EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 147

KECORT study: an international e-Delphi study on the treatment of KEloids using intralesional CORTicosteroids in clinical practice

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Introduction & Objectives:

Keloid management, specifically intralesional corticosteroid administration (ICA) as a first-line treatment, faces significant variability in global clinical practice. This hinders comparability of treatment results, underscoring the need for universal treatment guidelines to standardize ICA and enhance consistency for clinical practice.

Objective: To reach consensus on the different aspects of ICA using hypodermic needles in keloids among an international group of dermatologists and plastic surgeons specialized in keloid treatment.

Materials & Methods:

The keloid expert panel of twelve dermatologists and eleven plastic surgeons rated 35 statements. Two e-Delphi rounds were held, both with a response rate of 100%. Fifteen (65%) keloid experts participated in the final consensus meetings. Consensus was defined as ≥75% of the participants choosing 'agree' or 'strongly agree' on a seven-point Likert scale.

Results:

Consensus was reached on 25 statements concerning treatment goals, indication for ICA, triamcinolone acetonide (TAC) 40 mg/mL as the preferred corticosteroid, at a maximum of 80 mg per month to avoid systemic adverse effects, and at suggested intervals of four weeks. Consensus was also reached on minimizing pain during ICA, the general use of 1 mL syringes and 25 or 27 Gauge needles, blanching as endpoint of successful infiltration, caution of not injecting subcutaneously, and the option of creating multiple passes in very firm keloids prior to infiltration allowing better deposition of the corticosteroid within the needle tracts. Consensus could not be reached on TAC dosing per specific area or volume of keloid, adequate methods of prior local anesthesia, and location of injection in the keloid.

Conclusion:

This e-Delphi study provides important clinical recommendations on essential aspects of ICA in keloids. By implementing these recommendations, uniformity of ICA in keloid treatment will increase and treatment results will become more comparable. Additionally, better treatment results may be achieved.

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Abstract N°: 167

Evaluation of the efficacy of Mesenchymal Stem Cells derived Conditioned Medium in the treatment of Striae Distensae: A double blind randomized clinical trial

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Introduction & Objectives: Striae distensae is a disfiguring atrophic skin condition that impairs the body's aesthetic image. Despite the variety of conducted studies, there is controversy regarding the best modalities. Human mesenchymal stem cells are considered a rich source for scar treatment. Skin needling is among the most efficient and safe aesthetic and therapeutic devices. This study aimed to evaluate the efficacy of the combination of needling and intradermal injection of mesenchymal stem cells compared to skin needling alone for treating striae distensae.

Materials & Methods: This study was a randomized, double-blind clinical trial involving 10 women aged 18 to 60. Each striae lesion was divided into two parts, with one side receiving needling and intradermal injection of conditioned medium, while the other side received needling and intradermal injection of normal saline. This treatment was administered in three sessions with three-week intervals. Patients were evaluated before the first intervention and three months after the final session. Three months after the completion of the intervention, patients' lesions were evaluated using biometric criteria, physician evaluation, and patient self-assessment.

Results: The results demonstrated a significant improvement in dermal and complete thickness and skin density in patients treated with microneedling. All skin ultrasound parameters improved significantly in patients receiving the combination. When comparing the two groups, significantly higher physician and patient satisfaction was observed in the combination group. However, the comparison of biometric indices improvement wasn't significant between these groups.

Conclusion: The combination of human mesenchymal stem cells with microneedling could be considered a novel effective option for stretch marks.

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Abstract N°: 195

Assessing Thermal Safety of a Novel High-Intensity, Non-Focused Ultrasound Device for Non-Invasive Body Contouring: A Preclinical Study

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Introduction & Objectives:

Non-invasive body contouring is an increasingly popular alternative to surgical procedures. This study assesses the thermal safety of a novel non-invasive, high-intensity, non-focused ultrasound device designed for reducing waist circumference, through thermal safety analysis and histopathology in a swine model.

Materials & Methods:

The study employed three types of applicators (active, demo, and modified) on five female Large White X Landrase swine. Observations included clinical assessments, skin reaction evaluations, gross pathology, histopathological analyses, and advanced temperature measurement techniques (needle thermocouples, thermal cameras, COMSOL modelling, CEM43 analysis).

Results:

Clinical observations confirmed the animals' well-being throughout the study. Skin reactions were temporary, resolving over time. Histopathological analyses at 30 and 90 days post-treatment showed no heat-related lesions in skin layers. Advanced temperature measurement techniques validated the device's ability to maintain consistent thermal homogeneity.

Conclusion:

Under the experimental conditions in a pig model, a favourable safety profile was demonstrated, with no adverse clinical or histopathological effects observed. The device's capability for thermal homogeneity in skin layers, supported by advanced measurement techniques and COMSOL modelling, suggests its safety for non-invasive body contouring.

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Abstract N°: 240

Dynamic Changes in Some Facial Muscles After Superficial Versus Deep Hyaluronic Acid Injection: An Electromyographic Study

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Introduction & Objectives:

Fillers are now used beyond managing static rhytides and volume restoration; they can also be used to alter the balance and contractility of mimetic facial muscles. Myomodulation stems from magnetic resonance imaging in young patients in which deep fat compartments of the face induces convexity of the overlying levator muscles that becomes more rectilinear with aging, along with increase in its resting tone and loss of structural bony support, all of which affects the muscle function. Fillers injected beneath the muscle can restore this configuration and hence muscle function, however, superficial fillers placement could limit muscle contraction. Filler induced myomodualtion is still a grey zone with a lot of missing answers. The aim was to evaluate, using quantitative surface electromyogram, the changes in facial muscle contractility after superficial versus deep filler injections.

Materials & Methods:

Thirty healthy females were subjected to injection of cross-linked hyaluronic acid fillers on both sides of the face in 3 different regions: temples, malar region, and chin. Each female received 0.3 ml of 25mg/ml hyaluronic acid fillers in each region superficial to the muscle (subcutaneous) on left side using a cannula and deep to the muscle (supraperiosteal) on right side using a needle. Each female underwent baseline quantitative surface electromyography before injection, then one week later assessing activity (ms/s), turns/second, and amplitude/turn (mV).

Results:

Fillers injection in temples and malar area was associated with significant increase in temporalis and zygomaticus major muscles force of contraction respectively after supraperiosteal injection and insignificant increase after subcutaneous injection. On the other hand, injecting the chin was associated with significant decrease in mentalis muscle force of contraction after subcutaneous and supraperiosteal injection. Temporalis muscle force of contraction (represented by amplitude/turn) increased by 48.11% on right side compared to 7.24 % on left side, while that of zygomaticus major muscle increased by 57.91% on right side and 40.08 % on left side, but mentalis muscle force of contraction decreased by 23.30 % on right side and 13.75% on left side.

Conclusion:

HA filler injection induces myomodulation in the corresponding muscle of area injected being facilitatory in temporalis and zygomaticus major muscles but inhibitory in mentalis muscle.

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Abstract N°: 276

Non-invasive Body Contouring Technologies: An Updated Narrative Review

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Introduction & Objectives:

Nowadays, a lot of body contouring devices and methods are introduced all over the world. The object of the present narrative review was to update and classify existing evidence on these methods and devices.

Materials & Methods:

We searched databases including PubMed, Cochrane, and Google Scholar for 11 essential keywords, including cryolipolysis, high-intensity focused ultrasound (HIFU), shock wave, low-level laser therapy (LLLT), radiofrequency (RF), capacitive resistive electrical transfer (TECAR), high-intensity focused electromagnetic (HIFEM), electromyostimulation (EMS), carboxytherapy, mesotherapy, and acupuncture and their abbreviations, in addition to obesity, overweight, cellulite, subcutaneous fat, and body contouring.

Results:

Totally 193 references were used in 11 main topics

Cryolipolysis, FDA-approved, utilizes controlled cooling to target fat cells, boasting high satisfaction with minimal side effects. HIFU and shock wave therapy, on the other hand, employ ultrasound frequencies and radial waves, respectively, to enhance skin elasticity and reduce cellulite, showing effectiveness with few adverse reactions. LLLT, while debated, and RF therapy heat tissues to stimulate fat metabolism, with RF also exploring combination therapies for enhanced outcomes. TECAR therapy, using both capacitive and resistive energy, aids in musculoskeletal rehabilitation and body contouring, requiring further research for safety and efficacy confirmation. HIFEM technology strengthens muscles and reduces fat through supramaximal contractions, emerging as a promising option for non-invasive body shaping. EMS, although not FDA-approved for weight loss, shows potential in muscle strengthening. Carboxytherapy injects CO2 to improve blood perfusion and oxygenation, demonstrating effectiveness in cosmetic enhancement despite lacking FDA or CE approval for specific applications. Mesotherapy injects active substances to induce lipolysis, with evidence supporting the efficacy of certain agents like DCA, though more research is needed to standardize treatment protocols. Acupuncture, incorporating both traditional and modern approaches, shows promise in weight management, necessitating further studies to establish its full potential and safety. Collectively, these modalities offer a spectrum of options for individuals seeking non-surgical solutions for body contouring and fat reduction, highlighting the importance of ongoing research to optimize treatment outcomes.

Conclusion:

In order to help physicians with finding the best evidence in different methods, the data were summarized in 11 topics. Furthermore, FDA-approved devices, side effects and common protocols were described in each section.

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Abstract N°: 336

Unveiling the Serendipitous: Undereye Filler Resolves Persistent Para Nasal Inflammation

Dr Kalyani Deshmukh*[1]

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Introduction & Objectives:

Tired eyes or prominent tear troughs are the most common concern for patients seeking aesthetic treatments in dermatology clinics. Characterized by a sunken appearance that casts a dark shadow over the lower eyelid, tear trough deformity can persist despite efforts at cosmetic concealment, leading to a perpetually fatigued look despite adequate rest. This condition arises from natural anatomical attachments of peri-orbital tissues or as a consequence of aging. While hyaluronic acid fillers have demonstrated efficacy in correcting peri-orbital volume loss, their role in addressing persistent unilateral para-nasal inflammation remains unexplored in existing literature and we hereby present one.

Materials & Methods:

Herein, we present the intriguing case of a 32-year-old woman exhibiting grade 2 asymmetrical tear trough deformity, with a peculiar twist—a non-progressive swelling on the left side persisting for a year, resulting in a prominent tear trough on the right side. Upon palpation, the swelling, measuring approximately 10 mm in its greatest axis, manifested as firm and located laterally to the nasal root on the left dorsal wall.

Due to the delicate skin around the eye, the dynamic nature of the resident musculature, and minimal subcutaneous fat, any topological irregularities are readily apparent.

Given the enigmatic nature of the lesion's characteristics and clinical history, diagnostic hypotheses ranged from exostosis, cartilage inflammation to frictional swelling. Hence a CT scan was advised prior to injectable filler treatment.

Surprisingly, the CT scan revealed benign soft tissue thickening without signs of bone invasion or inflammation. Following approval from the radiologist and ENT surgeon, the patient was injected a dermal filler injection to harmonize both tear troughs. Administered with 1 ml 15mg/mL cross-linked hyaluronic acid filler, the treatment allocated 0.7 ml to the right side and 0.3 ml to the left, effectively concealing the swelling.

Results:

Initial assessment post-procedure and at the 15-day mark revealed significant improvement in peri-orbital hollowness, restoring symmetry to both sides. However, after 4 weeks, an unexpected outcome emerged: the soft tissue mass on the left side experienced resorption, leading to renewed asymmetry and increased hollowness

Conclusion:

This phenomenon prompted speculation about the filler's unforeseen impact on the persistent swelling, suggesting that the hyaluronic acid's lubricating properties might have mitigated friction within the thickened soft tissue, inadvertently contributing to its reduction.

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Abstract N°: 440

A comparative study of efficacy and safety of injectable platelet rich fibrin versus PDO (polydiaxonone) threads in the treatment of atrophic acne scars.

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Introduction:

Platelet rich fibrin (PRF), the second-generation platelet concentrate, has a better release of growth factors.

Thread lifting is a very simple, minimally invasive facial lifting surgery which stimulates the collagen synthesis.

Objectives:

To assess and compare the efficacy and safety of injectable platelet rich fibrin and PDO (polydiaxonone) threads** in the treatment of acne scars.

Materials & Methods:

A prospective, interventional, comparative study was conducted on the patients with atrophic acne scars.

Institutional ethical committee approval was obtained.

Sample size was calculated as 20. Group A and Group B were formed, each consisting of 10 patients.

Procedure

Group A patients were treated with three sessions of subcision followed by intradermal platelet rich fibrin, each session at the interval of one month. PRF was produced by low speed one step centrifugation method. Spin was done at 60 G (700 rpm) for 3 mins.

Group B patients were subjected to single session of subcision followed by insertion of PDO (polydiaxonone) threads into the subcutaneous tissue concentrating over the areas of acne scars.

Follow up assessment was done three months after the last session in both group of patients.

Assessment

High resolution digital clinical photographs were taken before and after every session.

Response to the procedure was assessed using Goodman & Baron's quantitative global acne scarring grading system. Blinded assessment of the outcomes of the procedures was performed by the physician.

Results:

Out of 20 patients, 13 (65%) were females and seven (35%) were males. All patients were between 18 to 45 years. The mean duration of acne scars was 4.56 ± 1.70 years.

Goodman & Baron's quantitative global acne scarring grading system showed 42.24 ± 6.14 percentage of improvement in the Group A. Whereas Group B patients showed mean percentage of improvement of 60.14 ± 9.72.

Out of 20 patients, at the time of enrolment, 35 % (n=7) of patients had Grade A (mild) scarring, 45 % (n=9) had Grade B (moderate) scarring while 20 % (n=4) had Grade C (severe) scarring. After treatment, 75% (n=15) of patients were in Grade A while 15% (n=3) of patients were in Grade B ($p<0.001$; significant).

After treatment, single blinded physician assessment was graded as poor (<25%), good (25-50%), very good (50-75%) and excellent (>75%) response depending on the percentage of improvement. Seven patients (35%) showed excellent response to treatment. (Group A- 3 patients, Group B- 4 patients)

Results were maintained in all patients during follow up period.

Conclusion:

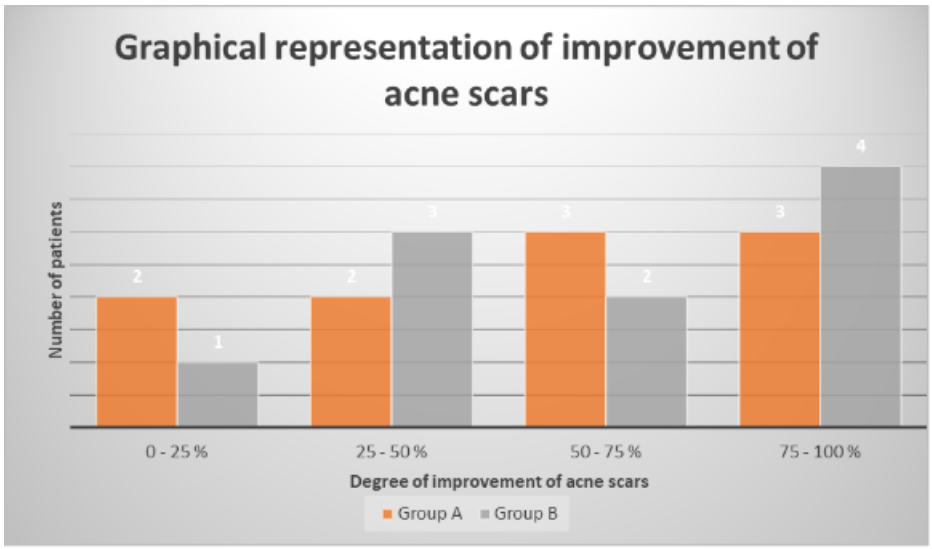
Both the treatment modalities i.e.,** injectable platelet rich fibrin and PDO (polydiaxonone) threads were effective and safe for the treatment of acne scars and results in each group was significant ($p<0.001$). But there were no statistically significant differences between the two treatment groups ($p=0.21$).

Table 1: Demographic data- age of patient and duration of scar

Demographic data	**Group A (n=10)**	**Group B (n=10)**
Patient age (in years)	Range	20 - 45
	Mean ± SD	32.18 ± 9.24
Duration of scars (years)	Range	4 - 6

Table 2: Quantitative acne scars assessment score before and after treatment in both study groups

		Range	**Mean ± SD**	**Mean % of improvement**
Group A (n=10)	**Before treatment**	6 - 20	11.84 ± 5.25	42.24 ± 6.14
	After treatment	5 - 15	6.24 ± 4.56	
Group B (n=10)	**Before treatment**	8 - 21	14.86 ± 4.12	60.14 ± 9.72
	After treatment	6 - 13	6.72 ± 3.54	



Graph 1: Graphical representation of improvement of acne scars assessed by single blinded physician

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Abstract N°: 490

Nanofat versus platelet-rich plasma in treating atrophic acne scars: The best wingman for fractional CO2 laser

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Nanofat versus platelet-rich plasma in treating atrophic acne scars: The best wingman for fractional CO2 laser

Introduction & Objectives: Atrophic acne scarring is a common problem. If left untreated, its implications can impair the quality of life. Various treatments, with differing degrees of success, are used to alleviate atrophic scars. We tried to assess the efficacy of nanofat versus platelet-rich plasma (PRP) as an adjuvant therapy to fractional CO2 laser (FCL) for atrophic acne scars.

Materials & Methods: This study included 35 patients with atrophic acne scars who received 3 sessions of FCL at 1-month intervals on both sides of the face, followed by intradermal PRP injection on the left side. A single session of nanofat was injected into the right side of the face 2 weeks before the laser sessions. The evaluation was conducted 3 months after the final treatment session subjectively through the Goodman and Baron quantitative scar grading system, and objectively through the Antera camera 3D imaging.

Results: After treatment, the right side of the face showed a significant reduction in Goodman scores and the indentation index of the Antera camera. The left side showed a significant difference in Goodman scores, yet the Antera camera showed a nonsignificant improvement. Nonetheless, the difference between the 2 sides was statistically insignificant.

Conclusion: Atrophic acne scars improved with both modalities. As a result, cotreatment with these techniques may synergistically affect atrophic acne scars in efficacy and safety.

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Abstract N°: 566

Hair regrowth enhancer or hair shedding? A comparative study for the treatment of female androgenic alopecia using Fractional Carbon dioxide versus Fractional Microneedling Radiofrequency.

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Introduction & Objectives: : Androgenic alopecia (AGA) is a cosmetically disfiguring and depressing condition, accounting for the vast majority of cases of diffuse hair loss among females. Combining Fractional CO2 (FCO2) or Fractional microneedling Radiofrequency (RF) to topical minoxidil could achieve a better clinical outcome.

This study aimed** to compare efficacy and safety of FCO2 and RF, combined with minoxidil, for the treatment of female AGA.

Materials & Methods:

Thirty patients with female AGA were randomly divided into 2 groups where group A were subjected to FCO2 to one randomly selected side of the scalp and group B were subjected to RF to one randomly selected side of the scalp, each side followed by topical minoxidil post-session. Four monthly sessions were done to each patient and all patients were treated with daily topical minoxidil to the whole scalp. Outcome assessment was done using trichoscopy, blinded clinical evaluation and patient satisfaction.

Results:

Significant increase of trichoscopic data was found after treatment with each modality whether minoxidil alone, minoxidil combined with FCO2 or minoxidil combined with RF. Comparison of different modalities revealed a significantly greater increase in trichoscopic data following the treatment with minoxidil combined with RF compared to either minoxidil combined with FCO2 or minoxidil alone. Hair shedding was encountered during sessions of FCO2.

Conclusion: It can be proposed that** combining RF to minoxidil for the treatment of female AGA, could be associated with higher efficacy and tolerability, compared to minoxidil treatment or minoxidil combined with FCO2.

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Abstract N°: 827

comparision of efficacy and safety of erbium yag 2940 nm laser and fractional co2 laser in atrophic acne scar : a pilot study

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Introduction & Objectives:

Facial acne scar is a common complication of acne vulgaris.Both fractional CO2 laser and erbium YAG laser have been found to be effective.We have undertaken this study as there are limited comparative studies of both the lasers.

Objective :

To compare the efficacy and safety of 2940 erbium:Yag Laser and fractional CO2 laser for acne scar correction.

Materials & Methods:

Patients were randomly divided into two groups(11 each) receiving three sittings of the lasertherapy at 4 weeks interval.Inclusion criteria consisted of patients aged 18-40 years with skin type III, IVand V with moderate to severe grade scar.Exclusion criteria consisted of active inflammation or recent oral isotretinoin use. Assessment was done before each treatment and three months after the end of treatment.The response was evaluated using Goodman and Baron acne scar grading system,photographic assessment by a blinded dermatologist and patients own satisfaction score .

Results:

The mean of acne severity grade pre treatment was 3.12 ± 0.27 in erbium yag and 3.31 ± 0.42 in fractional CO2 laser which reduced to 2.10 ±0.71 in erbium yag and 1.93 ± 0.56 in fractional CO2 laser.The photographic assessment reported excellent, marked and moderate improvement in in 9, 27 and 54% respectively in the erbium yag group and 18,36 and 45% in the fractional CO2 group.According to patient satisfaction score majority of patients in fractional CO2 group experienced marked to excellent response while in the erbium yag group majority had moderate to marked response.

Conclusion:

Both the fractional CO2 and erbium yag Laser had equal results on mild to moderate scars.Although fractional CO2 laser was more painful and required a longer recovery period it was more efficacious in severe scar.Er:YAG laser has less thermal damage with a faster healing,hence suited for patients with mild to moderate scar and those wanting minimal downtime.

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Abstract N°: 912

Histological examination of skin tissue in the porcine animal model after application of a new monopolar radiofrequency.

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Introduction & Objectives: This study aims to evaluate the safety of the radiofrequency device and its efficacy in various treatment and refrigeration modes.

Materials & Methods: Four four-weeks Bama miniature pigs were used in this study, and four repeated treatment sites were selected on the pig's abdomen, each site consisting of 6 different treatment and cooling modes, with radiofrequency device (YouMagic, WE Medical Technology Co., Ltd, Wuxi, China) administered every 3-5 seconds for a total of 5 treatments. The handheld infrared thermometer (HIKMICRO, Hangzhou Hikmicro Sensing Technology Co., Ltd, Hangzhou, China) was used to monitor the surface temperature of skin. Twenty minutes after the completion of treatment, a biopsy of the treatment and control area was performed on the pigs using a 4mm biopsy punch. 1-month after the treatment, samples were obtained using surgical scalpels. After that we used proper staining to estimate the therapeutic efficacy. At last, SPSS and Image J were used to proceed to the next step of analysis.

Results: During the therapy, no side effects were observed apart from mild transient erythema caused by the heating of skin temperature, staining of biopsy samples taken 20 minutes after treatment showed no serious damage of dermis. After one month of treatment, it can increase collagen I and elastin production. In addition, increases in energy setting at a standard pass number also increased the expression of collagen I. Meanwhile, we also found an increase in the thickness of the dermal layer among all treatment groups.

Conclusion: The new monopolar radiofrequency instrument possesses excellent therapeutic safety. After one month of treatment, it can increase collagen I and elastin production in 2-month-old Bama miniature pigs.

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Abstract N°: 924

Comparison of 1064-nm Nd:YAG picosecond laser using fractional micro-lens array vs. ablative fractional 2940-nm Er:YAG laser for the treatment of atrophic acne scar in Asians: a 20-week prospective, randomized, split-face, controlled pilot study

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Introduction & Objectives:

The 1064-nm Nd:YAG picosecond lasers using fractional micro-lens array (P-MLA) was a promising therapy for skin resurfacing. However, no studies have compared P-MLA with ablative fractional 2940-nm Er:YAG lasers (AF-Er) in the treatment of atrophic acne scars. To evaluate the efficacy and safety of P-MLA and AF-Er for the treatment of atrophic acne scars.

Materials & Methods:

We performed a prospective, randomized, split-face, controlled pilot study. Thirty-one Asian patients with mild to moderate atrophic acne scars underwent four consecutive sessions of randomized split-face treatment with P-MLA and AF-Er at 4-week intervals. The efficacy of the two devices were evaluated by ECCA grading scale, IGA score and patient's satisfaction. VISIA analysis was also performed to evaluate the pore and skin texture. Adverse events were recorded at each follow-up.

Results:

The P-MLA afforded comparable clinical responses in scar appearance as AF-Er based on the investigator's assessments (ECCA percent reduction: 39.11% vs. 43.73%; IGA score: 2.97 ± 0.65 vs. 3.16 ± 0.68; P□0.05 for both). However, the result of patient satisfaction indicated the AF-Er-treated side achieved a slightly greater improvement in scar appearance (3.97 ± 0.78 vs 3.55 ± 0.71; P□0.05). Overall, the two devices did not differ largely in terms of efficacy. VISIA analysis revealed similar changing patterns of the pore and skin texture between two devices. For safety profiles, no serious side effects were reported on both sides. The P-MLA showed lower pain level, shortened duration of crust shed and edema, and less occurrence of PIH (P□0.05 for all).

Conclusion:

Compared with AF-Er, P-MLA afforded comparable effect and more safety profiles in treating atrophic acne scars in Asian patients.

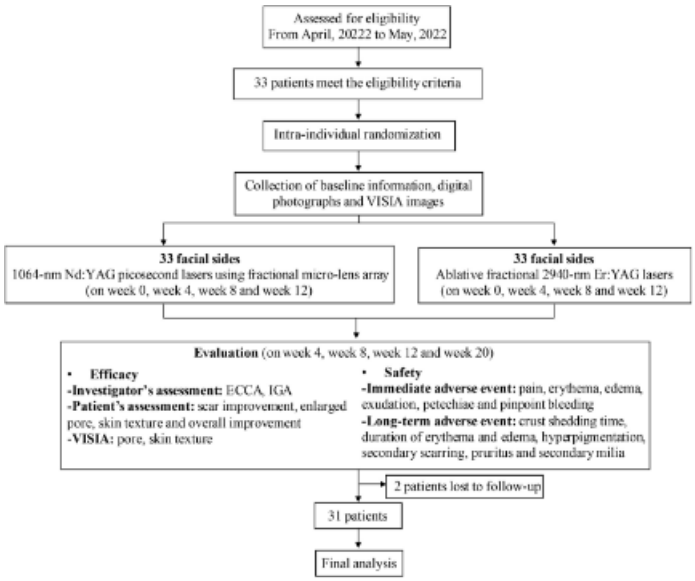

FIG 1. Flow diagram of the study. ECCA, Echelle d'Evaluation Clinique des Cicatrices d'acne; IGA, Investigator's Global Assessment

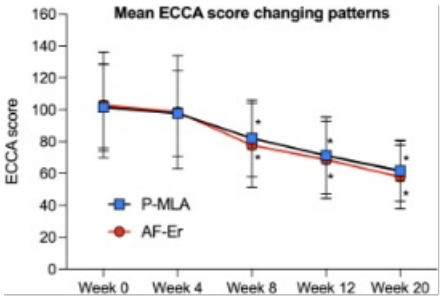

FIG 2. Mean ECCA scores of each side evaluated from baseline to the final observation. Error bars represent SDs. ECCA, Echelle d'Evaluation Clinique des Cicatrices d'acne; P-MLA, picosecond lasers with MLA handpiece; AF-Er, ablative fractional 2940-nm Er:YAG laser. *P < 0.05 compared with the baseline.

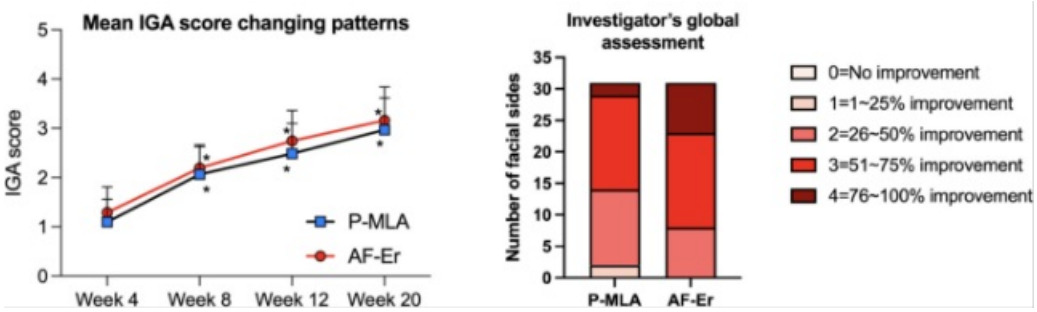

FIG 3. Evaluation of scar improvement based on IGA score. (A) Mean IGA scores of two facial sides from first treatment to the final observation. *P < 0.05 compared with the first treatment. (B) Evaluation of scar improvement at final follow-up. IGA, investigator's global assessment.

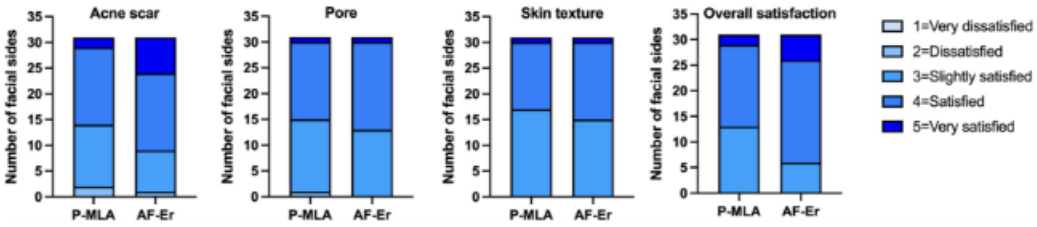

FIG 4. Patients' subjective assessment of scar improvement. Patients' subjective assessment at the final observation for the improvement of acne scar (A), pore (B), skin texture (C), and overall satisfaction (D) using Likert satisfaction scale (1 = very dissatisfied, 2 = dissatisfied, 3 = slightly satisfied, 4 = satisfied, 5 = very satisfied). P-MLA, picosecond lasers with MLA handpiece; AF-Er, ablative fractional 2940-nm Er:YAG laser.

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Abstract N°: 1247

Clinical and dermoscopical alterations of the nails after using semi-permanent varnish

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Introduction & Objectives:

Nail cosmetology is a multi-billion-dollar industry, a large part of this practice consists of the application of certain substances which harden after evaporation of solvents (varnish) or after polymerization (Semi-permanent varnishes, acrylic nails, prosthetic gels,).

Nail system alterations related to these practices are common, new and under-reported, and can therefore easily be misdiagnosed even by the competent dermatologist.

Materials & Methods:

A prospective descriptive study of the clinical and dermoscopical aspects of the nails after the use of permanent varnish was carried out, including women who had used this practice at least once.

The study was carried out over 3 months between December 2023 and March 2024.

Results:

60 women were included.

86% started using semi-permanent varnish for more than 2 years , 66.6% use it more than 6 times a year, 97% of women reported that the quality of their nails has changed pejoratively, 38% judged the alteration severe and 21% judged it catastrophic.

68% of women continue to use semi-permanent varnish despite the damage and only 31% have decided to stop using it.

Clinically:

color abnormalities of the nail plate were observed with 21% leukonychia, 48% erythronychia, 9% xanthonychia, and 4% chloronychia.

Surface abnormalities were also observed: 94% onychatrophy, 62.9% nail fissures, 60% onycholysis, 70% onychoschizia, 42% trachyonychia, 23% thimble-like surface appearance, 36% beau’s lines .

4 women (6.66%) developped an onychomychosis confirmed by mycological sampling and 3 women presented with whitlow,

Only 2 cases (3.33%) of allergic skin reaction were identified, and 35% of women had dry cuticles.

None of our patients had pretumoral or skin tumor signs in periungueal skin at the moment of examination.

91.4% of women complained of brittle nails, and 80% complained of nail pain when performing everyday activities (pronation of objects) after removal of the semi-permanent varnish.

Dermoscopically:

the dominant dermoscopic aspects were the presence of : dilated capillaries 83%, onychoschizia 70%, nail fissures 62.9%, trachyonychia 42% as well as color abnormalities: erythronychia 48% leukonychia 21% and xanthonychia 9%.

Conclusion:

Semi-permanent varnishes are hybrid products between gel and conventional varnish. In fact, their texture is liquid, but they dry by catalysation under a UV or LED lamp to polymerize the (meth)acrylates.

A bibliographic study carried out by Litaiem.N and al including 88 users, showed that the use of semi-permanent varnishes had induced allergic skin reactions in 70.5% of cases among users, and mechanical damage to the nails in 26.1% of cases. In these 88 users, squamous cell carcinoma was reported in 3 cases. The discordance between this study and ours was outstanding, as described in the results above more than 90% of lesions were mechanical, only 3.33% of patients presented allergic skin reaction and none of them has presented any signs of malignant skin lesion.

According to Reinecke.JK and al, Signs of allergy to nail products include itchy, eczematous dermatitis of the fingers, hands, and wrists, although up to 10% of patients may have dermatitis localized only to the face or neck.

There are few articles in the literature describing the clinical aspects of nail lesions after the use of semi-permanent varnish, and to the best of our knowledge there is no article that describes the dermoscopic aspects of the nail damage due to this practice.

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Abstract N°: 1365

Intravital Monitoring of Morphology and Metabolism in Laser-Treated Tattoos in Human Skin

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Introduction & Objectives:

With the significant increase in tattoos across all sections of the population, the demand for tattoo removal has also risen considerably. For many years, nanosecond (NSL) and picosecond lasers (PSL) have been used to remove unwanted tattoos. However, data on follow-up analysis on the morphology and metabolism of tattoo particles and surrounding tissue is limited.

Materials & Methods:

Healthy male and female subjects with unwanted black tattoos were recruited. Black tattoos were treated with a 1064 nm NSL or PSL and analyzed 6- and 12-weeks post-treatment using multiphoton fluorescence lifetime imaging (MPT-FLIM) as an intravital, non-invasive imaging tool.

Results:

After NSL and PSL treatment, the MPT-FLIM revealed a noticeable decrease in both the quantity and size of tattoo granules. Following PSL treatment, tattoo particles showed more significant fragmentation and greater dispersion compared to NSL. In both NSL and PSL treatments, particles were redistributed into the epidermal layers and perivascular regions, indicating a transepidermal and macrophagic removal process.

After 6 weeks, NSL treatment resulted in more edema and reorganization of mitochondria compared to PSL, suggesting a higher inflammatory response. In contrast, PSL treatment led to an extended subclinical inflammatory cellular state, as measured by the mean fluorescence lifetime.

By the 12-week follow-up, tattoo particles treated with PSL were still detectable in the epidermis, indicating an ongoing removal process. In contrast, no tattoo particles were detectable with NSL after 12 weeks.

Conclusion:

Utilizing MPT-FLIM, this study revealed the process of tattoo particle elimination in human skin following treatment with NSL and PSL treatment. We observed a prolonged inflammatory cellular response after PSL treatment compared to NSL, indicating an ongoing removal process of particles even months after the last treatment session. These findings suggest the possibility of extending the time between PSL treatment sessions to

optimize clinical results.

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Abstract N°: 1414

Efficacy of fractional CO2 laser in combination with stromal vascular fraction (SVF) compared with fractional CO2 laser alone in the treatment of burn scars: a randomized controlled clinical trial

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Introduction & Objectives: The appearance of skin scars is known as one of the main side effects of skin burns. Stromal vascular fraction (SVF), as a rich source of cell populations with tissue regeneration properties, plays an important role in the healing of skin lesions. Fractional CO2 lasers have occupied a special place in treating skin lesions, particularly skin scars, since their introduction. Our study aimed to compare the combination of SVF and fractional CO2 laser with fractional CO2 laser alone in the treatment of burn scars.

Materials & Methods: This double-blind clinical trial study was conducted on ten patients with burn scars that were treated three times with a fractional CO2 laser at site of burn lesions, and one of the two areas studied was randomly injected with SVF. Two months after completion of the procedure, patients' scars were assessed using the Vancouver scar scale (VSS), biometric criteria, and physician and patient satisfaction ratings.

Results: The results confirmed a significant improvement in VSS, cutometry, R7 criteria, complete density sonography, and skin density sonography in the fractional CO2 laser-treated group. The VSS criteria, epidermal thickness sonography, complete density sonography, and skin density sonography in the group treated with the combination of fractional CO2 laser and SVF also showed significant improvement. The VSS criteria and melanin index of Mexameter in the group treated with SVF in combination with fractional CO2 laser were significantly better than the group treated with fractional CO2 laser alone. Also, physician and patient satisfaction in the group treated with SVF injection in combination with fractional CO2 laser was significantly higher than the other group.

Conclusion: The results confirm the efficacy of SVF injection in combination with fractional CO2 laser in the treatment of burn scars and can be considered as a treatment option for better management of these lesions.

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Abstract N°: 1468

FACIAL REJUVINATION AND AUGMENTATION WITH BIO STIMULATORS- TECHNIQUE AND OUTCOMES (Video Presentation)

Kashif Ali[1]

[1]Khyber Medical University - KMU, Peshawar, Pakistan

FACIAL REJUVINATION AND AUGMENTATION WITH BIO STIMULATORS- TECHNIQUE AND OUTCOMES (Video Presentation)

Introduction & Objectives:

Soft-tissue augmentation with Bio-Stimulators (Calcium hydroxyl apatite, PLLA fillers and polycaprolactone fillers) are treatment modalities among minimally invasive cosmetic treatments for the correction of contour deficiencies and wrinkles of the face with minimal risk, recovery time, and expense of a major surgery. My current study focuses on the treatment options for facial rejuvenation and augmentation with bio-stimulators (Calcium hydroxyl apatite, PLLA fillers and polycaprolactone fillers) and comparing patient outcomes as per patient satisfaction.

Materials & Methods:

50 adult patients underwent non-surgical facial rejuvenation with bio-stimulators in our aesthetic setup. Patients were provided with specific informed consent for the treatment with bio-stimulators for soft tissue augmentation and rejuvenation before initiation of the procedures. The areas to be injected were appropriately marked with the patient in an upright position. As with all aesthetic surgical and dermatological procedures, pre-treatment photography was done. Depending on the anatomical area, patient's sensitivity, and personal medical preferences, regional infiltrative or nerve block anesthesia was used. Fillers were injected using blunt-tip micro cannula 23 gauge (50/ 70mm length). Different injection techniques used depending on patients: linear threading, serial puncture, fanning, and cross hatching. All 50 subjects completed the initial and follow-up visits after 6 to 8weeks.

Results:

Our treatment approach has resulted in >80% satisfactory results with bio-stimulators alone. In a possible self-reporting options range very good, good, acceptable, and non-acceptable reported, 87% of very good 47% excellent and 41% good, concluding that 89% of 50 patients would choose bio-stimulators again.

Conclusion:

Bio-stimulators are very effective agent for many areas of facial soft tissue augmentation and is associated with a high and well-established safety profile. We share our patients with pre and post procedure outcomes and their photographs (with consent).

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Abstract N°: 1469

Using combination treatments for treating pigmentation in Women of colour, with and without microbotox

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USING COMBINATION TREATMENT FOR PIGMENTATION IN WOMEN OF COLOR WITH AND WITHOUT MICROBOTOX

Introduction & Objectives:

The effective management of skin pigmentation disorder presents considerable challenges for patients and medical practitioners alike. Successfully addressing pigmentation revolves around two fundamental principles 1, mitigating the negative impact of solar radiations and 2, enhancing the management of the pigment disorder through available method. Micro Botox involves the precise administration of diluted botulinumtoxinA into the dermis or the interface between the dermis and underlying musculature. This targeted approach is employed primarily for cosmetic application s to achieve localized muscular relaxation and skin rejuvenation effects.

Botulinum toxin injection, a prevalent cosmetic procedure for addressing dynamic wrinkles, exhibits an additional skin lightening effect. The phenomenon is attributed to the inhibition of muscle innervation. Yet, the alteration in melanin levels resulting from this effect remains unqualified and requires further investigation.

Materials & Methods:

The study involved fifty female patients affected by pigmentation, categorized into two groups. Group 1 comprising 25 patients, received treatment through pigment- treating modalities. In contrast, group 2 patients were subjected to a combined approach involving micro botox injections and other pigment treating techniques Pre- treatment photography was conducted adhering to standard aesthetic. As with all aesthetic surgical and dermatological protocols.

Results:

In group 2, where patients received a combined treatment of pigment- treating modalities and micro botox injection, a significant reduction in pigmentation was observed in comparison to group 1, where patients under went pigment treatment without botox.

Conclusion:

The combination treatment involving botox for pigmentation in women of color has demonstrated remarkable outcomes, characterized by a pronounced reduction in pigment levels. The noteworthy success of the combined approach, offering valuable insights into effective pigmentation management strategies for individuals with diverse skin tones.

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Abstract N°: 1704

A Dermocosmetic containing vitamin B5, madecassoside and a prebiotic complex significantly improves post Fractionnated CO2 laser downtime versus a reference skin care: results of a randomized double blind intra-individual study

Jean Michel Amici[1], Guenaelle Ledantec[2], Anne-Laure Demessant-Flavigny[2], Catherine Queille-Roussel[3], Magali Procacci Babled[3], Anne-Claire Cathelineau[3], Alix Danoy[4], Solene Trevisan[4], Merete Haedersdal[5, 6]

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Introduction & Objectives:

Fractionated (Fx) CO2 laser procedures promote cutaneous resurfacing by removing the superficial epidermal layers which can help alleviate skin aging signs and reduce scars appearance. However, typical skin reactions such as erythema, desquamation, and crusts can frequently occur with a frequency and severity depending on laser settings. Therefore, post CO2 laser skin care with an appropriate dermocosmetic (DC) able to restore skin barrier integrity and improving physical cutaneous signs is recommended.

The aims of this study were to evaluate, following Fx CO2 laser procedure, the skin re-epithelization kinetic and barrier associated clinical signs of a DC formulation containing vitamin B5, madecassoside and a prebiotic complex versus a reference dermocosmetic repair skin care (RDC).

Materials & Methods:

Adults with phototype II or III were included in this double-blind intra-individual study. Following Fx CO2 laser on similar zones of 4 cm^2 each on every subject's back, DC or RDC were applied twice daily in the study center at a standardized dose of 2 mg/cm^2 for 18 days (except on Sundays). Clinical assessments included the wound healing kinetic overtime based on the re-epithelization score ranging from 0=no healing to 5=complete healing, individual scores of erythema, desquamation and crusts (all rated from 0=none to 3=severe), their composite score alongside standardized patients' skin photos.

Results:

This study was conducted on 25 subjects (15 women, 10 men), mean age of 37.7±7.3 years old, with phototype II (3;12%) or III (22;88%). The mean wound healing score was significantly ($p<0.05$) higher with DC compared to RDC starting from Day 6 until Day 14. On DC area, the composite score also showed a significantly ($p<0.05$) better improvement from Day 6 and a significantly ($p<0.05$) enhanced efficacy on crusts severity from Day 7 versus the RDC.

Conclusion:

The post-Fx CO2 laser application of the tested DC care provided a significantly faster and better repair efficacy associated with an improvement in physical signs, particularly crusts formation, compared to a reference dermocosmetic.

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Abstract N°: 1864

How AI Tools are Revolutionizing Personal Skincare from Diagnosis to Daily Care

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Introduction & Objectives:

Artificial Intelligence (AI) is rapidly transforming the field of dermatology, offering personalized skincare solutions that range from diagnostic support to continuous care management. This literature review explores the revolutionary impact of AI on personal skincare management. It delves into how AI applications assist patients from initial diagnosis to the ongoing management of their skincare, ultimately promoting a sense of mastery over one's own skin health.

Materials & Methods:

To provide a comprehensive analysis, this review encompasses all relevant articles published on the application of AI in skincare management. The studies reviewed employ a variety of AI technologies, with a significant focus on deep learning techniques such as convolutional neural networks (CNNs). These are particularly adept at processing visual information, making them ideal for tasks like analyzing dermatological images for diagnostics. Beyond diagnostic tools, this review also includes studies on AI-driven recommendation systems. These systems use machine learning algorithms to analyze extensive personal data, such as skin type, lifestyle, and genetic information, to craft personalized skincare routines. They often involve predictive modeling to forecast skin responses to different products and adapt recommendations based on environmental factors and user feedback.

Results:

The findings across the reviewed studies show that AI can achieve diagnostic accuracy comparable to or exceeding that of experienced dermatologists under certain conditions. User-centric research on AI-powered skincare applications reports high levels of engagement and satisfaction, indicating a strong consumer appreciation for the personalized and autonomous care these tools provide. However, it is important to note that regulatory landscapes vary significantly across regions, impacting the development and deployment of these technologies. In the United States, AI in healthcare is subject to stringent FDA regulations which ensure safety and efficacy before market entry. In contrast, European regulations have been criticized for lagging, offering a less comprehensive framework for the oversight of medical AI applications, potentially affecting the standardization and safety of AI skincare solutions in those markets.

Conclusion:

The influence of AI on skincare democratizes access to dermatological care, especially in underserved areas. However, challenges such as data privacy, security concerns, and the need for regulatory oversight are frequently noted. The accuracy of AI systems largely depends on the diversity and quality of the data used to train them, raising concerns about potential biases in AI decisions.

This review underscores the transformative potential of AI in skincare, showcasing its capability to refine diagnostics, personalize treatment plans, and elevate patient outcomes. Future research should aim to improve the transparency and robustness of AI systems, ensuring they are unbiased and capable of elucidating their reasoning to both users and healthcare professionals. As AI continues to advance, maintaining an ethical balance

will be crucial for harnessing its full potential in dermatology.

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Abstract N°: 1867

Educational Strategies to Combat Harmful Cosmetic Dermatology Trends in Generations Alpha and Z

Diala Haykal[1]

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Introduction & Objectives:

The surge in cosmetic dermatology trends, particularly among generations (Gen) Alpha and Z, have raised concerns regarding the long-term impact of early, unnecessary, or unsafe cosmetic procedures. The propagation of these trends is fueled by social media, peer pressure, and a growing culture of appearance enhancement at increasingly younger ages. Through comprehensive programs, educational institutions can play a pivotal role in counteracting these trends by promoting healthy self-image, providing accurate information about cosmetic procedures, and fostering critical thinking skills regarding media consumption. This report outlines strategic approaches that schools can adopt to support cosmetic dermatologists in mitigating the negative trends associated with cosmetic dermatology among the Gen Alpha and Z cohorts.

Materials & Methods:

In the age of social media and celebrity influence, the surge in cosmetic dermatology trends poses significant health and psychological risks to younger generations, underscoring the critical need for proactive educational approaches in schools. Schools are uniquely positioned to counteract these influences by incorporating curriculum modules that focus on human biology, the natural changes during puberty, and the risks associated with cosmetic interventions. By developing courses that enable students to critically evaluate media content, including social media posts, advertisements, and celebrity endorsement, educational programs can help demystify beauty standards and the realities behind edited images, thus reducing the pressure to conform to unrealistic ideals. Collaborations with aesthetic providers ensure that students receive accurate and unbiased information, equipping them with the knowledge necessary to make informed decisions regarding their health and appearance and promoting a positive self-image amidst the pervasive influence of social media.

Results:

These strategies aim to safeguard the mental and physical health of Gen Alpha and Z by fostering a comprehensive understanding of BI, self-esteem, and the implications of cosmetic procedures. However, challenges such as resource allocation, teacher training, and cultural sensitivity must be addressed to integrate these components into the educational system successfully. This initiative highlights the shared responsibility of educators, healthcare professionals, and communities to guide young individuals through the challenges posed by evolving beauty standards, ensuring they can make informed and healthy decisions.

Conclusion:

In a nutshell, addressing the complex issues surrounding cosmetic dermatology trends, body image, and the impact of SM on digital natives' generation requires a multifaceted educational approach. Integrating health education into school curricula, improving media literacy, involving parents and the community, partnering with healthcare professionals, and setting up support systems in schools can empower youth to make informed choices and effectively handle pressures associated with such trends. Success in these endeavors will depend on the concerted efforts of educators, parents, healthcare professionals, and the broader community to prioritize our youngest generation's mental and physical well-being.

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Abstract N°: 1935

Assessment of the benefits of dermocosmetic containing vitamin B5, madecassoside and a prebiotic complex in a large international population

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Introduction & Objectives:

The skin barrier is the first line of defence against external aggressors; thus, maintaining its integrity is key. Injuries, allergens, topical medical treatments, and dermatological procedures can disrupt its homeostasis resulting in prolonged inflammation, abnormal scarring or delayed wound healing. Therefore, daily reparative dermocosmetic (DC) care can be beneficial to restore damaged skin barrier integrity.

This study assessed the outcomes of a DC containing vitamin B5, madecassoside and a prebiotic complex following superficial wounding, irritative dermatitis, procedures, or as an adjuvant to actinic dermatitis (AK) treatment.

Materials & Methods:

An international, open-label, observational 4-week study was conducted in subjects meeting inclusion criteria. DC was applied according to prescribed indications of use on the lesional areas. Clinical assessments comprised rating of disease severity (IGA), erythema, desquamation, cracks, and oedema. Subjects rated tightness, pain, burning sensation, tingling and product cosmetic properties. Quality of life (QoL) was also assessed using the DLQI or CDLQI. Overall efficacy, satisfaction and tolerance of DC were evaluated by both investigator and subjects.

Results:

6311 subjects (63.3% females, mean age: 33.1 years) with all skin phototypes were suitable for the statistical analysis. Superficial wounds, irritative dermatitis and adjuvant AK treatment accounted for 76.5% of all prescriptions with dry eczematides (25.8%) and irritation/cracks (21.1%) being the most frequently reported while post-procedure care represented 22.7%.

DC significantly ($p<0.001$) improved IGA as well as clinical signs and symptoms for more than 81% of patients.

QoL was also significantly ($p<0.001$) improved with a mean burden reduction of 70.8% on adults and 71.3% on children.

Global efficacy and local tolerance were rated excellent (both ≥ 90%), so was product cosmeticity and satisfaction as DC met 99% of patient's needs.

Conclusion:

Tested DC was beneficial for promoting skin repair, it was very well tolerated and highly appreciated by subjects with a damaged skin barrier.

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Abstract N°: 2015

The Role of Polydeoxyribonucleotide PDRN in Anti-Aging and Regenerative Medicine: A Review of the Evidence

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Introduction & Objectives: Polydeoxyribonucleotide (PDRN) has emerged as a promising therapeutic agent in regenerative dermatology, offering a multifaceted approach especially in wound healing, photoaging-associated pigmentation reduction, collagen synthesis stimulation and skin barrier strengthening. With its mechanism of action targeting adenosine A(2A) receptors, one potential yet less targeted advantage of PDRN is skin rejuvenation. The aim of our review is not only to provide thorough and comprehensive insights on the effectiveness of PDRN but also to delve deeper into the contribution of PDRN in skin revitalization and regenerative medicine.

Materials & Methods: A review of the literature was conducted on PubMed and Scopus with the appropriate keyword-based research question. Our search strategy initially yielded 84 articles, which underwent duplicate deletion and 2 rounds of screening based on preset inclusion and exclusion criteria. A total of 21 papers were eligible, included and reviewed extensively for the synthesis of this study.

Results: Aside from its prominent role in accelerating wound healing and restoring skin barrier functions, polydeoxyribonucleotide (PDRN) emerges as well as a flexible agent for skin rejuvenation, supported by abundant data obtained from numerous studies and clinical trials. Its potential for skin revitalization and regeneration is reflected by its capacity to simulate collagen production and accelerate keratinocyte and fibroblast proliferation. Currently described routes of administration are through topical application, subdermal injections, and radiofrequency-, microneedling- and laser-assisted drug delivery. It has been used in combination with other components such as exosomes, peptides, glutathione, and hyaluronic acid to achieve maximum results. These 50-1500 kilodalton DNA fragments achieve their effects through multiple cellular pathways, ranging from activation of adenosine A(2A) receptors to PDRN-induced extracellular signal-regulated kinase activation and other salvage pathways. Though these DNA fragments are mainly extracted from the sperm cells of salmon trout or chum salmon, evidence also entertains the use of plant-based PDRN, which have shown promising results in skin regeneration by inducing the phosphorylation of focal adhesion kinase and mitogen-activated protein kinase among others.

Conclusion: PDRN is a powerful agent that holds promise in promoting anti-aging, skin revitalization and rejuvenation through its action on several cellular pathways. Leveraging PDRN in practice and research will further solidify its role in dermatological and regenerative medicine practices, ultimately enhancing patient outcomes.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
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Abstract N°: 2043

Evaluation of the Anti-aging Efficacy of Eye Cream Containing Polyhydroxy Acid Complex

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Introduction & Objectives:

The skin around the eye is the thinnest part of the facial skin. Due to the lack of elastic fibers, collagen and subcutaneous tissue around the eyes, the eyes are the first place where fine lines appear under the high-frequency expression muscles and eye movements, and often appear earlier than other parts of the aging symptoms. A clinical study was designed to assess the effectiveness and tolerability of a cosmetic eye cream with polyhydroxy acid complex to improve the key signs of dark circles, periorbital fine lines, firmness, luminosity, fullness and antiaging parameters.

Materials & Methods:

The new eye cream contains a 5% polyhydroxy acid (PHA)/bionic acid blend including gluconolactone and lactobionic acid, both gentle PHAs with antioxidant and metal chelating properties. The 8-week study included 52 healthy subjects, ages 25-60, Fitzpatrick skin type III-IV, with signs of aging around the eyes, including dark circles, periorbital fine lines, skin laxity, dullness/mottled hyperpigmentation and poor fullness. The subjects were randomly divided into two groups: the treatment group used eye cream on both periorbital area, and the control group did not use any eye care product. The eye cream was applied twice a day.The symmetrical parts of the left and right forearms of the subjects were selected in a 5*5cm size range for Er : YAG laser treatment. The treatment group was applied with the eye cream immediately after the laser operation , and the control group was applied with 0.9 % NaCl immediately after the laser operation to observe the irritation of the two groups.

Results:

All targeted skin aging signs at eye areas showed statistically significant improvement at week 8, including dark circles, periorbital fine lines, firmness and luminosity ($p < 0.05$). The grading scores in the treatment group were significantly improved compared to baseline and were also significantly different from the control group (all $p < 0.05$). VISIA image assessments indicated a decrease in spots, textures, wrinkles and UV spot values in the treatment group at the end of the treatment, and the decreases were significant compared to the control group ($p < 0.05$). Subject self-assessment and clinical photography confirmed the clinical findings. Erbium laser test of irritation also showed that the eye cream had good tolerability which was similar to saline but milder than the latter with none moderate to major adverse reactions were observed. The pricking cases reported in the treatment group was significantly less than the control group($p < 0.05$).

Conclusion:

These results demonstrated that the new eye cream with PHA was well-tolerated and effective in improving age-related changes in periorbital skin, alleviating dark circles and periorbital fine lines, and enhancing skin firmness and luminosity.

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Abstract N°: 2097

Comparative Clinical and Histological Outcomes after Treating Striae Distensae with Poly-L-Lactic Acid Injections and Non-Ablative 1565-nm Fractional Laser

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Introduction & Objectives:

Various modalities are available for treating striae distensae (SD). However, there is no yet a gold standard therapy for this condition. This study aimed to investigate the use of injectable poly-L-lactic acid (PLLA) for treating SD in the abdominal region.

Materials & Methods:

Forty females with SD were enrolled and were randomized into four treatment groups: (1) control, (2) PLLA, (3) 1565-nm NAFL, and (4) PLLA + 1565-nm NAFL. All patients except the control group were treated in 3 sessions at 1-month intervals. Antera 3D® imaging data were collected before treatment (T0) and 3 months after the last treatment (T4). Collagen fibers were assessed by immunohistochemical staining, while the elastic fiber content was assessed by picrosirius red and Masson staining at T0 and T4.

Results:

Compared with the control group, the PLLA, 1565-nm NAFL, and PLLA + 1565-nm NAFL groups all showed significant effectiveness rates [$P < 0.001$, 95% confidence interval (CI) = 3.63–7.77, 1.52–5.67, and 4.63–8.77, respectively]. At the time of T4, the mean scores for the control, PLLA, 1565-nm NAFL, and PLLA + 1565-nm NAFL groups were 0.00 ± 0.00, 5.70 ± 1.25, 3.60 ± 2.12, and 6.70 ± 2.21, respectively ($F = 27.646$, $P = 0.000$). The decreased SD volumes for each group were −0.03 ± 0.17 (control), −1.96 ± 1.53 (PLLA), −0.70 ± 0.67 (1565-nm NAFL), and −1.48 ± 1.35 (PLLA + 1565-nm NAFL) ($F = 6.29$, $P = 0.000$). Histologically, PLLA particles were observed in the injection area without signs of inflammation. The ratios of type I to type III collagens were lower in both PLLA + 1565-nm NAFL and PLLA groups at T4 than those they were at T0 ($P = 0.011$ and 0.028, respectively).

Conclusion:

PLLA injections are effective and safe for SD management. PLLA could stimulate collagen production in SD lesions without obvious inflammatory responses in the treated skin.

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Abstract N°: 2180

‘To fill or not to fill, that is the question.’ An overview of the lack of legal regulation of cosmetic dermal fillers in the UK.

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‘To fill or not to fill, that is the question.’ An overview of the lack of legal regulation of cosmetic dermal fillers in the UK.

Introduction & Objectives:

The number of non-surgical facial aesthetics procedures, including dermal filler injections, has grown significantly over the past decade. In the UK there is a lack of robust regulation of dermal fillers, which has led to substandard practice. I aim to highlight the serious safety issues associated with this and the urgent need to strengthen legislation.

Materials & Methods:

Evidence was collected by qualitative analysis of the current legislation, including the 2023 closed consultation: the licensing of non-surgical cosmetic procedures in England. Descriptive qualitative analysis of relevant case reports and news outlets, describing adverse reactions to dermal fillers secondary to poor practice, were included.

Results:

There are reports of patient harm due to dermal fillers injected by lay practitioners. The most severe included tissue necrosis and central retinal artery occlusion. Organisations such as Save Face and the Joint Council for Cosmetic Practitioners have pioneered ‘self-regulation’ and have campaigned for standardised training and practitioner registration. Current legislation varies throughout the UK as dermal fillers are illegal for under 18s in England, but this is not the case in the other nations. The recent 2023 closed consultation aimed to nationalise regulation and described plans to license non-surgical aesthetics procedures.

Conclusion:

The lack of regulation of dermal fillers has led to direct patient harm. Regulation has been a slow process and has fallen on the shoulders of reputable medical professionals and organisations with high standards of care. Overall, despite these advances, voluntary, self-regulation is not enough and immediate legislation is required to prevent further harm.

EA DV CONGRESS
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Abstract N°: 2232

Esthetic medicine by dermatologists

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Introduction & Objectives:

Aesthetic medicine is a specialized field of medicine that focuses on improving physical appearance and treating non-medically necessary aesthetic problems. Dermatologists are often practitioners in this field, using a variety of minimally invasive techniques and procedures to help patients achieve their desired aesthetic goals. The main aim of aesthetic medicine is to improve physical appearance in a natural and harmonious way, while preserving the patient's overall health and well-being.

Materials & Methods:

This cross-sectional study was carried out in the dermatology department of CHU Md VI in Tangier, over a period from January to April 2024. Using a questionnaire circulated on social networks and by e-mail and intended for dermatologists in Morocco, data were collected and analyzed using Google Form.

Results:

The study involved questioning 104 dermatologists. Of these, 80% were women, of whom 29% were in the 36 to 40 age bracket. In terms of place of practice, 71% worked in the private sector.

Dermatologists have various motivations for integrating aesthetic medicine into their practice. Around a quarter of respondents (27%) stressed the need to meet the growing demand for aesthetic procedures, while 25% expressed a desire to broaden their practice's range of services.

The majority of dermatologists surveyed consider aesthetic medicine to be significant, with 50% describing it as 'very important'.

Important reasons for entering the practice of aesthetic medicine include its positive impact on patients' quality of life (around 20%), its essential role in the treatment of various skin and ageing problems (18%).

The aesthetic medicine procedures most commonly offered by dermatologists vary. Skin rejuvenation treatment is the most frequently performed, with 92% of dermatologists offering it. Chemical peels are also popular, with 88% of respondents including them in their practice. In addition, 80% offer dermal fillers, 75% laser treatments, and 63% botulinum toxin injections as part of their dermatological practice.

Dermatologists in aesthetic medicine favor open communication with patients. Some 84% favor open discussions to understand patients' concerns, while 80% encourage questions at every stage of the process.

To manage patient expectations, around 78% use images or simulations to illustrate expected outcomes, while 73% honestly discuss the possible outcomes and limitations of the procedure.

In terms of safety, around 90% of dermatologists use certified products and proven techniques, and 87% rigorously follow standard safety protocols. In addition, 70% stress the importance of ongoing training to keep up to date with best practice, demonstrating their commitment to professional excellence and patient safety.

The majority of dermatologists (60%) reported no post-procedure side effects or complications in their patients. They take proactive measures to manage side effects, educating patients about the risks (87%) and putting in place protocols to manage complications (85%).

Dermatologists use patient feedback to improve their practice, adjusting their care protocols (84%) and using positive feedback to boost the confidence of future patients (79%).

Conclusion:

In sum, this study reveals not only the dynamic evolution of dermatological practice towards the increasing integration of aesthetic medicine, but also the deep empathy and commitment of dermatologists to the satisfaction and safety of their patients.

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Abstract N°: 2372

Peptides as Anti-Aging Agents: A Promising Path? A Systematic Review and Meta-Analysis of Randomized Controlled Trials Evaluating Efficacy and Adverse outcomes

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Introduction & Objectives:

As aging predominantly affects the skin, recent advancements have highlighted the potential of collagen peptide-based supplements, administered orally or topically, as promising agents for skin rejuvenation. Peptides function as signaling molecules that stimulate collagen synthesis and enhance extracellular matrix components, improving skin texture, reducing wrinkles, and increasing elasticity and hydration. Notably, ELASTEN®, containing collagen peptides and essential nutrients, significantly improved skin hydration, elasticity, and texture in randomized trials. Similarly, topical peptide formulations like Matrixyl have demonstrated significant reductions in wrinkle volume, offering effective, non-invasive alternatives to traditional cosmetic procedures. Our meta-analysis aims to evaluate the effectiveness of peptides in reducing visible signs of skin aging, compare the effects of different peptide types and delivery methods, and investigate potential adverse effects related to peptide use in both topical and oral forms.

Materials & Methods:

A thorough systematic review and meta-analysis was conducted in accordance with PRISMA guidelines. A comprehensive search was performed through Medline, Cochrane, and Embase databases, up to the year 2024 without time limitation.

Results:

The results of our meta-analysis from 16 randomized controlled trials conducted between 1995 and 2023, demonstrate that peptide treatments significantly enhance skin hydration (test for overall effect: $Z = 5.34$, $p < 0.00001$) and reduce wrinkle depth (test for overall effect: $Z = 5.20$, $p < 0.00001$). Subgroup analyses reveal that serums are particularly effective in delivering peptides, outperforming creams, lotions, and gels in enhancing skin hydration (SMD = -0.90, 95% CI: -1.06 to -0.74). Oral peptide supplementation was effective in improving skin texture (test for overall effect: $Z = 4.76$, $p < 0.00001$), with subgroup analysis indicating that the duration of supplementation played a role in the observed benefits ($p = 0.03$). Additionally, signal peptides show the strongest effect in reducing wrinkle depth (SMD = -0.85, 95% CI: -1.02 to -0.68), while enzyme inhibitor peptides significantly improve skin firmness (SMD = -0.78, 95% CI: -0.94 to -0.62) and neurotransmitter-inhibitor peptides enhance skin elasticity (SMD = -0.65, 95% CI: -0.83 to -0.47). Oral peptide supplementation also positively affects skin texture and tone (SMD = -0.60, 95% CI: -0.76 to -0.44).

Safety profiles indicate minimal adverse effects for topical applications, whereas oral treatments are generally well-tolerated but associated with mild gastrointestinal disturbances in 12% of cases.

Conclusion:

Overall, the findings support the effectiveness of peptides in the non-invasive treatment of skin aging. Thus, we recommend the inclusion of peptide-based products in anti-aging skincare regimens. Healthcare providers should consider these non-invasive treatments as viable options for patients looking to address signs of aging. Future studies should further investigate the long-term safety and efficacy of peptide treatments to refine their use in dermatology. Our results highlight peptides as a significant advancement in dermatological therapy, offering high efficacy and good tolerability for improving skin health and aesthetics.

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Abstract N°: 2559

Toxicity of lignocaine to adipocytes is overstated: successful grafting technique with tumescent anesthesia.

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Introduction & Objectives:

The literature strongly suggests that lignocaine is toxic to adipocytes. Tumescent anesthesia is commonly employed by dermatologists when harvesting fat for grafting. Three dimensional scanning can accurately measure even small volume changes in the face and body. Volumetric studies of fat grafting in the Dermatologic Surgery literature are sparse.

This prospective study was designed to study the relationship between volumes of grafted fat and successfully grafted fat present at three months when harvested and grafted in the presence of tumescent anesthesia.

Materials & Methods:

A single centre, prospective study followed a single cohort of patients seeking fat grafting. All patients were photographed before and at three months post fat grafting. Volumes were measured before and after the procedure. 3-Dimensional scanning allowed accurate measurement of even small volume grafts.

Results:

Sixty patients were enrolled. The median volume of successfully grafted fat at 3 months was 82% with a range of 35% to 164%. Complications were minimal and involved bruising and minor discomfort. Short video clips and clinical photos demonstrate the author’s technique.

Conclusion:

Despite published evidence of toxicity of lignocaine to adipocytes, the use of lignocaine based tumescent anesthesia in the harvesting and placement of fat can be successfully achieved and Dermatologists need not fear its use in this context.

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Abstract N°: 2560

Centrifugation, stromal vascular fraction and cell culture are not the most important factors in autologous fat grafting

Paul Salmon*[1, 2]

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Introduction & Objectives:

Currently, controversy exists in the literature about the value of centrifugation, the development of a stromal vascular fraction and the use of stem cell culture to maximise the success of autologous fat grafting. Other factors that impact on the success of fat grafting such as recipient site preparation, harvest technique(equipment and pressures), aesthetic technique (both donor and recipient site), fat temperature, emulsification, graft placement techniques (including retention of sidedness) and post operative care of the graft are also controversial. Are some of these latter factors more important than pre-placement manipulation of the graft? The objective of this study was to demonstrate whether fat grafting could be achieved with a high percentage of successfully grafted fat without centrifugation, creation of a stromal vascular fraction or stem cell culture.

Materials & Methods:

A single cohort prospective study is presented capturing data from 65 consecutive cases of autologous fat grafting. 3-Dimensional scanning imagery was used to assist in accurate measurement of retained volumes at three months.

Results:

There were 64 cases with complete data. Successfully grafted fat ranged from 36% to 164%. The median volume successfully grafted was 82%. Complications were minor only. Short video clips and clinical photos demonstrate the author’s technique.

Conclusion:

Good results can be achieved in Autologous Fat Grafting without the need for centrifugation of the fat and/or development of a stromal vascular fraction or stem cell culture. This allows for more efficient use both of operative time and donor graft and simplification of equipment. Other factors may be more important and include harvesting pressures, placement graft size, recipient site preparation, donor site vascularity and interstitial pressure and post operative management.

EA DV CONGRESS
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Abstract N°: 2569

Clinical efficacy of on innovative patent-pending Mesotherapy-inspired cosmetic serum alone or in combination with meso-injection

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Introduction & Objectives:

Mesotherapy is a widely used technique in cosmetic dermatology to target multiple signs leading to smoother, firmer, healthier and youthful-looking skin1,2.

To boost and to prolong the effects and benefits of the mesotherapy, we developed a topical serum with a patent-pending complex and technology, integrating 10 ingredients present in mesotherapy3. We conducted a clinical study to assess the efficacy of this serum alone versus and in conjunction with facial mesotherapy.

Materials & Methods:

In the IRB-approved clinical study4, 3 groups of Caucasian women with a dull complexion and dehydrated skin (25 per group, ages 36 to 65 with phototypes I to IV) were enrolled following the informed consent process (LTD "HEALTH", Georgia). Over the course of 9 weeks, group 1 received one meso-injection every 3 weeks, in line with the mesotherapy protocol; group 2 received one meso-injection every 3 weeks and applied the study serum twice a day; and group 3 applied only the study serum twice a day. Efficacy was assessed by clinical scoring and by cutometer after 3, 6 and 9 weeks. Subjects also completed Global Aesthetic Improvement Scale (GAIS) for radiance, smoothness and even tone, and self-assessment questionnaires.

Results:

For radiance and smoothness parameters, the clinical scoring showed that the 3 groups presented a significant improvement and the same evaluation profile over time, with no significant difference between the 3 groups at each time point.

After 3 weeks, skin tone evenness was significantly improved with the serum alone (Group 3), compared to one meso-injection (Group 1). After 6 and 9 weeks, no difference was observed between the 3 groups.

The Cutometer-based elasticity showed no significant difference between the 3 groups after 3 and 6 weeks. After 9 weeks, elasticity is significantly increased by 24% in the combination mesotherapy/serum (Group 2) compared to injections alone (Group 1).

The combination mesotherapy with serum resulted in significantly firmer skin by 48% after 6 weeks versus 9 weeks with mesotherapy alone. After 9 weeks, this combination showed an increase by 52% versus meso-injection alone.

The GAIS and the self-assessment for radiance, smoothness and even tone ranked a better improvement for the association mesotherapy and serum (Group 2), the serum alone (Group 3), and mesotherapy (Group 1) at all time points. After 9 weeks, 100% of the subjects who used the serum either in combination or alone were satisfied by the skin quality's improvement.

Conclusion:

This comparative clinical study demonstrated the efficacy of a patent-pending mesotherapy-inspired cosmetic

serum. Surprisingly, the serum alone (Group 3) and only mesotherapy (Group 1) produced comparable results, particularly in enhancing skin tone evenness and radiance. In addition, the serum, alone (Group 3) or in combination with mesotherapy (Group 2), significantly improved radiance, smoothness, skin tone evenness (clinical scoring) and elasticity (instrumental measurement). The combination serum with mesotherapy (Group 2) lead to even more pronounced improvements in skin firmness and overall aesthetic enhancement.

These results highlight the potential of this innovative serum as a non-invasive alternative or adjunct to traditional mesotherapy techniques in cosmetic dermatology, offering consumers a safe and effective option for skin revitalization.

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Abstract N°: 2610

An innovative technology for the reconstruction of the dermo-epidermal junction in anti-aging skin care.

Bozena Tyszczuk[1], Anna Pogorzelska-Antkowiak[2], Anna Kuranc[1], Renata Debowska[1], Iwona Marczak[1], Karolina Lendzion*[1], Monika Pasikowska-Piwko[1], Katarzyna Rogiewicz[1], Irena Eris[1]

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Introduction & Objectives:

The dermo-epidermal junction does not only ensure the skin's structural stability and play a role in cell signaling, but it also serves as a transport barrier, limiting and enabling transport of the particles between epidermis and dermis. It also affects the skin healing and reconstruction processes as well as its general condition and appearance. Wavy structure of DEJ flattens with time and as a result, less nutrients reach the epidermis. The production of skin fibers decreases dramatically and the skin's barrier function becomes less effective and the process of dehydration occurs. Consequently, cellular renewal processes are slower and the skin becomes thinner and less elastic.

The aim of the study was to examine safety and anti-ageing efficacy of face serum no. 5555 containing peptides (hexapeptide-9, acetyl-heptapeptide-9), allosteric peptide booster, naringenin and trehalose. The peptide booster softens and plasticizes the cell membranes and enables receptor recognition by anti-ageing peptides.

Materials & Methods:

I*n vivo* test was performed in a group of 24 female volunteers (38-73 y. o.), with visible signs of facial aging. All the participants applied product on face, twice a day for 4 weeks. Additionally measurements were taken among group of 12 females at the baseline and after 4 weeks of product application. Instrumental skin evaluation (erythema, skin smoothness, firmness, elasticity, wrinkles, irregularities, pores, porphyrins, discolorations and UV spots) were performed. In addition, a self-evaluation questionnaire was performed. Moreover confocal microscopy (Vivascope) analysis was conduced in additional group of 20 patients.

Results:

Objective measurements showed reduction of depth, volume and number of irregularities and wrinkles by 7%, improvement in skin firmness (by 12%) and erythrema reduction by 5% Visia analysis showed reduction in number and intensity of: irregularities, discolorations, UV spots, wrinkles, pores and porphyrins.

After 4 weeks of serum usage all volunteers self-reported noticeably improvement in skin smoothness (96%), improvement in skin nourishment (92%) and moisturization (88%). All the participants noticed skin softness and improvement in skin appearance. Moreover respondents confirmed reduction of symptoms of fatigue and stress (91%), improvement in skin tone (83%), as well as reduction in skin discoloration (70%). The product reduces (fills in) fine lines and wrinkles (87%).

Imaging analysis using confocal microscopy showed the reconstruction of the dermo-epidermal junction (DEJ).

Conclusion:

Novel combination of active ingredients (two peptides and peptide booster in combination with trehalose) used in tested cosmetic formulations showed very good properties in case of rejuvenating effect on mature skin with aberrations of DEJ structure.

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Abstract N°: 2639

Efficacy and safety of short-wave radio frequency combined with low-dose phototherapy in the treatment of erythema telangiectasia rose acne

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Efficacy and safety of short-wave radio frequency combined with low-dose phototherapy in the treatment of erythema telangiectasia rose acne

Introduction & Objectives:

Rosacea has a protracted course, complex etiology, and is clinically characterized by recurrent episodes, leading to low patient satisfaction. This study aims to observe the efficacy and safety of combining short-wave radiofrequency with low-dose LED phototherapy and pharmacotherapy for the treatment of erythematotelangiectatic rosacea (ETR).

Materials & Methods:

From July 2022 to July 2023, 60 patients diagnosed with ETR in our hospital were recruited and randomly assigned to two groups, 30 patients per group. In the experimental group A, oral minocycline hydrochloride (50 mg twice daily) and hydroxychloroquine sulfate (0.1 g twice daily) were administered, and short-wave radio frequency combined with low-dose phototherapy was used weekly for 6 weeks. The control group B received only oral medication for 6 weeks. The differences in clinical symptom scores and VISIA facial erythema scores were evaluated at baseline and at the 2nd, 4th, and 6th weeks of treatment.

Results:

The overall efficacy rate in the experimental group was 83.33%, which exceeded that of the control group (53.33%), with statistical significance ($p < 0.05$). At the 4th and 6th week of treatment, the VISIA facial erythema scores in the experimental group were significantly lower than those in the control group, with statistical significance ($p < 0.05$). After the 6-week treatment period, the scores for facial paroxysmal flushing, erythema, and subjective symptoms in the experimental group were lower than those in the control group, with statistical significance ($p < 0.05$).

Conclusion:

Short-wave radio frequency combined with low-dose phototherapy effectively treats erythematotelangiectatic rosacea, which can rapidly repair the skin barrier, improve patients' skin lesions, and the treatment is comfortable and safe.

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Abstract N°: 2679

A comparative study of hair reduction utilizing the 808nm DIODE laser and the 1064nm Nd: YAG laser system in the Asian population.

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Introduction & Objectives:

Facial hirsutism and hypertrichosis are common problems and several methods are available to clinicians for unwanted hair in a large number of patients. The theory of selective photo thermolysis has revolutionized the hair reduction method which is safe and effective when operated by trained and experienced professionals. Before starting laser therapy assessment of the skin type, the fluence, the pulse duration and the type of laser to be used is very important for the safety and outcome. The objective was to evaluate the efficacy of the DIODE long-pulse Nd: YAG laser in removing unwanted facial hair.

Materials & Methods: In all, Seventy-five patients completed their treatment course with DIODE and long-pulsed Nd: YAG (1064 nm line) with fluences between 16 J/cm(2) and 20 J/cm(2). The average hair density reduction was assessed using hair count on digital photographs at 1, 3, 6 and 9 months. Efficacy of hair reduction was graded according to a 4point visual scale from poor to excellent — poor < 25% reduction in hair from baseline; fair < 25–50% reduction in hair from baseline, good < 50–75% reduction in hair from baseline; and excellent > 75% reduction in hair from baseline.

Results: Six sittings of diode laser were done in all subjects within 6 months. At the third follow-up visit, the percentage of hair reduction was fair in 5.4% of patients, excellent in 73% of patients in group A and fair in 5.3%, excellent in 68.4% of patients in group A. In contrast, at the final follow-up visit, it was excellent in 81.1% of patients in group A and 50% of patients in group B. Erythema was mostly observed complication in both lasers 32.4% and 26.3% cases. The diode laser showed more efficacy and was found to be more comfortable than the Nd: YAG laser for hair removal in Asian skin.

Conclusion: In conclusion for the Asian skin with dark hairs, the diode laser still stands the test of time. However, the diode laser has a narrow margin of safety, and proper pre and post-procedure cooling can minimize the complication. Though, the side effects of Nd: YAG laser are less as compared to the diode laser in darker skin, it is less efficacious than the DIODE laser.

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Abstract N°: 2696

Necrosis of nasal septum due to filler-induced columellar artery occlusion

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Introduction & Objectives:

The increasing popularity of aesthetic filler treatments has led to a rise in reported complications, including rare but severe incidents such as vascular occlusion. These events, although rare, are always under-reported, and some of them have a sometimes rare and extremely subtle clinical presentation. This work aims to elucidate the clinical presentation, diagnosis, and management of a rare manifestation of columellar artery occlusion, contributing to better preventative strategies in aesthetic practices.

Materials & Methods:

We present a case study of a 30-year-old female who underwent a rhino-filler procedure with 1.2 ml of high-visco-elastic crosslinked hyaluronic acid for nasal reshaping. The injections were administered without a cannula, using a 27-gauge needle. A full-face cosmetic approach was proposed, explicitly enhancing the lateral nasal projection. Post-procedure monitoring and follow-ups were conducted to assess immediate and subsequent outcomes.

Results:

Initially, the patient reported high satisfaction; however, within days she experienced symptoms suggestive of nasal congestion, including a constant sensation of a runny nose and the perception of breathing 'cold' air. Upon examination through rhinoscopy, full-thickness necrosis of the anterior nasal septum was diagnosed. Treatment involved the administration of 1,200 U.I. of hyaluronidase and 100mg of daily aspirin alongside local mupirocin application. This intervention, crucially, led to the successful resolution of the necrosis and symptoms within two weeks.

Conclusion:

Filler-induced vascular occlusion leading to nasal septum necrosis represents a critical risk associated with non-surgical nasal contouring procedures. The case underscores the crucial role of technique, the choice of instruments, and the necessity for prompt recognition and treatment of complications. Although rare, the potential severity of such outcomes necessitates heightened awareness among practitioners and patients considering or performing nasal filler injections. This case contributes to the growing literature urging a cautious approach and enhanced diagnostic vigilance in aesthetic filler treatments.

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Abstract N°: 2727

CO2 versus Erbium or ND:Yag laser: the great debate

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CO2 versus Erbium or ND:Yag laser: the great debate

Introduction & Objectives:

Ablative fractional along wirth non-ablative lasers were introduced for treating facial rejuvanation. Limited studies have compared fractional CO2 and Er:YAG lasers on cutaneous aging. The aim of these studies were to compare these modalities in a randomized controlled double-blind split-face design with multiple sessions and larger sample size compared to previous studies done before.

Materials & Methods:

In these studies, patients were randomly assigned to receive three monthly treatments on each side of the face, one with a fractional CO2 and one with a fractional Er: Yag or long pulse ND: Yag laser. The evaluations included investigating clinical outcome determined by two independent dermatologists not enrolled in the treatment along with measuring skin biomechanical property of cheeks using a sensitive biometrologic device with the assessment of cutaneous resonance running time (CRRT). Moreover, possible side effects and patients' satisfaction have been recorded at baseline, 1 month after each treatment, and 3 months after the last treatment session.

Results:

Clinical assessment showed these modalities significantly reduce facial wrinkles (p value < 0.05), with no appreciable difference between lasers. These modalities significantly improved periorbital wrinkling, nasolabial folds, dyschromia and skin laxity, and sagging of jowls (p value < 0.05). Mean CRRT values also decreased significantly after the laser treatment compared to the baseline in the laser groups. There was no serious long-standing adverse effect after both laser treatments, but the discomfort was more pronounced by the participants after CO2 laser treatment. The downtime was significantly lower for the Nd:YAG-treated side.

Conclusion:

Fractional CO2 and fractional Er:YAG and Long pulse ND:Yag lasers show considerable clinical improvement of facial skin wrinkles with no serious adverse effects, but post-treatment discomfort seems to be lower with Er:YAG laser or long pulse ND:Yag. No downtime of long pulse ND:Yag makes it more acceptable for many patients.

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Abstract N°: 2764

axillary hyperpigmentation treatment: a review of the literature

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Introduction & Objectives:

Axillary hyperpigmentation is a common dermatologic complaint observed in practice, especially in darker skin patients. It is believed that axillary hyperpigmentation is a type of post-inflammatory hyperpigmentation (PIH) following persistent irritation and skin damage. Furthermore, it has been pointed out that axilla is different from other tissues in that it consists of more hair follicles, glands, and has weaker skin barriers.

To date, there exists no gold standard treatment for treatment of axillary hyperpigmentation. Various topical agents such as hydroquinone (HQ), tretinoin, and vitamin C as well as light and laser-based treatments namely QS Nd-YAG laser are being used in clinical practice.

In this study, we aim to address the efficacy and safety of the studied treatment modalities for axillary hyperpigmentation.

Materials & Methods:

We searched PubMed/Medline database and Google Scholar engine for the relevant articles published from inception until July 2023 by using the following keywords: Axilla, axillary hyperpigmentation, underarm, armpit, lightning, whitening, treatment, topical, and light and laser.

Notably we exclusively included the studies that only had a focus on treating the hyperpigmentation in the axillary area and not elsewhere.

Results:

Seven articles were included in this study. We categorized retrieved articles into three categories namely “topical treatments” and “light and laser-based modalities”, and “comparing topical and light and laser-based modalities”. Regarding topical treatments, one study compared the efficacy of niacinamide 4% with desonide 0.05% that showed that both modalities were effective and desonide showed a better depigmenting effect. The other compared the efficacy of Cyperus rotundus oil and hydroquinone (HQ) that showed both modalities were effective ($P < 0.05$) with similar efficacy and HQ had more side events. Last article studied the efficacy of *Perilla frutescens* L. leaves extract (PFLE) serum and confirmed the effectiveness of this extract. Regarding light and laser-based treatments, all three studies evaluated the effectiveness of Q-switched Nd:YAG laser and in one of these three studies, the effectiveness of Q-switched Nd:YAG laser was compared with IPL that showed no difference between Qs Nd:YAG and intense pulsed light (IPL). Regarding comparing topical and light and laser-based modalities, the comparison of alpha hydroxy acid (AHA) 40 % and IPL showed better results in favor of IPL.

Conclusion:

In this study, we found that both topical in addition to light and laser-based therapies are effective. The studied topical agents for axillary hyperpigmentation were Niacinamide, Desonide, CREO, AHA, HQ, and PFLE. Light and laser therapies applied for axillary hyperpigmentation were QS-Nd YAG and IPL. The most frequently used laser in treating axillary hyperpigmentation was QS Nd-YAG without having any severe adverse effect. Based on this

review, very few studies are available in the literature, and larger randomized studies in this field are essentially needed.

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Abstract N°: 2765

Anthropometric and Angular Measurements in Healthy Persian Females in Comparison to the Golden Ratio

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Introduction & Objectives:

Anthropology is the scientific exploration of the human body morphology. The present study aims to establish the anthropometric norms among young Persian ethnic women and compare them with golden proportion, a mathematical formula in facial aesthetics

Materials & Methods:

This cross-sectional study was performed on Persian women between July 2020 and January 2021. Persian women were selected based on the inclusion criteria of the study. Two standard photos were taken of each participant in profile and frontal angle, and then the anthropometric ratios were extracted and compared in different groups.

Results:

Two hundred and twenty-five Persian women aged 20-50 years with an average age of 32.4 ± 7.09 were included. The golden ratio in Fars ethnicity was 1.79 ± 0.24. Forehead height I significantly increased with age (P-value = 0.03). Philtrum length also showed a significant age-related increase (P-value = 0.001). Lower and upper lip heights increased with age (P-values = 0.002). Our results revealed statistically significant differences in the mean labial fissure width among the three age groups (p-value = 0.009). Lower vermilion height significantly decreased with increasing age (p-value = 0.028). The mentolabial and nasal dorsum angles exhibited significant differences among the age groups (p-values = 0.002). Furthermore, the jaw and chin angles were notably lower in the younger age groups (p-values = 0.047 and 0.001, respectively). When comparing different ethnicities, the Turk ethnicity stood out as having a significantly higher chin angle

Conclusion:

In conclusion, the present study challenges the universality of the golden ratio, with Persian females demonstrating a closer adherence to a ratio of 1.75 and recommending a modified golden ratio for Middle Eastern. Our findings also highlight the importance of considering age-related changes in cosmetic interventions, particularly lip and forehead dimensions.

Keywords: Anthropometry, women, face, facial dimensions, Persian

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Abstract N°: 2809

Comparison of the efficacy and safety of a 730nm picosecond titanium sapphire laser and a 1064nm picosecond neodymium yttrium aluminum garnet laser for the treatment of acquired bilateral nevus of Ota-like macules: A split-face, evaluator-blinded, randomized, controlled pilot trial.

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Introduction & Objectives:

Picosecond neodymium yttrium aluminum garnet laser (PNYL) has been successfully used in the treatment of acquired bilateral nevus of Ota-like macules (ABNOM). 730-nm picosecond titanium sapphire laser (PTSL) is an emerging tool for pigmentary disorders, no studies have compared two different wavelengths of picosecond laser for the treatment of ABNOM.. We aimed to compare the efficacy and safety of the 730-nm PTSL with 1064-nm PNYL in the treatment of ABNOM..

Materials & Methods:

Fifteen participants with ABNOM were randomized to undergo a single session of either 730-nm PTSL on one side of the face and 1064-nm PNYL on the other side. The assessment of efficacy and safety was performed by blinded visual evaluations at baseline, 12 weeks and 24 weeks post the treatment. Participants satisfaction and adverse effects were recorded.

Results:

As compared with baseline,** The 730-nm PTSL-treated side achieve better improvement than that of the 1064-nm PNYL 24 weeks post the treatment (1.67±1.047 vs. 0.87±0.640, P=0.027). There are no significant differences in the pain sensation, post-inflammatory hyperpigmentation (PIH) rates and participants satisfaction rates between both laser treatments.

Conclusion:

730-nm PTSL is safe and more effective than 1064-nm PNYL in the treatment of ABNOM.

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Abstract N°: 2828

Revolutionizing Gluteal Augmentation with The Round Ass Technique: A Unique Approach

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Introduction & Objectives: Various dermal fillers such as hyaluronic acid, polylactic-L-acid, calcium hydroxyapatite, and polymethylmethacrylate (PMMA) each have unique indications, absorption rates and mechanisms of action. PMMA-collagen gel is notably effective, evidenced by FDA trials showing an 83% satisfaction rate among participants five years post-injection. In Brazil, PMMA gel is approved for treating lipodystrophy in AIDS patients and for facial and body volumetric corrections and is classified as a high-risk product requiring administration by certified professionals only.

Materials & Methods: We hereby report our technical approach "Round Ass Technique" achieved through the injection of PMMA fillers to achieve an exceptional, long-lasting, and safe approach for patients who desire to improve the appearance of their buttocks. We additionally present a literature review of the topic for a complete overview of the procedure's indications, safety, and potential complications.

Results: There is a growing interest in buttock augmentation, although preferences for buttocks aesthetics vary widely by culture, gender, and era. Studies indicate that the ideal waist-to-hip ratio is 0.75 for women and 0.85 for men when viewed from behind. For attractiveness, 25% of male respondents favor the lateral prominence at the lower gluteal fold. In women, the most appealing buttock shape from the side is when the highest point is at the midpoint, creating an even vertical distribution. By adopting our finely perfected Round Ass Technique, which utilizes standardized primary, secondary, and tertiary access points to inject PMMA 15% and PMMA 30%, we tailor the method and volume correction to the patient's specific anatomy, needs, and desires. This approach ensures a safe and sterile procedure, minimizes risk, and achieves outcomes that meet modern beauty standards. It requires a well-trained, certified professional for execution and results in a high rate of patient satisfaction and self-esteem restoration, while offering a safer alternative to conventional surgical options.

Conclusion: The Brazilian Butt Lift (BBL) and the use of silicone implants both present significant risks. In contrast, a decade-long study involving 2,770 PMMA injections for buttock augmentation reported no vascular complications, such as rejection, migration, or displacement. While PMMA, like other injectable fillers including hyaluronic acid, can cause granuloma formation, the incidence rates are relatively low between 0.1% and 1%. Proper technique and experienced injectors are critical in minimizing these risks. PMMA being a permanent filler does raise concerns, the decision to use it should be judiciously made by the physician, who must inform patients of all potential risks associated with the procedures they undergo, but in the right hands, it can provide exceptional results and huge patient satisfaction. We reemphasize that a refined technique and injector experience are essential.

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Abstract N°: 2833

Efficacy of Laser Therapy in Treating Facial Nerve Palsy and Improving Facial Symmetry: A Systematic Review and Comparative Analysis

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Introduction & Objectives: Facial nerve palsy, or Bell's palsy, is characterized by the paralysis of facial muscles due to dysfunction in the seventh cranial nerve. This condition can arise from various causes including stroke, diabetes mellitus, hypertension, Lyme disease, and herpes zoster. The paralysis leads to significant impairment in facial expressions which can severely impact a patient's self-esteem and psychological health. Dermatologists play a crucial role alongside neurologists in the treatment of facial nerve palsy and restoration of facial symmetry to improve overall facial aesthetics. Laser therapy, in particular, has been under investigation for its potential to enhance nerve regeneration, alleviate symptoms, and bolster neurosensory function. Our systematic review aims to update the current knowledge on the various laser parameters and their efficacies in treating Bell's palsy and to provide a comparative analysis with standard rehabilitation approaches to establish a comprehensive understanding of the most effective strategies for managing facial nerve palsy.

Materials & Methods: We conducted a systematic review following PRISMA guidelines. Based on our keyword-based search strategy on PubMed, Scopus, and Cochrane, we yielded 171 total articles. After deleting duplicates and performing 2 rounds of screening based on inclusion and exclusion criteria for study designs and population, intervention, comparison, and outcome (PICO) criteria, a total of 13 articles were eligible and included in our review.

Results: Low-level laser therapy (LLLT) is a non-invasive phototherapy that activates intracellular signaling pathways. By doing so, it enhances microcirculation, stimulates axonal growth, augments myelination, improves nerve conductivity and thus participates in an active treatment of facial palsy. As an outcome endpoint, therapeutic effectiveness was evaluated using various scales and scores, the most popular being the House-Brackmann system and the Facial Disability scale. Our results indeed show that, within 6 months, most patients with Bell's palsy, including diabetic patients, do significantly regain complete functional activity of the injured facial nerve after LLLT. Changes in laser power, fluency and wavelength alter the degree penetration, potency, and effectiveness, as seen in the 10x more penetrative double-wavelength laser or in high intensity laser therapy (HILT) which both offer faster nerve regeneration and subsequently faster healing rates than LLLT. Continuous beams offer anti-inflammatory and anti-edematous benefits pulsations offer an analgesic effect. A multidisciplinary approach combining laser therapy with traditional treatments yields the most rapid improvements in managing facial nerve palsy. These traditional treatments include botulinum toxin injections to the contralateral side, adipose-derived stem cell therapy, and tissue fillers to address atrophy caused by prolonged paralysis. Additionally, acupuncture, facial exercises, and massage are integral to this comprehensive treatment strategy, significantly enhancing patient recovery and facial symmetry.

Conclusion: In conclusion, laser therapy has shown significant results in functional recovery of the injured nerve and restoration of facial symmetry and can be considered a safe and effective treatment for Bell's palsy especially when combined with other treatment modalities

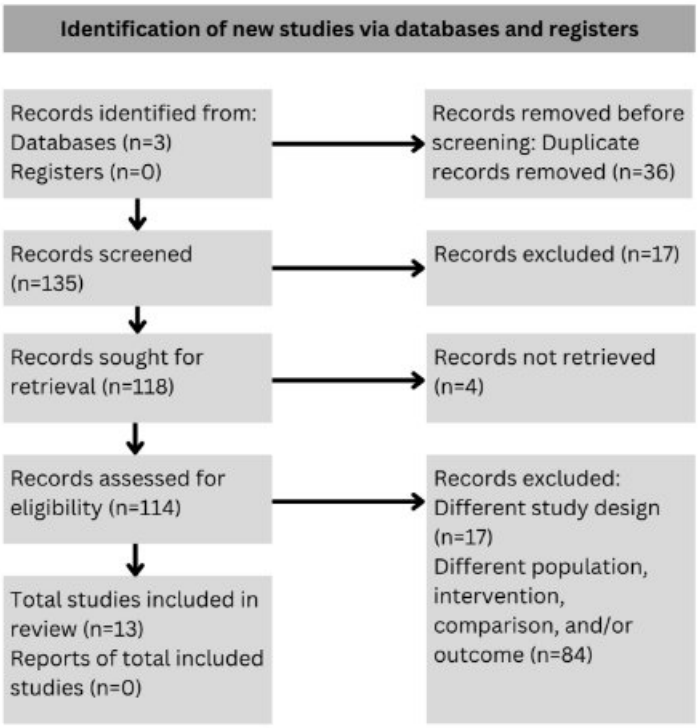

Figure 1: The PRISMA Flow Diagram for the study

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Abstract N°: 2877

Effects of hypoxic exosomes from adipose-derived stem cells on photoaging model

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Introduction & Objectives:

Photoaging is a common dermatological condition, significantly alters skin structure and function. The application of exosomes as cell-free therapeutics in anti-photoaging has become extensive. While exosomes from adipose-derived stem cells (ADSCs) can alleviate photoaging, their utility is limited by variability in quantity and potency. Hypoxia may enhance quantity and content of exosome cargos. This study aims to investigate the effects of exosomes from hypoxia-induced ADSCs (hypoxic exosome) in ameliorating signs of photoaging in mice model.

Materials & Methods:

Six-week-old female BALB/c mice were repeatedly exposed to ultraviolet irradiation for 12 weeks to establish photoaging model. Exosomes were extracted from hypoxia-induced ADSCs by ultracentrifugation. Collected hypoxic exosomes were identified by specific markers such as CD9, CD63 and CD81 using flow cytometry. Exosome morphology was determined by transmission electron microscope and the particle size-distribution was evaluated by nanoparticle tracking analysis. The photoaged mice were treated with two exosome doses, 50 µg/mL (Exo1) and 100 µg/mL (Exo2). 100 µL of exosomes were applied on aged skin, 2 times/week for 6 weeks. The therapeutic efficacy of hypoxic exosomes was assessed with some criteria. Skin wrinkles were evaluated by microscope using Bissette scale. Skinfold thickness was measured by a digital caliper (Mitutoyo, Japan). The elasticity of the skin was examined by pinch test. Skin hydration was quantified using Corneometer®CM825 probe (Courage + Khazaka electronic GmbH, Cologne, Germany). Epidermal and dermal thickness were evaluated by Hematoxylin and eosin (H&E) staining. Collagen quantification stained by Masson's trichrome was analyzed using Image J software **(**National Institutes of Health, USA**)**. Furthermore, gene expression of MMPs was detected using Real-time RT-PCR.

Results:

Hypoxic exsosome expressed high positivity for markers CD9 (76.0%), CD63 (91.2%), and CD81 (99.6%). Exosome also had a cup shape with size range from 30 nm to 150 nm and the density of exosome was 7x1010 particles per mL. The results showed that after 6 weeks of treatment, skin wrinkles in Exo2 group were improved compared to those of the Exo1 and UV group ($p<0.001$), nearly the score of the positive control. Skinfold thickness in the exosome groups was markedly decreased compared to that of the UV group ($p<0.05$). The snap back-time of the exosome groups was significantly lower than that of the UV group and similar to normal skin. Skin hydration was increased in the treated-group compared to the model group ($p<0.05$). The epidermal and dermal thickness in the exosome groups* were observed to decrease significantly and the intensity of collagen was elevated in the Exo2 group compared to that of the UV group. MMP-1 and MMP-2 mRNA expression slightly downregulated in the Exo2 group compared to those in the irradiated group.

Conclusion:

Our results demonstrated that topical application of hypoxic exosomes from ADSCs could remarkably ameliorate ultraviolet-induced skin damage, paving the way for novel strategies in photoaging treatment.

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Abstract N°: 2915

Favourable Response of Telangiectasia Macularis Eruptiva Perstans to 595 nm Pulsed Dye Laser

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Introduction & Objectives:

Telangiectasia macularis eruptiva perstans (TMEP) is a rare form of cutaneous mastocytosis often refractory to therapy. There is no established gold standard treatment regimen, with most therapeutic measures targeting symptomatic relief. Pulsed dye laser (PDL) is a viable treatment modality for TMEP but its efficacy has not been widely discussed. We present a case of TMEP with a favourable response to PDL.

Observation:

A 55-year-old Chinese man presented with pruritic erythematous telangiectatic macules and patches over the trunk and arms. A skin biopsy confirmed the diagnosis of TMEP. His symptoms were mildly alleviated with bilastine, a non-sedating H1-antihistamine. Other treatment modalities including other antihistamines (cetirizine, loratadine, hydroxyzine), montelukast and sodium cromoglycate - were all ineffective in relieving his itch. Subsequently, the patient underwent 2 sessions of 595-nm PDL 3 months apart, with the following settings: 6.5 - 7.5J/cm2, 10mm, 1.5ms. Purpura as a clinical endpoint was achieved and ice packs were applied to treated areas. The patient tolerated the treatments well. There was noticeable improvement of the cutaneous lesions especially over the chest. Notably, the patient also reported a significant improvement in the itch.

Key Message:

The appearance and pruritus associated with TMEP can cause psychological distress for patients and can be challenging to treat. While PDL has a long history of safe and effective use for vascular lesions, its use in TMEP has not been widely discussed. Side effects include transient discomfort , purpura and rarely ulceration. PDL works on the principle of selective thermolysis. The major chromophore targeted is oxyhaemoglobin, resulting in heating and destruction of abnormal blood vessels. This effectively improves the appearance of skin lesions but may not be as successful in reducing itch or other mast-cell related symptoms. Nonetheless, some patients have experienced a reduction in pruritus such as our patient, as reported above.

Conclusion:

In conclusion, we present a case of TMEP with clinically favorable response to PDL, adding to the armamentarium of treatment options for this condition.

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Abstract N°: 3062

The Therapeutic Potential of Adipose-Derived Stem Cells in Fat Grafting for Facial Paralysis: A Review

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Introduction & Objectives: Hemifacial paralysis, characterized by the complete loss of voluntary muscle control on one side of the face, profoundly impacts individuals' daily lives. Traditional treatment options such as surgery, physical therapy, and supportive care primarily aim to manage symptoms without fully restoring natural movement and facial expressions. Recently, stem cell therapy has gained attention as a promising avenue for addressing various medical conditions, thanks to its capacity for self-renewal and differentiation into specialized cell types. This review explores the use of adipose-derived stem cells (ASCs) as an innovative approach to treating facial paralysis, focusing on their potential to enhance recovery and improve quality of life for affected individuals.

Materials & Methods: A comprehensive literature review was conducted using the search terms "facial paralysis," "adipose-derived stem cells," "facial palsy," and "fat grafting." This search was carried out across PubMed, Scopus, and ScienceDirect databases to gather relevant studies and publications on the topic. After going through 617 articles and applying inclusion and exclusion criteria, 15 articles and their references were included.

Results: Adipose-derived stem cells (ADSCs) are obtained from the stromal-vascular fraction (SVF), which includes a diverse mix of cell types such as mesenchymal stem cells (MSCs), pericytes, endothelial cells, smooth muscle cells, lymphocytes, and tissue macrophages. The SVF has been shown to promote nerve regeneration, primarily through the differentiation potential of MSCs into Schwann cell-like cells. In vitro and in vivo studies have demonstrated that MSCs within the SVF can differentiate into cells exhibiting neuronal phenotypes, enhancing axonal regeneration, motor performance, and the secretion of growth factors. Furthermore, the SVF encompasses a variety of non-adherent hematopoietic lineage cells, including aldehyde dehydrogenase (ALDH)-positive cells. ALDH-positive cells, recognized as a novel marker for hematopoietic stem cells, are hypothesized to facilitate nerve regeneration through their role in vascular regeneration. ADSCs are particularly notable for their ability to differentiate into Schwann-like cells, which are essential for guiding axon regeneration. ADSCs contribute to the regeneration of peripheral nerves by secreting a range of neurotrophic and angiogenic factors, such as glial-derived neurotrophic factor, brain-derived neurotrophic factor, insulin-like growth factor 1, ciliary neurotrophic factor, nerve growth factor, and neurotrophin-3 and -4. These cells also exert a paracrine effect by secreting factors that establish a conducive microenvironment for nerve healing. Additionally, following demyelination, ADSCs can release exosomes that stimulate the production of basic myelin protein, thereby promoting the myelination of injured peripheral nerves.

Conclusion: ADSCs contribute to enhanced regenerative outcomes, including functional improvement, significant axonal growth, increased counts of myelinated fibers, greater myelin thickness, and improved target reinnervation. While the results are not as robust as those achieved with nerve autografts, ADSCs offer a viable alternative for the reconstruction of facial nerve palsy. This positions them as a promising option in scenarios where traditional nerve grafting may not be feasible or preferred.

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Abstract N°: 3063

Standardized Ultrasonographic Facial Mapping Protocol for Evaluating Cosmetic Fillers and Anatomical Variations

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Introduction & Objectives: The adoption of high-frequency ultrasound (≥15 MHz) has significantly improved the definition of skin layers, making it invaluable in dermatology for planning before, during, and after procedures, including those involving aesthetic treatments. In fact, ultrasound serves as the primary imaging technique for managing fillers, evaluating inflammatory reactions, enabling vascular mapping, ensuring safe placement of fillers, and guiding the targeted low-dose administration of hyaluronidase to reverse vascular adverse events. With superior axial spatial resolution compared to MRI, ultrasound is emerging as a preventative tool and is poised to become a standard piece of equipment in cosmetic practitioners' offices. The goal of this study is to describe a protocol for facial mapping using a high-frequency transducer of 22 MHz to assess the presence and condition of pre-existing facial filler products and allow better planning for future treatments.

Materials & Methods: The protocol utilizes a comprehensive multiplanar approach with high-frequency Doppler ultrasound to evaluate soft tissues and designated areas of interest. This method involves analyzing various facial regions in a clockwise direction, including vascularization across 18 facial zones. The protocol is designed to standardize the evaluation of common injection sites and to document any anatomical variation and previously executed cosmetic procedures.

Results: The facial mapping protocol aims to detect any filler material as well as signs of necrosis or inflammation. The examined areas include the orbital regions (infraorbital, malar, zygomaticofacial), mandibular border and body, chin, nasolabial sulcus, nose, lips, temporal areas, supraorbital area, and the cervical area. These areas are assessed in a specific sequence to ensure that the evaluator does not overlook any region and to standardize the reporting system. This methodical approach helps maintain consistency and accuracy in the evaluation process. A detailed facial map is created for reference (Figure 1). Using ultrasound, the type of filler, most commonly hyaluronic acid, is identified, and its distribution and diffusion are evaluated. As the injected areas are considered high-risk zones for necrosis and other tissue complications, this technique is crucial for assessing vascular risks and potential compressions. This assessment helps avoid complications by guiding treatment decisions, thereby ensuring both safety and optimal aesthetic outcomes.

Conclusion: Ultrasonographic examination is increasingly indicated for evaluating previous cosmetic facial procedures and identifying anatomical variations. This approach is becoming crucial as patients often undergo multiple procedures by different physicians before presenting at a particular clinic. Patients may be unaware, uncertain, or unable to recall the types of substances injected and their locations. Consequently, the use of facial mapping through ultrasound ensures safer and more effective treatment planning and management for both new and follow-up aesthetic procedures.

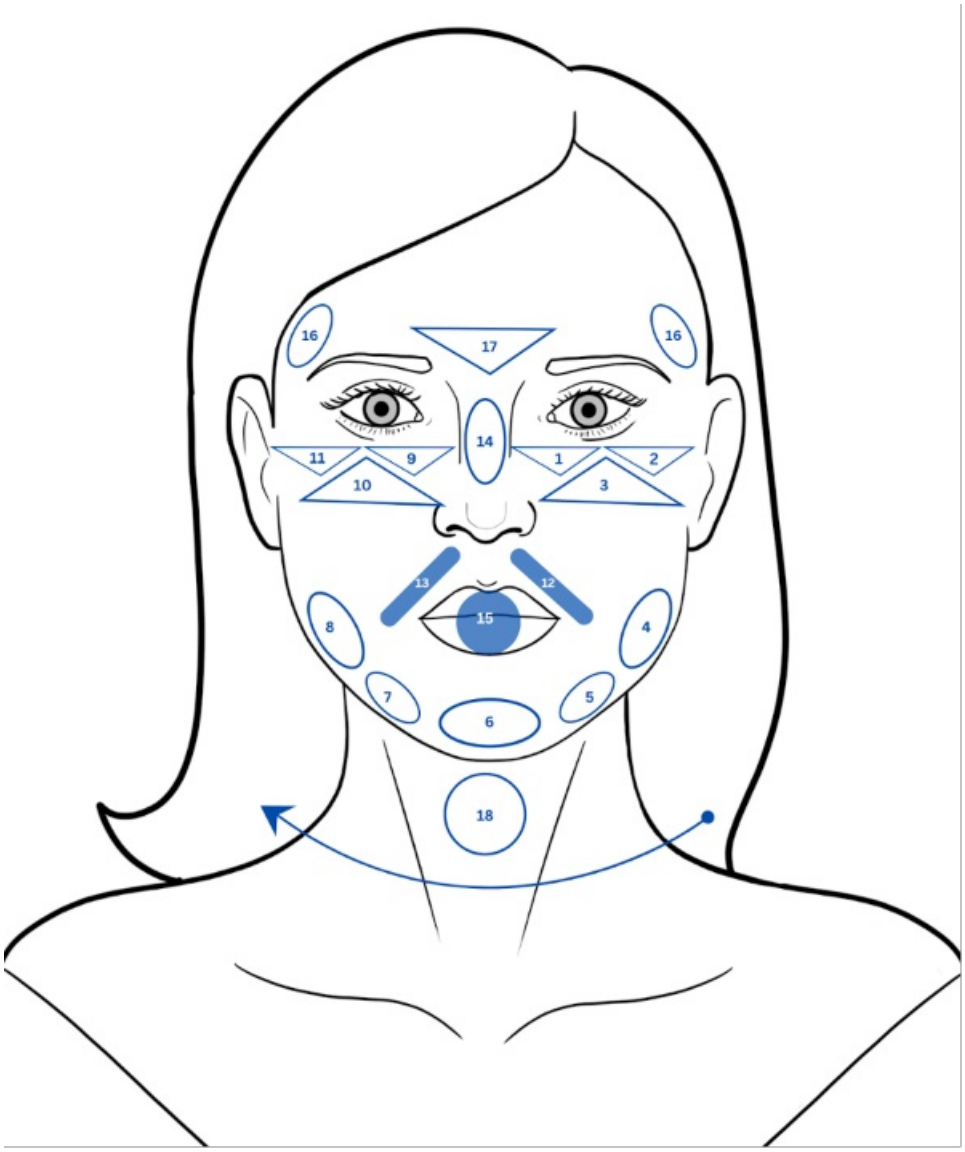

Figure 1: Figure demonstrating the areas to be covered by the facial mapping protocol

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Abstract N°: 3092

Experience of Laser Therapy Emission with 675 nm Wavelength for the Treatment of Androgenetic Alopecia in Indian Male and Female Patients.

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Introduction & Objectives:

Androgenetic alopecia (AGA) is a common condition affecting both men and women globally, with particularly high prevalence rates observed in India (around 87%), causing significant psychological and emotional distress. The primary goal in managing AGA is to halt its progression. AGA is characterized by abnormal androgen signaling, disruption of epithelial cell activation, and altered cell proliferation, along with elevated inflammatory markers and dysregulated WNT/b-catenin pathway signaling, which contribute to its progression. Low-level light therapy (LLLT) using laser devices emitting wavelengths typically between 650-1200nm, particularly red light laser treatment (630–700 nm), has shown promising results in AGA therapy by strengthening hair, improving blood circulation, modulating oxidative stress, and promoting hair growth factors. However, research specifically investigating the efficacy of 675nm wavelength laser for AGA is limited. This study aimed to evaluate the efficacy of laser therapy emission with a 675 nm wavelength for the treatment of AGA in Indian male and female patients.

Materials & Methods:

A total of 20 Indian patients (7 males and 13 females) with AGA were enrolled. The laser device emitting a wavelength of 675 nm was used for the treatment. Patients underwent laser therapy of total eight sessions twice a week, once in 2 weeks for 4 sessions and once a month for two sessions. Clinical assessment using Fotofinder and photographic evaluations were conducted at baseline and follow-up visits. Statistical analysis was performed to assess changes in hair parameters.

Results:

Significant improvements were observed in the count and density of hairs following laser therapy. The mean change in the percentage of hair count and hair density significantly increased from baseline to follow-up by 16.56%. Additionally, changes in hair length, thickness, and follicular units were noted, indicating a positive response to treatment. Side effects were monitored throughout the study period, with no significant adverse events reported.

Conclusion:

Laser therapy with a 675 nm wavelength shows promise in improving AGA in Indian patients, stimulating the anagen phase and positively affecting hair parameters. This non-invasive treatment option offers potential benefits with minimal side effects, highlighting its value in AGA management.

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Abstract N°: 3112

Pico vs. Nano second Q-Switched Lasers

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Introduction & Objectives:

Laser technology has revolutionized dermatological treatments, with picosecond (ps) and nanosecond (ns) Q-switch lasers emerging as key tools for various skin conditions. This presentation compares the efficacy, safety, and outcomes of picosecond and nanosecond Q-switch lasers in dermatology. Aim of this study was to evaluate and contrast the performance of picosecond and nanosecond Q-switch lasers in treating dermatological conditions, considering parameters such as wavelength, pulse duration, fluence, spot size, treatment indications, clinical outcomes, adverse effects, and patient satisfaction.

Materials & Methods:

A comprehensive review of literature and clinical studies was conducted to analyze the effectiveness and safety of picosecond and nanosecond Q-switch lasers in different dermatological applications, including tattoo removal, pigmentary disorders, vascular lesions, and acne scars. The parameters considered for comparison include laser wavelength, pulse duration, fluence, spot size, treatment indications, clinical outcomes, adverse effects, and patient satisfaction.

Results:

Picosecond lasers, with ultra-short pulse durations, demonstrate superior outcomes in tattoo removal and pigmentary disorders such as melasma and post-inflammatory hyperpigmentation. They achieve faster clearance and require fewer treatment sessions compared to nanosecond lasers. Nanosecond Q-switch lasers are effective for treating pigmented lesions, vascular lesions, and acne scars, with a lower risk of post-inflammatory hyperpigmentation, making them safer for patients with darker skin types.

Conclusion:

Both picosecond and nanosecond Q-switch lasers offer valuable treatment options in dermatology. Picosecond lasers excel in tattoo removal and certain pigmentary disorders, while nanosecond lasers are preferred for pigmented lesions, vascular lesions, and acne scars. Treatment selection should be guided by specific indications, patient characteristics, and desired clinical outcomes to optimize treatment efficacy and patient satisfaction.

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Abstract N°: 3113

Restoring barrier function of micro-damaged epidermis with topical application of sucralfate, oligofructans (Ophiopogon japonicus) and probiotics (Lactobacillus ferment lysate).

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Introduction & Objectives:

The objective of this study was to assess tolerability and efficacy of an innovative dermocosmetic formulation containing probiotics, oligofructans and patented sucralfate encapsulated in microspheres. The emulsion was designed for regular care of sensitive, allergic and hyperreactive skin, for body and face (including eyelids). It can also repair and regenerate micro-damage in stratum corneum in patients after various aesthetic treatments.

Materials & Methods:

In order to evaluate safety of tested product, skin irritation (MTT) and sensilization (IL-18) potential on EpiDerm model was assessed.

The in vivo study was performed in 4 groups.

Group I

A group of adults applied the cream on face (22 volunteers; 1-2 times a day) or on their left calf and irritated skin areas (12 volunteers) for 3 weeks. Before and after the treatment the levels of moisture, sebum content and skin tone were measured (Courage-Khazaka). All participants completed self-evaluation questionnaire as well as the sensitivity scale before and after the study. In addition, before and 2 hours after product application, TEWL measurements were taken (n=5, forearm).

Group II

High- resolution ultrasound (HRU) was used to measure thickness of the epidermis and dermis as well as dermis echogenicity before and after 3 weeks of product application. Split test was performed (left calf – no treatment; right calf – tested product) in a group of 14 adult volunteers. Levels of moisture and TEWL were monitored as well.

Group III

A group of 24 children who used the product 1-2 times a day for 3 weeks on skin face (and/or mouth area) and/or irritated body skin (including diaper area). All participants/legal guardian completed a self-evaluation questionnaire after the study.

Group IV

Dermatological assessment included 10 patients with scars, fresh tattoos and irritations around the lips (herpes symptoms) and 10 patients after aesthetic medicine (mesotherapy, dermabrasion, laser therapy, chemical peels).

Results:

In vitro: The product did not exhibit irritation potential in test performed on EpiDerm (relative tissue viability was 92.4%). Furthermore, the product did not induce IL-18 release, suggesting non-sensitisation properties.

In vivo: instrumental analysis showed an increase in skin moisturization (+20% on the cheek, +22% on the calf), an increase in nourishing of the skin (+121% on the calf) and a decrease in TEWL (-18% on the forearm).

HRU analysis confirmed an increase in moisturization of the deeper layers of the skin after 3 weeks of using product. Result was statistically significant. Dermatological evaluation confirmed excellent tolerability of the product and its very good regenerating properties after aesthetic medicine procedures.

Conclusion:

The obtained results demonstrate that the use of cream with encapsulated sucralfate, probiotics, oligofructans improves the skin's barrier function in patients with micro-damages in the stratum corneum.

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Abstract N°: 3121

Premature aging in connective tissue dysplasia

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Introduction & Objectives: Connective tissue dysplasia (CTD) is a heterogeneous group of conditions caused by defects in the genes responsible for the synthesis of all components of the extracellular matrix and subsequent post-transcriptional modifications.

Phenotypic manifestations of CTD are described in the form of clinical and functional syndromes such as «cosmetic syndrome» accompanied by specific changes in appearance and the early signs of aging manifestation.

CTD is accompanied by impaired skin regeneration and violation of its barrier properties, early atrophy, changes in viscoelastic properties (increased extensibility), development of wrinkles, facial soft tissue ptosis and abnormal scars. This leads to dysphoria, decrease in the quality of life and become the reason for contacting cosmetologists and plastic surgeons.

Various clinical manifestations of CTD from benign subclinical forms to multiple organ and multisystem lesions with progressive course complicate diagnostic process. The criterion for making a diagnosis is the presence of at least 6—10 probable signs that requires the cosmetologist and plastic surgeon to have a good knowledge of associated lesions in all organs and systems (cardiovascular, nervous, osteoarticular, etc.) and interpreting data of functional examinations.

Materials & Methods: To optimize the methods of screening CTD at an outpatient appointment was developed a questionnaire “Characteristics of the dysplastic phenotype during invasive procedures and manipulations” which allows assessing the state of the respondent’s connective tissue.

Results: Patients with DST have low regenerative potential of the skin and skin barrier dysfunction and also leads to violation of autoregulatory molecular mechanisms and signaling pathways of metabolism of the connective tissue of the dermis which changes the ability of reparative processes, increases the risk of pathological scarring and leads to a higher risk of complications.

Conclusion: Timely diagnosis and mesotherapeutic correction can reduce the severity of age-related changes observed in dysplasia by regulating the metabolism of components of the connective tissue of the dermis, as well as activating mechanisms of self-regulation and restoration of signaling pathways.

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Abstract N°: 3224

Tailored Strategies for Managing Hyperpigmentation in Skin of Color

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Introduction & Objectives:

Hyperpigmentation disorders such as melasma and post-inflammatory hyperpigmentation present challenges, particularly in darker skin tones, which are more prone to pigmentation irregularities and may respond differently to treatment. This presentation explores innovative and tailored approaches to effectively manage these conditions across a spectrum of skin types, with a focus on optimizing safety and efficacy to minimize the risk of exacerbation.

Materials & Methods:

The first part of my lecture will review the pathophysiology and epidemiology of common hyperpigmentation disorders, emphasizing the biological differences in pigmentation across diverse skin tones. It will then introduce the latest advancements in treatments for melasma and post-inflammatory hyperpigmentation, discussing the efficacy of newer therapeutic options like tranexamic acid, novel peptide complexes, and antioxidant-rich formulations designed to target the melanogenesis process more precisely.

The presentation will then transition to combination and multi-modal treatment approaches integrating topical agents, chemical peels, and laser therapy. Specific attention will be given to the customization of these therapies to suit different skin types, particularly those with higher melanin content. The presentation will highlight how different modalities can be combined to achieve synergistic effects, reduce treatment time, and improve overall skin appearance.

Results:

Practical case studies and patient management strategies will be shared to illustrate successful outcomes and the nuanced approach required when treating hyperpigmentation in pigmented skin. Best practices for pre-treatment assessment, post-treatment care, and the management of potential side effects will also be covered.

Conclusion:

In conclusion, the presentation aims to equip dermatologists with a comprehensive understanding of the complexities involved in managing hyperpigmentation in diverse skin tones and to provide evidence-based strategies for improving patient outcomes through individualized care.

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Abstract N°: 3352

Thermal burn injury keloid scars treated with intralesional steroids and pulsed-dye laser therapy

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Introduction & Objectives:

Hypertrophic and keloid scars, often arising as a consequence of trauma, burns, or surgical procedures, are a treatment challenge in Dermatology. Several modalities are available and have been used, including intralesional steroids and different laser treatment approaches, each with its own limitations, but the results seldom are entirely satisfying.

Materials & Methods:

We present a case of a 69-year-old female patient with keloid scars following a thermal burn injury, highlighting the treatment approach integrating intralesional steroids and pulsed-dye laser therapy.

Results:

A 69-year-old Caucasian female, Fitzpatrick's phototype II, with no relevant comorbidities, presented to our dermatology outpatient department with extensive keloid scars on her face, chest and arms, causing significant functional impairment and psychological distress, following a thermal burn injury one year earlier, with prolonged stay in a burn intensive care unit. After discussing the possible treatment options and potential risks with the patient, we decided for a combination therapy approach on the keloid scars of the face, with intralesional triamcinolone acetonide and betamethasone dipropionate injections followed by pulsed-dye laser sessions at monthly intervals. After 6 months of treatment, there was a noticeable improvement in the appearance of her keloid scars, with a reduction in their size, and thickness, and an enhancement in the overall texture and elasticity of the skin, alongside a significantly improved quality of life. There were no associated complications or adverse events, besides discreet transient erythema and mild discomfort during laser treatments. Treatment is still ongoing until we reach optimal results.

Conclusion:

Intralesional corticosteroids have become a cornerstone of both treatment and prophylaxis of hypertrophic and keloid scars. The mechanism of corticosteroid action is related to the suppression of collagen synthesis by decreased gene expression within the scar. Advances in laser technology have made laser therapy one of the most advantageous treatments of scars, targeting the vascular component, but also through collagen fibers remodeling. This case highlights the efficacy and safety of combining intralesional steroids and pulsed-dye laser therapy for the treatment of hypertrophic and keloid scars, particularly in patients with thermal burn injuries. The effectiveness of the association of these two modalities is due to their synergistic effect, which addresses both the hypertrophic scar tissue and the associated vascular abnormalities.

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Abstract N°: 3354

Tolerance and efficacy of a new anti-hair loss serum containing Silybum marianum extract, Manganese PCA and Lespedeza capitata extract in men with androgenetic alopecia (AGA) after hair transplant

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Introduction & Objectives:

The benefits of an anti-hair loss topical product in the management of patients undergoing hair transplants have not been studied so far. The aim of this study is to assess the complementary benefit of a new anti-hair loss serum to the surgical treatment.

Previous clinical studies have demonstrated that a new anti-hair loss serum containing Silybum marianum extract, Manganese PCA and Lespedeza capitata extract is well tolerated and has a significant efficacy in chronic telogen effluvium in women. The aim of this study is to assess the tolerance and the efficacy of this new serum applied once daily on hair and scalp 2 weeks before and for the first 12 months (M) after the hair transplant in men undergoing hair transplant for their androgenic alopecia with Follicular Unit Excision technique.

Materials & Methods:

This multicentric, randomized controlled and open study in parallel groups was conducted on 30 patients undergoing hair transplant for their AGA with micrografts (Follicular Unit Extraction technique) included into two groups of 15: one treated group with serum associated with neutral shampoo and one control group with neutral shampoo only. Serum was applied once a day and shampoo was done ad libitum. Efficacy and tolerance were assessed by dermatologists and patients after M0.5, M1, M3, M6, M9 and M12 depending on the criterion: The evaluation included global aspect of the scalp and hair growth using clinical 5-point-scale, scalp soothing and cosmetic recovery on M0 and M0.5, M1 and M3 according to the sign by scoring of physical signs according to a Numerical Rating Scale (0-10), functional signs as scalp discomfort sensations, global efficacy with Patient Global Assessment using a 5-point-scale. Adverse Events, physical and functional signs and patient's global tolerance of the serum were also assessed.

Results:

30 males were included into two groups with 15 subjects in the treated group with a mean age of 36.4 years old (age range 26 to 57 years old) and 15 subjects in control group with a mean age of 43.9 years old (age range 31 to 64 years old). After hair transplant, when compared to the control group, the serum, seems to improve the global aspect of the scalp (the improvement is greater and more quickly versus control group) after 1 month until 12 months, seems to improve the state of hair (the improvement is higher in the treated group) after 1 month, seems to help to promote hair growth after 6, 9 and 12 months (improvement of the hair growth is higher in the treated group) and has soothing effect on discomfort sensation perceived as painful after 2 days and 1 month and on tightness sensations after 1 month *versus* control group. The global tolerance assessed before and after hair transplant is scored as excellent by dermatologist. The product's acceptability is very good, and no subject reported any omission or change of the frequency of test product.

Conclusion:

Our study’s results show that the new anti-hair loss serum has beneficial effects on the aspect of the scalp and on the state of the hair, also on hair growth and soothe the scalp after hair transplant.

We conclude that the serum improves the recovery after hair transplant when compared with a control group receiving only a mild shampoo. This clinical study provides evidence for the benefits of the serum containing Silybum marianum extract, Manganese PCA and Lespedeza capitata extract in the management of hair transplant procedures.

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Abstract N°: 3452

Spilling the Tea on Lipsticks: A Cross-Sectional Study on the Side Effects

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Spilling the Tea on Lipsticks: A Cross-Sectional Study on the Side Effects

Introduction & Objectives:

Lipstick has evolved significantly, becoming a multi-billion-dollar industry globally. Concerns have arisen regarding the potential adverse effects on skin health because of its composition. Adverse reactions such as allergic contact dermatitis and dryness have been reported, prompting the need for increased research in cosmetic dermatology.

This study seeks to address the gap in understanding the prevalence and nature of adverse reactions to lipstick and to provide insights into the dermatological implications of lipstick usage. We aim to uncover the relationship between lipstick use and consumer well-being, prompting a shift toward manufacturing lipsticks that prioritize customer preferences and lip health.

Materials & Methods:

We conducted a 21-day online survey (Figure 1.) via social media from April 2nd to April 23rd, 2023. We gathered 226 responses from 21 countries, as a cross-sectional study. Informed consent was obtained from all participants before the survey. Responses lacking consent were discarded. The study was exempted from ethical approval by our institution, as it involved non-identifiable data. Participants provided demographics, lipstick usage, and adverse reaction data anonymously and voluntarily. Statistical analysis, including the Chi-square test, was applied to extract key insights.

Results:

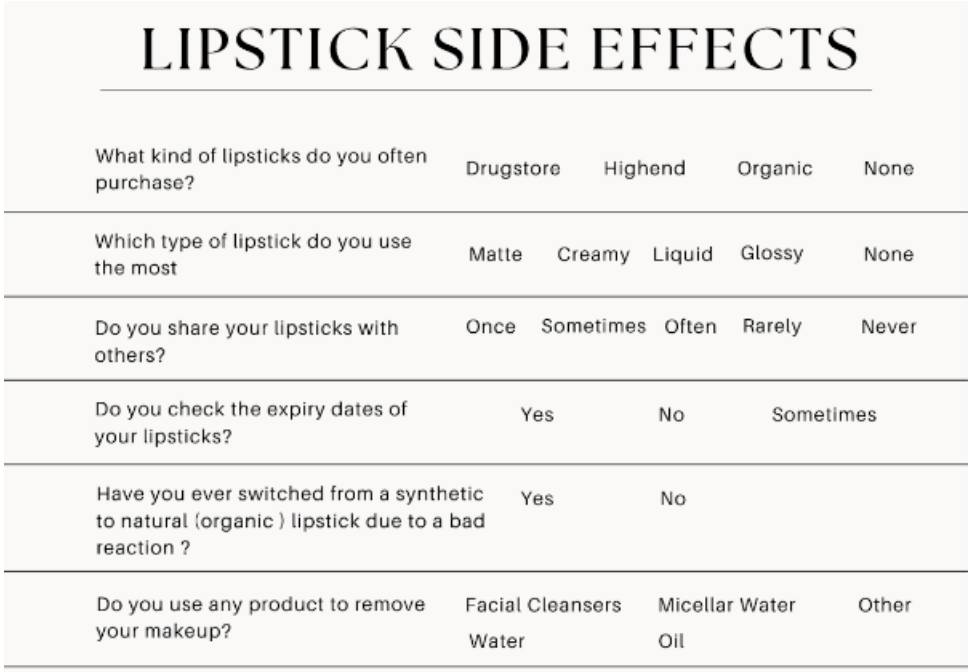
The survey was primarily composed of female respondents (94.22%), with India contributing the largest share of responses (42.22%). Among females, 43.48% reported experiencing skin reactions to lipstick, while males and non-binary individuals showed a lower incidence. Notably, the 15–25 age group exhibited heightened vulnerability to adverse effects, indicating a significant association between youth and skin sensitivity. Regarding lipstick usage frequency, 80% applied it 1-2 times daily, with smaller percentages for other frequency categories.

Skin type analysis revealed that combination skin had the highest reaction rate (51.11%), followed by oily skin (15.56%) and sensitive skin (11.11%). The most common reactions observed were hyperpigmentation (54.44%), lip cracks (38.89%), and dryness (30%). While dermatologist consultation is recommended, only 12.22% of participants sought medical advice, with the majority relying on home remedies. Direct topical medications were the most recommended treatment, with only a small percentage of prescribed steroid creams.

Conclusion:

The use of lipstick takes on a new significance, highlighting the need for strict adherence to manufacturing guidelines. Cosmetic companies should take proactive steps to prevent unpleasant reactions, such as lip fissures

and hyperpigmentation, as evidenced by the long list of negative reactions. The goal of this study is to shed light on the effects of lipstick used to promote a conscious lipstick manufacturing culture with the support of dermatologist advice, that supports having healthy lips.



LIPSTICK SIDE EFFECTS

What kind of lipsticks do you often purchase?	Drugstore	Highend	Organic	None	
Which type of lipstick do you use the most	Matte	Creamy	Liquid	Glossy	None
Do you share your lipsticks with others?	Once	Sometimes	Often	Rarely	Never
Do you check the expiry dates of your lipsticks?	Yes	No	Sometimes		
Have you ever switched from a synthetic to natural (organic) lipstick due to a bad reaction ?	Yes	No			
Do you use any product to remove your makeup?	Facial Cleansers	Micellar Water	Other		
	Water	Oil			

Figure 1. An excerpt of the survey.

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Abstract N°: 3577

Ø The 2Ss theory for Restoring facial beauty, it is all about Shape and Shadows.

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Introduction & Objectives:

Aging process is inevitable but a curable disease. Aging process affects skin which is the largest organ in the body with different degrees with a negative impact on the patient's self-esteem and the quality of life. Aging could be reverted using different technological aesthetic procedures. Restoration of beauty in a simple and smart methods is the ultimate goal either for the patient or the treating aesthetic doctor.

The 2Ss theory explains different aesthetic methods as chemical and hydraulic face lift, LASERs Energy Based Devices EBDs, facial sculpturing, sequence and timing for each procedure to restore beauty by simple changes in the facial shapes and shadows in a non-surgical approach.

Materials & Methods:

The 2Ss theory explains different aesthetic methods as chemical and hydraulic face lift, LASERs, Energy Based Devices EBDs and facial sculpturing in restoring facial beauty.

Results:

Treating aging process in a different dimensional level using specific sequence and timing for each procedure to restore facial beauty by simple changes for the facial shapes and shadows in a non-surgical approach can provide a simple procedure with a natural outcome.

Conclusion:

Reverting aging process is a challenging yet effective medical and art job, choosing the appropriate procedures, sequence and timing is crucial to restore a natural non-surgical beauty.

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Abstract N°: 3580

Efficacy and Safety of ND-YAG Q-Switched Laser for Treating Nevus of Ota in Type IV Skin: A Clinical Study

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Introduction & Objectives:

Nevus of Ota, characterized by blue-gray hyperpigmentation of the skin, poses both cosmetic and psychological concerns, particularly in individuals with Type IV skin. While various treatment modalities exist, ND-YAG Q-switched laser therapy has emerged as a promising option due to its ability to selectively target melanin without causing significant damage to surrounding tissues. This study aims to evaluate the efficacy and safety of ND-YAG Q-switched laser in treating Nevus of Ota in individuals with Type IV skin. The primary objective of this study is to assess the effectiveness of ND-YAG Q-switched laser therapy in reducing the pigmentation associated with Nevus of Ota in Type IV skin. Secondary objectives include evaluating patient satisfaction with the treatment, documenting any adverse effects, and determining the optimal treatment parameters for achieving desirable outcomes.

Materials & Methods:

A total of 10 patients clinically diagnosed with Nevus of Ota and not previously treated were recruited for this study. Pretreatment photographs were taken, and ND-YAG Q-switched laser therapy was administered using the following parameters: wavelength 1064nm, fluence 6 J/cm^2, frequency 2 Hz, and spot size 3-4 mm. Each patient underwent 5 treatment sessions with an 8-week interval between sessions. Photographic comparisons were made manually, and improvements were graded as significant, moderate, mild, or no improvement. Patient satisfaction was assessed separately. Adverse effects, both acute and chronic, were documented.

Results:

Of the 10 patients treated, 3 showed significant improvement, 2 showed moderate improvement, 3 showed mild improvement, and 2 showed no improvement. None of the patients experienced worsening of the condition. Additionally, 6 patients reported being very satisfied with the treatment, 2 reported some satisfaction, and 2 reported no satisfaction. Acutely, mild pain was reported by 9 patients, which was easily tolerable, and mild erythema was observed in all patients but resolved within hours. Two patients developed mild hyperpigmentation as a chronic adverse effect.

Conclusion:

ND-YAG Q-switched laser therapy demonstrates promising efficacy in treating Nevus of Ota in Type IV skin, with a majority of patients experiencing significant to mild improvement and high levels of satisfaction. The treatment was well-tolerated, with only mild and transient adverse effects noted. Further studies with larger sample sizes and longer follow-up periods are warranted to validate these findings and optimize treatment protocols for enhanced outcomes.

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Abstract N°: 3612

Oral collagen drink for skin improvement: A randomized controlled trial with biometric and ultrasonographic evaluations

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Introduction & Objectives:

Hydrolyzed collagen are natural bioactive substances used in many oral supplements to provide skin health and beauty. A recent systematic review and meta-analysis, showed promising results of hydrolyzed collagen supplementation, in skin hydration, elasticity, and wrinkles. The purpose of this study was to evaluate the tolerability and efficacy of a fruit juice drink containing hydrolyzed collagen for improvement of biophysical and ultrasonographic parameters of the skin.

Materials & Methods:

It was a randomized, controlled, double-blinded clinical study, conducted on thirty healthy participants, age 18-59 years old.

The test product was a fruit juice drink containing hydrolyzed bovine collagen protein (food grade) 4g -acerola powder-vitamin A (0.0066 g/lit) -vitamin C (1 gram of acerola powder with 32% purity), vitamin E (0.75 g/lit)-hyaluronic acid (0.022g)-Stevia (0.06gr)-apple concentrate (9.45gr). A comparable drink containing the same ingredients except of the hydrolyzed bovine collagen and hyaluronic acid was considered as the control drink.

Skin elasticity parameters (R0, R2, R5 and R7), skin hydration, trance epidermal water loss and friction, as well as the thickness and echo density of the dermis, were measured after 4 and 8 weeks randomly intake of the collagen drink or the control one (250 cc/day). The measurements were also repeated 4 weeks after stopping the consumption (week 12). Participants' satisfaction was assessed on the basis of their answers to the standard questionnaire, and tolerability of the product was assessed by monitoring the adverse effects.

Results:

No significant difference was detected in demographic data and baseline measurements between two groups.

In participants which were consuming the collagen drink, a significant improvement was detected, in R0 (skin firmness) and R5 (net elasticity) at week four, compared to the baseline (p-value<0.01), as well as the control group (p-values 0.015, 0.041 respectively).

Improving of skin hydration after 4 and 8 weeks consuming was also significantly higher in collagen drink group compared to the baseline as well as the control group (p-values <0.01).

At week 12, all the values remained at an improved level, which indicates the persistence of the results.

The increase of dermis echo density at week 8 was significant in collagen drink group compared to the baseline (p-value$=0.03$).

Adverse effects included mild to moderate abdominal cramp and diarrhea, in three female and one male participants. High satisfaction was reported with the treatment in case of improving the skin moisture, softness and elasticity as well as reducing the fine wrinkles.

Conclusion:

The study demonstrated that the oral collagen drink could significantly improve the skin elasticity, hydration, and dermis echo density, and they also proved to be safe and well-tolerated

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Abstract N°: 3627

Efficacy and safety of revitalizing serum with retinaldehyde, melatonin and niacinamide for refined skin.

Marta Furmanczyk[1], Georgina Logusso[1], Javier Bustos[1], Monica Foyaca[1]

[1]ISDIN

Efficacy and safety of revitalizing serum with retinaldehyde, melatonin and niacinamide for refined skin.

Marta Furmanczyk, Georgina Logusso, Javier Bustos, Monica Foyaca

Introduction & Objectives:

The sun exposure is the principal external factor that accelerates skin aging (photoaging) regardless of the biological age. Photodamaged skin shows dullness, loss of firmness, rough texture and uneven skin tone, among others, and needs proper care to renew and repair it along with good tolerability. Retinal serum (RS) with Retinaldehyde, Melatonin and Niacinamide is intended to enhance skin renewal and improve appearance without causing irritation and dryness.

Materials & Methods:

The following studies were carried out to evaluate the safety and efficacy of the RS. Study 1: 30 women 30-50 y.o. with mild to moderate photoaging signs (Glogau scale), imperfections and dull skin, used RS every night for 3 months. Skin firmness and elasticity (Cutometer®), luminosity, homogeneity and pores (clinical scores) and GAIS were evaluated during the study at D7, D14, D28 and D84 together with safety parameters and subjective opinion of the participants. Study 2: 30 subjects with mixed/oily and sensitive skin used the RS for 4 weeks when comedogenic potential together with sebum index were evaluated. Study 3: Hydration and skin barrier function were evaluated in 24 subjects with dry skin during 12 hours, after 1 application.

Results:

Study 1: The subjects noted more radiant, smooth and hydrated skin from the first use. It also showed a significant increase in skin firmness by 12% at D7 and significant improvement in skin homogeneity by 50% and elasticity by 10% at D14 ($p<0.05$). On D28 skin homogeneity increased by 70%, luminosity by 40% and 100% of the subjects showed improvement as per GAIS ($p<0.05$). On D84 luminosity increased by 85% and pores visibility reduced by 52% ($p<0.05$). 100% of study subjects confirmed their skin was firmer and more elastic, radiant and hydrated after 28 days of daily product use.

Study 2: The product showed a reduction in skin lipidic index by 41% and non-inflammatory lesions by 44% ($p<0.05$), confirming non-comedogenic potential and it was very well appreciated by the subjects.

Study 3: RS showed an increase in skin hydration during 12h and skin barrier function improvement during 2h after 1 application.

Conclusion:

RS showed a great efficacy in renewing photodamaged skin and improving skin luminosity, firmness, homogeneity and overall skin appearance. It was very well tolerated in all skin types, including sensitive skin and didn´t show comedogenic potential.

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Abstract N°: 3736

Non-invasive High Intensity Focused Ultrasound (HIFU) treatment of Cutaneous Neurofibromas (cNF): Protocol and recommendations for treatment of smaller tumors

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Introduction & Objectives: High intensity focused ultrasound (HIFU) is capable of controlled and targeted thermo-mechanical treatment to small intradermal volumes containing neoplastic cells, without inflicting damage to the surrounding tissue. This treatment modality may be useful for benign and premalignant skin lesions. The objectives of study phase A were to investigate safety, local tolerability, and efficacy of HIFU for cutaneous neurofibroma (cNF) a benign skin lesion that can appear in numbers up to several hundred on the skin of neurofibromatosis (NF1) patients. Furthermore, in phase B treatment settings was modified to improve the safety and efficacy of HIFU for treatment of cNFs.

Materials & Methods: Twenty adult patients with cNFs were recruited in two European centers. Focused ultrasound treatment utilizing a 20 MHz HIFU-device with integrated dermoscopic guidance was performed using a handpiece with a focus depth of 2.3 mm below the skin surface. For the phase A single dose acoustic energy of 0.7 J/dose of pulse duration 250 ms/dose was manually positioned with distance of 1-2 mm between each applied dose covering the lesion. No anesthetic was applied. Primary endpoint was evaluation of safety and tolerance of the HIFU-treatment. Post-treatment effects were assessed immediately after treatment and at follow-up visits including on-site clinical evaluation, patients' evaluation and clinical photography for 9 months. Further evaluation of the included cNFs was performed by ultrasound scanning (US) in one center and histopathology in the other center. In phase B seven patients were recruited. Dosis was modified to 0.9 J/dose at 500 ms/dose to promote thermal effects over mechanical tissue destruction, and thereby obtain a gentler therapy without superficial skin erosions.

Results: In phase A, a total of 147 cNFs (mean 7.35/patient; diameter 2-9 mm) were treated. Mild wheal-and-flare reaction was observed immediately after treatment. Occasionally, erosions/crusts were observed and rarely dyspigmentation after 1 week and 3, 6 and 9 months post-treatment respectively. Regarding the primary endpoint, no serious adverse events occurred, and no significant scarring was observed. The median reduction in cNF thickness measured by ultrasound scanning was 0.53 mm (range -100% to +19%). Visual rating of treated cNFs by the clinical investigator at 9 months showed that 45 out of 92 cNFs (49%) had full or substantial reduction; biopsied lesions excluded. During treatment the patient-reported pain-score was median 3.5 (range 1-7) on a 0-10 point scale. No pain was reported post-treatment. In phase B, 54 cNFs (diameter 2-5 mm) were included. The data analysis compared phase A and B. The immediate and short-term biological responses were local flare and edema.

Visual assessment at 6 months follow-up showed reductions in size for 44% of tumors and 26% were no longer visible or substantially reduced. The efficacy was somewhat lower than that obtained in phase A with 26% and 49% respectively. The effect was noted to correspond to superficial erosions which in turn may cause dyspigmentation.

Conclusion: HIFU treatment is a new non-invasive, rapid, and tolerable treatment modality. This study demonstrates the safety, local tolerability, efficacy, and feasibility of HIFU for the treatment of cNFs. Further

studies may open for this new treatment modality even for other benign or premalignant lesions.

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Abstract N°: 3816

Case report: Glucagon-like peptide-1 agonists induced lipoatrophy on the face – protocol for correction

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Introduction & Objectives:

Glucagon-like peptide-1 (GLP-1) agonists are a class of drugs which are used in the therapy of type 2 diabetes and obesity. The most popular among them are Liraglutide and Semaglutide. They act by regulating apetite which is followed by weight loss. The aim of the therapy with GLP-1 agonists for obesity is weight reduction by 5-10% for a period of 6-12 months.. This often leads to a typical central depletion of facial volumes. As a result these patients are frequently forwarded to dermatologists in order to manage the facial changes. This publication aims to create the first protocol for treatment of this adverse reaction of GLP-1 agonists.

Materials & Methods:

In order to treat the patient we have created a protocol of injection of lightly embedded with BDDA hyaluronic acid gel 2 ml per side using a fan technique by cannula 25G 50 mm in the middle and lower third of the face.

Results:

Results were objectively reported by high quality standardized facial images using a computerized multi-point positioning system and image overlay. Results showed significant improve by GAIS score 2 which is consisted of restoring of lost facial volumes and replenishment of the GLP-1 agonist induced lipatrophy.

Conclusion:

The therapy with lightly reticulated with BDDA HA gel injected in a protocol of 2-3 sessions in the superficial fat compartments in the middle and lower third is a successful strategy for the treatment of GLP1 agonists induced facial lipoatrophy

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Abstract N°: 4181

Differentiating Dermatological Fillers: A Literature and Archive Review of Ultrasonographic Characteristics

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Introduction & Objectives: Dermal fillers are integral to nonsurgical facial rejuvenation, addressing issues such as volume deficits, wrinkles, and scars through facial contouring. However, patients often lack precise details about their dermal filler procedures, including the injection site or plane and the type of filler used. Ultrasonography proves to be a useful and effective tool in identifying the type of filler, the specific injection sites, and assessing the effectiveness and potential need for extraction due to complications. This article reviews the ultrasonographic characteristics of dermal fillers, enhancing understanding and management in clinical practice.

Materials & Methods: Cases evaluated through dermatological ultrasound at our institution were reviewed and categorized based on imaging findings and the conclusions drawn about the existing tissue fillers. Additionally, a literature review was conducted by searching “dermal fillers” and “ultrasonography” on PubMed, supplemented by manual searches. A total of 33 articles were selected for inclusion and synthesis in this review. The aim is to corroborate our findings and compile a comprehensive guide that will be useful to dermatologists and radiologists specializing in dermatology. This review intends to bridge gaps in current knowledge and provide a detailed reference for the effective use of ultrasonography in the assessment of dermal fillers.

Results: Hyaluronic acid appears on ultrasound as a well-defined, regular hypoechoic mass. Over time, its size may decrease due to its biodegradable nature. Poly-L-lactic acid, although not directly detectable via ultrasound, shows a filling effect observable over time through induced collagen production. Calcium hydroxyapatite is visualized as a hyperechoic mass with posterior acoustic shadowing, remaining unchanged in size over time due to its non-degradable properties. On the other hand, Polymethylmethacrylate (PMMA) appears hyperechoic with a mini-comet tail artifact and does not change in size, reflecting its non-degradable nature. Polyacrylamide is seen either as a hyperechoic mass or as anechoic oval pseudocyst structures. It is considered semi-degradable, with elevated hypodermal echogenicity around the polyacrylamide gel deposits that do not alter in size or shape for at least 18 months. Polyalkylimide is typically depicted as a hypoechoic mass surrounded by a hyperechoic pseudo capsule, featuring spots of linear or irregular hyperechoic material. Pure silicone presents as oval anechoic lacunar regions, which remain constant in size and shape over time, while silicone oil appears as hyperechoic deposits producing a “snowstorm” artifact due to posterior acoustic reverberation.

Conclusion: Ultrasonography is a reliable tool for detecting dermal filler injections in patients, accurately assessing the type of filler used, the injection sites, effectiveness, and indications for extraction due to complications. The sonographic characteristics of dermal fillers can be described based on several parameters, including echogenicity, texture, shape, quantity, border definition, presence of artifacts, diameter, anatomical location, internal characteristics, and changes over time. This detailed evaluation helps in the precise management of filler treatments, ensuring both safety and efficacy.

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Abstract N°: 4182

An Eyebrow Lifting Approach with Long-lasting Results: Fox-Eyes Technique

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Introduction & Objectives: The initial signs of aging in the orbital region typically include volume loss at the brow and eyelid, along with changes in skin texture and elasticity, which can lead to a downward shift of the brow's tail. Although the ideal eyebrow patterns continue to evolve over time and across cultures, it is widely recognized that eyebrow curvature is crucial for adjusting facial height and achieving aesthetic balance in the upper third of the face. Various rejuvenation and aesthetic procedures, such as injections of botulinum toxin A, hyaluronic acid fillers, suspension threads, or surgical interventions, have been utilized to address these changes. However, these methods can be short-lived or associated with a higher risk of complications. In 1993, Nikolay Serdev introduced a technique involving 'suture suspension and/or volume increase and/or repositioning,' which attaches movable fascia to immovable structures such as periosteum, tendons, and fascia. In this report, we present a modification of Serdev's Sutures Technique. Our adaptation, a long-lasting, minimally invasive suturing method, allows for achieving the desired eyebrow curvature with quicker recovery and fewer risks.

Materials & Methods: From March 2020 to March 2021, the Fox Eye surgical technique was performed on five patients, who have been under follow-up to the present day. Materials used included 0 nylon multifilament (Etralon PO 700), curved Kelly forceps, a needle specially developed for this procedure (similar in appearance to a sewing needle), an 18G needle, and a surgical scalpel blade No. 11. Two entry points are defined along a vertical line at the distal end of the eyebrows: (1) the lower entry point is located at the tail of the eyebrow, with a distance denoted as x from the extension line of the horizontal aspect of the eyebrow, and (2) the upper entry point is situated at "3x" from point 1, or twice the height "x" up to the forehead (figure). Local anesthesia with 2% lidocaine with vasoconstrictor diluted at 1:50,000 is administered at both points. The procedure involves inserting an 18G needle through both points to create the necessary openings and to introduce our sewing-like needle, which will allow the positioning of the nylon multifilament from the lower entry point in the supraperiosteal plane up to the more superficial plane at the upper point of the forehead and all the way back superficially above the muscle and to the lower opening. Once the nylon thread is adequately positioned, 3 to 4 knots are made at the lower point thus anchoring the thread. Throughout the procedure, a curved Kelly forceps is used to loosen any retractions and facilitate the needle positioning and exteriorization through the right planes. Standardized post-procedure guidelines and medications are followed.

Results: Photographs of the 5 cases performed obtained using QuantifiCare 3D camera immediately before the procedure and one month after reveal that the procedure reduced the height of the forehead and increased the distance between the eyebrows and the lateral epicanthus of the eye. No complications were reported.

Conclusion: This technique represents a minimally invasive procedure with fewer risks, higher reproducibility in practically all types of eyebrows and satisfactory outcomes by opening the eyes, rejuvenating the ocular region and as such, harmonizing the upper third of the face.

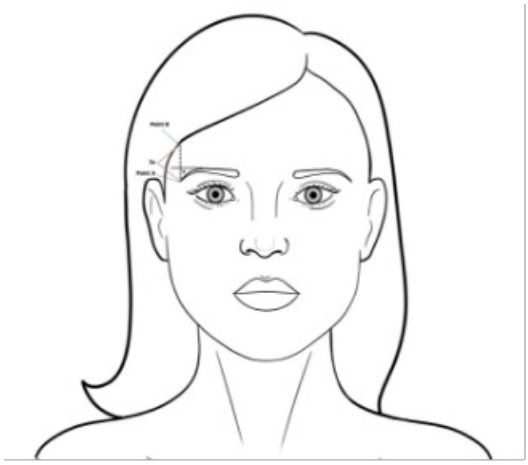

Figure showing the upper and lower entry points.

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Abstract N°: 4361

Facial telangiectasias due to long-term topical steroids treated with dual-wavelength lasers: case report

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Introduction & Objectives:

In some countries, topical steroids (TS) are still used all over the face to lighten pigmentation and reduce inflammation because they are relatively inexpensive and easy to find. The long-term misuse of TS may result in the condition of topical steroid damaged face (TSDF), some manifested as telangiectasias, that are challenging to treat. Of all modalities, the novel combination of laser wavelengths of 589-nm and 1319-nm may have benefit to target vascular and pigment disorders. We report a case with facial telangiectasias after a long-term use of lightening creams, which treated with the novel dual-wavelength lasers, and evaluated by clinical examination and dermoscopy.

Materials & Methods:

An office worker female, 52-year-old, presented with facial redness since 3 years prior to admission. In the past 5 years, she felt that her face was very photosensitive, but later the redness showed even without exposure to light. The patient regularly use creams from aesthetician in an aesthetic clinic since 8 years ago, often refilled without consultation. She did not know the ingredients of the creams. Dermoscopy show massive telangiectasias. We suspected that the telangiectasias were caused by topical steroid contained in the cream used in the past 8 years, thus we suggested regimen of skincare, consisted of AHA facial wash, soothing cream (madecassoside, zinc gluconate), broad spectrum sunscreen in daylight (SPF 50), and asked her to stop the previous creams. At follow up week-2, the erythema decreases and the patient felt less photosensitive. The melasma were more noticeable, which was the patient's initial reason to seek treatment from the aesthetician. The dermoscopy showed telangiectasias decreased, multiple brown dots and globules. At week -4, we did a session of full-face treatment with 589-nm followed by 1319-nm laser, without topical anesthesia. Laser pulses were delivered within a 10-mm2 grid scanner, at repeated treatment duration of 0.25 seconds. Fluence for the 589-nm were 30 J per cm2 while for the 1319-nm were 35 J per cm2, with a total of 1000-1100 pulses per wavelength. The endpoint were transient mild erythema. There were no other treatment beside soothing cream and sunscreen. At follow up week -6, the patient satisfied with the results, noted that there were no downtime and adverse effect, dermoscopy showed less pigmentation and telangiectasias. The treatment laser sessions are still ongoing.

Results:

The insecurity of the patient regarding her melasma, in addition to the ease to refill creams without consultation, caused the misuse of the topical steroid and leads to telangiectasias. Beside the TS, the telangiectasias may also be caused by melasma. The treatment goal was to target the telangiectasias while treating the melasma simultaneously with minimal downtime, which was the reason we chose the dual-wavelength lasers of of 589-nm and 1319-nm. The benefit 589-nm wavelength for the treatment of facial erythema has been reported, which achieved modest improvement without pain, though studies regarding the dual-wavelengths lasers on melasma and telangiectasia remain limited. In addition to their effectiveness, it is noteworthy that the dual-wavelength lasers was well tolerated by the patient thus increases the adherence to the treatment.

Conclusion:

The treatment with this combination of laser wavelengths effective and safe to treat concomitant telangiectasia and melasma.

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Abstract N°: 4437

Keloid Treatment using Laser Assisted Drug Delivery with Topical Vitamin D: A case report

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Introduction & Objectives:

Keloid is a pathological fibrosis in wound healing process. It is quite challenging to treat. Intralesional corticosteroid injection still the first-line treatment but many procedural treatments available for keloid. Vitamin D has an important role as anti-inflammatory, anti-proliferative and pro-differentiation activities, suggesting it may have a therapeutic role in suppression of keloid fibrosis. It inhibits collagen synthesis in dermal fibrosis. The aim of this study is to evaluate the treatment of laser assisted drug delivery fractional laser CO2 with topical vitamin D in treating keloid.

Materials & Methods:

A-21-years-old-man comes to our clinic with multiple post acne keloid on his chest since two years ago. He feels itchy and redness from his keloid. They are 0.5x0.5x0.1 cm. The keloids were evaluated clinically by Vancouver Scar Scale (VSS). The initial VSS score is 11. He got topical anesthesia using 2.5% prilocaine and 2.5% lidocaine cream under occlusion for 45 minutes before laser CO2 fractional procedural. Laser CO2 fractional is used as a laser assisted drug delivery (LADD) for vitamin D application. The laser CO2 parameter is 17,6 mj/s, overlap 1, duration 0.8 ms, distance 0.7 mm. Topical vitamin D was applied at a dose of 0.5 ml (100.000 IU) per 1 cm lesion right after laser. The procedure was done every 3 weeks. Patient also took laboratory examination for evaluate vitamin D level in serum. The score was 15.6 ng/ml (deficiency). Therefore, he got vitamin D orally 2.000 IU a day.

Results:

After 3 procedural therapy, there are improvements in VSS score and dermatology life quality index (DLQI). VSS reduces 2 points. He feels less itchy and the lesion is less erythema. He still underwent the therapy every 3 weeks.

Conclusion:

Topical vitamin D by LADD procedure is a safe and effective method in treating keloid. The improvement can be assessed clinically and subjectively. Vitamin D can be another modality therapy for keloids.

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Abstract N°: 4485

Banish the gummy smile - Botulinum toxin to the rescue

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Introduction & Objectives: Smile is the most recognised expression of a person which is of utmost importance in social interactions. Smile is due to the complex interaction between lips, teeth, gums and the muscles surrounding the oral commissure. An exposure of more than 3 mm of the gums during the smile is known as gingival or gummy smile (GS). About 10% of the population between 20-30 years have GS, more common among women than men. Causes can be muscular, gingival i.e. failure of apical migration of gums during teeth eruption, bony due vertical maxillary excess (VME) or dentoalveolar extrusion, short upper lip and composite of above. Most common cause of gummy smile is hyperfunction of muscles of upper lip that can successfully be treated with botulinum toxin injection to relax them. We arbitrarily classified GS into mild (3-5mm), moderate (5-7mm) and severe (>7mm) grades to see the degree of improvement attained with botulinum toxin injection into elevators of lip.

Materials & Methods: Institutional Ethical Committee Clearance was taken. In a period of 12 months, we recruited 14 patients to our study. Informed consent & medical photography consent form was taken from the patients. Yonsei point was chosen as the injection site as it is the point of convergence of levator labii superioris alaeque nasi, levator labii superioris & zygomaticus minor. 2 units of botulinum (type A) toxin was injected in all patients. This dose of botulinum toxin was kept constant in all grades to evaluate its efficacy in improving the muscular cause of GS. Baseline evaluation on the day of injection was done with good photographs & repeat assessment done after 2 weeks. With the aid of computer program, the length (in mm) of gums exposure before & after was measured.

Results: 14 patients with different grade were enrolled in the study (Mild-7, Moderate-3 & Severe-4). Of them 13 were female and 1 male. The average age was 38.28 years. The average percentage of improvement in the reduction of gums exposure was 68.85%, where mild cases had 74.09% improvement and moderate & severe cases had 60.89% & 65.66% respectively. No patients had any adverse effects. The table below gives the details of our study subjects.

	Age (in years)	Pre	Post	Improvement(mm)	Improvement (%)
1	42, Male	4.16	1.77	2.39	57.45
2	35	3.37	0	3.37	100
3	25	3.50	0	3.50	100
4	40	4.00	1.66	2.34	58.50
5	38	4.38	1.57	2.81	64.15
6	54	4.86	1.37	3.49	71.80
7	52	3.52	1.17	2.35	66.76
					(74.09%)
8	32	5.23	2.56	2.67	51.05
9	34	6.01	2.89	3.12	51.91
10	36	6.02	1.22	4.8	79.73
					(60.89%)
11	40	7.08	3.25	3.83	54.09
12	28	7.50	3.10	4.4	58.66
13	32	8.00	3.00	5	62.5
14	48	8.04	1.01	7.03	87.4
					(65.66%)
				Avg	68.85%

Conclusion: Muscular cause due to hyperfunctional elevators of upper lip is the common cause of Gummy smile. Relaxing these elevators will certainly add improvement in the length of gums exposed during smiling. More the gums are exposed, multiple causes add on to the gummy smile. The muscular cause is answered well by botulinum toxin injections in cases of mild gummy smile. In cases of moderate & severe gummy smile which is usually due to composite causes like gingival, bony & short upper lip in addition to muscular cause. Such cases need an additional surgical treatment of lip repositioning/ gingivectomy. Advantages – quick results, minimally invasive & satisfactory results in all grades of gummy smile. Disadvantages- botulinum toxin injection results being temporary needs repeated sessions, moderated to severe grades needs additional surgical treatment for better results.

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Abstract N°: 4502

Effective Reversal of Steroid-Induced Cutaneous Atrophy and Dyspigmentation with Heterologous Type I Collagen

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Introduction & Objectives:

Steroid-induced cutaneous atrophy represents a recognized complication associated with intralesional steroid administration. While typically self-limited, it can cause considerable distress to patients. This case report illustrates the successful resolution of cutaneous atrophy and dyspigmentation on the elbow joint, resulting from intralesional triamcinolone treatment for lateral epicondylitis, through the application of Heterologous Type I Collagen (HTIC).

This study aimed to evaluate the efficacy, tolerance, and safety of Heterologous Type I Collagen in addressing steroid-induced dyspigmentation and cutaneous atrophy attributed to intralesional triamcinolone treatment for lateral epicondylitis.

Materials & Methods:

A 26-year-old woman with Fitzpatrick skin type IV, presenting with steroid-induced cutaneous atrophy and dyspigmentation, underwent treatment with Heterologous Type I Collagen (HTIC) intradermal injections. This treatment involved injecting 100mg of HTIC sterile powder, dissolved in 5ml of normal saline, into the affected area. The patient received four treatments, administered once every two weeks.

Results:

The area treated with HTIC exhibited significant improvement in skin quality following the first session, with complete resolution of the lesion achieved after the fourth session. The patient reported experiencing minimal to moderate pain during the injection process, and no side-effects were observed.

Conclusion:

Heterologous Type I Collagen (HTIC) emerges as a promising therapeutic option for steroid-induced cutaneous atrophy and dyspigmentation. Demonstrating high efficiency and safety, this treatment modality warrants further exploration through more extensive clinical trials to consolidate its potential.

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Abstract N°: 4519

Heterologous Type I Collagen for Genital Lichen Sclerosus: A Novel Therapeutic Approach

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Introduction & Objectives:

Genital Lichen Sclerosus (GLSc) is a chronic, progressive, inflammatory dermatosis predominantly affecting genital mucous membranes in both sexes. Advanced GLSc significantly impacts patients' quality of life and escalates the risk of squamous cell carcinoma in genital regions. Currently, there is no definitive cure or universally effective treatment for GLSc. In this study, we sought to assess the compliance, efficacy, and safety of Heterologous Type I Collagen (HTIC) intradermal injections in patients with biopsy-proven active GLSc, who had shown limited response to topical steroid treatment.

Materials & Methods:

In this study, we evaluated the compliance, efficacy, and safety of Heterologous Type I Collagen (HTIC) intradermal injections in nine patients (six females and three males) with biopsy-proven active GLSc, who had shown limited responsiveness to topical steroid treatment. Each patient received four treatments at two-week intervals.

Results:

Remarkably, all patients experienced a reduction in lesion size after the first treatment, with complete resolution observed after either the third (five females and two males) or fourth (one female and one male) treatment. Additionally, pruritus, soreness, discomfort, and dyspareunia significantly improved, with complete resolution after the second treatment. Importantly, patients remained symptom-free and did not experience relapses during a 24-month follow-up period with minimal maintenance treatment.

Conclusion:

While the exact etiology of Lichen Sclerosus remains unclear, genetic predisposition, autoimmune factors, and various pathogens have been implicated. Further research is needed to better understand the condition's underlying mechanisms. HTIC demonstrates promise as a novel treatment approach for GLSc, deserving further exploration through rigorous randomized controlled trials.

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Abstract N°: 4540

Efficacy of Heterologous Type I Collagen Injections in Treating Atrophic Acne Scars

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Introduction & Objectives:

Atrophic acne scars, a common sequelae of acne vulgaris, can have a profound impact on an individual's self-esteem and quality of life. These scars vary in severity and often present therapeutic challenges. In recent years, heterologous type I collagen injections have emerged as a potential solution for improving the appearance of atrophic acne scars.

Atrophic acne scars can have a significant impact on an individual's self-confidence and well-being. This prospective study aimed to evaluate the effectiveness of heterologous type I collagen injections in reducing the size of atrophic acne scars. Thirty patients, with varying grades of acne scars and Fitzpatrick skin types III and IV, underwent four sittings of heterologous type I collagen injections at 15-day intervals. The improvement in scar size was assessed by physicians and patients using a visual analogue scale (VAS) at 3 and 12 months after completing the treatment sessions.

Materials & Methods:

Thirty patients, with a mean age of 32, presenting with grade 2, 3, and 4 atrophic acne scars according to the Goodman and Baron's qualitative acne scar grading system, were enrolled in the study. The treatment protocol involved four sittings of heterologous type I collagen injections administered at 15-day intervals. Follow-up evaluations were conducted at 3 and 12 months after completing the treatment sessions. Physicians and patients independently rated the improvement in scar size using a 0-10 VAS, with higher scores indicating greater improvement.

Results:

The treatment with heterologous type I collagen injections demonstrated significant improvement in all types of atrophic acne scars, resulting in a reduction in scar size. At the 3-month follow-up, physicians rated the mean improvement as 7.5 on the VAS, while patients rated it as 7.2. These scores further increased at the 12-month follow-up, with physicians rating the mean improvement as 8.1 and patients rating it as 7.9 on the VAS. The results indicate a substantial reduction in scar size and improvement in scar appearance.

Conclusion:

Heterologous type I collagen injections offer a promising treatment option for atrophic acne scars. This study showed significant improvement in scar size reduction, as evaluated by physicians and patients. The positive outcomes observed in patients with different grades of acne scars and Fitzpatrick skin types III and IV highlight the effectiveness and versatility of this treatment modality. The use of a standardized assessment tool, the VAS, facilitated accurate and consistent evaluation of treatment efficacy. However, further research with larger sample sizes and long-term follow-up is necessary to confirm the long-lasting benefits and assess the durability of the results.

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Abstract N°: 4567

International, multicentre, observational, non-randomized open study to assess the tolerance and efficacy of an anti-aging dermo-cosmetic product used alone or in preparation for aesthetic procedure

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Introduction & Objectives:

The pursuit of effective anti-aging skincare solutions has intensified, particularly as adjuncts to aesthetic medical procedures. The anti-aging product is positioned as a standalone anti-aging product and potentially as a preparation for aesthetic medical procedures. The objective of this post-marketing observational study is to evaluate the perception of efficacy and the safety of an anti-aging product in adults as a corrective measure against the signs of skin aging on the face, used alone or in preparation for an aesthetic procedure (such as peeling, laser or injections…).

Materials & Methods:

We conducted an international multicentric post-marketing study in 8 countries: Croatia, Bulgaria, Germany, Greece, Italy, Poland, Romania, Spain. Adult patients aged 40-55 years old presenting wrinkles and sagging skin on the face were included. Participants were prescribed 1 or 2 daily applications of an anti-aging product, according to doctor's recommendations, either as a stand-alone treatment for 12 weeks or during a period of 4 weeks preceding an aesthetic procedure. A broad range of aesthetic procedures qualified for this study: resurfacing laser, peeling, botulinum toxin injection, hyaluronic acid injection, facial cosmetic surgery, Platelet Rich Plasma (PRP) injection, lift tensor threads, mesotherapy. The investigative product was a cosmetic formula containing niacinamide, high molecular weight hyaluronic acid and intermediate hyaluronic acid fragments intermediate.

Two visits were scheduled, one at inclusion and a final visit at 4 weeks for patients undergoing an aesthetic procedure or at 12 weeks for patients belonging to the stand-alone treatment group. Wrinkles depth (using the Wrinkle Severity Rating Scale (WSRS), evaluated by the investigator), quality of life (using DLQI, evaluated by the patient), tolerance (evaluated by the investigator), product overall efficacy and satisfaction (evaluated by the patient and the investigator) were assessed at each visit.

Results:

More than 1000 patients have been analyzed. The results indicated a reduction of wrinkles depth and an improvement of the quality of life, in the 2 patient populations: with the anti-aging cream alone, and with the anti-aging product in preparation for an aesthetic procedure. Both, investigators and patients, have noticed an improvement in skin ageing signs.

Additionally, investigators assessed the tolerability of the product as good to very good.

The product was appreciated by both, investigators and patients, and investigators stated that they are likely to recommend this product in preparation for an aesthetic procedure.

Conclusion:

The anti-aging product demonstrated a significant anti-aging effect on the skin of adults presenting wrinkles and sagging skin. In addition to these effects on the depth of wrinkles and signs of ageing, our study highlights the

benefits of the anti-aging product in preparation for aesthetic procedures.

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Abstract N°: 4601

Scar checkpoints: An updated review of different approaches

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Introduction & Objectives:

Beyond the loss of skin functionality, scars may be associated with aesthetic, psychological, and social distress. Despite the advances in aesthetic dermatology, scar management is still a challenge. The exact pathophysiology is not completely understood. The grading systems are heavily subjective. These limitations hindered the development of clear algorism to deal with scars effectively.

Every scar runs through 3 phases: Inflammatory, proliferative, and remodeling phase to reach maturation. A gold-standard system to classify or grade scars is currently indeed. However, scars may be divided into mature and immature scars as they achieve 80% of their tensile strength within two months. They also can be classified according to morphology (flat – atrophic – hypertrophic - keloid); and color (hyper-, hypo-pigmented, erythematous).

Materials & Methods:

By merging these classifications, the management starts. Every scar has a meaningful story which guides us through our journey of classification and treatment algorism. We could start preoperatively by placing incisions parallel to relaxed skin tension lines. It is important to close the wound in aseptic condition with approximation and absence of tension. Also, single non-ablative fractional laser treatment may be performed preoperatively or in the early phase of wound healing provides detectable improvement. Botox (2.5units of Botox/cm2)may be injected preoperatively in facial scars only.

In post-operative care, a wound can be cleaned with saline because alcohol or iodide is cytotoxic to cells that promote the healing process. Non-absorbable sutures should be removed as early as possible when the wound can hold itself together. Tension-bearing skin tapes are used during the period of remodeling to help scars mature properly.

Results:

For immature scars, vascular lasers such as Pulsed Dye Laser 595nm, KTP 532nm, and Diode laser 810nm are the best. Also, injection of Botox in facial scars helps them to mature rapidly, maintaining the same width with the maximum tensile strength.

Scars become mature as norm trophic, hypertrophic, or atrophic. Hypertrophic scars are treated using lasers such as PDL, ablative fractional laser (AFL), non-ablative fractional laser (NAFL); or intralesional injection, or a combination of intralesional injection and laser; or Silicone; or excision.

While atrophic scars are treated with resurfacing by AFL, NAFL, radiofrequency, dermabrasion, peeling; or filling by filler, platelet-rich plasma, fat injection; or elevation by subcision, punch elevation, or excision.

Another factor to consider is the scar’s color, whether hyper or hypopigmented. AFL, peeling, or bleaching could treat hyperpigmented scars. Hypo-pigmented scars could be managed by NAFL; AFL; Excimer laser; or ultraviolet radiation. Hair transplantation is a nice treatment option for scars in hairy areas. Nano fat is effective in improving

scar characteristics.

Conclusion:

This lecture describes current recommendations on scar management, supported by before and after photos for real scar cases treated by different modalities (laser, PRP, intralesional injection, subcision, Botox, punch elevation, excision, scar revision, hair transplantation and fat injection). Procedures were chosen according to the evidence in updated review of literature to obtain the best results.

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Abstract N°: 4656

A Clinical Study to Assess the Efficacy of a Topical Cream Containing Two Flavonoid-Rich Fruit Extracts with Rejuvenation Procedures to Improve Signs of Facial Aging

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Introduction & Objectives: The accumulation of endogenous of Advanced Glycation End Products (AGEs) have been shown to degrade the integrity of the skin's extracellular matrix resulting in signs of aging with resurfacing procedures being first-line treatment options. Post-procedure skin care is important to achieving an optimal result with minimal down time. It is theorized that a skin care product designed to inhibit AGEs will be useful in enhancing healing and improving cosmetic procedure outcomes. This research examines the efficacy of a flavonoid-rich cream during pre-and post-procedure to improve skin attributes in a variety of different Fitzpatrick skin types.

Materials & Methods: A split-face, double-blind, placebo-controlled study was conducted in 41 female subjects ages 38-70 with mild-to-moderate signs of aging on the Modified Griffiths Scale and Fitzpatrick skin type I-VI. At pre-treatment subjects were randomized to apply the flavonoid-rich cream to one-half of the face and placebo bland moisturizer to the contralateral one-half of face in conjunction with cleanser and sunscreen for 14 days. At baseline subjects received either a radiofrequency microneedling (RFMN) procedure or a glycolic chemical peel based on Fitzpatrick skin type. Following RFMN subjects applied Aquaphor for 1 week with support products, then resumed application of the flavonoid-rich cream and bland moisturizer to the pre-assigned side of the face. Investigator clinical efficacy grading was assessed at pre-treatment, baseline, week 1, week 2, week 4, and week 8. Objective tolerance, subjective tolerance and subject self-assessments were conducted during the study.

Results: At post-procedure week 8 compared, the flavonoid-rich cream-treated side of the face compared to the placebo-treated side of the face resulted in a greater statistically significant improvement of 12% laxity, 19% clarity, 16% radiance, 17% fine lines, 14% elasticy and 15% overall healthy facial appearance (all $p < 0.05$) in both the RFMN and chemical peel groups. No subject or investigator tolerability issues were identified.

Conclusion: When integrated with facial rejuvenation procedures, the AGE inhibitory topical moisturizer was more effective than placebo moisturizer in improving laxity, clarity, radiance, elasticity, fine lines, and overall healthy skin appearance after 10 weeks of twice daily application in all Fitzpatrick skin types.

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Abstract N°: 4680

facial lesions after hyaluronic acid fillers and Covid-19 vaccine: case report

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Introduction & Objectives:

In recent years, delayed inflammatory reactions have been described in hyaluronic acid fillers following Covid-19 infection or vaccination. These reactions typically manifest clinically as edema, induration, and painful nodules, occurring from 2-4 weeks to one year after the filler injection. There is no established clear line of treatment, but options include oral or intralesional corticosteroids, alone or combined with 5-Fluorouracil, macrolides, tetracyclines, and hyaluronidase. Cases have also been reported to respond to lisinopril.

We aim to present a case of delayed inflammatory reaction to hyaluronic acid fillers following the first dose of the Moderna Covid-19 vaccine, which was refractory to several treatments, but showed a rapid and sustained response to doxycycline. Our objective is to showcase a quick and safe treatment option for such cases, and also to highlight that Covid-19 and its vaccine may still be implicated, even years later, in pathologies presenting in dermatology clinics.

Materials & Methods:

We present the case of a 36-year-old male, evaluated in the dermatology department of a second-level hospital, with a 9-month history of recurrent painful lesions in the facial area. He had received the first dose of the Moderna Covid-19 vaccine one week prior and hyaluronic acid infiltration three months before the vaccination. Physical examination revealed erythematous, edematous nodules in the interciliary region and cheeks. The patient declined to undergo a skin biopsy. The clinical picture was consistent with a delayed inflammatory reaction to hyaluronic acid dermal fillers following Covid-19 vaccination. Treatment was initiated with lisinopril 5mg/12h for 2 weeks with no improvement and associated hypotension. After that, the patient received several cycles of corticosteroids combined with a lower dose of lisinopril. However, the lesions recurred when oral corticosteroids were discontinued. Hyaluronidase infiltration was recommended, resulting in partial improvement.

Results:

In the absence of response, lisinopril was combined with doxycycline 100mg/24h, leading to complete improvement of the lesions within the first week. Subsequently, three months later, the dose was reduced to 50 mg/48 hours. The patient remains asymptomatic 6 months later.

Conclusion:

We present a case of delayed inflammatory reaction to hyaluronic acid dermal fillers following Covid-19 vaccination, resistant to treatment with oral corticosteroids and lisinopril, with an excellent response maintained with oral doxycycline.

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Abstract N°: 4749

A hyaluronic acid-based formula with polyglutamic acid improves skin conditions and prevent cellular senescence

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Introduction & Objectives: Hyaluronic acid (HA) is a crucial component of the extracellular matrix, renowned for its ability to improve skin moisturization and volume in cosmetic applications. On the other hand, polyglutamic acid (PGA) has emerged as a promising biopolymer for deep moisturization, aiding in wrinkle reduction and overall skin enhancement. Additionally, cellular senescence, a process directly impacting skin health and appearance, has garnered attention for its role in aging-related skin changes. Despite the distinct yet complementary mechanisms of action of HA and PGA, further research is warranted to validate their combined benefits for skin health. Thus, this study sought to assess the effectiveness of a cosmetic formulation containing HA in five different molecular weights combined with PGA. The objective was to address skin dehydration and sagging typically associated with aging, while also targeting the prevention or reduction of cellular senescence.

Materials & Methods: To assess the skin benefits of the HA and PGA association, a specially formulated product was developed with a high concentration of HA in various molecular weights along with PGA. A clinical trial was conducted involving twenty-two volunteers who consented to participate in the study. The objective was to evaluate skin hydration, deep hydration, firmness, and elasticity through biophysical analysis. Measurements were taken before and after a single application as well as after long-term use of the formulated product. In addition to the clinical trial, a pre-clinical study was carried out to investigate the impact of the formula on cellular senescence. This involved evaluating the senescence-associated secretory phenotype (SASP) by measuring the production of the enzyme β-Galactosidase in human fibroblast cultures. Furthermore, the production of IL-6 and IL-8 proteins in cultured human keratinocytes was quantified to further assess the formula's impact on cellular senescence.

Results: The investigational product provided a significant increase in skin hydration, up to 30.3%, after 24 and 48 hours of a single application, when compared to untreated skin. A significant increase in deep skin hydration, up to 21%, was observed after 1, 4, 6, and 8 hours of a single application, as well as after 56 days of use. The studied formula showed a significant increase of 16% in firmness and 13% in skin elasticity after 56 days of daily use, suggesting that the HA and PGA associations significantly improve dermis fiber production. The pre-clinical study demonstrated a decrease in IL-6 quantification of up to 7.93%, a decrease in IL-8 quantification of up to 7.25%, and promoted a decrease in β-galactosidase of 66.99%, showing a positive impact of the studied formula on cellular senescence.

Conclusion: The combination of HA in various molecular weights with PGA proved to be beneficial in improving skin conditions and overall health. Notably, it significantly improved both superficial and deeper moisturization, as well as firmness and elasticity, from the first application. Furthermore, the pre-clinical findings highlighted a promising role of this association in preventing cellular senescence and reducing cellular inflammation. These results suggest that the formulation may contribute to the prevention of cellular aging and the inhibition of the senescence-associated secretory phenotype (SASP).

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Abstract N°: 4760

Association of vitamin c derivative with adaptogenic as a clean alternative to treat signs of aging

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[1]ELBO, [2]ADCOS group

Introduction & Objectives: L-ascorbic acid (AA), commonly known as pure vitamin C, has been widely used in topical formulations as a reference antioxidant and anti-aging active. However, the instability of its molecule is an important concern. Some studies have evaluated a vitamin C derivative with very similar efficacy to AA, fast conversion into AA on the skin, and high stability: ethyl-L-ascorbic acid. Recent studies have shown that adaptogenic ginger extract and turmeric (Curcuma longa) have beneficial effects on the skin, including antioxidant and anti-inflammatory effects, prevention of UV-induced skin damage and photoaging, and inhibition of melanogenesis. In the present study, we suggest the association of ethyl-L-ascorbic acid and adaptogens in a cosmetic formula with high antioxidant benefits to improve the skin. Thus, the objective of this study was to evaluate the clinical efficacy of ethyl-L-ascorbic acid associated with adaptogenic ginger and turmeric extract in a serum to prevent and treat skin photoaging.

Materials & Methods: Initially, a preclinical study with the investigational product was carried out by measuring mitochondrial reactive oxygen species in cultures of human fibroblasts exposed to oxidative stress through UV radiation. Then, a clinical study was conducted with 24 volunteers, with an average age of 56 ± 9 years and phototypes II to IV, who applied the test product for 60 days. Before and after 30 and 60 days of daily use, the parameters of deep hydration, firmness, and elasticity were evaluated by cutometry, while parameters such as skin luminosity, number of pores, skin complexion, wrinkles, and fine lines were assessed by image analysis.

Results: Preclinical evaluations demonstrated a statistically significant reduction in mitochondrial reactive oxygen species by up to 79.5%, indicating a potent antioxidant activity of the association of ethyl-L-ascorbic acid, ginger, and turmeric. Cutometric studies revealed an increase in deep skin hydration by 19.6% after 28 days and 23.5% after 60 days. Furthermore, a significant increase in skin firmness was observed by 15.9% after 28 days and 17.8% after 60 days, along with an increase in elasticity by 12% after 28 days and 12.4% after 60 days of daily use. Image analysis showed an increase in skin luminosity by up to 1.9% after 28 days and 2.6% after 60 days, a reduction in dark spots by up to 6.6% after 28 days and 9.6% after 60 days, a decrease in the number of pores by up to 7.6% after 28 days and 10.3% after 60 days, and a reduction in wrinkles and fine lines by up to 9.6% after 28 days and 13% after 60 days.

Conclusion: The association of ethyl-L-ascorbic acid with adaptogenic ginger and turmeric extract has proven to be beneficial for use in skincare to prevent and treat signs of photoaging, as it exhibits a significant antioxidant effect and improves skin conditions such as moisturization, firmness, and complexion. This study presents important findings on the use of vitamin C derivatives and adaptogens in skincare.

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Abstract N°: 4778

Renewing serum combines bakuchiol with adaptogenic to improve skin conditions

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[1]ELBO, [2]ADCOS group

Introduction & Objectives: Bakuchiol has become a popular active for dermocosmetics to treat different skin conditions since it has demonstrated functional similarities to retinoids, without the limiting side effects. Mandelic acid is a well-known active ingredient used to renew the skin in cosmetic formulations. Ginger extract has adaptogenic benefits and can be used in skincare as an antioxidant, preventing photoaging and melanogenesis. However, no clinical studies have evaluated the skin benefits of associating mandelic acid, bakuchiol, and adaptogens to increase skin renewal, improve skin texture, and reduce wrinkles. The aim of this study was to evaluate the clinical efficacy of a renewing serum with mandelic acid, bakuchiol, and ginger extract to enhance skin condition.

Materials & Methods: Clinical evaluations were conducted with 21 volunteers, with an average age of 56 ± 5 years, phototypes II to IV, and varying skin types including dry, mixed, and oily, with self-reported rosacea. Volunteers applied the studied formula containing bakuchiol, ginger extract, and mandelic acid for 60 days. A facial photography system was used to evaluate blemishes, skin tone, wrinkles, redness, and pores, while a cutometric system was used to assess deep moisturization, firmness, and elasticity before and after 30 and 60 days of daily use of the study formula.

Results: Clinical studies showed statistically significant improvements in skin conditions, including an increase in skin hydration by 7.4% at 28 days and 14.6% at 56 days; an increase in skin firmness by 7.1% at 28 days and 11.2% at 56 days; an increase in skin elasticity by 4.3% at 28 days and 7.2% at 56 days; a reduction in wrinkles and fine lines by up to 15.1%; an increase in skin luminosity by 2.8%; a reduction in blemishes by up to 12.0%; and a reduction in pore size by up to 8.7%. None of the volunteers experienced skin sensitization or any side effects with the use of the renewing serum.

Conclusion: These results demonstrate that associating mandelic acid, bakuchiol, and adaptogenic ginger extract could increase skin renewal, resulting in improvements in skin texture, moisturization, and reduction of pores, wrinkles, and dark spots, without side effects, even in rosacea-prone skin. This study highlights the benefits of combining traditional renewing actives with bakuchiol and adaptogens to increase skin renewal.

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Abstract N°: 4791

Unveiling the link: platelet-rich plasma use and cutaneous sarcoidosis

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Introduction & Objectives:

Unveiling the link: platelet-rich plasma use and cutaneous sarcoidosis

The use of platelet-rich plasma (PRP) is an ancient practice for managing various pathologies, including androgenetic alopecia (AGA); the appearance of sarcoid granulomas at PRP injection sites have been reported, being a very rare complication. We present the case of a male patient who developed cutaneous sarcoidosis secondary to PRP use.

Materials & Methods:

A 35-year-old male with a history of asthma and AGA consulted because 3 subcutaneous and asymptomatic nodules appeared on his right frontal region three months ago. Two months later, similar nodules appeared on the scalp. In 2019, he underwent three sessions of PRP for AGA management, and 10 months post-procedure, he presented a nodule, coinciding with an asthma exacerbation, for which he received a short course of systemic steroids, resolving the lesion. Physical examination revealed three subcutaneous nodules with mild erythema, 2 mm in diameter, without a central pore, on the right frontal region. He had multiple subcutaneous lesions, ranging from 1-3mm in diameter on the scalp. A high-resolution dermatological ultrasound (HRDU) showed multiple hypoechoic solid nodules, corresponding to granulomas. A skin biopsy was performed, special stains, and cultures of aerobic, anaerobic microorganisms, tuberculosis and non-tuberculous mycobacteria, and deep mycoses, were negative. The biopsy was compatible with sarcoidosis. Systemic involvement was ruled out. Treatment was initiated with prednisolone 40mg/day for 4 weeks, followed by gradual tapering.

Results:

The presence of sarcoid granulomas in scar tissue is a common manifestation of cutaneous sarcoidosis; in addition to scars, they can be found in filler injection sites, questioning the relationship between sarcoidosis and PRP. PRP refers to the application of autologous plasma with a concentration of platelets higher than normal and growth factors such as vascular endothelial growth factor (VEGF). Since 2017, the appearance of cutaneous sarcoidosis after PRP injection has been reported, with four cases in the literature (table 1). It is believed that microtrauma generates a Koebner phenomenon, as in sarcoidosis on scars. VEGF is a monocyte activator that could induce the formation of sarcoid granulomas. Another theory is the presence of subclinical systemic sarcoidosis, hence the importance of extension studies in patients with cutaneous sarcoidosis. The role of HRDU is emerging; López-Ilunell C. et al. published a retrospective multicenter study describing four characteristics present in cutaneous sarcoidosis: hypoechoic nodules in the dermis or subcutaneous tissue, presence of hyperechoic tissue at the periphery of the lesion, increased vascularity, and different patterns of panniculitis. Although not a diagnostic method as histological confirmation is required, it helps to rule out other pathologies, and monitor treatment. Management depends on the extent and cosmetic implications of the patient; HRDU showed 26 subcutaneous nodules, so treatment with oral steroid was initiated.

Conclusion:

Cutaneous sarcoidosis secondary to PRP injections is a rare but reported adverse effect. PRP growth factors may play a role in its development. Before the procedure, it is essential to review scars and tattoos.

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Abstract N°: 4935

Reduction of Abdominal Skin Laxity with Microneedle Radiofrequency: A Case Series

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Introduction & Objectives:

Skin laxity has great impact on the function and quality of life as a result of biomolecular changes and the damage due to connective tissue fibers of collagen and elastin stretch. The demand of noninvasive and minimally invasive esthetic procedures for skin tightening has increased. Multiple energy-based technologies, such as radiofrequency (RF) have evolved to meet this rising demand. RF microneedling device, has significant advantage to directly generate heat in subdermal adipose tissue, leading to coagulation of fat, as well as contraction of the reticular dermis or surrounding connective tissue, and give impact to contour of fat while tightening the overlaying dermis. Our case series highlights multiple type of abdominal laxity treated with microneedle RF.

Materials & Methods:

Five patients age between 36-63 years old, with abdominal laxity were treated with RF microneedling device and evaluated using standardized photographic images. Two weeks prior to the treatment, topical regimens consist of moisturizer, tretinoin (range of concentration 0.025% – 0.1%), mixed with brightening agents hydroquinone 4% are given as skin conditioning. Topical numbing cream (prilocaine 25 m, lidocaine 25 mg), ibuprofen orally, and skin cooling device are also given prior to and during the treatment to reduce the pain. Treatment protocol such as depth, energy, mode, number of pulse, and repetitions were collected. We use tip for body with 40 pins/needles with depths 2mm up to 7mm. The energy was given variably from 15-35 J with stamping method and 30% overlap between. We combined the mode of cycle, fixed, and burst mode setting, customized for each patient. Minimally 3 pass of deepness (7mm, 5 mm and 3mm) are given. Topical antibiotic applied from 1-3 days post procedure. Follow up are observed prospectively after at least 1 month apart and assessed visually by clinical perception and patient's satisfaction. Clinical perceptions are agreed to be assessed with scale (0) no change, (1) 1%-24%, (2) 25%-49%, (3) 50%-74%, and (4)75%-100%. Patient's satisfaction measured by Global Aesthetics Improvement Scale (GAIS) with score (3) very much improved, (2) much improved, (1) improved, (0) no change, and (-1) worse.

Results:

All patients whom received treatment given variable improvement around scale 2-3 especially at supra umbilical and infra umbilical laxity with significant reduce contour of fat for some patients. The most common side effects are pain, erythema, and edema that resolve during the first 3 days after treatment. The most common complications usually are post inflammatory hyperpigmentation and itchiness due to dry skin. All patients are satisfied, GAIS score 1-3, and none of the patients refuse to do the next session although time interval between treatment is vary.

Conclusion:

Microneedle RF is objectively useful for abdominal laxity. The increase of thermal effect on treated area are strongly believed to stimulate contraction of collagen, give stimulus to synthesis and produce neocollagenesis, elastogenesis, and angiogenesis, in deep layers of the skin and subcutaneous tissue. Additionally, microneedling RF enhance dermal heating by delivering through needling that penetrate to a predetermined desired depth and

also to gain fat contouring. Limitation of this case series is to make a larger controlled case studies for further findings. As such, microneedle RF is a promising alternative nonsurgical procedure to reduce skin laxity.

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Abstract N°: 5000

Inflammatory Filler Complications Revisited: Controversies, Literature Review, and Case Presentations

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Introduction & Objectives:

While the current focus is on vascular complications in the context of dermal fillers, this study aims to explore inflammatory complications, including infections and hypersensitivity reactions, which have significant clinical implications. Our objective is to deepen understanding of these complications, aiming at enhancing prevention, diagnosis, and management strategies.

Materials & Methods:

We conducted a comprehensive literature review utilizing search terms like “dermal fillers complications,” “injectable fillers adverse effects,” “hyaluronic acid filler complications,” and “management of filler complications.” This was supplemented by an analysis of 12 case presentations from our clinic, each supported by photographic documentation and detailed descriptions of management approaches. Sources included peer-reviewed journals and medical databases such as PubMed and Google Scholar, combined with direct clinical observations. The review focused on various filler materials, notably hyaluronic acid, calcium hydroxylapatite, and poly-L-lactic acid. Each case was meticulously analyzed to identify the type of filler used, complication onset, diagnostic methods, and therapeutic interventions.

Results:

Our analysis indicates that while dermal fillers are generally safe, specific practices like poor sterilization, incorrect filler selection, or improper injection techniques can increase the risk of inflammatory complications. Key prevention strategies identified include precise patient selection, strict adherence to aseptic procedures, and advanced injection skills. Diagnostic challenges were primarily addressed through comprehensive patient histories, thorough physical examinations, and, when necessary, histopathological analysis. Management approaches ranged from conservative treatments such as antibiotics for infections and corticosteroids (with discussed controversies) to more direct interventions like hyaluronidase injections for hyaluronic acid fillers and, in some cases, surgical removal. The case presentations provided practical insights into the real-world application of these strategies, underscoring the value of personalized patient care.

Conclusion:

This study underlines the vital importance of comprehensive training and protocol development for the cosmetic application of dermal fillers to effectively prevent and manage inflammatory complications. We advocate for the establishment of detailed guidelines that incorporate robust diagnostic and management strategies to improve patient safety and outcomes. Emphasizing the necessity to address both vascular and inflammatory complications offers a more holistic approach to patient safety with dermal fillers. We recommend ongoing research into long-term management efficacy to continually refine these guidelines.

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Abstract N°: 5229

Split-face comparative study of fractional Er: YAG laser versus microneedling radiofrequency in treatment of atrophic acne scars

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Introduction : Efficacy and safety of ablative fractional laser used for treatment of acne scars have been described in several studies. Recently, microneedling radiofrequency treatment has been showing promising results with low risk of side effects and rapid healing time

Objectives: To study efficacy and safety of ablative fractional Er:YAG laser 2940 nm and microneedling radiofrequency for facial atrophic acne scar.

Materials & Methods: 21 patients with atrophic postacne scars were randomized to MRF for one half of the face and laser for the other half. Four sessions were performed monthly. For evaluation, the validated scale "Quantitative Global Grading System for Postacne Scarring" and patient's satisfaction were used before and 3 months after treatment. Optical coherence tomography imaging of the skin was used as an objective tool for assessment.

Results: Both sides showed significant improvement on clinical evaluation with no significant difference. Optical coherence tomography assessment showed significant increase of both epidermal and dermal thickness compared to baseline.

Conclusion: Both MRF and ablative fractional Er. YAG laser 2940 nm are effective in the treatment of post acne scars. Microneedling radiofrequency is better tolerated, with lower downtime and fewer side effects.

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Abstract N°: 5273

Efficacy and safety of topical formulations on sensitive skin across 4 main ethnicities: A meta-analysis of clinical trials

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Introduction & Objectives:

Within the field of dermatology, sensitive skin has been characterized to affect all genders and a wide range of ages, ethnicities, skin types and tones. Sensitive skin is known to affect an individual's quality of life by causing unpleasant sensations when provoked by internal stressors or environmental stimuli, including choice-based stimuli such as skincare or cosmetic products, which normally do not trigger unpleasant sensations. Thus, it is significantly important that any individual with sensitive skin, regardless of ethnic background, age, or skin tone, can confidently choose and utilize daily skincare products that are expertly formulated to soothe their symptoms of sensitivity, even when using products with more stringent ingredients. The objective of this meta-analysis of clinical studies was to evaluate the tolerability and efficacy of several products containing niacinamide, panthenol, and glycerol across 4 main ethnicities experiencing sensitive skin.

Materials & Methods:

4 main ethnic groups with sensitive skin, determined with Sensiscale-10, were included in 15 open clinical studies, each lasting 3 to 4 weeks. 625 adult female and male subjects participated in the overall project, with 121 African American, 258 Asian, 162 South American/Hispanic and 84 Caucasian. Under normal conditions of use, subjects used either a single product or a two-product regimen specifically designed for sensitive skin with ingredients targeting chronic neuro-inflammation. Soothing efficacy and overall sensitivity were assessed using the Sensiscale-10 questionnaire, tolerability by objective dermatologist scoring and subjective self-assessments, and consumer perception by questionnaire before and after 4 weeks of twice daily application of products. To further characterize the diversity of sensitive skin populations and to demonstrate product effects, the panelist images collected were used to create average face representational images of different ethnicities and ages.

Results:

Across all testing the overall sensitivity score was 28.5 at baseline, sorting the subjects into the sensitive skin category. After using the different products, the Sensicale-10 score was significantly reduced at D28 vs D0 by an average of 72% ($p<0.05$) across all products and panels, demonstrating a soothing efficacy that reduced overall skin sensitivity. All products were well-tolerated with no significant adverse events reported. Panelists in all 4 tested ethnicities found the products to significantly decrease overall skin sensitivity and to make the skin more comfortable, less reactive, and healthier looking.

Conclusion:

The very good tolerability, favorable questionnaire results, and significantly reduced overall sensitivity indicate that the tested products are suitable for sensitive skin types within a diverse population.

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Abstract N°: 5278

A skincare regimen specifically designed for sensitive skin improves skin quality and hydration.

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Introduction & Objectives:

Sensitive skin is known to affect an individual's quality of life by causing unpleasant sensations when provoked by internal or external stressors including cosmetic products. Thus, the choice of ingredients is critical for a new product for sensitive skin, when designed to improve overall skin quality. A Novel Active Hydration Complex (NAHC) composed by glycerol, a natural sugar complex and *Globularia alypum* was integrated in dermo-cosmetic skin care for the face and the body of sensitive skin sufferers. Clinical evaluations were performed on a Body Lotion (BL), an Eye serum (ES), a Face serum (FS), and a Day Cream (DC) to demonstrate efficacy on skin quality and hydration.

Materials & Methods:

3 clinical studies were performed to assess the efficacy of the products range.

20 females (19-70 y.o) with dry to very dry skin on the face (electrical capacitance ≤ 65a.u.) applied ES, FS and DC once on the face. Electrical capacitance was measured with a corneometer at 30 different points distributed over half of the face (according to a randomization) at baseline, T2h, T4h and T8h. These values were projected onto an average face model to create a hydration map for the 3 products.

49 females & males (26-65 y.o, phototypes IV to VI) used BL twice a day on very dry and ashy areas of the body. Medicam images were taken at baseline, Timm, T24h, T72h and D28.

44 females (37-65 y.o), with dry to very dry skin on the face were recruited. Each subject applied FS and DC randomly to each half-face, twice a day. Dynaskin® measurements were performed on the hollow cheek (both sides) at baseline and D28 to assess the volume (mm3), area (mm^2) and maximum depth (mm) of deformation caused by the application of a perpendicular air jet. 3D images were also generated.

In studies 2 & 3, subjects' self-assessment was recorded at Timm and D28.

Results:

A statistically significant increase in the electrical capacitance values were showed versus baseline +43%, +46%, + 42% respectively at T2h, T4h and T8h (Student t-test, $p<0.05$), demonstrating the lasting effect of hydration overtime. Hydration mapping images on an average face model are presented to illustrate these results.

98% (Timm) and 88% (D28) of the subjects agreed that the products improved the driest areas of their skin and 100% (Timm) and 94% (D28) agreed that the ashy areas caused by dryness were less visible ($p=0.05$). Medicam photos illustrate these results.

Dynaskin® measurements showed a statistically significant decrease versus baseline of volume (-19% with FS, $p<0.001$; and -18% with DC); area (-14% with FS and DC); and maximal depth of deformation (-11% with FS and -10% with DC; $p<0.001$) after 28 days. 3D pictures illustrated these results.

Conclusion:

These studies highlighted the significant effect of the investigational products on skin hydration overtime, dryness with ashy areas of darker skins, which are important symptoms to consider when addressing consumer's emotional distress. In addition, this range of products improved skin firmness, plumpness and bounciness of the skin.

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Abstract N°: 5279

Improved outcomes in injectable aesthetic procedures when combined with a customized skincare regimen

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Introduction & Objectives

Consumers seeking nonsurgical aesthetic treatments are showing a particular interest in immediate while long-lasting results. Interest is also growing for desirable skin quality—radiant, healthy, and glowing skin—among consumers seeking treatment to improve their aging skin features (e.g., wrinkles) and aiming for overall youthful appearance. Therefore, combining injectable aesthetic procedures with a customized skincare regimen (containing ingredients proven to deliver anti-ageing benefits as well as soothing ingredients which decrease skin sensitivity) can lead to improved outcomes and increased consumer satisfaction.

The objective of the present study was to evaluate the complementarity of an injectable neuromodulator with a customized skincare regimen (eye serum, facial serum, and night cream) in terms of safety and efficacy.

Materials & Methods

A 3-month clinical study was conducted on 32 healthy Caucasian female subjects (31-59 y.o., mean age: 49 y.o.) planning to undergo abobotulinumtoxinA injection. At baseline, following a 1-week washout period (use of standard moisturizer), subjects underwent a one-time local injection of abobotulinumtoxinA 300 U on the forehead, glabellar and periorbital regions. The skincare regimen was applied for 90 days following the injection, under normal conditions of use (twice daily, except for the night cream applied once daily). Skin tolerability was assessed by objective Dermatological evaluation (4-point scales). Anti-wrinkle efficacy was assessed by Dermatological scoring (5-point scales) and image analysis (VISIA® Complexion Analysis, Canfield, US). Finally, perceived efficacy by Subjects was assessed by questionnaire and scoring. Independent Ethics Committee clearance was obtained prior to the start of the study.

Results

No adverse event related to the skincare regimen or injectable neuromodulator was reported during the study, confirming a very good tolerance of the skincare regimen when applied for 90 days following abobotulinumtoxinA injection. After 90 days of product application there was a significant reduction of 11% of measured fine lines and wrinkles. Dermatological scoring also showed a significant reduction in the appearance of glabellar wrinkles (-60%) and in fine lines & wrinkles in the area around the eyes (-59%) during the same period.

Finally, most subjects agreed that the skincare regimen enhanced the results of the injectable neuromodulator as early as 30 days post-injection (94%), as well as 60 days (100%) and that lasted for up to 90 days (97%).

Previous clinical studies evaluating the efficacy of the skincare range had already demonstrated significant improvements in skin quality, as shown by improvements of skin firmness, suppleness and texture, skin tone evenness, radiance & luminosity, as well as a significant decrease in signs related to skin sensitivity (Sensiscale-10).

Conclusion

This clinical study confirmed that our customized regimen is safe for use in combination with injectable

neuromodulator for complementary actions on different skin parameters with improved global efficacy and consumer satisfaction. Therefore, it is relevant to consider combining skincare regimens as adjunctive to injectable neuromodulator to provide safe and holistic benefits for skin quality.

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Abstract N°: 5321

Off-label use of botulinum toxin in Frey's syndrome

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Introduction & Objectives:

Frey's syndrome, also known as auriculotemporal syndrome, is a rare neurological condition. It is characterized by facial sweating in response to gustatory stimuli. Our main objective is to present a case study of a male patient who underwent bilateral parotidectomy surgery and developed Frey's syndrome. Although treatment options and well described case in the literature are limited, we will (in detail) highlight the successful use of botulinum toxin type A (BTx-A) in the management of this condition.

Materials & Methods:

The case presented is 54-year-old man who had undergone parotidectomy surgery for a pleomorphic adenoma on the left side of his face. His past medical history did not include any other significant illness or injury. In order to objectively assess the patient's facial sweating, he was provided with a sandwich and numerous sour candies (photographs and video's available). Subsequently, the Minor's starch-iodine test was conducted, confirming the diagnosis of facial hyperhidrosis on the left side of his face. The affected area of the skin was intradermally injected with botulinum toxin. About 4 units of BTx-A was intradermally injected per square of cm2.

Results:

After a two-week follow-up, the patient reported no complaints of facial sweating. Neither were any side effects of botulinum toxin, such as facial muscle weakness, reported. Six months after follow-up, his symptoms did not reappear yet.

Conclusion:

Botulinum toxin is widely recognized as a drug for the treatment of numerous (off-label) dermatological conditions. Intradermal injections of BTx-A provide a relatively straightforward, effective and safe off-label therapeutic option for dermatologists treating facial hyperhidrosis in patients with Frey's syndrome.

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Abstract N°: 5382

Heatmap Evaluation of Facial Hydration

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Introduction & Objectives:

Evaluating cleansers and moisturizers provides important information to guide clinicians in recommendation of these products. This project was performed to visualize skin hydration via heatmap after use of a gentle skin cleanser (GSC) and moisturizing lotion (ML).

Materials & Methods:

Half-face, intra-individual open-label project in healthy volunteers. Corneometer measurements were made at 30 pre-defined points on half of the face, at baseline, 30 minutes post-application; an additional assessment at one week was made for the moisturizing lotion. Cleanser was administered in a single application that was then wiped off the face. Moisturizing lotion was applied at least once-daily for one week. Heatmaps were generated using Python programming software to interpolate hydration values to colors that were then superimposed onto the volunteer' facial image.

Results:

5 subjects completed the cleanser (GSC) assessments, and 5 subjects completed the 30-minute evaluation for the lotion (ML) with 4 completing the 1-week assessment. There was a visible shift in skin hydration post-GSC application from values approximately in the 12-42AU (arbitrary unit) range to 30-60AU at 30 minutes. Similarly, there was a shift in hydration from baseline to 30 minutes that continued to increase through 1-week of ML use.

Conclusion:

This innovative heatmap data generation showed a clear, visual change in hydration over time. There was a visible shift in hydration values from baseline to 30 minutes after application of cleanser GSC; hydration also improved after use of moisturizing lotion ML at 30 minutes and increased after 1 week application.

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Abstract N°: 5433

Successful treatment of post-inflammatory hypopigmentation with narrowband ultraviolet B phototherapy

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Introduction & Objectives:

Hypopigmentations are a common acquired skin disorder characterized by a loss of melanin pigment. Various factors contribute to its development, including infections, genetic disorders, burns, autoimmune diseases, and exposure to chemical and physical agents.

Materials & Methods:

We conducted a review of the current literature on hypopigmentations available in medical databases, included our case report along with illustrative images of these skin changes in our patient.

Results:

Here we present a case of a young female patient with symmetrical burns that developed following laser hair removal and subsequent sun exposure of the treated skin. Following anti-inflammatory therapy with local corticosteroids and repairing cream, sharply demarcated hypopigmentation became evident in the affected area. The patient underwent a course of 15 narrow-band phototherapy sessions, resulting in complete regression of the hypopigmentations.

Conclusion:

Many cases of hypopigmentation resolve spontaneously over time; however, identifying the cause can improve management, potentially leading to faster resolution. Official guidelines for the treatment of hypopigmentation are currently lacking, and the condition is often resistant to therapy. Hypopigmentations pose significant cosmetic and psychosocial challenges, often negatively impacting patients' quality of life. Given the diverse underlying causes of these conditions, a tailored approach to treatment selection is essential.

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Abstract N°: 5481

Oral and Topical melatonin treatment regimen in skin ageing: A randomized assessor-blinded, prospective trial with VISIA evaluation

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Introduction & Objectives:

Melatonin (Mel) is considered a potent senolytic molecule. It is produced by pineal gland in a circadian rhythm fashion but also by extra-pineal tissues such as skin. Mel has a potent antioxidant activity, DNA and mitochondrial protective action and anti-senescence activity. Topical use of Mel-based dermo cosmetics has demonstrated beneficial effect in skin ageing treatment. So far, no clinical data are available regarding the anti-skin ageing effect of a "In&Out" regimen consisting in a Mel-based cream and a Mel-based (0.5 mg) dietary supplementation containing also hyaluronic acid (150 mg; HA).

Materials & Methods:

In a multicenter, randomized, assessor-blinded trial, forty women, mean age 65 years, with mild to moderate face skin ageing (Glogau score >2) were randomized to cream treatment (group A; n=20) applied twice daily (morning and evening) or to cream treatment plus a Mel and HA-based oral supplementation (one capsule per day) (Group B). Treatment duration was 12 weeks. Main outcome variable was the evolution of the Skin Ageing Global Score (SAGS) evaluating elasticity, wrinkles, roughness, pigmentation erythema and pores using a 5-point score (from 0; no alteration to 4; severe alteration) evaluated at baseline, week 6 and week 12. SAGS score was evaluated by an investigator unaware of treatment group allocation. VISIA analysis was performed in a subgroup of 20 subjects, evaluating spots, wrinkles, texture, pores, brown spots, and red areas.

Results:

All the subjects concluded the trial. Both regimens were well tolerated. At baseline, the SAGS score was 13.9±3 and 15.8±3 in Group A and Group B, respectively. The SAGS score was reduced in both groups in comparison with baseline. However, at week 6 the reduction in comparison with baseline was significant only for group B. At week 12, SAGS score was significantly reduced by 20% in group A and by 25% in group B, in comparison with baseline. The VISIA analysis demonstrated that a significant greater improvement was observed in Group B in comparison with Group A especially for pores, wrinkles, and texture.

Conclusion:

Topical Mel-based cream improves skin ageing evaluated both clinically and instrumentally. A "In&Out" regimen using Mel cream and melatonin-based oral supplementation has demonstrated a greater and faster clinical improvement of skin ageing signs in comparison with the topical treatment alone.

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Abstract N°: 5484

Laser treatment in Klippel-Trenaunay syndrome

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Introduction & Objectives: Klippel-Trenaunay syndrome (KTS) is a rare congenital syndrome of vascular anomalies involving capillaries, veins and lymphatic vessels, associated with progressive hypertrophy of the affected limbs. The incidence is estimated at 1:100,000. A somatic mutation of PIK3CA has been linked to the occurrence of KTS. The disease is associated with an increased risk of thromboembolism and orthopedic complications and requires multispecialty care. Skin lesions in the course of KTS include: extensive vascular patches, lymphangiomas, varicose veins. Less commonly, connective tissue nevi of the distal extremities, epidermal nevi and abnormalities of fat distribution are present. For mainly cosmetic purpose, the usage of laser therapy could be considered.

Materials & Methods: We present the case of a 17-year-old girl with KTS that has been treated since 2021 with a series of combined laser therapy with satisfactory improvement.

Results: A 14-year-old caucasian girl presented to the Dermatology Outpatient Clinic in 04.2021 with a diagnosis of KTS. On physical examination, attention was drawn to the hypertrophy of the left upper and lower limbs. On the skin we found geographic port wine stain and multiple lymphangiomas in the left axillary and scapular regions. A contrast-enhanced CT scan of the chest was performed, which described multiple tortuous vascular structures in the thoracic lining with associated adipose tissue thickening. The lymphatic vessels were removed in stages with a CO2 laser. Nd:YAG laser and IPL treatments were applied to the extensive port wine stain lesion. A partial improvement in the local condition was achieved. Due to the recurrence of lesions, the patient is hospitalized annually for another round of combined laser therapy.

Conclusion: The use of laser therapy in the treatment of KTS can bring cosmetic benefits, but is associated with a high recurrence rate. The patient should receive multispecialty care including orthopedic, rehabilitation, hematology, angiology.

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Abstract N°: 5596

Periprocedural skincare for non-energy and non-ablative energy-based aesthetic procedures in patients with skin of color

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Introduction & Objectives:

Cosmetic procedures with non-energy and non-ablative energy devices are increasing in popularity across diverse populations, including patients with skin of color (SOC). Published algorithms in the current literature address measures to reduce side effects related to aesthetic procedures. Few, however, focus on optimizing integrated skincare and reducing adverse events in individuals with SOC.

Materials & Methods:

An expert panel of dermatologists used a modified Delphi approach to develop the algorithm by applying the results from literature searches, individual clinical experience, and expert opinion. The algorithm is to provide clinicians with adjunctive skincare recommendations for facial anti-aging treatments involving non-energy or non-ablative energy devices in patients with SOC to optimize outcomes, prevent skin sequelae, reduce recovery time, and improve comfort.

Results:

The algorithm includes the following phases: pre-treatment, day of treatment, after-care (1-7 days), and follow-up care (1-4 weeks).

The algorithm is structured around the** phases of supportive skincare and the duration of each phase. The subjects' history includes skin conditions, postinflammatory hypo- and hyperpigmentation (PIH), and responses to previous procedures and treatments.

Skin examination should include evaluation for pigmentation in the treated area and elsewhere and assessment of scars, if applicable, to identify keloids or hypertrophic scars.

A key objective of periprocedural skin care in patients with SOC is to reduce erythema and the risk of dyschromia development. Preventive measures include sun avoidance and the use of sunscreen with an SPF of at least 50. Topicals containing antioxidants, free radical quenchers, and tranexamic acid to prevent dyschromia may help improve treatment outcomes in patients with SOC. Clinicians may pretreat individuals with products to help prevent dyschromia before energy-based facial procedures. Among the panel members, hydroquinone use varied from infrequent to routine use, with more common use in specific circumstances associated with higher risk (e.g., patients with a tan or a history of PIH from previous procedures).

Conclusion:

The algorithm strives to optimize treatment outcomes for patients with SOC by providing their physicians with guidance on skincare measures before, during, and after office-based non-energy or non-ablative energy device treatments.

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Abstract N°: 5660

A rare case of cervical lymphadenitis with hyaluronic acid filler injection

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Introduction & Objectives:

Among several skin fillers developed in recent decades, hyaluronic acid (HA) fillers have become the material of choice. They are safe, long-lasting, not immunogenic, and cost effective, and they can be removed with hyaluronidase. Unfortunately, early and delayed complications may occur following HA filler injection. Here we report a rare case of a hyaluronic filler–related cervical lymphadenopathy in a 32-year-old female patient

Case report:

A previously healthy 32-year-old female received injections of HA filler for midface augmentation. A day after receiving the injection she experienced mild pain, fever and diffuse facial oedema for three days. She was prescribed tablet azithromycin 500 mg od for 3 days. Fever subsided in a week's time. Thereafter she started experiencing severe pain on jaw movements and chewing. On examination she had swollen bilateral cervical lymph nodes. Lymph nodes were discrete and non tender. She had no evidence of throat infection, joint disease or hepatosplenomegaly. She had history of atopic dermatitis and bronchial asthma. Her Routine laboratory findings revealed raised erythrocyte sedimentation rate, all other parameters including C-reactive protein, leucocyte counts were within normal limits, her HIV ELISA was negative, antinuclear antibody was negative and tuberculosis was ruled out. Ultrasonography neck revealed bilateral cervical and pre parotid reactive lymphadenopathy. Magnetic resonance imaging performed was consistent with the sonography findings. She received prolonged and multiple courses of antibiotics including amoxycillin and clavulanate, ciprofloxacin and clarithromycin with no response. She was evaluated by an otorhinolaryngologist and physician to rule out other medical causes. She denied a lymph node biopsy. On the Naranjo ADR probability scale, the causality score was 6 which indicates that the reaction is probable with the filler.

She was then diagnosed with a persistent hypersensitivity reaction to HA filler in the form of cervical lymphadenopathy and was advised to undergo dissolution of the HA filler with hyaluronidase after sensitivity testing. With localised reaction to hyaluronidase at injection site, decision to dissolve was withheld. She was prescribed a short course of tapering oral steroids with mild improvement in her symptoms, however the lymphadenopathy persisted. Thereafter she was followed up regularly until a year after filler injection when there was gradual complete resolution of her symptoms and normalisation of the lymphadenopathy on repeat ultrasonographic evaluation.

Conclusion:

Hyaluronic acid-products have been found to be the safest fillers and the only ones with an antidote.

Filler-related adverse events including granulomas, papules, nodules, subcutaneous swelling, bruising, necrosis, and ulceration are well known. Various drugs like phenytoin, carbamazepine, sulfonamides, and allopurinol are known to cause reactive lymphadenitis. This type of lymphadenopathic hypersensitivity response to fillers has not been described in literature in the past. Knowledge of rare adverse events is essential in understanding the

management and avoiding unnecessary costly and invasive investigations. We hereby report this case to highlight this rare presentation of a filler reraction and good response to conservative management in such rare scenarios.

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Abstract N°: 5834

To evaluate the safety and efficacy of Jessner's- 35% Trichloroacetic acid peel (Monheit Technique) and oral isotretinoin in skin of color patients suffering from acanthosis nigricans (AN).

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Introduction & Objectives: Acanthosis Nigricans possess a therapeutic challenge as the treatment is tricky in most patients and often requires a holistic approach as management of hyperinsulinemias, reduction of body weight and inclusion of various topical and oral treatment modalities including chemical peels. Among peels treatment with single agents using trichloroacetic acid and glycolic acid have been used with variable results. Combining oral isotretinoin and medium depth peels has been considered risky due to potential risk of scarring and post inflammatory hyperpigmentation. The objective of his study is to evaluate the safety and efficacy of medium depth peeling using a combination of Jessner's- 35% Trichloroacetic acid (Monheit's technique) in skin of colour patients of acanthosis nigricans on oral isotretinoin.

Materials & Methods: Retrospective study of 40 patients (28 male and 12 female) of acanthosis nigricans enrolled between June 2022 to June 23 with diagnosed insulin resistance was undertaken. Case records of the patients who were on 0.5 mg/kg/day of oral isotretinoin, metformin 500 mgm twice a day and topical sunscreens for 6 months, undergoing sessions of Jessner's- 35%Trichloroacetic acid peels at 3-weekly intervals were analysed for improvement in acanthosis nigricans alone with any evidence of aberrant or delayed wound healing. Patients with personal or family history of hypertrophic scarring or keloidal tendency were excluded.

Results: A good number of patients demonstrated marked improvement in AN with regards to thickness, texture and pigmentation with each successive session of peel. 15% (6 patients) showed excellent improvement , 45% (18patients) showed very good improvement, 27.5%. (11 patients) showed good improvement, 7.5% (3 patients) showed mild improvement, and 5% (2 patients) showed no improvement.

No evidence of aberrant wound healing was seen with intake of oral isotretinoin. In the Immediate post-peel adverse events 4 patients (10%) had exaggerated post peel erythema and peeling which lasted for 3-4 days and subsided with liberal use of moisturizing lotion and mid potent steroids. One patient (2.5%) showed post inflammaory hyperpigmentation which resolved by use of hydroquinone in 8 weeks.

Conclusion: Medium depth peeling involving use of Jessner's peel followed by application of 35% TCA

(Monheit'technique) is safe and effective to treat AN along with oral isotretinoin. Concomitant isotretinoin

intake does not delay wound healing with no atypical or hypertrophic scarring and no Keloid formation.

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Abstract N°: 5861

"Intermittent Persistent Late Edema: A Late Adverse Effect of Hyaluronic Acid Dermal Filler - A Case Report"

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Introduction & Objectives:

In Brazil, as well as in several countries in Latin America and around the world, the use of hyaluronic acid fillers for facial rejuvenation, volume restoration, and overall facial aesthetics improvement is one of the most commonly performed procedures. The safety profile of hyaluronic acid fillers is generally considered favorable, with a low incidence of adverse effects. Due to underreporting, there is little clinical evidence regarding their optimal management. In this study, we report a case of an adverse event following hyaluronic acid filling, specifically Intermittent Persistent Late Edema (IPLE), including its clinical presentation and management.

Materials & Methods:

A 31-year-old female patient underwent hyaluronic acid filling in the nasolabial sulcus and tear trough regions bilaterally, with a total volume of 2 ml, resulting in a satisfactory aesthetic outcome without complications during the application. Three months post-procedure, she returned to the clinic with complaints of intermittent edema in the left infraorbital region, reporting 5 episodes within one month. Most episodes resolved spontaneously, but in the last episode, she required intravenous hydrocortisone and cetirizine. She was treated with oral corticosteroids and hyaluronidase application using a cannula in the affected area of the left infraorbital region. Reevaluation after 2 weeks showed complete resolution of the edema. No new episodes of edema were reported during the 2-month follow-up.

Results:

Intermittent Persistent Late Edema (IPLE), termed in 2017 by Trindade et al., is clinically characterized by non-depressible, erythematous or non-erythematous, diffuse edema located along the area where hyaluronic acid was implanted, with a late onset. In all cases, the edema was reported to be more pronounced upon waking, with slight improvement throughout the day. The onset time of IPLE after hyaluronic acid application varies in reports, with the earliest being 25 days post-application and the latest three years post-filling. Its duration is transient and intermittent, potentially persisting as long as the hyaluronic acid implant remains in the tissue. Reported triggering factors include infectious conditions such as sinusitis, urinary or respiratory tract infections, dental procedures, facial trauma, and vaccination. In the reported case, the patient denied experiencing any of these triggering factors.

Conclusion:

In 2017, a Latin American Specialists Consensus was published on the classification of adverse reactions to fillers and recommendations for management. The panel developed diagnostic and treatment algorithms based on the onset time, location, and clinical presentation of reactions. Their consensus provides support for clinicians using hyaluronic acid fillers, aiming to minimize and facilitate the treatment of related adverse effects.

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Abstract N°: 5950

HA Fillers: Art & Science of Midface & Lips Augmentation

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Introduction & Objectives:

Hyaluronic acid (HA) dermal fillers have become increasingly popular in recent years as a non-surgical aesthetic treatment option for rejuvenation. HA fillers are used to restore the volume loss, enhance facial contours, smooth out wrinkles and fine lines. HA is a naturally occurring substance found in body, particularly in skin, where it helps to maintain hydration and elasticity. The results of HA fillers are usually temporary, and varies largely with the type of filler, properties of the product, treatment area, amount of filler injected and placement of filler.

Materials & Methods:

In this study, 30 patients of both genders were selected with special preference on midface enhancement and lips augmentation, with just 2 to 3ml of product, and mainly using needles, instead of cannulas, to achieve precision. I have focused on individual patient's assessment, choosing the right product and injection techniques, sharing my original work with tips and tricks to manage and avoid complications. The materials and methods used in the administration of HA fillers can vary in every patient, depending on the specific product, treatment area, expertise and preferences of the medical professional performing the procedure.

Results:

All 30 patients have shown amazing trasnformation with temporary side effects of bruising in few, at some places. The risk of complications and side effects with HA fillers can be minimized by good understanding of anatomy, ideal techniques and choice of product. There are a few general principles that can be followed to help ensure optimal results.

Conclusion:

The ideal techniques for injecting HA fillers will vary depending on the individual's needs and the expertise of medical professional performing the procedure. It's important to tailor the treatment to specific goals, which is only possible with experienced and qualified hands.

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Abstract N°: 5966

Non-invasive evaluation of the dermis: fiber structure and composition

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Introduction & Objectives:

Non-invasive methods for evaluating the dermal structure and composition in a clinical setting have become increasingly important in dermatological research and particularly esthetic dermatology, as they allow for detailed assessment without the need for biopsy. The objective of this work is to provide an overview of the current state-of-the-art in non-invasive techniques for the evaluation of the dermis.

Materials & Methods:

Non-invasive methods that give relevant information regarding dermal structure and composition are based on exploiting light-tissue interactions and can be grouped into: 1) spectroscopic methods, including diffuse reflectance spectroscopy (DRS), fluorescence spectroscopy (FS), and Raman confocal microscpectroscopy (RCM), and 2) microscopic imaging including high-frequency ultrasound (HF-US), optical coherence tomography (OCT), confocal reflectance microscopy (CRM), Line-field Confocal (LC)-OCT, and multiphoton microscopy (MPM). Signal and imaging analysis techniques have been developed specifically to extract relevant information regarding dermal composition and fiber arrangement.

Results:

DRS provides information about the light scattering properties of the dermis that depend on fiber thickness and density. FS uses fiber optic probes in contact with the skin surface to measure native fluorescence signals of crosslinks on collagen and elastin fibers to assess their organization and glycation status. RCM uses light focused on dermal layers to uniquely provide detailed information about amino acid composition and protein tertiary structure conformation of dermal fibers. While HF-US and OCT images provide low resolution information about fiber density, CRM and LC-OCT can be used to examine fiber structure, density, and orientation at finer details. Collagen and elastin fibers can be discriminated using MPM due to their characteristic signals at separate wavelengths. LC-OCT and MPM image stacks can be used to visualize dermal fiber organization in three-dimensions.

Conclusion:

These non-invasive techniques offer several advantages over traditional invasive methods, such as skin biopsies. They allow for the assessment of dermal structure and composition in a longitudinal manner, enabling the monitoring of changes over time and the evaluation of the effects of various interventions or treatments. Additionally, these methods are generally well-tolerated by patients and can be easily integrated into clinical practice, providing valuable information to support dermatological research and patient care.

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Abstract N°: 6016

Clinical evaluation of skin repair efficacy and tolerability of a new body balm galenic containing an oily Calendula officinalis extract and shea butter, under dermatological control

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Introduction & Objectives:

Dry and very dry skin need special attention because of their characteristics as well as to the many external irritating factors: cold, windy or sunny conditions, or hard water. These skin types are more fragile, tend to dry out more, and can show signs of discomfort, such as skin flakes and feelings of tightness. More vulnerable to daily irritations, the skin's protective layer changes, leading to sensitivity and a loss of elasticity. To feel more comfortable, skin needs to be nourished and repaired daily.

The primary objective of this study was to evaluate the skin repair efficacy of an innovative whipped body butter using instrumental methods, clinical scoring and perception of the efficacy by the volunteers.

The secondary objective was to assess its cutaneous tolerance under dermatological control

Materials & Methods:

This exploratory study included 20 healthy volunteers, aged 31 to 72 years (mean 55 years old) with 65% minimum of dry to extra-dry skins. The product was used once daily on forearms or half-legs for 28 days.

Efficacy evaluation was performed immediately after the first application or after 28 days by:

- TransEpidermal Water Loss (TEWL) measurement to characterize skin barrier function
- Sebumetry measures to assess skin nutrition
- Clinical scoring by a Dermatologist of:
- Skin dryness
- Skin smoothing
- Investigator Global Assessment (IGA) of repairing effect

Dryness and smoothness of the skin were evaluated on the whole population using clinical scoring based on a 0-4 point scale (with "0 = none skin dryness/no roughness" and "4 = pronounced skin dryness/very rough skin").

In addition, self-assessment questionnaire were filled in by 59 volunteers aged 19 to 72 years (mean 45 years old) after 28 days of use on the whole body.

The cutaneous tolerability was assessed by a Dermatologist after 28 days of daily use.

Results:

After 28 days of once daily use, the skin repair was significantly improved. The TEWL measurement on half-legs showed a significant decrease by -23% ($p<0.05$) in 90% of volunteers. This efficacy has been confirmed with the increase of the lipids index immediately and up to 6h after application of the balm, and the decrease of skin dryness assessed by the Dermatologist at D28 (-35%, $p<0.05$). In addition, the skin was judged smoother with -

41% ($p<0.05$) of roughness.

The whipped body butter was very well appreciated by the users for its organoleptic characteristics and perceived effects, especially repair, nutrition and cutaneous soothing.

The tolerance was judged very good by the board-certified dermatologist.

Conclusion:

The study demonstrated that this innovative whipped butter formula was very appreciated for its cosmetic qualities and very well tolerated. Its repairing, nourishing and soothing effects from the very first use, is reinforced by the oily *Calendula officinalis* extract and shea butter.

It can be considered as an effective body care that responds to dry skin issues.

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Abstract N°: 6033

Clinical evaluation of the multidimensional wrinkle efficacy of a double action concentrated serum containing ice plant cryoextract and bakuchiol, under dermatological control

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Introduction & Objectives:

Few cosmetic products claiming "anti-wrinkle effect" have demonstrated their efficacy on all wrinkle types across various facial regions.

Two active ingredients were selected: bakuchiol, known for its ability to stimulate collagen synthesis and cell renewal, and ice plant cryoextract which stimulates hyaluronic acid and collagen synthesis in fibroblasts cultures (by +82% and +55% respectively at a concentration of 0.125%). This clinical study aimed to evaluate the anti-wrinkle efficacy of the double action concentrated serum through instrumental methods and consumer self-evaluation.

Materials & Methods:

Several exploratory studies were performed to evaluate the efficacy of an anti-aging double action concentrated serum applied twice daily on the face for 28 days:

- A clinical evaluation on 23 healthy women, aged from 45 to 66 (*average 58*). The evaluation of efficacy was performed immediately or after 4 weeks of product application, through: fringes projection and image VISIA analysis of skin texture
- A consumer test on 108 people aged from 35 to 62 (*average 49*) to assess cosmetic acceptability and their product perception.
- The cutaneous tolerability was assessed by a dermatologist after 28-days of application.

Results:

Immediately after first application,

- Crow's feet wrinkles' depth, volume, and roughness were significantly reduced by respectively 17%, 17% and 11%.*
- Forehead's wrinkles' depth, volume, and roughness were significantly reduced by respectively 16%, 15% and 15%.*
- Nasolabial fold wrinkles' depth, volume and roughness were significantly reduced by respectively 9%, 12% and 8%.*

After 28 days, the parameters were still improved:

- Crow's feet wrinkles' depth, volume and roughness were decreased by respectively 9%, 13% and 14%.*
- Nasolabial fold wrinkles' depth, volume and roughness were reduced by respectively 8%, 13% and 12%.*

- However, no significant reductions were observed for forehead's wrinkles.

Focusing on deep wrinkles (>150µm):

- Immediately after first application, there was a decrease in depth by 11%, volume by 13% and roughness by 9%.*
- After 28 days, these improvements persisted with depth decreasing by 6%, volume by 12% and roughness by 10%.*

The Visia analysis revealed a long-term smoothing effect of the product after 28 days with a significant 27% reduction of texture index in 100% of volunteers.

Finally, immediately after application 86% of users experienced smoother skin while 68% noticed their fine lines and wrinkles filled in. After 28 days, 80% of users found their skin smoothed and 73% their fine lines and wrinkles filled in.

The product was very well tolerated, as judged by a dermatologist

Conclusion:

The results of these clinical studies demonstrate immediate product's hydrating and filling effects on various facial areas: crow's feet, forehead and nasolabial fold. Even after 28 days, discernible effects persist due to the biological actions of the two active ingredients, bakuchiol and ice plant cryoextract. However, these effects are not visible on the forehead suggesting potential complexities in targeting wrinkles in this particular area. Therefore, prioritizing other facial zones for long-term testing may be more relevant.

Overall, this study highlights the product's potential in targeting and treating wrinkles across various levels, from skin rugosity to deep-seated wrinkles and in different facial areas.

$p<0.05$

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Abstract N°: 6045

Clinical evaluation of the efficacy of a cosmetic eye contour through a wide-ranging testing strategy including instrumental tests, expert scoring and consumer assessment, under dermatological control

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Introduction & Objectives:

Many eye care products claiming "anti-aging effects" are commercialized, but few have demonstrated their efficacy using instrumental tests, expert scoring and consumer self-evaluation.

Wrinkles and under eye bags are two major aging signs that can be assessed through instrumental measures.

The objective of this study was to evaluate the efficacy of an anti-aging eye care through a wide-ranging testing strategy including three methods: instrumental measures, expert scoring and consumer self-evaluation.

Materials & Methods:

These exploratory studies were performed to evaluate the efficacy of an anti-aging eye care applied twice daily on the eye contour for 28 days.

2. studies were performed:

- A clinical evaluation on 27 healthy women, aged from 47 to 70 (*average 60*). The evaluation of efficacy was performed immediately or after 4 weeks of product application, through:
  - An expert scoring to evaluate under eye bags and wrinkles using an analogical scale from 0 to 10
  - Under eye bags 3D fringe projections and image analysis of wrinkles and fine lines' topography
- A consumer test on 107 healthy women aged from 35 to 50*(average 43)* to assess cosmetic acceptability and their product perception.

The cutaneous and ocular tolerance were assessed by a dermatologist and ophthalmologist after 28-days of application.

Results:

According to the expert scoring, immediately after application, wrinkles were significantly decreased by 8.9% in at least 85.7% volunteers ($p < 0,05$). After 28 days wrinkles were also reduced by 6.9% in 77.8% volunteers ($p < 0,05$). These good results were confirmed by Fringe projection where a decrease of 15.8% of wrinkles is observed in 92.6% volunteers ($p < 0,05$). Notably, the instrumental result surpassed the efficacy observed through expert scoring, which highlights the good performances of the product.

After 28 days, under eye bags were reduced by 13.7% in 66.7% volunteers ($p < 0,05$) and according to the expert scoring, they are reduced by 12.6% in 66.7% volunteers ($p < 0,05$). Similar results were obtained with both methods.

From the consumer point of view, immediately after first use, 83% of them found their eye contour smoothed,

81% their fine lines filled in, 77% their fine lines and wrinkles reduced and 66% their wrinkles filled in. After 28 days, 85% observed fine lines filled in and wrinkles and fine lines reduced, while 77% their under-eye bags reduced and 72% their wrinkles filled in.

The cutaneous and ocular tolerance was judged excellent by a board-certified dermatologist and ophthalmologist after 28-days of application.

Conclusion:

This study provides wide-ranging evidence supporting the efficacy of this anti-aging eye care product, demonstrating significant reduction in wrinkles and under eye bags and smoothing effects after 28 days of daily application.

It also highlights a disparity in the wrinkle assessment methods, i.e instrumental measures lead to better results compared to expert scoring due to technique increased sensitivity compared to human eye. On the other hand, the efficacy results on under-eye bags are similar with both instrumental methods and expert scoring suggesting the equivalent suitability for either method to evaluate under-eye puffiness.

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Abstract N°: 6164

A case of systematized epidermal nevus (Nevus Unius Lateris) in a 20 year old Filipino female treated with Ablative CO2 laser and topical tretinoin

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Introduction & Objectives:

Nevus unius lateris is a rare systematized verrucous epidermal nevus characterized by confluent papillomatous, verrucous plaques distributed in a unilateral blaschkoid distribution. Systematized epidermal nevi in the absence of neurological manifestations, musculoskeletal, auditory and visual disturbances, as seen in epidermal nevus syndromes, are rare. It has an estimated prevalence in the general population of 1/1000, and its variant nevus unius lateris represents only 0.01% of this total.

This is a case of a 20-year-old female with no known comorbidities diagnosed with nevus unius lateris presenting with unilateral verrucous brown plaques at birth. Patient consulted at the Philippine General Hospital Dermatology outpatient clinic where biopsy was done consistent with an epidermal nevus. Quality of life of the patient was evaluated using DLQI prior to treatment. Baseline DLQI score is 17. Patient also reported difficulty in daily life at school due to her condition. She expressed concern on non-surgical options for her condition. Hence, CO2 ablative laser in combination with topical tretinoin 0.1% cream were initiated as treatment for this case.

Materials & Methods:

The machine used in the study is CO2 Fractional laser Smaxel. The machine was set to deliver light at a wavelength of 10,600 nm for tissue destruction. One CO2 laser session is done per target area (around two palm sizes). The target areas were divided into the anterior leg, knee, and abdomen. For the settings, general CO2 mode and normal pulse mode were used, with energy 215 mJ (0.215 Joules), 5 ms for the pulse duration and 25 ms for the rep time. Lidocaine 1% was infiltrated on target areas. Cold air (Zimmer) was done during ablation to decrease pain. Lesions were ablated using a surgical pen in a paintbrush pattern to the level of unaffected dermis. Endpoints are charred appearance and pinpoint bleeding. Pain numerical rating scale (NRS) score was tolerable ranging from one to three out of ten.

Results:

Thinner lesions (1-3mm) on the abdomen showed lower percent recurrence (50%) as compared to thicker lesions (>3mm) on the knee and leg with 100% recurrence after 6 months. Hence, this would warrant another CO2 laser session to fully ablate the lesions. Patient applied topical tretinoin 0.1% cream every night, under occlusion two weeks post-procedure and until 6 months; however, with inconsistent application due to difficulty in adherence to daily application. Baseline DLQI score prior to treatment is 17 and post-treatment is 11 with noted Improvement in DLQI by 35%. Patient reported satisfaction with the decrease in thickness of the lesions having a significant impact in her daily life.

Conclusion:

In summary, tretinoin 0.1% cream and ablative CO2 laser is a promising therapeutic option for patients with extensive systematized epidermal nevi not amenable to surgical management. Thinner lesions (1-3mm) have lower recurrence as compared to thicker lesions (>3mm). However thicker lesions recurred hence subsequent CO2

laser sessions are needed.

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Abstract N°: 6255

Inclusive interest of a specific dermo-cosmetic cream in the management of sensitive skin syndrome in Asian and Caucasian subjects

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Introduction & Objectives:

Several epidemiological studies evaluated the ethnic impact on the prevalence of Sensitive Skin Syndrome (SSS), including phototype, climatic/environmental and cultural factors, but there is a lack of inclusive studies evaluating the interest of cosmetic products in SSS. Therefore, the investigation of a specific dermo-cosmetic cream efficacy in Polish and Thai subjects suffering from SSS allowed to explore the potential differences in these two populations.

Materials & Methods:

Two monocentric clinical studies were performed on subjects (aged 43 years old in average) suffering from SSS associated with a Burden of Sensitive Skin (BoSS) score equal or higher to 20 (out of 56) involving in Thailand 34 women and 6 men with phototypes IV (55%) or V (30%), and in Poland 40 women and 10 men with phototypes II (54%) or III (46%). For methodological reason, the Polish subjects was selected with a positive stinging test. The specific dermocosmetic cream was applied by the subjects once to twice daily on the face and neck for at least 28 days. Clinical signs (redness, dryness, roughness, squames) were evaluated using a 11-point-scale both by the dermatologists and by the subjects. With a similar scale, the functional signs (itching, pain, tightness, tingling, heat sensations) were self-evaluated by the subjects. In addition, the impact on the quality of life (QoL) was assessed by the BoSS questionnaire. Adverse events were reported by the subjects, and the global cutaneous acceptability was evaluated by the dermatologists at day 28 (D28) using a 4-point-scale.

Results:

At D28 in both studies the cream significantly reduced all clinical signs ($p<0.05$ to $p<0.001$) assessed by the dermatologists and the subjects and improved the functional signs ($p<0.005$ to $p<0.001$), as well as the subjects' QoL ($p<0.005$ for Thailand, $p<0.001$ for Poland), vs baseline. According to the dermatologists, at baseline and D28, redness and dryness were significantly higher ($p<0.001$), and roughness lower (D0 $p<0.005$; D28 $p<0.001$) in Polish subjects, vs Thai subjects. As reported by the subjects, at baseline, dryness, roughness and squames were significantly higher in Thai subjects and at D28 redness ($p<0.001$) and dryness ($p<0.05$) higher in Polish subjects. Concerning the functional assessments, at baseline, tingling, pain, and itching were significantly higher ($p<0.001$) in Thai subjects vs Polish subjects. At D28, tightness ($p<0.005$) was significantly lower while, tingling and pain higher ($p<0.001$) in Thai subjects vs Polish subjects. In addition, the global BoSS scores at baseline and D28 were higher ($p<0.005$) in Thai subjects vs Polish subjects, especially for questions concerning sensations (choice of clothes and washing of powder, pollution). The questions concerning the appearance however were significantly higher in Polish subjects (ex: redness). Finally, 100% and 87.5% of the subjects presented a good to very good

tolerance to the cream according to the dermatologists in Poland and Thailand, respectively.

Conclusion:

Interestingly, Thai subjects were more affected by sensations of sensitive skin while Polish subjects were more affected by visible effects, even if the latest presented a positive stinging test. Despite the difference in sensibility, phototype and culture, and the potential variation in the SSS perception, these studies demonstrated that this specific dermo-cosmetic cream was well-tolerated and present an inclusive efficacy in SSS by improving the QoL.

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Abstract N°: 6359

Efficacy and tolerance of a prebiotic and panthenol-containing multipurpose healing dermocosmetic on patients undergoing medical skin procedures: Results of an international observational study

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Introduction & Objectives:

Medical procedures, both invasive and non-invasive, can often lead to skin irritation, redness, and discomfort during the healing process. Multipurpose healing dermocosmetic (DC) products containing prebiotic active ingredients (Aqua Posae Filiformis, a prebiotic complex made of ferments, sugars and plant extracts, panthenol, madecassoside, and zinc) offer a potential solution for managing these skin reactions and promoting optimal recovery.

Materials & Methods:

This observational study, conducted across 17 countries, enrolled patients of all ages who had undergone various medical procedures. Treatment response was defined as a reduction of at least one severity grade on a five-point scale assessing key symptoms such as erythema, oedema, and discomforts. Clinical evaluations by doctors, along with patient self-assessments, were conducted at baseline and at the end of the study visit. Additionally, the Dermatology Life Quality Index (DLQI) was employed to assess the impact of medical procedures on patients' quality of life.

Results:

The study included 1479 patients, predominantly female (75.2%), with an average age of 39.3 years (SD=14.8), and 29.4% having phototypes IV to VI. Medical procedures were distributed as 47.6% invasive (including dermabrasion techniques such as Q-switched lasers, ablative CO2 laser, electrocoagulation, curettage, and microneedling), 44.1% non-invasive, and 8.3% unspecified. Among non-invasive procedures, 56.2% involved laser treatments (e.g.: pulsed dye laser, CO2 fractionated laser), 28.0% superficial peelings, 11.8% cryotherapy, 2.5% photodynamic therapy, and 1.5% other non-invasives procedures. The DC formulation was primarily applied twice or thrice daily (82.4%) by the patients. Following an average treatment duration of three weeks, significant improvements were observed across various parameters. Erythema showed improvement in 90.8% of patients (P-value <0.001), while edema and desquamation improved in 96.2% (P-value <0.001) and 85.7% (P-value <0.001) of patients, respectively. Furthermore, 95.4% of patients reported reduced pain, and 95.7% experienced an improvement on burning sensations (P-value <0.001). The overall quality of life demonstrated significant improvement of 74.7% (P-value <0.001). The product exhibited a good tolerance rate of 89.9%.

Conclusion:

This study suggests that the daily use of the DC is a good option to improve clinical signs, symptoms, and quality of life in individuals recovering from various medical procedures with a good tolerance profile.

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Abstract N°: 6481

Successful Treatment Of A Caustıc Burn-Induced Hypertrophıc Scar Wıth Potassıum Tıtanyl Phosphate Laser

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Introduction & Objectives: Nitric acid burn is a type of chemical injury that is extremely rare, but results in an injury with a poor cosmetic appearance which can lead to subsequent hypertrophic scarring and postinflammatory hyperpigmentation. In the treatment of hypertrophic scarring, surgery, radiation, lasers, corticosteroids, 5-fluorouracil, cryotherapy, silicone gel, anti-inflammatory agents, whitening creams, camouflage with makeup and laser treatments can be applied. Among laser treatments, erbium-doped yttrium aluminum garnet (Er: YAG), neodymium-doped yttrium aluminum garnet (Nd: YAG), fractional CO2, pulse dye lasers (PDL) have been reported in the literatüre. However, as far as we know, the use of potassium titanyl phosphate (KTP) laser in hypertrophic scar treatment has not been reported.

Materials & Methods: A 44-year-old woman admitted to our outpatient clinic with the complaint of a disfiguring appearance on her legs after being assaulted with a bottle of nitric oxide 1 year ago. Dermatologic examination revealed hypertrophic scars (Figure 1) on the right and left upper legs, approximately 5x20 cm and 5x10 cm in size, respectively. The lesions had irregular sharp borders with a vivid red color and they were indurated. In the dermoscopic examination, the lesions revealed dense vascularization. A total of 3 sessions of KTP laser were performed at intervals of 2 and 4 months (in the months that the patient was available for being in the hospital). It was observed that the induration of the lesion significantly regressed and the red color faded in a total of 3 sessions (Figure 2).

Results:

Nitric acid is chemical with acidic feature. This type of chemicals cause protein denaturation and coagulation necrosis in the skin. The incidence of hypertrophic scars after contact with chemical agents ranges from 32% to 72%. Prolonged angiogenesis and collagen production are observed in the development of keloid and hypertrophic scars. In the literature, there are various cases treated with 1064 nm Nd: YAG laser and its combinations. Nd: YAG laser treatment is thought to cause a significant decrease in cytokine and growth factor levels by inhibiting vascularization in the scar area. Although there are cases treated with Nd: YAG laser in the literature, to our knowledge, there is no case treated with KTP laser. Since KTP laser targets oxyhemoglobin, it is used in the treatment of lesions rich in vascular structure. In our case, we obtained dramatic responses in this hypertrophic scar with dense vascularization after 3 sessions. We think that this response occurs by suppressing neovascularization and dilatation of blood vessels, as in the mechanism of action of Nd: YAG laser.

Conclusion: To the best of our knowledge, this is the first reported case treated by KTP laser and also with excellent results, so we think it is worth sharing.

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Abstract N°: 6597

Complete Resolution of a Tattoo-Induced Pseudolymphoma with Pulsed Dye Laser Therapy

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Introduction & Objectives:

While generally rare, tattoo-induced skin reactions can lead to significant dermatological issues, including allergic reactions and pseudolymphomas. Pseudolymphoma is a benign condition characterised by lymphoid proliferation that mimics lymphoma but does not have the same potential for malignancy. It can occur as a reaction to various stimuli, including tattoo inks. This case report aims to describe the therapeutic challenge of a pseudolymphoma arising on red tattoo inks in a young female patient and discuss the effectiveness of pulsed dye laser (PDL) therapy after conventional treatments failed.

Materials & Methods:

The patient, a young woman in her 30s with an unremarkable health history, developed an inflammatory reaction months after the execution of a multicolour tattoo, primarily at the sites of the red/violet ink. After the failure of the application of topical steroids, given the suspicion of a granulomatous/proliferative disorder, a biopsy was performed, confirming the diagnosis of pseudolymphoma. They were then prescribed local injectable steroids to manage the inflammation and tumefaction, with inconsistent results. Subsequent treatment involved multiple pulsed dye laser therapy sessions, spaced 1-2 months apart, targeting the specific areas of the tattoo exhibiting reactions. The settings of the PDL were adjusted for optimal targeting of the affected tissues, and the patient's response to treatment was monitored through clinical observation and follow-up appointments.

Results:

Following several sessions of PDL therapy, the patient experienced complete remission of both the tumefaction and inflammation with no adverse side effects. Each session of PDL led to progressive improvement, and importantly, the patient expressed high satisfaction with the treatment process and the aesthetic outcomes. This positive feedback further supports the effectiveness of laser therapy in treating tattoo-induced pseudolymphoma.

Conclusion:

Pulsed dye laser therapy emerged as a highly effective treatment for managing inflammatory and proliferative disorders, such as pseudolymphoma, which in this case was induced by tattoo ink, particularly when traditional steroid treatments proved ineffective. This case underscores the potential of PDL as a safe and effective option for similar cases, promoting further exploration and documentation of laser treatments in managing complex tattoo-related skin reactions. Further studies could solidify PDL's role in dermatological practice for tattoo-induced complications.

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Abstract N°: 6606

Assessment of penetration into the deep layers of the epidermis of a formulation based on human melanosomes

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Introduction & Objectives:

Melanin, a black/brown pigment abundantly present in human skin, plays a crucial role in protecting underlying tissues from harmful UV light. However, the availability of human melanin isolated from natural sources is limited. Therefore, obtaining human melanin using in vitro cultures of human cells holds immense promise. An innovative differentiation protocol, utilizing induced pluripotent stem cells (iPS) to generate melanin-producing cells, yields highly melanized cells in both quantity and quality incomparably higher than any previously described methods.

Since the skin penetration of melanin encapsulated within melanosomes, which are produced by our method, is crucial, we conducted in vitro studies to assess skin penetration of the formulation containing preparation of human melanosomes.

Materials & Methods:

The study assessed the penetration of a melanosomes' containing formulation using the human epidermis model. A commercially available model of reconstructed human epidermis EpiskinTM RHE/L/13, consisting of 12 tissue sections with a surface area of 1.07 cm2 each placed in inserts in a 12-well plate, was utilized. Each insert underwent washing with sterile physiological saline solution to remove agar residues and was then transferred to a culture plate containing Episkin Maintenance Medium culture medium. Following an incubation period of 20 hours in a 37°C incubator with 5% CO2 concentration, the penetration assessment was conducted. Three formulations were tested: F3 (containing melanosomes) and two containing UV filters - avobenzone (BMDM) and benzophenone-3 (BP-3) at a concentration of 2%. The formulations were applied to the epidermis surface at a dose of 30 mg/cm2.

Results:

The results indicate that after 24 hours, 2.83% of F3 penetrated the surface of EpiSkinTM. 71.31% of the applied dose remained on the tissue surface, while 25.86% was retained in the tissue. The distribution of the formulation significantly changed after extending the experiment by another 24 hours. 60.41% of F3 remained on the tissue surface, with 6.36% of the F3 remaining in the tissue, and 33.23% of the F3 penetrated the EpiSkinTM surface into the acceptor fluid. For formulations containing commercial UV filters, after 24 hours of incubation, 92.47% and 89.81% of the applied BMDM and BP-3 remained on the tissue surface, respectively. 7.46% of BMDM and 7.48% of BP-3 remained in the tissue, and 0.068% of the BMDM and 2.7% of BP-3 penetrated into the acceptor fluid.

Conclusion:

Our studies have provided sufficient evidence for good in vitro skin penetration of a formulation containing

human melanosomes, which forms the basis for research on a new supplementary product enhancing photoprotection through antioxidant, anti-inflammatory, and DNA-protective effects on keratinocytes.

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Abstract N°: 6625

Assessment of the in vitro melanogenesis inhibition potential by the new compound A-111: (E)-3- (4-chlorophenyl)-N-(5-hydroxypentyl)acrylamide

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Introduction & Objectives:

Hyperpigmentation disorders are significant issues both medically and aesthetically, arising from inappropriate melanin deposition and/or excessive melanin synthesis. While existing treatments for hyperpigmentation often require extended periods to achieve noticeable improvements and can lead to unwanted side effects, our pursuit of novel melanin production inhibitors has led us to identify a promising new small molecule, (E)-3-(4-chlorophenyl)-N-(5-hydroxypentyl)acrylamide - compound A-111. This compound demonstrated inhibitory properties in a mushroom tyrosinase assay (IC50=36.98±1.07 μM for monophenolase activity, IC50=146.71±16.82 μM for diphenolase activity) and effectively inhibited melanin production in the B16F10 mouse melanoma cell line at a concentration of 6.25 μM, likely through downregulation of Tyr, Mitf, Tyrp-1, and Tyrp-2 gene expression. Additionally, it exhibited penetration through the epidermis, reaching potential sites of action. Molecular modeling studies showed possible docking in the active site, with interactions involving Phe264, Met280, and His263. To evaluate its melanogenesis inhibitory properties in practical conditions, a cosmetic formulation containing 1% w/w A-111 was tested using the MelanoDerm™ model. This model offers a suitable alternative to in vivo testing.

Materials & Methods:

The research was conducted on reconstructed human epidermis containing melanocytes (MelanoDerm™ MEL300-B, MatTek, Slovakia). To culture the epidermis during the experiments, EPI-100-NMM-113 medium was utilized. Test formulations (25 μL) were applied to the inserts using a positive displacement pipette and then evenly distributed using a sterile glass bulb-headed Pasteur pipette. The experiment was carried out for 14 days, with applications repeated every 48 hours, totaling 7 applications. After this period, the inserts were rinsed and dried. Tissue viability of selected inserts was assessed using the MTT test, while the remaining inserts were used to measure melanin content. The reduction in melanin content was calculated relative to the negative control (water). Additionally, commercially available formulations containing tyrosinase inhibitors were also tested.

Results:

It was shown that the formulation containing A-111 was able to reduce melanin production in MelanoDerm. The melanin content was significantly decreased to 61.3±2.9% of the control. Importantly, the formulation had no significant effect on tissue viability, maintaining it at 85.0±5.1% of the control. Commercially available products containing tyrosinase inhibitors contributed to a decrease in melanin content in the tissue to 75.8±3.2% and 56.6±1.2% of the control, respectively. However, these products also led to a decrease in tissue viability, with values of 68.8±3.6% and 83.6±3.8% of the control, respectively

Conclusion:

Our studies have provided sufficient evidence for the in vitro melanogenesis inhibition potential of compound A-

111, demonstrating its suitability for future applications.

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Abstract N°: 6639

Clinical efficacy of platelet-rich plasma for the treatment of endocrine therapy-induced alopecia and permanent chemotherapy-induced alopecia in breast cancer patients: a randomized controlled pilot trial

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Introduction & Objectives:

Persistent alopecia is a frequent adverse effect of chemotherapy and endocrine therapy in breast cancer patients, resulting in persistent chemotherapy induced alopecia (pCIA), or endocrine-induced alopecia (EIA). The addition of platelet-rich plasma (PRP) to topical minoxidil 5% has been shown to induce significant hair growth in women with female patterned androgenetic alopecia (Alves 2018). However, the efficacy of PRP for pCIA and EIA has not been demonstrated under a randomized trial design. This randomized controlled pilot study evaluated the efficacy and safety of PRP in breast cancer survivors.

Materials & Methods:

Female breast cancer survivors ≥ 18 years old, with EIA or pCIA, who had failed a prior alopecia therapy with topical minoxidil 5% BID and / or spironolactone 200 mg per day, were enrolled. Patients had either the right or left scalp side randomly assigned to PRP treatment and received two micropigmentation tattoos on their frontal scalps to standardize trichoscopic evaluation. Participants received 3 monthly PRP injections, with scalp evaluation at baseline,weeks 12 and 24. Primary outcome measures were the difference between treatment and observation sides of the scalp assessed by a blinded dermatologist using the 7-point Global Assessment Score (GAS) (scale -3 (greatly decreased from baseline) to +3 (greatly increased from baseline), as well as the difference of treated side from baseline to weeks 12 and 24. Secondary outcome measures were adverse events, patient-reported quality of life (QoL) by Hairdex questionnaire and trichoscopic data.

Results:

15 EIA and 11 pCIA patients with mean Ludwig grade of 1.7 (range: 1-3) completed week 12 evaluation. Comparing treated and untreated sides, GAS scores were comparable at weeks 12 and 24. However, at week 12, 20 and 19 of 26 patients on treated and control sides, respectively, showed slight, moderate or great improvements in scalp coverage ($p < 0.001$), and at week 24, 22 of 25 patients on both treated and control sides saw slight, moderate or great improvements in scalp coverage compared to baseline ($p < 0.001$). On the treated side, trichoscopic values of total hair shaft number increased (133 (SD=62) to 153 (SD=71) to 161 (SD=65) hairs/cm2, $p<0.05$) from baseline to weeks 12 and 24, respectively. Hairdex score decreased, indicating a non-significant improvement in QoL (41.1 to 39.4 to 39.8, $p>0.05$) from baseline to weeks 12 and 24, respectively. The entire cohort of 26 patients experienced scalp pain; most being reported as mild or moderate in severity. No patients dropped out of the study due to pain or adverse events.

Conclusion:

This randomized pilot study demonstrated that PRP is well tolerated and may alleviate alopecia in breast cancer patients induced by chemotherapy or endocrine therapy. Further study under an adequately powered randomized comparative trial is warranted.

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Abstract N°: 6692

Anti-inflammatory effects of sea cucumber peptides in LPS-induced RAW264.7 macrophages and atrophic facial photoaging

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Title：Anti-inflammatory effects of sea cucumber peptides in LPS-induced RAW264.7 macrophages and atrophic facial photoaging

Introduction & Objectives:

Atrophic photoaging, a new subgroup of facial photodamage has been identified, characterized by more severe inflammation than hypertrophic photoaging. Sea cucumber peptides have attracted widespread attention due to its potent biological activities. Therefore,This study aims to explore the anti-inflammatory and anti-photoaging activity of Sea Cucumber Peptide (JHSCP) on RAW 267.4 cells and followed by a cross-over clinical trial in healthy subjects.

Materials & Methods:

Verify the NO inhibitory effect of JHSCP on RAW 264.7 macrophages cells. For the clinical trial, a randomized controlled trial was conducted. 20 healthy subjects were asked to use an emulsion with or without 5 mg/ml JHSCP twice daily for 60 days and detect the physiological parameters of the subjects' facial skin.

Results:

The RAW 264.7 macrophages treated with JHSCP display anti-inflammatory activity by downregulating the NO expressions (The inhibition rate is 12% at 100 ug/ml and 6% at 500 ug/ml). Whereas the subjects with JHSCP showed improved skin hydration ($p < .05$), L* value and lower transepidermal water loss (TEWL). Meanwhile, CSKIN results showed a reduction in the size of facial red areas in subjects using 5 mg/mL JHSCP emulsion, with 2 volunteers showing improvement in facial dermatitis (e.g., erythema, scaling).

Conclusion:

These results indicate that JHSCP can exert anti-atrophic photoaging effects through anti-inflammation, increase skin hydration, enhanced skin barrier function, and reduced facial erythema and scaling.

Key words: Atrophic photoaging; anti-inflammation; Sea Cucumber Peptide

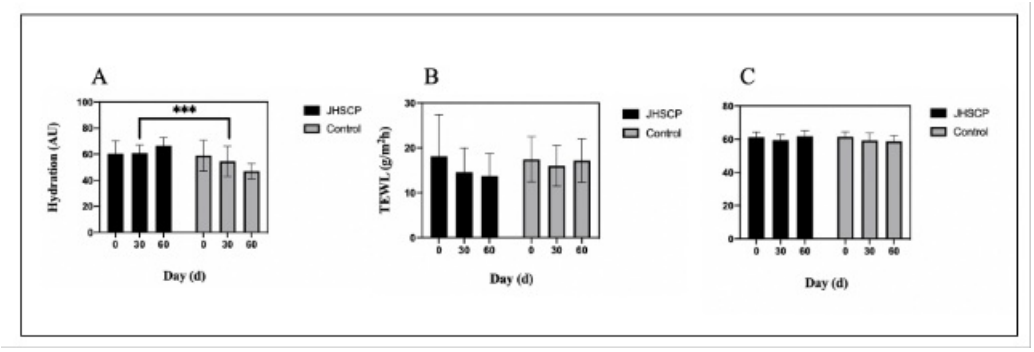

Figure 1. Results of skin physiological parameters after lotion application by subjects. A: skin hydration, B: TEWL, C: L* value.

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Abstract N°: 6819

Fractional CO2 laser- a modern approach for treating active acne

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Introduction & Objectives:

Acne vulgaris is a prevalent dermatological condition that affects the pilosebaceous unit. Individuals of all age groups may be affected. Early and safe intervention is necessary to reduce the substantial impact acne has on quality of life. The management of acne is diverse and can lead to variable results. Laser and light therapy are gaining popularity as effective non-pharmacological treatment for active acne vulgaris. Treating acne early with these interventions can also aid in resolving complications like scarring and pigmentation. They also have the potential to mitigate the adverse effects associated with traditional oral and topical treatment.

Fractional CO2 ablative laser is well known for its significant role in improving acne scars and rejuvenation. This is the first case series where we report the efficacy of fractional CO2 laser even in the treatment of active acne.

Objectives: To assess the effectiveness of non-ablative CO2 laser in treating active acne

Materials & Methods:

The study included ten patients over 18 years old with mild-to-moderate acne vulgaris who were not on topical or systemic acne therapies before the onset of the procedure.

Each patient underwent four sessions with a two-week gap, using the following settings: 10 mJ, 15 watt, and 1% density. During the study, patients were advised to avoid both sun exposure and the use of any topical or systemic acne medications.

Lesions were counted, digital photos were analyzed (global improvement scale) before and after treatment, and patient satisfaction levels (Likert scale) were evaluated at the end of the follow-up period.

Results:

The study and follow-up period were completed by all the patients.

By the end of the follow-up period, there was a significant reduction of 68.7% in comedonal lesions and 76.2% in inflammatory lesions. (Figures) The intervention given resulted in either complete satisfaction or partial satisfaction for all patients.

In summary, all patients experienced a notable decrease in inflammatory acne, comedonal counts, and post-inflammatory hyperpigmentation following the treatment.

During follow-up, patients experienced mild skin dryness, which may be attributed to the effect of CO2 on sebum output through sebaceous gland damage. None of the patients experienced any other side effects.

Conclusion:

We conclude that the application of low-energy, low density, non ablative fractional CO2 laser on active acne is highly effective in treating acne, reducing disease severity and minimizing acne-related issues, including scarring,

and post-inflammatory hyperpigmentation.

Adding it to the current acne treatment options will lessen the burden of using multiple creams and the risk of antibiotic resistance.

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Abstract N°: 6873

Succesfull Treatment of Dermatoporosis with Combination of Hyaluronic Acid, Ceramide, and Topical Tretinoin

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Introduction & Objectives: The term "dermatoporosis" was introduced to describe the chronic, fragile skin condition brought on by aging. Dermatoporosis is characterized by senile purpura, skin atrophy and lacerations, pseudoscars, and delayed wound healing. As we age, intrinsic aging involves gradual biochemical degenerative processes. Extrinsic aging is a biochemical process driven by external influences that cause aging.

Materials & Methods: A 74-year-old female complained of purplish-red spots, skin tears, and scars on both arms for seven years. A history of long-term topical corticosteroid use is recognized. Dermatological examination revealed erythema macules, pseudoscars, hypertrophic scars, excoriations, erosions, and lacerations on the bilateral superior limb region which is classified into stage IIb dermatoporosis. Histopathological examination showed an atrophic epidermis, underlying eccrine, sebaceous glands, connective tissue, fatty tissue, blood vessels and extravasation of erythrocytes in the superficial dermis to the deep dermis. Ultrasound examination showed a skin thickness of 1.2 mm on both arms. The patient was given topical therapy with a combination of hyaluronic acid 0,1 %, ceramide, and tretinoin 0,05 % applied two times a day for 30 days. The skin thickness increased to be 1.6 mm on the right arm and 1.3 mm on the left arm.

Results: There are two types of dermatoporosis, primary dermatoporosis is caused by chronological aging, long-term unprotected sun exposure, and possibly genetic factors, which have not yet been identified. The secondary type is caused by chronic use of topical and systemic corticosteroids. The main uses of hyaluronic acid (HA) are for hydration and dermal fillers. The primary cell surface receptor of HA is CD44. Therefore, HA fragments were identified and used as CD44 ligands to activate CD44- mediated molecular pathways that cause skin hyperplasia. Topical application of this HA results in epidermal hyperplasia and increased HA and collagen content in the epidermis and dermis by stimulating molecules participating in hyalurosomes. Tretinoin is a vitamin A derivate; application of tretinoin to human skin can induce skin rejuvenation by histologic and molecular alterations, these include epidermal hyperplasia, epidermal spongiosis, and compaction of the stratum corneum. Ceramide is a significant component of lipids in the stratum corneum that plays a vital role as a skin protectant and moisturizer. Ceramide is universally present as a component of the stratum corneum, biomembranes, and lipid mediators and regulates cell proliferation and differentiation.

Conclusion: "Dermatoporosis" describe a chronic cutaneous insufficiency syndrome that extends beyond cosmetics and appearance affects a growing proportion of elderly people. The combination of hyaluronic acid, ceramide, and tretinoin increase collagen content, induce epidermal hyperplasia, protect and moisturize the skin thus improve dermatoporosis condition.

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Abstract N°: 6986

Adding intradermal Platelet Rich Plasma increases the efficacy of Q-switched Nd:YAG laser toning in the treatment of melasma: an evaluator-blinded patient-blinded randomized-controlled split face study

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Introduction & Objectives:

Melasma is a common, acquired hyperpigmentation. QS:Nd YAG laser toning (LT) refers to using low fluence with large spot size in multiple passes. Platelet Rich Plasma (PRP) can decrease pigmentation and improve skin quality. Our objective is to evaluate the efficacy and safety of adding Platelet Rich Plasma (PRP) to QS:Nd YAG laser toning (LT) in melasma and its role in sustainability of results.

Materials & Methods:

This study was conducted as patient-blinded evaluator-blinded randomized-controlled split face study. Thirty melasma patients were enrolled. Both sides received LT. One side of the melasma was randomly assigned for PRP injections (LT+PRP) and the other side for saline injections (LT+ placebo) in the same session. Sessions were performed monthly for 5 months followed by a follow-up assessment after 2 months. Hemi MASI, skin texture, Patient Satisfaction Scale, melanin and erythema indices were used to assess improvement on each side.

Results:

All scores significantly improved on both sides of the melasma at the final treatment session and at the follow-up visit. The LT+PRP side yielded a statistically significant better percentage of improvement compared to the LT+placebo side after treatment and at the follow-up as regards the Hemi MASI (p=**0.005*** and **0.001*** respectively) and skin texture (**p=0.004***and **0.001*** respectively). Side effects were minimal and equal on both sides. A positive correlation was detected between the change in hemi-MASI and the change of MelasQ and melanin indices. In both sides, improvement in darkness was significantly greater compared to the improvement of the size of the area affected by melasma (p = **0.046*** and **0.025*** respectively).

Conclusion:

Adding PRP to LT is safe and effective in melasma and is superior to LT alone regarding improvement of pigmentation and texture. Results were also better maintained when PRP was added.

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Abstract N°: 7010

Comparative Study between the Clinical Results of Fractional Microneedling Radiofrequency (FRF) versus Carboxytherapy in the Treatment of Striae Distensae

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Introduction & Objectives:

Striae Distensae (SD) are linear dermal atrophic scars caused by skin stretching. They represent a cosmetic problem in many patients. Both Fractional radiogrequency microneedling (FRF) and Carboxytherapy (CDT) have proven efficacy in treating SD. The aim of work is to evaluate and compare the efficacy and safety of both modalities in treating SD

Materials & Methods:

A total of 20 patients with SD were enrolled. They All received 3 monthly FRF sessions on the right side and 12 weekly sessions of CDT on the left side. Comparative assessment were carried out using Clinical and ultrasonographjc assessment in addition to patient satisfaction

Results:

Both FRF and CDT shoed high efficacy with statistically isignificant colour charge towards skin tone. reduction length and width of scars, ultrasonographic enhancement of epidermis and dermis and patient satisfaction

Conclusion:

Both FRF and CDT show high and promising results in treating Striae Distensae with more improvement with FRF.

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Abstract N°: 7125

Comparative efficacy of fractional CO2 laser alone and in combination with fractional CO2 with PRP for striae distensae: A pilot study

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Introduction & Objectives: Striae distensae causes disfigurement, and remains difficult to treat. This study was done to to evaluate and compare the efficacy of fractional CO2 laser with fractional CO2 and platelet-rich plasma in treating striae distensae.

Materials & Methods: Forty patients with striae distensae were recruited in this study and divided into two groups, A and B, of 20 each. Group A was treated by fractional CO2 laser, while Group B was treated with combination modality of fractional CO2 with PRP. Objective and subjective criteria were measured pre- and post-treatment.

Results: Both groups showed significant improvement after treatments ($P < 0.05$). Patients treated with combination modality of fractional CO2 laser with PRP (Group B) showed significant improvement after the 4th session compared with those treated with fractional CO2 alone.

Conclusion: Our study has provided supportive evidence to the effectiveness of both fractional CO2 laser, and fractional CO2 with PRP as treatments for striae distensae. Combination modality was found to be more effective in the treatment of striae distensae compared with fractional CO2 alone, with good scar outcomes.

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Abstract N°: 7357

Recalcitrant foreign body granuloma in the neck following poly-L-lactic acid injection

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Introduction & Objectives:

Biostimulators are the newest developments in cosmetic procedures. Patients with facial, pectoral, and hand volume loss benefit from injectable poly-L-lactic acid (PLLA). Clinical benefits from PLLA-induced increases in tissue volume can persist for up to two years. Although additional evidence suggests that the incidence of adverse events is low, subcutaneous nodules are one of the most common side effects associated with PLLA. Off-label injection of PLLA into the anterior neck may increase the incidence of nodule formation. PLLA nodules that are not amenable to treatment may be injected with hyaluronidase, triamcinolone, or 5-fluorouracil. We report here a case of a patient who, after receiving a PLLA injection, acquired several nodules in the front of the neck that refused to respond to any form of treatment, including surgical excision.

Case description:

A 67-year-old woman wanted soft tissue augmentation for anterior neck skin laxity and static wrinkles. She selected PLLA due to its successful results on her cheeks a year prior. To prepare for injection, a PLLA vial was hydrated with 5 cc of saline for 48 hours using a continuous rotation suspension method. On injection day, 2 cc of 2% lidocaine and 3 cc of saline were added to hyperdilute the PLLA to 10 cc. Injections were made via cannula in the anterior and lateral necks. Three weeks following the treatment, the patient observed nodules forming near and away from the cannula insertion sites, totaling four on the anterior neck. The nodules were initially treated with huge boluses of bacteriostatic saline, which failed. It was then tried to inject 0.4 mL of triamcinolone acetonide (20 mg/mL) at three-week intervals for two sessions without success. 0.3 mL of hyaluronidase with saline was administered unsuccessfully. Thus, ultrasound-guided surgical extraction was advised. Ultrasound showed mobile, irregular, hypoechoic lumps superficial to the superficial cervical fascia and platysma. Greyish-yellow, four-lobulated nodular lesions ranging from 1x1.5 cm to 0.5x0.5 cm were removed. A second ultrasound revealed complete nodule removal. Histopathology revealed multinodular, noncaseating granulomatous lesions in the dermis and subcutaneous fat. Around fusiform and oval translucent particles are many epitheloid cells, multinucleated giant cells. Under polarized light, these particles are both birefregent and refractile. This is consistent with poly-L-lactic acid. Despite the ultrasound excision’s precision, the patient developed smaller soft nodules three weeks later.

Conclusion:

When applied to sensitive locations, such as the neck and periorbital regions, PLLA might cause nodule formation. Intralesional corticosteroids, hyaluronidase, antibiotics, or surgical extraction were the last resorts that resolved the majority of the described cases. The histological findings may point to the function of immunity since the nodules recurred after surgical removal, despite the clearance of nodules on ultrasound following their surgical removal. Memory T cells may influence the recurrence of nodules. We need a better understanding of the pathophysiology underlying the formation of nodules in order to avoid their formation, especially since the demand for PLLA treatments is likely to rise along with the number of nodules identified.

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Abstract N°: 7473

Survey on skin aging : the place of Nonsurgical Facial Rejuvenation Procedures

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Introduction & Objectives:

Skin aging is a physiological process that is caused by the constant action of unmodified factors

Degenerative processes occur in all organs and systems, but age-related changes in the skin, which we can see with the naked eye, have the greatest impact on the psycho emotional state and socialization of every subject of society.

In recent years, minimally invasive facial beauty has evolved rapidly. Options for nonsurgical facial rejuvenation treatment have increased significantly in both availability and popularity over the past two decades.

this survey aims to summarize different kinds of applications of minimally invasive procedures in improving facial aging to provide a comprehensive and accurate introduction on the issue of esthetic treatment of facial skin

Materials & Methods:

This was a Cross-sectional online survey of 216 participants, The data were collected using a questionnaire created on Google Forms, to which 216 participants responded anonymously.The data were analyzed to generate descriptive statistics in the form of frequencies and averages

Results:

Our study population comprised 216 participants, 88.9% were females, 69.4% of whom were aged 31-40 years old. 56.9% are salaried employees, 31.9% of our population have a monthly income exceeding 1000 euro.

All our participants has an external environmental factors and body’s internal factors that affect the aging process, 22% are smokers, 15.3% consumes alcohols, stress was the most reported factor by 79.2%. As for sun exposure, 79.2% have less than 2 hours daily exposure to the sun, with 62.5% declared daily use of sun protection.

75% are concerned/anxious about skin aging and 66.7% have begun to notice signs of aging, the most reported sign being the appearance of fine lines and wrinkles followed by loss of radiance.

to remedy and rejuvenate themselves, our participants preferred to use, in descending order : aging cosmetics, followed directly by mini invasive nonsurgical treatment such as fillers, botulinum toxin, chemical peels, laser skin resurfacing, energy-based facial rejuvenation, prp.

11.3% prefers non-medical techniques such as facial yoga, roller massage, alone or in combination

of our participants, the majority have used chemical peels, followed by mesotherapy and botox and fillers injections. Some of them has opted of a combination of different modalities

Satisfactory was reported by 66.7% of our population results obtained lasted on average between 3 months and 1 year.

A prior professional advice is necessary before, in order to choose the right treatment for each situation, inform

the patient about possible side effects and establish a therapeutic strategy. Realistic goals must be set before treatment to avoid disappointment

25% of our population has not undergone rejuvenation procedures; the most frequently reported reasons being personal and religious convictions, followed by the absence of a current need and the cost of these procedures.

Conclusion:

Addressing the needs of prevention and reversal of aging is unique to each particular patient population, and should be considered accordingly

Options for nonsurgical facial rejuvenation treatment have increased significantly in both availability and popularity over the past two decades. However, there remains a paucity of clinical practice guidelines and evidence-based recommendations for these procedures

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Abstract N°: 7507

Male's perception of skincare routines

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Introduction & Objectives:

When it comes to skin care, men have always kept it simple. Today, however, more and more men are looking for healthier, youthful looking skin.

Due to differences in skin structure and aging process, as well as lifestyle and behaviour, men's facial skin has its own particularities, which can lead to different treatment strategies and different skincare products to those used by women.

Men are also reluctant to use sunscreen, which predisposes them to skin cancer.

purpose: To assess the motivations, behaviours and preferred skincare product characteristics by men to address several male skin problems related to skin quality, skin aging and shaving, as well as the evaluation of daily sunscreen use.

Materials & Methods:

This was a Cross-sectional online survey of 243 men. The data were collected using a questionnaire created on Google Forms, to which 243 men responded anonymously.The data were analyzed to generate descriptive statistics in the form of frequencies and averages

Results:

Our study population comprised 243 men, 65.4% of whom were aged 26-35 and 19.8% aged between 18-25. 98.8% had a university degree and 92.6% of them lived in Morocco.

88.9% are salaried employees, 21% of whom have a job involving daily exposure to the sun. 42% of our population have a monthly income exceeding 10,000 MAD and 43.2% between 2,500-10000 MAD. In terms of lifestyle, 42% of the population are smokers.

65.4% of our sample have a phototype 3 or 4, and the predominant skin types are: mixed skin in 38.3%, normal in 21% and oily in 19.8%.

The skin conditions most reported by our population are blackheads for 46.9%, acne scars for 25.9%, dilated pores for 23.5% and acne for 18.5%.

60.5% of our population don't use a skincare routine for their skin, for various reasons: 40.4% for lack of product knowledge, 32.7% out of personal conviction that it's only meant for women, 30.8% for lack of time and diligence, and 11.5% for financial reasons.

For the 39.5% who use a skincare routine: The skincare products most frequently used were cleansing gel / bar soap (62.7%) daily for (48%), followed by moisturizing creams (56.9%) daily for (43.2%).

The use of sun protection was reported by 56.5%rate : 43.2% declared daily use, while 47.7% used it occasionally

just when hiking or at the beach.

47.2% used an aftershave cream and 15.5% considered the occasional use of exfoliating products as part of their routine. 94.2% did not use anti-aging products.

Of this population, 60% were moderately satisfied with the products used in their routine.

Conclusion:

Nowadays, men are showing a growing interest in taking care of their skin. However, it seems reasonable to inform and educate them in order to increase their interest in using these products and, above all, to make them aware of the importance of using sunscreens.

The development of skin care products adapted to the specific problems of men’s facial skin is therefore essential to attract their attention, optimize skin quality and maintain a youthful appearance.

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Ehlers- Danlos syndrome: the importance of an early diagnosis for prevention of unfavorable scaring

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Introduction & Objectives:

The Ehlers-Danlos syndrome is a group of conjunctive tissue hereditary heterogenous abnormalities, with clinical expression on the skin, ligaments, articulations and tendons. This syndrome is characterized by the triad of articular hypermobility, hyperlaxity of the skin and tissue fragility. There are 13 subtypes of EDS already described in literature, subdivided by clinical findings and related to alterations in the synthesis and processing of collagen fibers. The classic type presented in our patient is the second most common type. This subtype is present in 1:40,000 people and it's characterized by articular hypermobility, skin hyperlaxity and atrophic and elongated scaring. It is an autosomal dominant pattern, with mutations in genes COL5A1 and COL5A2 and alterations in collagen type V. It is an underdiagnosed syndrome which leads to unfavorable scaring post-surgery. Our objective is to emphasis the importance of an early diagnosis of Ehlers- Danlos syndrome before undergoing cosmetic surgery to prevent unfavorable scaring.

Materials & Methods:

A comprehensive review of the literature was carried out for this case.

Results:

We present a 25-year-old female patient who denied any comorbidity and family history of any pathologies. She was subjected to mastopexy with sub glandular breast implants (300ml) and evolved with suture dehiscence and important difficulty for scaring, having to be made various interventions for wound closure including: re-suturing, hyperbaric chamber, enzymatic debridement and technological wound dressings during a 7month period without complete wound closure; after a new surgical approach for closing the wound and biopsy of the tissue, pyoderma gangrenosum was ruled out.

After 6months the patient presented complete closure of the wound but with an unesthetic scar, because of which it was decided to be made a third surgical intervention with implantation of a submuscular breast implant (380ml) with an internal bra technique. The patient presented suture dehiscence once again and partial bilateral implant extrusion, having to be submitted to a fourth surgical intervention for exchanging of the breast implants to 300ml. After this fourth intervention the patient presented another dehiscence, finally needing a bilateral explant of the breast implants.

After the third surgery the patient seeked out a dermatological consult, in which the diagnosis of Ehlers-Danlos syndrome was made after a complete physical examination that showed articular hypermobility, hyperlaxity of the skin and cutaneous fragility.

Conclusion:

The EDS diagnosis is made clinically, taking into consideration the family history, although genetical tests can be made to confirm the diagnosis and subtype. There is no specific treatment but it is of the utmost importance for a diagnosis to be made before exposing the patient to any surgical intervention, especially cosmetic surgery, taking into consideration the future complications this syndrome can present in the process of scaring of the patient.