mechanisms for clinical aesthetic evaluations, therefore it is possible to identify the specific necessities of each patient. Terms such as “pre-rejuvenation,” “beautification” and “positive aging” are increasingly being stated and used when referring to treatments, according to personal characteristics and desires of each person. In situations where the procedures used improve structures like the muscular tones, fat pads, extracellular matrix, uniformity of the cutaneous surface and the production of the anchorage and elasticity fibers through the neocollagenesis production, it is possible to achieve the aimed results and expectations. In the lecture it will be presented that therapies that treat the skin “layer by layer” using lasers, microfocused ultrasound, radio frequency and microneedling, potentialed by drug delivery, application of botulinum toxin, bio-stimulators and fillers, promote optimized results, improving the attractive zones and restoring the harmony of areas of the face, neck and upper chest (Décolleté) that require exclusive attention. The combination of the mentioned technologies concurrently treat wrinkles, sagging, dyschromia, loss of facial contour, nasolabial folds, vertical lip lines, tears troughs and other clinical signals that appear, generated by the aging process.

14.30 - 15.30h PARTNER COUNTRY UPDATE: ROMANIA

■ A GLOBAL APPROACH TO FACIAL BEAUTY WITH INJECTABLES Monica Darmănescu • Romania

The facial aging process, influenced by intrinsic and extrinsic factors, occurs across the multiple facial tissue layers. Creating a refreshed and a better version of an individual face requires knowledge of facial anatomy in order to restore facial balance and modify shadows. Injectable dermal fillers are becoming increasingly popular for improving skin contour defects related to aging (volume loss, wrinkles), and also skin quality (elasticity, radiance, firmness). Among the most widely used temporary fillers is hyaluronic acid, cross-linked and non cross-linked. Research data and clinical use of injectable hyaluronic acid based products has shown its biostimulatory effect and efficacy in restoring skin quality. Facial features can be reshaped with great control using these fillers, and also aging changes can be well corrected. These injectable treatments have become a mainstay of rejuvenation in early facial aging patient. Injection technique is critical to obtaining excellent results. These injectable treatments have become a mainstay of rejuvenation in early facial aging patient. Injection technique is critical to obtaining excellent results.
Depending on the degree of aging and its effects on facial volume, the reconstruction of the three-dimensional facial appearance can be achieved by using hyaluronic acid, PDO or by combining both of them.

Biorevolumetry

BIO = use of biocompatible biodegradable materials
RE = regeneration, restructuring
VO = volume restoration

The treatment with hyaluronic acid fillers has become the most widely used facial biorevolumetry procedure followed by botulinum toxin injection. Technics has advanced from the primary indication for the treatment of facial wrinkles in the application to redefine the facial outlines. There are different fillers in the market with different compositions, different period of time of action, different administration techniques.

The level of aging is associated with gradual thinning of the skin, loss of elasticity and diminishing of collagen, elastin and hyaluronic acid from the dermis. This intrinsic process is accelerated by exposure to the sun, as well as by other external factors (smoking), resulting in wrinkles. Hyaluronic acid is naturally found in the extracellular matrix providing the nutrient support, and due to its hydrophilic capacity, it provides the necessary volume in the dermis.  

The aim of the study was to improve the skin’s quality and texture using the combination of small-particle hyaluronic acid injected as a skin booster and a novel thermo-mechanical ablative ablative technology.

**RESULTS**

All patients had improvement in the skin quality: fine wrinkles, pores, tone and overall appearance of the skin with high patient satisfaction rate. The side effects were mild and included: mild bruising, mild edema and transient erythema.

**CONCLUSION**

The combination of small-particle hyaluronic acid and thermo-mechanical ablative ablative technology is an effective and safe combination for the improvement of skin’s quality and texture, and is not associated with significant downtime or side-effects.

**MY FOLLOW-UP OF 6 YEARS COMBINING SUTURES AND FILLERS**

Beatriz Beltrán • Spain

According to recent statistics from ASAPS US the number of surgical lifts were 125,000 while the number of non-surgical procedures were more than 8 and a half million. Non-invasive techniques are demanded. My technique is based on combining fillers and sutures, my experience with this combination is 6 years. It permits to lift the face without getting volume. I explain how this combination is performed and the most effective patterns of sutures for achieving better and long-lasting result. This technique does prevent, and correction of the aging process and enhancing of attractiveness of beauty.

It is an alternative to those patients who don’t want to have surgical procedures. It is effective, non-invasive and has long lasting results.

My personal approach is based on a deeper understanding of facial anatomy and starts with a full face evaluation in static and dynamic. Measurements of distances and angles with all facial structures around them is why it works with facial proportions.

Injection of high density of reabsorbable products are mandatory to treat areas where are lack of volume, re-placement should be done close to the bone, where the aging process starts. Secondly lifting sagging tissue using threads permits to have a stronger lift.

Finally correction with low density of hyaluronic acid and toxin for relaxing muscles. Injections are made with cannulas and needles, depends on areas where are treated for safety. My follow up of 6 years shows a great lift without getting volume.

**BEFORE 1 MONTH AFTER**

**THREAD LIFTING AND MINIMALLY-INVASIVE RF: HOW TO COMBINE**

Ekaterina Gutun • Russia

Planning the integrated treatment for the full face we have to pay particular attention to individual aesthetic and anatomical peculiarities of the face, individual nature of the aging processes and suitable method of correction of existing problems.

Type of aging also have been taken into account. The classification that take into consideration the mutual relationship between ptosis and hypertrophy/hypertrophy processes of soft tissues help to identify not only the type of aging, but also an algorithm of choice in facial treatment in different clinical cases.

Combined treatment in stages with minimally invasive RF therapy and lifting with threads can be performed in a variety of ways for the best aesthetic result to be achieved. The sequence of the stages is at the prerogative of the doctor. The next stage should be done after rehabilitation following the previous stage.

**BOTULINUMTOXIN AND FILLERS: ANTI-AGING TREATMENTS AND BEAUTIFICATION OF FACE AND NECK**

Claudia Magalhaes • Brazil

Beauty is the performance of small procedures guided by parameters and proportions of the face and neck to get harmony and beauty, which has been already studied very much.

Rejuvenation treatments, including the indication of minimal invasive procedures as botulinum toxin, fillers and even the Silhouette Soft threads are the guarantee of naturality when they are performed in a combined and correct way.

We have been using the botulinum toxin as golden standard to treat the upper face. For the midface and the facial contour, we have been applying different types of fillers, biostimulators and Silhouette Soft threads. Whenever we reach good outcomes on the face, the skin tightening of the neck usually gets better; however the faciility of this area can be still improved using bio-estimulators and Silhouette Soft threads as well.

Small changes, minor corrections, restructuring of the skeletal and tissue structure, volumizing the face, lift effect, endogenous stimulation of the collagen guarantee small transformations, but together they aggregate large beautification, without necessarily changing the patient’s face into an artificial aspect.

We think this is the secret of these minimal invasive procedures: they look natural and imperceptible for the eyes of the average observer, but they have just been stimulating the perception of beauty.

**COMBINATION OF SMALL-PARTICLE HA AND THERMAL FRACTIONAL SKIN REJUVENATION FOR RAPID IMPROVEMENT OF SKIN QUALITY**

Lehavit Akerman • Israel

Patient today are seeking for non-invasive skin procedures, and also understand the need and importance of preventive treatments. We are facing a growing challenge of maintaining a youthful, young look but without losing the natural appearance. Our patients want an out-patient aesthetic treatment with little side effects and a long-term outcome leading to effective but also natural results with minimal recovery time. The desire for treatments which are not associated with substantial downtime have led us to use multiple combination therapies that on one hand will be safe and effective but with less downtime and side effects.

Patient today are seeking for non-invasive skin procedures, and also understand the need and importance of preventive treatments. We are facing a growing challenge of maintaining a youthful, young look but without losing the natural appearance. Our patients want an out-patient aesthetic treatment with little side effects and a long-term outcome leading to effective but also natural results with minimal recovery time. The desire for treatments which are not associated with substantial downtime have led us to use multiple combination therapissthat on one hand will be safe and effective but with less downtime and side effects.

Patient 35 patients were included in the study (ages 43-65), all patients had reduction in skin quality- and wanted to improve the overall appearance of the skin. Treatment protocol included injection of 2cc of small-particle hyaluronic acid injected in small droplets to cover the whole area of the face (without forehead), followed by treatment of the same area by thermal fractional ablative device (based upon direct heat conduction) using the following parameters: 10-15ms/400, one pass.

**RESULTS**

**COMBINATIONS – BETTER TOGETHER**

**BIOREVOLUMETRY**

The timing dependent on the type of filler used and the volume injected, the injection of hyaluronic acid, PDO or by combining both of them.

**REJUVENATION TREATMENTS AND BEAUTIFICATION OF FACE AND NECK**

**SUTURES AND FILLERS**

**MY FOLLOW-UP OF 6 YEARS COMBINING SUTURES AND FILLERS**

Beatriz Beltrán • Spain

**COMBINATION OF SMALL-PARTICLE HA AND THERMAL FRACTIONAL SKIN REJUVENATION FOR RAPID IMPROVEMENT OF SKIN QUALITY**

Lehavit Akerman • Israel

**INTRODUCTION**

Patient today are seeking for non-invasive skin procedures, and also understand the need and importance of preventive treatments. We are facing a growing challenge of maintaining a youthful, young look but without losing the natural appearance. Our patients want an out-patient aesthetic treatment with little side effects and a long-term outcome leading to effective but also natural results with minimal recovery time. The desire for treatments which are not associated with substantial downtime have led us to use multiple combination therapies that on one hand will be safe and effective but with less downtime and side effects.

Patient 35 patients were included in the study (ages 43-65), all patients had reduction in skin quality- and wanted to improve the overall appearance of the skin. Treatment protocol included injection of 2cc of small-particle hyaluronic acid injected in small droplets to cover the whole area of the face (without forehead), followed by treatment of the same area by thermal fractional ablative device (based upon direct heat conduction) using the following parameters: 10-15ms/400, one pass.

**RESULTS**

**COMBINATIONS – BETTER TOGETHER**

**BIOREVOLUMETRY**

The timing dependent on the type of filler used and the volume injected, the injection of hyaluronic acid, PDO or by combining both of them.

**COMBINATION OF SMALL-PARTICLE HA AND THERMAL FRACTIONAL SKIN REJUVENATION FOR RAPID IMPROVEMENT OF SKIN QUALITY**

Lehavit Akerman • Israel

**INTRODUCTION**

Patient today are seeking for non-invasive skin procedures, and also understand the need and importance of preventive treatments. We are facing a growing challenge of maintaining a youthful, young look but without losing the natural appearance. Our patients want an out-patient aesthetic treatment with little side effects and a long-term outcome leading to effective but also natural results with minimal recovery time. The desire for treatments which are not associated with substantial downtime have led us to use multiple combination therapies that on one hand will be safe and effective but with less downtime and side effects.

Patient 35 patients were included in the study (ages 43-65), all patients had reduction in skin quality- and wanted to improve the overall appearance of the skin. Treatment protocol included injection of 2cc of small-particle hyaluronic acid injected in small droplets to cover the whole area of the face (without forehead), followed by treatment of the same area by thermal fractional ablative device (based upon direct heat conduction) using the following parameters: 10-15ms/400, one pass.

**RESULTS**

**COMBINATIONS – BETTER TOGETHER**

**BIOREVOLUMETRY**

The timing dependent on the type of filler used and the volume injected, the injection of hyaluronic acid, PDO or by combining both of them.
**NEW COSMECEUTICALS MAKING WAVES IN THE US MARKET IN 2018**

Michael Gold • USA

The recommending and dispensing of cosmeceuticals has become part of the practice of aesthetic medicine in many, if not most practices in the US. We are introducing many new and exciting new products and ingredients into our armamentarium and we must understand what they all are about, what they potentially can do for our patients, and what their clinical trials are showing to convince us to use them with our patients.

Whether we are talking about new antioxidant products, new growth factor products, products derived from stem cells or other skin lines, we must explore and evaluate how they came to be and how our patients will benefit from their use.

Some of the newer skin care lines and products will be reviewed in this presentation as well as looking at how we are using cosmeceuticals to fight pollution effects on our skin – one of the big concerns facing us today.

**GLOBAL APPROACH TO ADVERSE EVENTS IN INJECTABLES**

(Organized by IS**AC**)  

14.30 - 16.30h

Peter Peng • Taiwan

In recent years, minimal invasive approaches have become a trend in treating an ageing face.

About ten years ago, volume loss has been proven to be one of the most important causes of the face’s ageing process. In recent years, filler injection for volumization over different areas of the face has become very popular. The superficial laser with focus lens can induce new collagen formation and is effective in rejuvenating Asian patients with almost no downtime.

In this session, I will present the combined treatment of superficial laser and filler injection to rejuvenate an ageing face. I will focus on the treatment methods and some tips to achieve a successful outcome.
INTRODUCTION

Age changes are inherent in the body as a whole. Like age-related skin changes, posture changes are also related to the general aging of the body. The joint and muscle balance changes with age, changing the motor stereotype. Bones changes are added to this, joint and muscle balance changes with age, changing health and reduction of pain in the cervical-thoracic spine and aesthetic correction of the shoulder line with medical knowledge of male skin has been developed. This objectives are achieved by injecting botulinum toxin leads to a positive aesthetic effect: there is a posture improvement, alignment of the shoulder line position, cervico-brachial and cervico-chin corners, and face symmetry improvements.

Patients also note improvement in common state of health and reduction of pain in the cervical-thoracic spine. These positive changes lead to an improvement in patients life quality.

CONCLUSIONS

Clinical examples suggest that the correction of these problems by botulinum toxin leads to a positive aesthetic effect: there is a posture improvement, alignment of the shoulder line position, cervico-brachial and cervico-chin corners, and face symmetry improvements.

RESULTS

Patent Nr. 112359 from 12/12/2016 was received according to the described technique.

MATERIALS AND METHODS

The objective of the method is to create a safe way to prevent posture disorders in the cervical and thoracic spine and aesthetic correction of the shoulder line with botulinum toxin. The technical task is to simplify technique of injection and reduce the risk of complications during the procedure.

This objectives are achieved by injecting botulinum toxin by a flexible blunt cannula into certain muscle groups and in a certain direction.

RESULTS

Using a Jett Plasma medical device makes the procedure of removing xanthelasmas simple and allows you to control the depth and area of damage. Local anaesthesia, short recovery period, absence of scars and an additional bonus – non-operative blepharoplasty - gives high patient satisfaction.

Can also be used for:

- Angioma senilis
- Verrucae seborrhoeicae
- Verrucae plane
- Angiokeratoma
- Telegiectasia
- Lentigo
- Fibroma male
- Keratoacanthoma

Jett Plasma Lift Medical uses DC fulguration with the spark flow area of 0,1 mm2.

■ AUGMENTATION OF THE GLANS PENIS BY HA-BASED FILLERS FOR THE TREATMENT OF PREMATURE EJACULATION (VIDEO-SUPPORTED)

Michael Yudin • Ukraine

Definition of sexual health
Stats of diseases in the genital area
Clnic and pathogenesis of premature ejaculation
Treatment and prevention
Treatment results

■ SPECIFIC TREATMENT PROTOCOLS FOR MALE REJUVENATION

Ghislaine Bellin • France

through time, beauty in male always had a symbolism in the society; from Egypt Tutankhamun, Greece, Roman Cesar Imperator and his Genturions. Middle age was a poor period for beauty, then it came back with Louis XIV in XVIII century, and British Dandy in XIX.

Nowadays the men are looking for a youthfulness and healthy appearance, cared to performance and success. Medical knowledge of male skin has been developped to understand their specificity. Fillers injections must be adapted.

We will develop the skin and anatomic particularity, specific technical injections to achieve satisfactory, natural and painless treatments, without side effects. The gold standard for immediate results and given great satisfaction to our male patients.

■ 3D IMAGING: ROLE IN AESTHETIC DERMATOLOGY PRACTICE

Presenter: Wael Hosam El-Din • Egypt

Authors: Wael Hosam El-Din, Moetaz El-Darnyati • Egypt

BACKGROUND

Skin topographic measurements are of paramount importance in the field of dermo-cosmetic evaluation. The aim of this study was to investigate how the Antera 3D, a multi-purpose handheld camera, correlates with other topographic techniques and changes in skin topography following the use of carboxytherapy alone versus combined carboxytherapy with fractional CO2 laser in the treatment of skin aging as well as striae distensae.

METHODS

Skin topographic measurements were collected on 45 female volunteers (25 with skin aging signs and 20 with striae distensae) with the Antera 3D for correlations with other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.

RESULTS

Most of Antera 3D parameters were found to be strongly correlated with the digital camera photographs (improvement in wrinkles and texture in aging group as well as improvement in length and width of striae with improvement in texture in striae group), histometric and other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.

RESULTS

Most of Antera 3D parameters were found to be strongly correlated with the digital camera photographs (improvement in wrinkles and texture in aging group as well as improvement in length and width of striae with improvement in texture in striae group), histometric and other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.

RESULTS

Most of Antera 3D parameters were found to be strongly correlated with the digital camera photographs (improvement in wrinkles and texture in aging group as well as improvement in length and width of striae with improvement in texture in striae group), histometric and other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.

RESULTS

Most of Antera 3D parameters were found to be strongly correlated with the digital camera photographs (improvement in wrinkles and texture in aging group as well as improvement in length and width of striae with improvement in texture in striae group), histometric and other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.

RESULTS

Most of Antera 3D parameters were found to be strongly correlated with the digital camera photographs (improvement in wrinkles and texture in aging group as well as improvement in length and width of striae with improvement in texture in striae group), histometric and other imaging techniques and histologic analysis and ability to detect improvements of skin topography following treatment. Antera 3D camera (Antera3D®, Miravex Limited, Dublin, Ireland) is a novel imaging device for analysis and evaluation of skin health based on an advanced optical technology. Antera 3D camera allows the user to view the skin in 2 and 3 dimensions along with providing a multispectral analysis of the dermis and epidermis. It allows users to accurately measure wrinkles, texture, scars, skin color and redness as well as pigmentation in a seamless way.
CONCLUSION
Because of the fact that skin health and beauty is considered one of the principal factors representing overall ‘well-being’ and the perception of ‘health’ in humans, several anti-aging strategies have been developed during the last years. The Antera 3D demonstrated its relevance for cosmetic therapeutic modalities evaluation. We also provide recommendations for the analysis based on our findings.

VALUE OF TRINITY PROCEDURES IN DERMATOLOGY (COSMETIC, MEDICINE, SURGERY)
Dirk-Harald Gröne • Germany

A strong upward trend of intimate surgery has developed over recent years and continues. In most cases, not only aesthetic reasons trigger a visit to an intimate surgeon, but also the great suffering of the patients. Vulvovaginal atrophy is a common bothersome condition among peri- and post-menopausal woman. Symptoms as vaginal dryness, pruritus, skin irritation, loss of subcutaneous fat, sparse pubic hair and dyspareunia arise due to decreased estrogen level. Estrogens code for more physiological functions and a deterioration in the main-tenance of homeostatic processes over time, leading to losses in the body’s function and increasing the risk of diseases.

One of the patients, a 55 – year old female breast cancer survivor under Tamoxifen developed clinical signs of Lichen Sclerosis with relevant symptoms as genitoanal pruritus, dyspareunia, vulvovaginal atrophy, unwanted sweating, and sensitive skin in the radiated skin. Diminished volume and aged look of genitalia were also of some concern. We put her on medication (Vaginatrin) against the unwanted sweating, treated her vaginal canal with ablative lasers as well as introitus and vulva, addressed the chronic radiodermatitis of the decolletage with non-ablative lasers. Vaginal health and subject assessment of vaginal symptoms (VHI) improved as well as the DLQI. General hyperhidrosis decreased within one week. With lipofilling we reconstructed the outer labia. A total of 40cc of autologous fat mixed with PRP reestablished the missing fullness and tone immediately and the augmented volume was well maintained over weeks. Clinical signs of inflammation and the itch disappeared under 6 sessions with laser-assisted UV-phototherapy. Remission continued (12 month ongoing). The patient is currently under maintenance with CIS/Tacrolimus as a local therapy. Improvement in sexual gratification was reported. Focal hyperhidrosis in the armpit was addressed with 100 units of Botox. Vaginatrin was stopped.

„Too many cooks spoil the porridge“ is a saying for too many confronting opinions on a simple but delicate issue. In dermatology many procedures can be offered by one skilled expert as dermatologists are trained and experienced in both: surgery and pharmacology, and often provide the laser infrastructure and cosmetic devices to address medical, surgical and cosmetic relevant issues in a sophisticated holistic procedure.

LIFE SPAN VS. HEALTH SPAN
Claudia Marçal • Brazil

Due to technological advances, the global life expectancy average is rapidly increasing on a daily basis. The population of the 21st century has 10 times more expectations to reach the age of 100 than individuals used to in a recent past. Although the technology makes living longer possible, it could not stop the natural multi factorial process that involves a general decline of diverse physiological functions and a deterioration in the main-tenance of homeostatic processes over time, leading to losses in the body’s function and increasing the risk of diseases.

A sort of theories and concepts about “what is aging” and “how does this process take place regarding cellular and biochemical pathways” are being largely discussed by the general medical area. A variety of studies have been done about the topic in order to identify the side effects of a higher global life expectancy in the society. Many indicators were already discovered by the medical, but more studies are required so that it is possible to know, for sure, how can the medical area contribute and provide, in fact, not only a longer life, but also, a healthy life.

The present presentation is going to expose updates on the main aging process theories such as: the free radicals, triggering inflammatory signals, and telomere attrition. Also, new upcoming epigenetic influences by environmental parameters such as caloric restriction and hormonal balance create possibilities for a longer lifespan in humans. One of the newest controls is the CETP inhibitors, molecules which represent biomarkers as beneficial, so to improve the concentration of HDL, reducing the risk of cardiovascular events.

Throughout the new studies done, it is possible to identify that exposoma, epigenetic and genetic modulation will be the key for people to live over the age of 100 years without the impact of the “silver tsunami”, preserving health related aspects, the cognition, the socio-professional life and a positive aging appearance.

One of the patients, a 55 – year old female breast cancer survivor under Tamoxifen developed clinical signs of Lichen Sclerosis with relevant symptoms as genitoanal pruritus, dyspareunia, vulvovaginal atrophy, unwanted sweating, and sensitive skin in the radiated skin. Diminished volume and aged look of genitalia were also of some concern. We put her on medication (Vaginatrin) against the unwanted sweating, treated her vaginal canal with ablative lasers as well as introitus and vulva, addressed the chronic radiodermatitis of the decolletage with non-ablative lasers. Vaginal health and subject assessment of vaginal symptoms (VHI) improved as well as the DLQI. General hyperhidrosis decreased within one week. With lipofilling we reconstructed the outer labia. A total of 40cc of autologous fat mixed with PRP reestablished the missing fullness and tone immediately and the augmented volume was well maintained over weeks. Clinical signs of inflammation and the itch disappeared under 6 sessions with laser-assisted UV-phototherapy. Remission continued (12 month ongoing). The patient is currently under maintenance with CIS/Tacrolimus as a local therapy. Improvement in sexual gratification was reported. Focal hyperhidrosis in the armpit was addressed with 100 units of Botox. Vaginatrin was stopped.

„Too many cooks spoil the porridge“ is a saying for too many confronting opinions on a simple but delicate issue. In dermatology many procedures can be offered by one skilled expert as dermatologists are trained and experienced in both: surgery and pharmacology, and often provide the laser infrastructure and cosmetic devices to address medical, surgical and cosmetic relevant issues in a sophisticated holistic procedure.

During the last years. The Antera 3D demonstrated its relevance for cosmetic therapeutic modalities evaluation. We also provide recommendations for the analysis based on our findings.

VALUE OF TRINITY PROCEDURES IN DERMATOLOGY (COSMETIC, MEDICINE, SURGERY)
Dirk-Harald Gröne • Germany

A strong upward trend of intimate surgery has developed over recent years and continues. In most cases, not only aesthetic reasons trigger a visit to an intimate surgeon, but also the great suffering of the patients. Vulvovaginal atrophy is a common bothersome condition among peri- and post-menopausal woman. Symptoms as vaginal dryness, pruritus, skin irritation, loss of subcutaneous fat, sparse pubic hair and dyspareunia arise due to decreased estrogen level. Estrogens code for more physiological functions and a deterioration in the main-tenance of homeostatic processes over time, leading to losses in the body’s function and increasing the risk of diseases.

One of the patients, a 55 – year old female breast cancer survivor under Tamoxifen developed clinical signs of Lichen Sclerosis with relevant symptoms as genitoanal pruritus, dyspareunia, vulvovaginal atrophy, unwanted sweating, and sensitive skin in the radiated skin. Diminished volume and aged look of genitalia were also of some concern. We put her on medication (Vaginatrin) against the unwanted sweating, treated her vaginal canal with ablative lasers as well as introitus and vulva, addressed the chronic radiodermatitis of the decolletage with non-ablative lasers. Vaginal health and subject assessment of vaginal symptoms (VHI) improved as well as the DLQI. General hyperhidrosis decreased within one week. With lipofilling we reconstructed the outer labia. A total of 40cc of autologous fat mixed with PRP reestablished the missing fullness and tone immediately and the augmented volume was well maintained over weeks. Clinical signs of inflammation and the itch disappeared under 6 sessions with laser-assisted UV-phototherapy. Remission continued (12 month ongoing). The patient is currently under maintenance with CIS/Tacrolimus as a local therapy. Improvement in sexual gratification was reported. Focal hyperhidrosis in the armpit was addressed with 100 units of Botox. Vaginatrin was stopped.
CRYOLIPOLYSIS: DOES IT REALLY WORK?
Medhat Abdel Malek • Jordan

Cryolipolysis is a non-invasive body contouring method that significantly reduces subcutaneous fat through cold-induced inflammatory mechanism. This results in apoptosis-mediated cell death. In fact, this non-invasive fat-layer reduction technique is considered to be a safe procedure with a high patient satisfaction rate. Many successful cases have been reported by patients and physicians.

HOW TO OPTIMIZE FACIAL REJUVENATION
Ashraf Badawi • Canada

Facial rejuvenation is becoming a widely demanded service in the Cosmetic Dermatology and Aesthetic Surgery fields. Many techniques and procedures are being practiced to improve the skin condition and appearance.

To be able to design a good rejuvenation plan for our patients, it is mandatory to understand the pathophysiology of skin aging, determine the areas of damage in the skin and then discuss with the patient their goals and set the right expectations.

In most of the cases, the pathology is multilevel and affecting more than one layer of the skin and dealing with only one layer would not give the optimum outcome. Even in cases where the patient is presenting by a dermal problem, it would be helpful to improve the epidermal structure.

LASER-ASSISTED PERIORBITAL REJUVENATION
Ashraf Badawi • Canada

Periorbital area is one of the challenging cosmetic units for the laser surgeons. So far injectables are the most commonly used modalities for the periorbital rejuvenation. The growing incidence of complications of injectables in this area is a good reason for laser practitioners to seek a safer and longer-term solution.

Laser resurfacing has been tried in the old days to correct the periorbital wrinkles and lines. Although effective, the associated downtime has offended many people to go for that. Recently, a new laser modality if being offered for patient. This modality is associated with minimal downtime and very acceptable efficacy. A short oral presentation will explain this new laser modality and highlight some other issues in the periorbital lesions which can be corrected with lasers.

DURABILITY, BEHAVIOR, AND TOLERABILITY OF 5 HYALURONIDASE PRODUCTS
Presenter: Gabriela Casabona • Spain
Authors: Gabriela Casabona • Spain, P.B. Marchese • Brazil, J.R. Montes • Puerto Rico, C. Hornfeldt • USA

BACKGROUND
Hyaluronic acid (HA) dermal fillers are commonly used in cosmetic dermatology. Due to differences in their physical characteristics, HA fillers demonstrate different sensitivity to degradation by hyaluronidase (Hase) because of HA concentration and differences in cross-linking. Similarly, there are differences in the activity of Hase products depending on source and concentration.

OBJECTIVE
The primary objective was to demonstrate the differences in potency and activity of 5 Hase products when used to degrade 5 different HA products using a human in vivo model.

MATERIALS AND METHODS
The study subject was a healthy, consenting adult woman scheduled to undergo abdominoplasty. Skin to be excised was injected with 0.1 to 0.2 mL of each filler (10 injections each) leaving a visible lump. Immediately afterward, the HA lumps were injected with 4 IU of each Hase product every 2 minutes until the HA lumps were no longer visible or palpable. This procedure was repeated after 30 days. Injected tissues were excised after abdominoplasty for histological analysis.

RESULTS
The 5 Hase products displayed a wide range of doses and times required to completely degrade the 5 HA products ranging from <2 to >16 minutes.

CONCLUSION
Cosmetic practitioners should familiarize themselves...
INTRODUCTION

Acne scars are a common aesthetic disorder and many treatment options are considered effective but generally, recovery time for the most effective ones is longer than 7 to 10 days and several treatments are mandatory with a final high rate of patient drop out.

We describe our new treatment protocol based on two sequential treatments using fractional deep CO2 and superficial CO2 and non ablative 1565.

MATERIAL AND METHODS

We selected 25 subjects affected by acne scars ranging from moderate to severe.

Moderate subjects were treated with 2 sessions of combined treatment of fractional CO2 and non ablative 1565 spaced by 6 months. Severe acne scar patients were treated with 3 sessions, every 6 months. Treatments were based on application of a topical anaesthetic for 1 hour prior to the treatment. Than small spot size of deep CO2 (10mm-15% coverage) was applied in the deepest part of each scars (bottom of the scars). Then a second pass of small spot of superficial CO2 (120mm – 60% coverage) was applied on scars border to reduce the shoulders of each scar. Finally all the face was treated with non ablative fractional CO2 with the lower down time offered by non ablative 1565.

FRACTIONAL PICOSECOND LASERS: IS THIS THE NEXT CRAZE FOR PICOSECOND LASERS?

Michael Gold • USA

Picosecond lasers have become more and more popular as more of these devices are being developed and used by aesthetic clinicians. Originally designed for tattoos, then pigment concerns, we have now begun to use them for rejuvenation and for the treatment of scars with fractional or microarray hand pieces.

Several clinical trials have recently been completed which showed the success of these devices in rejuvenation and in treating scars. These pivotal clinical trials will be reviewed and how they can fit into one’s cosmetic practice. Fractional picosecond lasers are making a difference – faster treatments with meaningful results – this will be reviewed in this presentation.

PPP (PORES, PUSTULES, PIGMENTS)

Laser Peels

Dirk-Harald Gröne • Germany

PPP Laser Clinic is a skin laser and skincare chain founded in Singapore in 2011 by Doctor Goh Seng Heng, a leading expert in aesthetics.

Dr Goh was one of the pioneers who used medical application in the aesthetic field by having light and laser protocols optimized for skin issues with dilated pores (angiaging), papules and pustules (acne) and pigment (in ethnic skin types) or people with melasma employed by a team of excellent doctors being trained and supervised by opinion leaders in that field.

The key of success was achieved through some key elements (as stated on the homepage): Visible result with more clarity, radiance and glow. Smoothness within 24 h following the first laser peel. Quick and convenient non-surgical treatment done within 5 min without downtime. Strict safety protocols. Advanced technologies. Nation-wide location. Adjuvant treatments are a mainstay in many dermatologic clinics and can be delegated to bystanders who work under the supervision of the doctor.

In this lecture, I share my opinion on delegated procedures and share my experience on the most successful lasers protocols for the most frequent dermatologic indications and for anti-aging in various age groups.

COMBINATION THERAPIES FOR THE TREATMENT OF ACNE SCARS

Maria Khattar • Dubai

Past acne scarring, a relatively common sequela of acne, may be a psychologically devastating condition and have a significant effect on the individuals quality of life. The inflammatory process associated with acne is primarily responsible for the permanent skin textural changes and fibrosis that is seen in acne scarring.

Atrophic acne scars, which include icepick, boxcar and rolling scars, are amongst the most challenging skin conditions to treat. Nonetheless, currently there are several evidence-based treatment options that can improve depressed scars. The most widely used treatment modalities include the nonablative and ablative fractional resurfacing systems including lasers and radiofrequency devices. However, it is a well-established fact that even with the Energy Based Devices, improvement of atrophic acne scars is generally rather limited.

Hence we used a combination protocol, which included one session in which simultaneous fractional nonablative and ablative unipolar radiofrequency was performed and a separate session whereby a mesh of fine Polydioxonone threads was introduced in the scarring areas.

The unipolar radiofrequency system (iPixel RF, Alma Lasers, USA) is a tunable device, which can be used in both fractional non-ablative and ablative mode. The Unipolar RF energy is delivered through an electrode composed of multiple closely spaced metal spicules on a special roller handheld. Tight contact between the skin and handheld piece allows the energy to be delivered into the deep dermis, creating columns of coagulation. However, when the handheld is allowed to glide gently on the surface of the skin, leaving a thin air gap, highly charged gas is formed known as plasma which creates microsparks and ablates the skin, thus creating micro-channels. The resulting powerful initiation of the wound healing reaction is what results in neo-collagenesis and improvement in atrophic scarring.

Introduction of Polydioxonone threads in the scarring areas subsequently elicits a foreign body reaction and further neo-collagenesis to potentiate the effect of the resurfacing treatment.

The combination of fractional unipolar nonablative and ablative resurfacing as well as Polydioxonone thread treatments, have a synergistic effect on the improvement of atrophic acne scars.

DUAL BOOST DOUBLE WAVELENGTH NEW LASER TECHNOLOGY FOR SPIDER VEINS TREATMENT: PRELIMINARY REPORT

Luigi Mazzi • Italy

INTRODUCTION

Studies report final results on leg veins treatments after one year follow up using a new laser technology that combines two wavelengths in a double boost pulse.

MATERIALS AND METHODS

Laser in use is a diode laser (Spectrum from Eufoton Medica Lasers s.r.l.) that can combine inside two different wavelengths: 532nm + 808nm or 532nm + 940nm, both with the dual boost technology. Dual boost technology allows delivering simultaneously the energy of both wavelengths in one pulse. The pulse starts at the same time for both but power, fluence and duration time are different. Target is so “bombed” twice at the same time. At the beginning pulse is a combination of 532nm and 940nm (or 808nm) but usually, because the 940nm pulse duration time is longer, it finishes with this pulse only. With the dual boost pulse we firstly convert the haemoglobin into methaemoglobin using visible green 532nm wavelengths changing the haemoglobin peaks of absorption to a higher one. Energy of 532nm laser is up to 5 Watts, 808nm is up to 30 Watts so as the 940nm. A skin chiller system is integrated in the machine and three different spot sizes are available: 0.5mm, 1.0mm, 1.5mm.

In our study 26 female patients (age between 37 and 54 y.o.) have been treated with Spectrum 532nm+808nm (G SPEC-A) and 29 female patients (age between 39 and 52 y.o.) with Spectrum 532nm + 940nm (G SPEC-B). Both groups have been treated using 1.0 mm or 1.5 mm headpieces according to the diameter of vessels.

Energy settings headpiece 1.0mm
532nm: 2.5w • pulsed mode • on time 35nsec • 11/cm²/pulse
808nm: 25w • pulsed mode • on time 70-100 nsec • 223-318/cm²/pulse
940nm: 25w • pulsed mode • on time 80-100 nsec • 223-318/cm²/pulse

Dual Boost setting
Dealy 0 msec • Pause DB 300 msec • off time 100 msec • DB pulse 1

Energy settings handpiece 1.0mm
532nm: 2.5w • pulsed mode • on time 30 nsec • 9.6j/cm²/pulse
808nm: 25w • pulsed mode • on time 80 nsec • 255j/cm²/pulse
940nm: 25w • pulsed mode • on time 80 nsec • 255j/cm²/pulse

Dual Boost setting
Dealy 0 msec • Pause DB 300 msec • off time 50-100 msec • DB pulse 2

Energy settings handpiece 1.5mm
532nm: 2w • pulsed mode • on time 50 nsec • 3.4j/cm²/pulse
808nm: 25w • pulsed mode • on time 70-100 nsec • 100-143/cm²/pulse
940nm: 25w • pulsed mode • on time 70 nsec • 100-143/cm²/pulse

Dual Boost setting
Dealy 0 msec • Pause DB 100 msec • off time 100 msec • DB pulse 1

Energy settings handpiece 1.5mm
532nm: 2w • pulsed mode • on time 30 nsec • 3.4j/cm²/pulse
808nm: 25w • pulsed mode • on time 70-100 nsec • 99/cm²/pulse
940nm: 25w • pulsed mode • on time 70 nsec • 99/cm²/pulse

Dual Boost setting
Dealy 0 msec • Pause DB 300 msec • off time 100 msec • DB pulse 2

RESULTS

Ratios:

- Patients and vascular target: to set properly laser parameters.
- New wavelengths in Picosecond lasers for tattoo removal.
- Picosecond technology has been demonstrated to be more effective in the treatment of tattoo removal than the nanosecond technology, decreasing the thermal effect and increasing the photoacoustic. Although the pulse duration has been significantly reduced compared to nanosecond technology, different wavelengths are still needed to treat different color inks of the tattoos.
- A picosecond laser with three different wavelengths has been used for 3 years to remove black and multi-colored tattoos (Picoway, Candela).
- Nm-YAG 1064nm is effective for black and brown inks, KTP 532nm is effective for red, orange and yellow. A new wavelength Ti:Sapphire 785nm has been proved to be more effective than traditional 755nm for treating green, blue and purple inks. The picosecond pulse durations (300ps, 375ps and 450ps) protect better the skin reducing the risk of side effects after tattoo removal treatments as well as the pain during the treatments.
- Several treatments are needed to achieve the desired clearance of the tattoo, interval between treatments vary from 8 to 12 weeks.
- This system allows to treat safely all colors of tattoos with a high efficacy, the skin remains intact after the treatment and the side effects are significantly reduced.

CONCLUSION

New Wavelengths in Picosecond Lasers for Tattoo Removal
Adriana Bibe • Spain

Picosecond technology has been demonstrated to be more effective in the treatment of tattoo removal than the nanosecond technology, decreasing the thermal effect and increasing the photoacoustic. Although the pulse duration has been significantly reduced compared to nanosecond technology, different wavelengths are still needed to treat different color inks of the tattoos.

A picosecond laser with three different wavelengths has been used for 3 years to remove black and multi-colored tattoos (Picoway, Candela).

Laser-YAG 1064nm is effective for black and brown inks, KTP 532nm is effective for red, orange and yellow. A new wavelength Ti:Sapphire 785nm has been proved to be more effective than traditional 755nm for treating green, blue and purple inks. The picosecond pulse durations (300ps, 375ps and 450ps) protect better the skin reducing the risk of side effects after tattoo removal treatments as well as the pain during the treatments.

Several treatments are needed to achieve the desired clearance of the tattoo, interval between treatments vary from 8 to 12 weeks.

This system allows to treat safely all colors of tattoos with a high efficacy, the skin remains intact after the treatment and the side effects are significantly reduced.

Conclusion

New Wavelengths in Picosecond Lasers for Tattoo Removal
Adriana Bibe • Spain

Picosecond technology has been demonstrated to be more effective in the treatment of tattoo removal than the nanosecond technology, decreasing the thermal effect and increasing the photoacoustic. Although the pulse duration has been significantly reduced compared to nanosecond technology, different wavelengths are still needed to treat different color inks of the tattoos.

A picosecond laser with three different wavelengths has been used for 3 years to remove black and multi-colored tattoos (Picoway, Candela).

Laser-YAG 1064nm is effective for black and brown inks, KTP 532nm is effective for red, orange and yellow. A new wavelength Ti:Sapphire 785nm has been proved to be more effective than traditional 755nm for treating green, blue and purple inks. The picosecond pulse durations (300ps, 375ps and 450ps) protect better the skin reducing the risk of side effects after tattoo removal treatments as well as the pain during the treatments.

Several treatments are needed to achieve the desired clearance of the tattoo, interval between treatments vary from 8 to 12 weeks.

This system allows to treat safely all colors of tattoos with a high efficacy, the skin remains intact after the treatment and the side effects are significantly reduced.
Hindoplasty is a common aesthetic surgical procedure done in India today. The Indian nose presents a wide spectrum, varying from the oriental-like nose (needing augmentation), to the more common thick skinned, bulbous tipped nose with a broad osteocartilaginous framework. The techniques of rhinoplasty in the bulbous thick skinned Indian nose include radical tip debulking, osteotomies, alar wedge resection, and augmentation by a suitable fill, preferably a cartilage graft.

**METHODS**

We present data from 128 aesthetic rhinoplasties (2010–18). Open tip rhinoplasty via transcollumellar inverted V skin incision with intercartilaginous extension is preferred by us, raising the columnar and nasal tip skin in a subdermal plane which transitions to subnasal plane in the supratip area. The fibrofatty layer over the alar cartilages is then raised as a flap and excised to debulk the tip. We prefer turndown flap of the alar cartilages to add strength of the ear lobe is an anatomical structure of small dimensions without specific function, but with significant aesthetic role. It is the most defining part of the structure of an ear. Age however alters the shape, width and length of the lobe due to sagging, can lead to ear lobe ptosis, deflation, vertical rhytides and earlobe tears. Thus in comparison to other aesthetic elements of the ear, it demands correction.

Piercing of ear lobes has been performed in both sexes for thousands of years for social, religious and cosmetic purposes. Prolonged traction due to heavy earrings, traumatic clefts, age related sagging, and many such reasons warrant ear lobe repair.

Different techniques described in the literature for earlobe repair usually require re-piercing of the ear after some time at a different site avoiding the scar tissue. This involves surgical correction and a long downtime where the patient cannot wear any earrings.

**PROCEDURE**

Hyaluronic Acid dermal fillers can be used to inject into the earlobe defects for a quick correction. With help of a 27–30g needle, under the effect of a local anesthetic, in combination with epinephrine. This technique dramatically reduces both the bleeding during surgery and the post-operative bruising and swelling.

With good techniques, proper back up facilities, proper candidate selection, megaliposuctions are safe and of comparable results to an invasive corrective surgery, this surgery is considered a significant improvement in liposuction supplemented by local anesthetic only in selected areas.

Safety and aesthetic issues define large-volume liposuction as having a 5,000-ml aspirate, mega-volume liposuction as having an 8,000-ml aspirate, and giant-volume liposuction as having an aspirate of 12,000 ml or more. Clinically, a total volume comprising 5,000 ml of fat and wetting solution aspirated during the procedure qualifies for megaliposuction/large-volume liposuction.

The best candidates for liposuction are of relatively normal weight with firm elastic skin but have pockets of excess fat in certain areas. The candidate should be physically healthy, psychologically stable and realistic in expectations.

There are different techniques of liposuction such as dry, wet, super wet and tumescent techniques. Tumescent technique is considered a significant improvement in liposuction surgery. It uses large volumes of a dilute solution of lidocaine, a local anesthetic, in combination with epinephrine. This technique dramatically reduces both the bleeding during surgery and the post-operative bruising and swelling.

With good techniques, proper back up facilities, proper candidate selection, megaliposuctions are safe and of very gratifying results.
Telomeres and DNA Peptide Objective Results on Biologic Age
Ghislaine Beilin • France

Recently, development and research of nutraceuticals based on marine collagen peptides (MCPs) have been growing due to their high homology with human collagens, safety bioavailability through gut, and numerous bio-activities.

We will present the latest medical studies on marine collagen peptides:

- An increase of skin collagen of 20%, as well as sebum production, ATP storage in erythrocytes and blood level of hydroxyproline
- Is showing an important in healing process, with increases of fibroblast number and migration in post-op
- On the metabolic side, reduction of 30% for insulin resistance
- The safety of and purity of the prudent have been measured, as well as immunostimulation and resistance to induced hepatocarcinoma on mouse, as well as pancreatic cancer cells in vitro
- The preliminary last study result on index telomeric show a dramatic increase of the telomeric index and a reduction of the biological age in 30 days treatment. This is correlated to the clinical result obtained on aging people, on their energy mood, quality of sleeping, reduction of joint pain, libido, skin quality.

Celergen is not classified in doping product, it can be used on sport men to increase their performance, and provide a best recovery post competition, and on injury. Celergen is FDA au CE approval.

Digitalization and Personalization in Disease- and Health-Management: What’s Possible? What’s Meaningful?
Alfred Lohninger • Austria

The current situation highlights a healthy lifestyle as top priority for a majority of today’s western society. Key trends like digitalization, personalization, mobility, smartphone penetration and big data all support one goal: Personal digital health management.

Thus, expanding traditional disease management with effective health improvement concepts is going to be a big future goal. We will have to know what health itself is, how to measure health indicators and how to improve health individually and safely. The usual counting of steps and other quantifying parameters will not be enough. In addition to quantities it will be necessary to diagnose the qualities of lifestyles objectively and comprehensively on an individual basis. We will need standards for reliable body data interpretation by medical professionals and standards for data exchange and transmission.

Measuring Heart Rate Variability (HRV) – based on the principle of the variability of the heartbeat sequence as an unmistakable indicator of the actual condition of a person – already exists in a prenatal way and remains for each human until death.

So, what could be more appropriate than to use this gift of nature not only before one’s own birth, measured with a cardiotocogram, but also for the whole life to determine reliably whereby one gains or loses vitality.

Such trustworthy/scientifically proven “bio-psycho-social-emotional feedback” could serve as a compass to guide the direction of life in harmony with one’s immediate needs at any time.

Research on HRV is increasingly fascinating scientists and users around the world. And the more insights are gained through the use of the method, the more it becomes evident that harnessing this simple principle will be the key technology enabling people to make profoundly autonomous decisions about their lives and helping doctors in all screening-, monitoring-, and evaluation-processes.

In future and even now, simple, day-to-day and unrestricted useable sensors coupled with highly complex algorithms based on physiological and pathophysiological laws and a huge database can provide immediate information upon health and performance as well as those processes regarding disease and healing.

Chronobiology, NAFLD, Metabolic Syndrome: Update 2018
Presenter: Thomas M. Platzer • Germany
Authors: Thomas M. Platzer • Germany
Marina di Massa • Italy

Last year’s Nobel prize for medicine awarded three pioneer researchers in the field of chronobiology. Continuous industrialization with high demands on flexibility in many work fields, shiftwork in various sectors, air travel, smartphones and tablets, as well as light-pollution in ever growing cities around the globe contribute to a new disease: chronodysruption. The phenomenon has been studied well so far, but generally speaking it still seems to be unknown but to God. Yet we get further scientific evidence almost daily how harmful chronodysruption is.

Undoubtedly, the metabolic syndrome has many triggering factors and reasons. They all have their fountain in daily lived lifestyle. Exemptions exist. Disregard of chronobiology is yet another very pounding factor to it. Chronobiological pathways must be understood by all MDs worldwide to make them fit enough for their future walk along their hypocritic oaths.

Chronodysruption has a lot of piercing influences on all endocrinological functioning all day, every month, always. The lecture will highlight the most vulnerable ones of them.

NAFLD is also stringent connected to chronodysruption. As a disease for itself, it is part of the metabolic syndrome. The GSAAM has some leading researchers on this field in its rows. Get acquainted with the excerpts of what we know, tell and teach in 2018 in this one lecture about the issue of chronodysruption at 5CC in Barcelo-