BIODERMA
LABORATOIRE DERMATOLOGIQUE

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Bioderma Congress Reports
IMCAS 2022

Reports written by

Dr. Laura BOUCHARD

Dermatologist, Finland

Periorbital rejuvenation: tear trough and periorbital wrinkles

Combination therapy to optimize laser blepharoplasty
Dr. Allison Weinkle

Dr. Allison Weinkle, from Bradenton, FL, US presented her approach to achieve results similar to surgical blepharoplasty with a combination of various treatment modalities.

Patient selection

- Fully ablative laser resurfacing only for lighter skin types.
- Should not be performed if the patient has a history of vitiligo because of the potential to Koebnerize.
- The "lid snap test" should be performed prior to treatment. If positive: risk of developing ectropion. Fully ablative resurfacing should be avoided. Prior lower blepharoplasty also a contraindication.
- Only reliable patients capable of post-operative care should be treated
- Expectations should be realistic

Neuromodulators Before Laser Treatment

- Glabella
- Lateral orbicularis
- Brow lift
- Mid-tarsal plate
- Depressor supercilii
- Nasalis

Fully Ablative Laser Resurfacing vs Fractional Ablative Resurfacing

- Fully ablative

o Good tightening
o Decreases risk for future non-melanoma skin cancers
o Considerable downtime and risks (e.g. scarring and hypopigmentation)

- Fractional

o Less downtime but also effect
o Safer for lower lid (ectropion)

Pain Management

- Nerve block (lidocaine w/o epinephrine supraorbital, supratrochlear, infratrochlear, infraorbital)
- Nitrous oxide +/- oral narcotic pain medication or anxiolytic

Infections
- Consider prophylaxis: valaciclovir, doxycycline +/- fluconazole based on risk factors
- Culture if infection; consider broad spectrum antibiotic (ciprofloxacin)

Post Healing Treatment Options
- HA fillers (when healed)
- PRP
- SOFWAVE Brow Lift (Synchronous Ultrasound Parallel Beam)
- Oxymetazoline eye drops (eyelid elevation; effect 8h)
- Bimatoprost ophthalmic sol. (lash growth)

Scars

Treatment options for hyperpigmented scars
Dr. Marie Jourdan

Dr. Marie Jourdan from Paris, France presented her approach to treating hyperpigmented scars.

Choice of Treatment
- Consider texture of the scar in addition to pigmentation (atrophic, hypertrophic, sclerotic, fibrotic scars)
- The depth of the pigmentation affects the choice of treatment: creams, peelings, lasers (wavelength)

Hyperpigmentation physiopathology
- Hypertrophy of the epidermis: the thicker the epidermis, the darker the scar
- Most cases are postinflammatory hyperpigmentation (PIH)

- Inflammation induces inflammatory mediators, increased melanin production + transfer to keratinocytes
- Signal crosstalk between epidermal melanocytes, keratinocytes and dermal fibroblasts

Patient cases
1. PIH 2 months after dermatologic procedure
Superficial pigment: Hydroquinone (HQ) 2 months
Deeper dermal pigment: NAFL
2. Bike fall 1 month ago. Scar on the temple: HQ + NAFL
3. Long lasting PIH (3y) after bike fall
HQ no effect
NAFL
4. Acne scars: PIH + texture
NAFL addresses pigment in addition to texture. Several sessions (the pigmentation is the first thing to improve)
5. Burn scar on face and hands: hyperkeratinization in addition to hyperpigmentation. Ablative fractional CO2 laser: thick epidermis treated; flexibility of skin better. Hyperpigmentation improved already after 1 session.
6. Traumatic tattoo scar, skin hyperpigmentation after intravenous iron infusion
Only instance where she uses Q-switched 755 nm laser
7. Still red scar: long duration inflammatory process

Pulse dyed laser

Conclusions

- First: Decrease the inflammation

Healing creams
Sun protection (UVA + UVB + Day light)
Vascular laser

- Then:

Sun protection (even blue light)

- If worried:

Lightening creams

- If needed:

NAFL

Dermoscopy

Dermoscopy and red
Prof. Elisavet Lazaridou

Prof. Elisavet Lazaridou from Thessaloniki went through the steps to follow with red structures in dermoscopy.

Dermoscopy allows the visualization of vascular patterns and residual pigmentation that are not visible by the naked eye.

Contact dermoscopy: minimal downward pressure to avoid compressing surface capillaries and making them difficult to visualize.

Three-step diagnostic algorithm for the diagnosis of nonpigmented skin tumors (NPST) (Zalaudek et al., JAAD 2010) that considers

- Vascular morphology
- Architectural arrangement of vessels
- Additional dermoscopic features

1. Necessary to establish whether the lesion is a tumor or belongs to the spectrum of inflammatory or infectious skin diseases,
2. If tumor, the dermoscopic examination should follow a stepwise algorithm assessing the morphology of the vascular pattern, the architectural arrangement of vessels in the tumor, and the presence of additional dermoscopic criteria

Vascular Morphology

6 most common types of vascular morphology
Melanocytic lesions

- Dotted
- Comma
- Linear irregular

Non-melanocytic lesions

- Glomerular
- Hairpin
- Arborizing

Architectural Arrangement of Vessels

6 most common types of vascular arrangement

- Regular
- String-like
- Clustered
- Radial
- Irregular branching
- Unspecific

Additional Dermoscopic Features

- White halos surrounding the vessels (keratinizing tumors)
- Residual pigmentation (hypopigmented melanocytic tumors)
- Surface scales (actinic keratosis, Bowen disease, inflammatory skin diseases)
- Ulceration (skin tumors)

Important points

- The predominant vascular pattern of amelanotic/hypomelanotic melanoma strongly depends on the tumor thickness.
- Lesions exhibiting dotted, linear irregular, and/or polymorphous vessels should always be excised in order to avoid missing amelanotic/hypomelanotic melanoma.
- Histopathologic diagnosis should always be obtained for lesions displaying dotted, linear irregular, or polymorphous vessels, milky red color or globules, or those that have a nonspecific dermoscopic appearance.

Dermoscopy

Dermoscopy and blue
Dr. Caterina Longo

Dr. Caterina Longo from Modena, Italy went through the interpretation of blue color in dermoscopy.

Dermoscopic features

- Blue blotches: suspect melanoma
- Blue clods: pigmented basal cell cancer (BCC)

Blue nevus

- Structureless pattern, uniform blue color, lack of other structures
- Long-standing stabile lesion usually from childhood or adolescence. If it appears after 40y: excise.
- Differential diagnosis: nodular melanoma, melanoma metastasis, pigmented BCC.

Blue-black rule for recognizing dermoscopically nodular melanomas (Argenziano et al. BJD 2011) in pigmented lesions with no or minimal flat component.

- BB feature: presence of combination of blue and black pigmented areas involving at least 10% of the lesions surface. When the black component of the BB feature was represented by clearly recognizable comedo-like openings (seborrheic keratosis) or lacuna (hemangiomas): BB feature negative.
- Sensitivity for melanoma in 283 nodular lesions: standard criteria 44%, BB feature alone 78%, BB + one or more standard criteria 85% sensitivity and 80% specificity.

Lasers and EBD

Clinical evaluation of a 1940 non-ablative fractional diode laser for skin resurfacing and treatment of benign pigmented lesions
Dr. Konika Patel Schallen

Dr. Patel Schallen from Jacksonville, FL, USA presented her experience and study results with a novel 1940nm non-ablative fractional diode device.

Applications
- Tissue tightening for thin skin
- Pigmentation
- Drug delivery

Usage
- Superficial irregularities including irregularities that occur in the epidermis, the dermal-epidermal junction (DEJ) and the superficial papillary dermis.
- Penetrates to about 200 microns: good for pigmentation.

1940 nm vs 1550 nm fractional non-ablative laser
- 1940 nm near infrared spectrum
- Both absorbed by water. Water absorption peaks around 1935 nm: faster absorption at 1940 wavelength than 1550.
- 1940 delivers more shallow & intense coagulation of tissue creating Micro-Epidermal Necrotic Debris (MEND) than 1550.
- 1550 causes a columnar injury into the dermis and penetrates deeper (up to 800 microns) than 1940.
- 1940 is more superficial: efficient for thinner skin and epidermal lesions.
- Acts as a resurfacing laser even though it is not ablative.

Study
- 54 subjects, 172 treatments, skin types I-V.
- Specifically treating benign pigmented lesions, diffuse dyschromia, seborrheic keratosis and actinic bronzing (moderate to severe).
- Treated areas: face, décolleté, hands.
- Pigmented lesions were assessed by dermatologist before treatment for malignancies.

Results
- No treatment complications.
- Mean overall pigment improvement score 2.0.
- Improvement most notable for the face

- 75% of treated areas showing improvement at 1-month follow-up
- 83% at 3-month follow-up.

- Subject satisfaction with treatment outcome high

- 93% and 84% of the assessments reported as ‘somewhat satisfied’ to ‘very satisfied’, at the 1- and 3-month follow-ups.

Conclusion
- 1940 non-ablative fractional diode laser was used to resurface the skin and to treat various benign pigmented lesions.
- Blinded evaluator assessments demonstrated significant improvement following two to three treatments.
- Subjects reported high satisfaction and improvement with treatment outcome.

- Superficial resurfacing with 1940nm diode laser is well tolerated and efficacious.
- High safety profile

Acne: All We Need To Know About Isotretinoin

Dr. Leonor Alda Girao

Dr. Girao from Lisbon, Portugal went through literature about new literature about the side-effects of isotretinoin treatment.

Hair Loss During Isotretinoin Treatment

Lytvyn at al. published a review about hair loss during isotretinoin treatment in 2022 (JAAD 2022; 6: 125-142). Patients with isotretinoin doses below 0.5 mg/kg/d experienced hair loss at a frequency of 3.2% compared with those on above 0.5 mg/kg/d at a frequency of 5.7%.

Aksac et al. published a study about the effect of biotin use during isotretinoin treatment on skin and hair changes (Int J Dermatol 2021, 60: 980-985). All patients (n=60) were on isotretinoin 0.5 mg/kg. 30 patients received a biotin 10 mg/d supplement. In the biotin group, the anagen hair ratio increased (P = 0.034) and the telogen hair ratio decreased significantly (P = 0.003).

Tip: add biotin 10 mg/d. May be efficient in treating hair loss during isotretinoin treatment.

Active acne

Point on laser: use and innovations in active acne treatment
Dr. Christine Dierickz

Dr. Dierickz from Luxembourg presented her clinical experience from treating moderate acne with a new laser, the Accure 1726 nm laser.

- The laser has been developed to selectively damage sebaceous glands by selective photothermolysis.
- At 1726 nm, the absorption ratio sebum to water is 2:1. The therapeutic window is narrow. Because of that, the laser has an air-cooling of the epidermis and a real-time temperature monitoring with an integrated infrared camera.
- The treatment end point is the temperature of the epidermis. If there is any temperature aberration, there is a safety feature that closes down the delivery of the laser pulses.
- Clinical studies have been conducted on safety, treatment of acne on the back and acne on the face starting from 2018. 65 patients have been followed in these studies. Currently there is a large-scale multicenter study going on.
- All skin types from I to VI can be treated.
- The treatment is painful and local anesthesia is needed. They use a mixture of lidocaine with epinephrine, saline and sodium bicarbonate injected with a multi-injector.
- Side effects: redness, edema and papules on the skin. No damage to the surrounding epidermis or dermis was observed in histology.
- At 12 weeks, 80% of clearance was observed. After 52 weeks, there is continued improvement and maintenance of the results.
- Got CE clearance for the has been granted the European CE mark

- Treatment of moderate acne in 2020

Conclusions
Effective and safe treatment for acne.
High responder rate with what appears to be a durable response
Current large-scale trials are underway

Rosacea

Rosacea and botulinum toxin
Prof. Gonzales Ardila

- The literature supports the effect of botulinum toxin (BoNT) in decreasing the inflammatory cascade in rosacea. Almost all cells have a receptor for botulinum toxin.
- VEGF is a major angiogenic factor that plays a role in the development of nontransient erythema in rosacea patients. BoNT can suppress the expression of VEGF through inflammatory modulation by IL 8.
- Transient receptor potential channel vanilloid family (TRPV1) can be activated by heat, ethanol or spicy food. Activation of TRPV1 causes increased release of neuropeptides substance P (SP) and calcitonin gene-related peptide (CGRP), that in turn augment the production of pro-inflammatory cytokines. Cytokines and neuropeptides are major regulators of inflammation and pain and BoNT can block the release of SP and CGRP (Park et al. Ann Dermatol 2018; 30: 688-693)
- In addition to vascular hyper-reactivity, the dysregulation of the innate immune system also appears to have a central role in the pathogenesis of rosacea
- BoNT reduces rosacea-associated skin inflammation by directly inhibiting mast cell degranulation (Choi et al. J Dermatol Sci. 2019; 93: 58–64)
- Prof. Gonzales Ardila showed his results in treating erythemato teleangiectatic rosacea with IPL and BoNT injections as compared to IPL alone on both cheeks of the same patient.
- Patients who had used other treatments during the last 4 weeks were excluded
- All patients were treated with IPL (M22 LumenisÒ 560 nm, 14 J) on both cheeks
- One cheek was then treated with Botulinum toxin type A (DysportÒ). 1.25 IU was injected intradermally at 1 cm intervals with a maximal dose of 15 IU per cheek
- Total clinical score and photographic evaluation of the vascular component were used to evaluate the response to treatment at 1, 4 and 8 weeks.
- All patients showed a better treatment outcome on the side treated with both IPL and BoNT.

Reports written by

Dr. Adrian ALEGRE SANCHEZ

Dermatologist, Spain

Complications on lasers

The session about laser-related complications was interested and varied. Dr. Wolkertorfer started discussing about the devices known as “**plasma-pen**”. The doctors advised to always look for approved devices and understand that this type of devices is always limited compared to regular

lasers with scanners. They indicated that the main problem with plasma pens is that it is impossible to select the spot, the depth or the density of the treatment, and is very operator related. Therefore, scarring and post-inflammatory hyperpigmentation are often complications.

Another typical complication that was exposed was **hypopigmentation** after lasers. This complication is relatively often after q-switched lasers with high fluences on darker skins. For these complications they recommend to start with a combination of topical anti-inflammatory such as calinceurin-inhibitors combined with sun-exposure or excimer laser or UVB lamp.

Dr. Diane Irvine Duncan told us about the difficulties related with the combination of liposuction and fiber lasers combined that can generate **fibrotic bands** on the skin due to excessive energy. One of the potential solutions is the use of collagenase combined with subcision, wave pressure devices or PRP. For the creepy skin that can be left after and excessive liposuction there is neither a complete resolution, but the best option seems to be subcutaneous radiofrequency.

Post-inflammatory hyperpigmentation (PIH) is also a common side effect of many EBD procedures. RF microneedling are supposed to be colour-blinded since they do not work with cromophore. However, if the treatment si too inflammatory you can always have PIH. For this complication the panelist recommended pre- and post-treatment with melanin inhibitors and corticosteroids. The role of tranexamic acid in the case of PIH is not as important as in the case of melasma in which it works better.

Peelings

In the session about peelings, Dr. Pierre Andre, told us about **superficial peels**. This type of peels consists in using a caustic product to interact with the epidermis and induce formation of new collagen due to signals coming from keratinocytes to dermis. He reminded us that the riskiest areas are the neck and decollate. Typical indications are aging, acne, superficial postinflammatory hyperpigmentation or melasma among others. There are different options for superficial peels including classical formulas such as Unnas paste, Resorcinol peel, Jessner solution and other more typical nowadays such as salycilic acid, glycolic acid or low concentration tricloroacetic (TCA) acid. He signaled that with the TCA 10-30%, after application a mild frosting is observed, and the peeling effect starts after 2-3 days. Alpha hydroxy acids are very commonly used in different combinations as peelings. Glicolic acid is the most used in concentration from 20-70%. This peeling must be neutralized with sodium bicarbonate or othe substances. The doctor recommended glycolic acid peeling for melasma, especially in the cases of epidermal melasma. Krulig formula is another peeling used commonly for melasma, including a combination of different bleaching agents.

Dr. Oliver Ph. Kreyden explained **deep peelings** in contrast. He explained how the effects of the peelings is always a combination of destruction-exfolliation-inflammation-regeneration. The phenol peel is the only one available to get to the medium-deep dermis. The penetration of a peeling depends not only on the ingredient but also on the concentration, combination with other actives, application pressure and application passes. It is advised to not penetrate deeper than the follicular bulge in order to avoid scarring. The classical formula for phenol is the Baker-Gordon formulation, combineing fixed amount of phenol and crotron oil. The Hetter formulation consists in an evolution of that formula since you can vary the amount of phenol and crotton oil to allow more or less penetration. Also, the previous state of the skin is an important factor in penetration. During the recovery we should be aware that the erythema is going to be present for weeks or even months. Regarding the anesthesia, doctor does not recommend topical anesthesia but a device with cooled air during the procedure.

Peelings for congenital dark periorbital circles were explained by Dr. Tese circles are challenging because they consist in dermal melanin incontinence with melanophages. Due to the deeper nature of this condition, deep peelings should be used, such as a phenol and crotron oil combination. The procedure consists in using a semidry cotton applicator with 35% phenol and crotton oil 1,2% with 1 pass for upper eyelid, two for lower eyelid, and one for the transition with the cheeks. The main advantage of this technique is the long-term effect, up to 10 years or even more.

Scars

In the session about scars, Dr. Leonardo Marini recommends as a tip to channelize the keloid before injecting it with triamcinolone, so that the keloid is more like a sponge that can absorb the product better. He reminded us that when dealing with acne scars, we must combine different treatments if we want to be successful, including fillers, lasers, surgical techniques.

Regarding recent scars of less than 1 month, Dr. Haedersdal recommend that treatment should be approached as early as possible with laser, especially non-ablative fractional laser. She recommended 3 sessions: one before the excision, one just after the excision and the last one, 6 months after excision. With that schedule all the wound healing phases are covered properly. With the later protocol, at least 63% of the scars improve with the laser combination.

Dr. Wolkerstorfer talked about inflammatory and red scars. He reminded that redness is totally physiological during the first 6 months of the scar. The main chromophore in these scars would always be hemoglobin and therefore vascular lasers are the main tool to treat them. Amongst vascular laser, the preferred by the experts tends to be pulsed-dye laser 1.5 ms as pulse duration and looking for a mild purpura as endpoint.

Treatment of hypertrophic and keloids are difficult to treat. Dr. Michael Gold recommends superficial radiation therapy as an efficacy alternative, with recurrence rate of 0-9% after compared to 70% of excision without further treatments. Regarding safety, this type of radiation is not significantly incrementing the risk of skin cancer.

Dr. Jill Waibel recommends using laser assisted drug delivery with fractional ablative lasers and Poli-L-lactic acid for atrophic scars of any origin: traumatic, surgical or acne scars.

Skin and digital

Consumerization for aesthetics
Tom Seerry (Founder of Real Self)

Consumerization means the reorientations of the consumer first vs the practitioner first. We must match our products to what the consumers are looking for at each moment. Patients' attitudes are changing, we want immediate things, and also in aesthetics results. Covid has changed the way consumers see the world and their attitude. Now consumers want to invest more in themselves. Prioritizing beauty vs other expenses. Also, COVID has changes the attitude towards telemedicine which has been accepted and expanded. What would have taken 8 years, has changes in only a few months. Also, more patients are working from home. They do more research on treatments but also, they have more time to recover after treatments.

There are new priorities for our patients:

- Convenience: more patients want technology to organize their appointments and treatments. If they get responses quickly it is most probable that they will become patients. Patients want to have conversations, so the different brands are giving different options for engagement.
- Transparency: they want to know how each doctor works, patients' reviews, costs…Cost should be transparent. Not always the patients want the lowest price, they want value, they just want to know what to expect in advance (imagine trying to reserve a hotel without knowing the price). Make sure to know the journey the patient wants to undergo, so we give them what they want and adapt to that.

Tiktok andd how it changes skincare and aesthetics
Diala HAYKAL

Youngsters ae immersed in online learning and knowledge. People are more likely to seek doctor who is on social media. Also, we must include on our practice correct communication to combat those that the patients see online. Tiktok is the world's fastest growing social medial. (1.5 billion monthly users). To compare, Instagram has been stuck at 1 billion sin 2019). 50% of TikTok users are under 34.

TiktSocial media is very important to reach our patients. That is why we need to use social media to educate. What patients see is what they will want. One useful tool in tiktok is that dual videos can be made, where we comment on a video someone else has uploaded. This allows us to give a medical response to many videos that might go viral.

Influence of the Metaverse
Dr. Anthony Rossi

Metaverse is the digital representation of the universe. A 4D representations of our experiences. Still very ambiguous and unknown but will probably be the basis for how everything changes. For instance, Facebook changed from social networking ro social technology. For physicians the important question is how we adapt health to metaverse. It is nothing specific yet, it is a shift to how we will interact with technology un the future. The new term is: *Metahealth*: combination of digital and reality in the health world, helping achieve healthcare, with the use of avatars, big data, wearables, new ways of payments… Information must be portable, but also has to be secure. So blockchain has been part of how we control it.

How to combine ingredients and procedures for skin aging

Dr. Sahar Faad Ghannam told us about the best cosmeceuticals for **ethnic skin patients**. She insisted in the importance of using sun filters all year round, including oral antioxidants with sunblock effect. The perfect combination for the skincare routine would be antioxidants for the morning (such as L-ascorbic acid) and cell regulators at night such as retinoids. Regarding retinoids, she recommends to start with retinol instead of retinoic acid. In the case of antioxidants, there is a great synergistic effect of vitamin E and Ferulic acid with L-ascorbic acid (vitamin C). In the case of hyperpigmented skin, hydroquinone is recommended for the first 3-4 months, and then change to other lightening products such as arbutin, kojic acid, etc. As practical tips, she recommended to stick with products and brands that are known as reputable.

The combination of **antioxidants and cell regulators for hyperpigmentations such as melasma**, was discussed by Dr. Mukta Sachdev. It is always mandatory to be sure of the diagnosis of the type of

hyperpigmentation that we are facing. She compared melasma to diabetes: a chronic situation that must be treated continuously. The Wood lamps can be used to classify the depth of melanin in melasma. Dermoscopy is another useful tool. A new lightening agent is cysteamine that can be used topically at 5% with great effect. Chemical peels are recommended if recalcitrant cases. Epidermal melasma is more favourable to treat with peelings. Priming of the skin with lightening agents for some weeks is always recommended. Lasers have unpredictable responses, but Dr. Sachdev recommends fractional q-switched ot fractional pico lasers and to treat the whole face. Also, melasma in men have to be approached with similar combinations, condiering that their skin is thicker. Vascularity abnormalities has also been related with melasma, so in some cases treatment with vascular lasers is advised.

Lasers and EBD

Port-wine stains treatment
Dr. Shady Mohmoud Attia

Dr. Attia reminded us that PDL remains to be the gold-standard treatment for PWS. Treatment should be initiated as possible. 15-40% of PWS are resistant to laser. Especially those on extremities, hypertrophic or with very tiny vessels are more resistant. Revascularization is the main problem after treatment of PWS with laser. Dermoscopy is a useful tool to determine the depth of the vessels. Anti-angiogenetic drugs such as imiquimod and rapamycine have been studied to prevent this revascularization after laser, with results favoring rapamycine. Also, using double pass with the vascular laser (first one with longer pulse of 20ms and second one shorter 1.5ms) prevents some revascularization.

Radiofrequency microneedling for lower face
Dr. Lyndha Nguyen

Dr. Nguyen presented a study using MNRF in which they treated with 1-3 sessions patients with aging to improve the lower face. 30 patients were included in the study, and they found good results with 4.72cm3 improvement of the submental volume. Also, skin tightening was observed in most of the patients. Regarding tolerability, pain intensity was evaluated as 6.3/10. Only mild side effects were reported. The conclusion is that overall, it is a well-tolerated and effective treatment. Long-term results are expected with this type of devices.

Rosacea

What is true in rosacea in 2022
Dr. Lotti Torello

Dr. Lotti Torello M told us about the different phenotypes of rosacea (instead of the different levels or grades of rosacea). Regarding ocular rosacea he recommended to ask patients for ocular symptoms such as sand-felling or photophobia. In the case of rhinophyma, surgical excision or vaporization is the best option and with the advantage of not having scars. There is currently an expert consensus with a Rosacea Consensus Treatment Algorithm that can be consulted online. We are still ignoring a lot in the initial pathophysiology of rosacea, especially on the factors involving function of central

nervous systems that leads to more sensitive skin. As triggers, capsaicin contained in spicy food, and high temperatures can induce vanilloid receptors activations, and cinnamaldehyde activates TRPA1 with induces flushing. Also, presence of Demodex on the skin or Helicobacter on the stomach can lead to rosacea.

Is rosacea just a red face?
Dr. Elisavet Lazaridou

Rosacea is much more than just a red face. The actual prevalence in Europe goes up to 22%. It has different comorbidities, more frequent in women: cardiovascular disease, depression, gastrointestinal diseases, etc. The importance of Demodex is more and more demonstrated, acting through different ways: obstruction of the follicular orifice, immune reaction and granulomatous reactions to foreign body. Ivermectin orally plays a significant role especially in patients with bad results to tetracyclines. Another interesting tool for erythema in rosacea is the use of botulinum toxin in microdose. New topical treatments include topical minocycline and a new formulation of peroxide benzoyl. However, patient educations, proper skin car and correct diagnosis should be the base of rosacea management.

Lasers and EBD in rosacea
Dr. Klaus Fritz

Lasers and EBD play an important role in rosacea management in many patients ask for this type of treatments. The doctor reminded us of the difficulty of treating vascular target with lasers due to its dynamic nature. Apart from typical vascular lasers and IPL, other devices such as radiofrequency, microneedling could have an increasing role. Skin cooling during treatment is essential to avoid alteration on the pigment aspect of the epidermis. Regaridng different wavelengths: KTP 532 nm can work perferctly but with the problem of less safety of darker skins; proyellow 577 nm is another option with good abdorption by hemoglobin and some devices include a scanner; pulsed-dye laser 595 nm has the advantage of more penetration but many times the frequent endpoint of purpura is not tolerated for the patient; Nd:YAG 1064 nm achieves the deepest penetration and is great for very marked telangiectasia but it can produce scarring.

Vascular complications with injectables

3D visualization of arteries
Benoit Hendrick

1/6500 injections of hyaluronic acid are intravascular so is a problem that should be addressed properly. The angular artery for example can be very superficial and has lot of interindividual variation. The possibility of have an augmented reality representation of the arteries of each patient is now available, with the performance an MRI and a special software. The MRI of this technique has demonstrated that there is a huge variation between different patients, even more than it was thought before. Ultrasound is an alternative but with the inconvenience of having to be repeating all the time during the injection procedure.

Vascular occlusions solved duplex-ultrasound-guided
Dr. Leonie Shcelke

Ultrasound allows to detect after an occlusion if there is a normal or abnormal flow. Duplex reveals the importance of perforate arteries, which can lead to superficial necrosis when they are occluded.

Ultrasound can be used to detect the areas with the occlusion and guide the injection of hyaluronidase to that place to recover the blood supply and resolve the necrosis.

Update on HA vascular complication management
Dr. Jani Van Loghem

Although cannulas are meant to be safer, you can still have an intravascular injection with them specially with the thinner ones. HA is very irritating intraarterially and therefore even small amounts can cause choke reactions and ischemia. The doctor recommends pressing the arteries during the injections, for example on the nose. When a peripheral ischemia has been produced, it is recommended to inject 500U of hyaluronidase per square-inch oh the affected tissue and reinject every 15 minutes until you get revascularization. Also aspirin is recommended as antiaggregant. For the central retinal artery occlusion, ocular massage with 2-3 second and sudden release is recommended as well as the injections of hyaluronidease.

As the rest of the experts explained, after a retinal artery occlusion, it is recommended to use hyaluronidase for the supratrochlear artery, but not always to inject it in the retrobulbar area, since it is a difficult technique for non-ophthalmologist and can lead to more complications in the long term.

Reports written by

Dr. Borna PAVIČIĆ

Dermatologist, Croatia

Clinical dermatology and dermatologic surgery

Very interesting case of management of granuloma secondary to the application of PCL biostimulator. As biostimulators are very often used today in anti-age and aesthetic medicine, and Polycaprolactone (PCL) is frequently used because it is a biodegradable aliphatic polyester and it is used for volume replacement and collagen biostimulator. And belongs to the group of semi-permanent injectables. In this case, patient noticed few days after procedure that the product was stiff and little mobile, and after six weeks total deformation with inflammation and increased volume on placement sites. After 3 months the biopsy was performed and pathology report showed granuloma. As we can see form everything mentioned above, the management with such deformity is not easy and is challenge for every physician who performes this procedures. In this case, after the biopsy results, the tretment started with 5ml collagenase intralesionally on each side with 25G dermal cannula with technique of subinscision.

Hyperpigmentations are very common , and patients often visit dermatologist to find a solutions for their removal. As various therapeutic options are not often succesful, and some of them are expensive and long lasting , botanical and natural ingredients are popular as alternative depigmenting products. On the other hand, they are numerous ingredients and products that promise good results so we have to be careful with the choice and reccomendations. Several natural ingredients showed efficacy as depigmenting agents, including azelaic acid, niacinamide, mulberry, lignin peroxidase, ascorbic acid iontophoresis, arbutin, ellagic acid and licorice extracts.
They show us promise as natural treatments for patients with hyperpigmentations, and also provide researchers to further characterize the pathogenesis of dyschromia. And of course, these products do not replace standard therapeutic options, but can be additional value in management of this very often dermatologic problem.

Acne scars are the most challenging skin problem that annoy most of patients, as weel as gives challenge to all of us who works with that kind of patients. Today, there are numerous treatment solutions (lasers, growth factors, micro punch excision, microneedeling, RF, threads and biostimulaton) and the outcome depends on skin type, scars type and depth of scars. Here presented experiences treatment in 3 steps – 1. subcesion under local anaesthesia, fractional laser; GF or PRP for 3-6 sessions; 2.double or triple screw threads – two session in 3 months; 3. filler biostimulator. This experience confirmes that the best treatmen approach for such a delicate problem as scars is combination treatment. The results are excellent and better than with single treatment option.
What the doctor starts 1st in the tretament depends on his experience and knowledge and recent development of non-ablative lasers, RF devices as well as different uses of fillers and toxins have broadened our solutions in management of scars.

Microinjections and microneedeling

Patients with dynamic wrinkles and loss of skin firmness are very often in our dermatology offices. There are many options for this problems, and this study showes us efficacy and safety of intradermal injection of the biomimetic peptides – acetyl hexapeptide-8 idebenone plus non-reticulated HA for dynamic wrinkels and photodamage as well as palmitoyl tripeptide-5, acetyl tetrapeptide-9 plus non-reticulated HA for wrinkles due to volume loss and of skins density.
This innovative approach proof significant improvements in wrinkle reduction as well as skin texture and density improvements so we should consider them as single treatment or as combined protocols in patients who seek for skin rejuvenation, wrinkle reduction and for getting firmer skin.

Injectables for lips

The lip enhacement is one of the most popular procedures among HA injections.
There are numerous techniques and procedures, focusing on the volume, shape and lip details and among all one of the most popular is microdroplet technique known as Russian approach.
The characteristic of this technique is to allow to build the red lip area without increasing the convexity of the lips so it is believed to be the most natural technique of lip enhacement.

Clinical and aesthetic dermatology – tying the knot

In the pandemic, aesthetic and cosmetic dermatological procedures have constantly increased. This psychological impact quite important because even in normal conditions seeking aesthetic and cosmetic treatments could hide different deegrees of psychological discomfort which is enormously amplified in Covid pandemic. Regarding this, it is often a biog challenge to do such procedures in such patients. The unstable percieved aesthetic equilibrioum can generate a disproportionally reaction even in perfect procedure.Our weapons, as dermatologists, should be personal proffesional charisma and emphatic attitude.

Melasma

As melasma and other hyperpigmentation disorders are very often and resistent to therapies, treating them succesfully on the long term is a major challenge in cosmetic dermatology.
We often start treatment with topical therapy, and better understanding and recent found compounds opened new therapeutic approaches. This profound understanding how to intervene effectively gives us new treatment possibilities and combining different topicals is best way to treat this stressful disease. Also, there are improvements in laser treatment, especially the new 675nm non ablative fractional laser. The high affinity with melanine, combined with a minimum interaction with the vascular component and water, as well as the greater degree of penetration with a reduction in bulk tissue heating , makes this system very promising in the treatment of pigmrntary disorders.

Fillers for the nose and midface

The midface enhacement can provide both direct and indirect benefits because it also improves the lower face. Along with pleasing outcomes in grafted midface, regional enhacement of the lid-cheek junction and nasolabial fold were noted. Injection of the appropriate fillers into well defined midface deep tissue and fat pads result in profoundly positive and natural effect.

Active acne

Acne is one of the most frewuent skin diseases with numerous treatment options available so the knowledge of the most recent guidelines and reviews as well as treatment reccomendations and underlying evidence is essential. The treatment options depend on the severity of acne. For comedonic acne topicsl retinoids, azelaic acid or BPO are recommended. Mild to moderate papulopustular acne are treated with fixed combination with adapalene and BPO and BPO and clindamycin. Severe papulopustular and conglobate acne are best treated with systemic isotretinoin. Different sources can be used to guide decision but current guidelines still favour medical / topical treatments. Laser treatments still do not have a strong position in guidelines.
Oral isotretinoin is still rarely used, despite it is a drug with 30 years on the market.
The problem is teratogenecity and side effect, but they are in majority dose dependent and minimilised and controlled by doctors experienced in their use so it is crucial to take time to explain everything to patients.

PRP innovations

Platelet rich plasma is widely use din many branches of medicine for years. Therefore very interesting concept of non-anticoagulated prepared PRP protocols ar shown.

The PRP can be obtained without the presence of any anticoagulant and the analysis can bed one along with the dana of total dose, efficacy of the protocol , purity and activation but further studies are needed to cocnclude whether the clinical outcome difference is significant between regular prp and non anticoagulated PRP.