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#1382

Dynamics of Female Sexuality; Hidden Emotional Issues

47 - Genital rejuvenation

Background/Objectives: The success of interpersonal relationships is largely dependent on understanding and improving female quality of life that includes sexual satisfaction. Females are usually in charge of maintaining the foundation, continuity and integrity of a relationship. Female satisfaction is a simple matter but a multi-faced, psycho-physiological composite that cannot be modified without altering both its physiological and psychological components. Therefore, in assessing female satisfaction after any medical or aesthetic procedure a comprehensive battery of tests is necessary in order to secure the internal validity of a study.

Methods: Sexual satisfaction following Laser or RF vaginal rejuvenation is usually assessed by straightforward self-report questionnaires that may not offer a deeper insight into female dynamics. Our randomized double-blind longitudinal clinical trial on 14 menopausal women with high FSFI satisfaction scores following laser or RF vaginal interventions, demonstrated a high positive correlation between the subjects' FSFI scores and the Hy (hysteria), D (Depression) and L (Lie) validity scales of the MMPI-2. Such high positive correlation between the FSFI and the L-scale negates the reported increase in female sexual satisfaction following laser or RF vaginal rejuvenations

Results: The high positive correlations of the FSFI with the Hy and D scales indicate that despite reports of increased sexual satisfaction, the vaginal procedures did not improve psychological wellbeing or quality of life. Results on the Differential Emotions Scale (DES) reveal that 98% of the subjects were organized around the emotions of shame, sadness and joy. Such results indicated a multilayered emotional organization that possibly reflects joy on the outside and shame and sadness on the inside.

Conclusions: ï»¿The high correlation between the L-, D- and Hy-scales of the MMPI-2 and the FSFI, suggested that the subjects' reports of sexual satisfaction on the FSFI may not have reflected their true feelings but may have been driven by their need for approval, being ashamed of their sadness, and perhaps an overly optimistic expectation that the pretence of happiness will make everything alright. Results of Laser or RF vaginal rejuvenation procedures should be evaluated by a battery of tests that take into account females' often prominent tendency to focus on satisfying their partners rather than themselves. Going down the path that starts with a dismissal of self-fulfillment to focus on their partners' satisfaction, may bring several women to the endpoint of disingenuous interpersonal relationships tainted by repressed disillusionment.

References: Frank, E., Anderson, C. and Rubinstein, D. (1978) Frequency of Sexual Dysfunction in Normal Couples. New England Journal of Medicine, 299, 111-115. https://doi.org/10.1056/NEJM197807202990302 [2] Moalli, P.A., Talarico, L.C., Sung, V.W., Klingensmith, W.L., Shand, S.H., Meyn, L.A. and Watkins, S.C. (2004) Impact of Menopause on Collagen Subtypes in the Arcus Tendineus Fasciae Pelvis. American Journal of Obstetrics and Gynecology, 190, 620-627. https://doi.org/10.1016/j.ajog.2003.08.040 [3] Adrian, G. (2012) Comparison of Two Novel Laser Treatment in Aesthetic Gynecology. Journal of the Laser and Health Academy, 2012, S10. https://www.laserandhealthacademy.com/en/journal/?id=1240&type=1 [4] Alinsod, R.M. (2016) Transcutaneous Temperature-Controlled Radiofre-quency for Orgasmic Dysfunction. Lasers in Surgery and Medicine, 48, 641-645. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5084776 https://doi.org/10.1002/lsm.22537 [5] Benadiba, L. (2010) Labiaplasty: Plastic or Cosmetic Surgery? Indication, Techniques, Results and Complications. Annales de Chirurgie Plastique Esthétique, 55, 147-152. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5418869 [6] Sekiguchi, Y., Utsugisawa, Y., Azekosi, Y., Kinjo, M., Song, M., Kubota, Y., Kingsberg, S. and Krychman, M.L. (2016) Short Time Efficacy and Safety of Focused Monopolar Radiofrequency Device for Labial Laxity Improvement—Noninvasive Labia Tissue Tightening. A Prospective Cohort Study. 48, 254-259. [7] Eder, S.E. (2018) Early Effect of Fractional CO2 Laser Treatment in Post-Menopausal Women with Vaginal Atrophy. Laser Therapy, 27, 41-47. [8] Desai, S., Kroumpouzos, G. and Sadick, N. (2019) Vaginal Rejuvenation from Scapel to Wants. International Journal of Womane's Dermatology, 5, 79-84. [9] Nappi, R.E. and Palacios, S. (2014) Impact of Vulvovaginal Atrophy on Sexual Health and Quality of Life at Postmenopause. Climacteric, 17, 3-9. [10] Sekiguchi, Y., Utsugisawa, Y., A

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Hong Kong
Sofra Xanya
Hong Kong

#1383

Technological Advances in Accelerated Wound Repair and Regeneration

51 - Regenerative aesthetics

Background/Objectives: We reviewed a number of wound repair, keloid and hypertrophic scar research methods that included lasers, microcurrent and ultra-low energy technologies. Laser research reports short-term improvement in wounds, keloid and hypertrophic scars, but without follow up to control for reoccurrence of keloids or diabetic lesions which generally reoccur following laser treatments. The microcurrent and ultra-low energy studies demonstrate significant healing where age is not a factor with no reoccurrence of diabetic wounds and other skin lesions.

Methods: Our randomized, double-blind longitudinal research on eight wound repair clinical cases with an age range of 28 - 86, followed for one year, evidenced accelerated healing and no reoccurrence. The number of treatments required for substantial healing depended on the chronicity and severity of the lesion, with chronic severe lesions requiring more treatments, rather than age, a conclusion supported by ultra-low microcurrent research. These results on age-independent wound healing directly contradict a large body of literature postulating that healing is much slower with age due to immune insufficiency, age-accumulated oxidative stress, disrupted cell communications and sustained inflammation.

Results: We performed the non-parametric Mann Whitney U test that is more appropriate for an ordinal scale used by the three judges to rate the subjects' degree and speed of wound repair. For the before and after speed of repair scores the U-value was 0. The critical value of U at $p < 0.01$ was 9, therefore the result was significant at $p < 0.01$. The z-score was -3.3816. The p-value= 0.00046. The result was significant at $p < 0.01$ level. For the before and after degree of repair scores the U-value was 0. The critical value of U at $p < 0.01$ was 9, therefore the result was significant at $p < 0.01$. The z-score was -3.30816. The p-value = 0.00047. The result was significant at $p < 0.01$ level.

Conclusions: Age-independent wound repair seems to defy a number of aging theories postulating inevitable decline and irreversible inflammation. It directly contradicts the concept of "inflammaging" which postulates a slower healing with age due to immune insufficiency, accumulative oxidative stress, increased inflammation and disrupted cell communications predisposing the body with inappropriate levels of growth factors and connexins. We interpreted our results as the outcome of ultra-low energies targeting molecular mechanisms which have the inherent capacity to reverse their paths from injury to self-restoration as seen in the anti-oxidant electron donation that transforms free radicals into stable molecules.

References: Wells, A., Nuschke, A. and Yates, C. (2015) Skin Tissue Repair: Matrix Microenvironmental Influences. Matrix Biology, 49, 25-36. https://www.ncbi.nlm.nih.gov/pubmed/11976459 https://doi.org/10.1016/j.matbio.2015.08.001 [2] Grieb, G., Steffens, G., Pallua, N., Bernhagen, J. and Bucala, R. (2011) Circulating Fibrocytes-Biology and Mechanisms in Wound Healing and Scar Formation. International Review of Cell and Molecular Biology, 291, 1-19. https://doi.org/10.1016/B978-0-12-386035-4.00001-X [3] Redd, M., Cooper, L., Wood, W., Stramer, B. and Martin, P.N. (2004) Wound Healing and Inflammation: Embryos Reveal the Way to Perfect Repair. Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 359, 777-784. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1693361 https://doi.org/10.1098/rstb.2004.1466 [4] Grose, R., Harris, B.S., Cooper, L., Topilko, P. and Martin, P. (2002) Immediate Early Genes krox-24 and krox-20 Are Rapidly Upregulated after Wounding in the Embryonic and Adult Mouse. Developmental Dynamics, 223, 371-378. https://www.ncbi.nlm.nih.gov/pubmed/11891986 https://doi.org/10.1002/dvdy.10064 [5] Shaw, T. and Martin, P. (2009) Epigenetic Reprogramming during Wound Healing: Loss of Polycomb-Mediated Silencing May Enable Upregulation of Repair Genes. EMBO Reports, 10, 881-886. https://www.ncbi.nlm.nih.gov/pubmed/19575012 https://doi.org/10.1038/embor.2009.102 [6] Wong, V.W., Rustad, K.C., Akaishi, S., Sorkin, M., Glotzbach, J.P., Januszyk, M., Nelson, E.R., Levi, K., Paterno, J., Vial, I.N., Kuang, A.A., Longaker, M.T. and Gurtner, G.C. (2011) Focal Adhesion Kinase Links Mechanical Force to Skin Fibrosis via Inflammatory Signaling. Nature Medicine, 18, 148-152. https://www.ncbi.nlm.nih.gov/pubmed/22157678 https://doi.org/10.1038/nm.2574 [7] Sasaki, M., Abe, R., Fujita, Y., Ando, S., Inokuma, D. and Shimizu, H. (2008) Mesenchymal Stem Cells Are Recruited into Wounded Skin and C

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Hong Kong

#1384

Adverse Effects of Sedentary Lifestyles: Inflammation, and High-Glucose Induced Oxidative Stress

50 - Body contouring & skin tightening

Background/Objectives: Sedentary lifestyles promote adipose tissue accumulation that generates systemic Sedentary lifestyles promote adipose tissue accumulation that generates systemic inflammation and oxidative damage. Physical activity induces cardiovascular fitness, increases muscle mass, and healthy blood glucose regulation, while reducing visceral fat, triglycerides and low-density lipoproteins. It is theoretically possible to develop a long-term multi-exercise regimen for health management and enhancement. Pragmatically, time and career restraints, individual choices, genetic factors, or demoralization due to the draconian commitment involved in weight loss, have rendered over a billion of individuals obese, or overweight, burdened by excess lipids, insulin resistance, elevated glucose levels, and inflammation, that foster a number of medical conditions including diabetes. Strenuous overtraining has ensued adverse effects, including an upsurge of proinflammatory cytokines, and hyperglycemia.

Methods: We implemented an one-month long innovative method with 20 diabetic and prediabetic patients. Results demonstrated a statistically significant reduction of both fasting and PP blood glucose. Fasting and PP insulin reached optimal levels. There was a substantial decline in dyslipidemia, reflecting a reverse relationship of elevated HDL versus triglycerides descending towards the normal range. The notable visceral fat reduction was validated by sonography reports that indicated no evidence of fatty liver in seven patients previously diagnosed with hepatic steatosis. These findings have important implications in improving the health status of obese diabetic and prediabetic individuals, by helping them jumpstart an active lifestyle, or by serving as an exercise alternative to reduce lipids, blood glucose levels and insulin resistance.

Results: Results demonstrated a significant improvement in blood glucose regulation and insulin resistance, along with reduced dyslipidemia, reflecting an optimal reverse relationship of elevated HDL versus triglycerides descending towards the normal range. The substantial reduction of visceral fat was supported by the cm loss around the umbilicus and lower abdomen which represent the body areas where visceral adiposity accumulates; it was also confirmed by the sonography reports of seven subjects diagnosed with hepatic steatosis who presented evidence of no fatty liver after the twelve treatments.

Conclusions: Our findings have significant implications for optimal health that can be enhanced and safeguarded by incorporating this method as part of an exercise regimen to reduce lipids, blood glucose levels and insulin resistance.

References: Colberg, S.R., Sigal, R.J., Fernhall, B., et al . (2010) American College of Sports Medicine, American Diabetes Association Exercise and Type 2 Diabetes: The American College of Sports Medicine and the American Diabetes Association: Joint Position Statement Executive Summary. Diabetes Care , 33, 2692-2696. https://doi.org/10.2337/dc10-1548 [2] Silver, D.L., Wang, N., Xiao, X. and Tall, A.R. (2001) High Density Lipoprotein (HDL) Particle Uptake Mediated by Scavenger Receptor Class B Type 1 Results in Selective Sorting of HDL Cholesterol from Protein and Polarized Cholesterol Secretion. The Journal of Biological Chemistry , 276, 25287-25293. https://doi.org/10.1074/jbc.M101726200 [3] Fisher, E.A., Feig, J.E., Hewing, B., Hazen, S.L. and Smith, J.D. (2012) HDL Function, Dysfunction and Reverse Cholesterol Transport. Arteriosclerosis , Thrombosis , and Vascular Biology, 32, 2813-2820. https://doi.org/10.1161/ATVBAHA.112.300133 [4] Cullimane, E., Siconolfi, S., Saritelli, A. and Thompson, P.D. (1982) Acute Decrease in Serum Triglycerides with Exercise. Is There a Threshold for an Exercise Effect? Metabolism, 31, 844-847. https://doi.org/10.1016/0026-0495(82)90085-3 [5] Haslam, D.W. and James, W.P. (2005) Obesity. The Lancet , 366, 1197-1209. https://doi.org/10.1016/S0140-6736(05)67483-1 [6] McIlwain, D.R., Berger, T. and Mak, T.W. (2013) Caspase Functions in Cell Death and Disease. Cold Spring Harbor Perspectives in Biology, 7, a026716. https://doi.org/10.1101/cshperspect.a026716 [7] Russel, J., Golovoy, D., Vincent, A., Mhendru, P., Olzmann, J., Mentzer, E. and Fieldman, E. (2002) High Glucose-Induces Oxidative Stress and Mitochondrial Dysfunction in Neurons. The FASEB Journal , 16, 1738-1748. https://doi.org/10.1096/fj.01-1027com Spitz, D.R., Azzam, E.I., Li, J.J. and Gius, D. (2004) Metabolic Oxidation/Reduction Reactions and Cellular Responses to Ionizing Radiation: A Unifying Concept in Stress Response Biology. Cancer and Metastasis Revie

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Hong Kong
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Hong Kong

#1385

How to Solve the Visceral Fat Problem and Suppress Hunger. A Randomized Double-Blind Clinical Trial on Visceral Adipose Tissue, VLDL, Triglycerides, Free T3, IGF-1, Leptin, Ghrelin, Testosterone and Cortisol

50 - Body contouring & skin tightening

Background/Objectives: Inflammation and oxidative damage are immanent in visceral adiposity that is characterized by excess lipids and lipoproteins, viewed as the core components of arterial plaques, ultimately obstructing blood flow and lymphatic drainage. Accumulated toxicity dysregulates the orexigenic hormone ghrelin, and anorexic hormone leptin that are part of a reciprocal network controlling appetite. Weight gain promotes hormonal imbalance, expressed in disturbances in free T3, and an inverse low testosterone / high cortisol incongruity that provokes stress eating behaviors.

Methods: We explored a number of interventions designed to reduce visceral adipose tissue (VAT), including RF, laser plus working out, and exercise alone. Short term gymnastics evidenced a modest advantage in VAT decrease, but no changes in BMI or physical appearance. Overtraining appeared to negate the benefits of exercise by increasing inflammation and cortisol while suppressing testosterone and leptin, inevitably instigating hunger and weight gain. We examined the blood samples of ten overweight, healthy adults that underwent twelve treatments during the course of one month.

Results: Results demonstrated a statistically significant decline in VLDL, triglycerides and VAT, accompanied by a substantial increase in BMR and skeletal muscle mass. Importantly, Free T3, IGF-1, leptin, and testosterone were elevated towards the top of the normal range, while cortisol and ghrelin gravitated towards the low end of the normal range, without ever spiking outside the limits of hormonal balance.

Conclusions: Findings are juxtaposed against research on short-term exercise with modest results in BMI and weight loss reduction with minimal gains in physical appearance [43]. The inverse relationship of testosterone increase and cortisol decrease within the normal range demonstrated in our clinical trial was the opposite of the negative cortisol/testosterone correlation observed after strenuous exercise that may undermine weight loss by increasing food consumption [46] [47] [48]
[49]. Subjects reported reduced cravings for sweets and fatty foods, yet, regular appetite, possibly indicating optimal levels of ghrelin, leptin, and cortisol, along with decreased systemic toxins. Cortisol, ghrelin, and leptin fluctuations within the normal range are crucial in maintaining weight loss, since leptin/ghrelin regulate appetite, and relatively low cortisol levels will reduce stress-eating behaviours. Hormonal fluctuations within the normal range suggested that the intervention did not adversely affect the body's feedback mechanisms which cease hormonal secretion when an optimum level is reached, to sustain hormonal balance.

References: Ferrucci L., Fabbri E. Inflammageing: chronic inflammation in ageing, cardiovascular disease, and frailty. Nature Reviews, 2018 Cardiology volume 15, pages505-522(2018). https://www.nature.com/articles/s41569-018-0064-2. DOI https://doi.org/10.1038/s41569-018-0064-2 J S Yudkin, C D Stehouwer, J J Emeis, S W Coppack. C-reactive Protein in Healthy Subjects: Associations With Obesity, Insulin Resistance, and Endothelial Dysfunction: A Potential Role for Cytokines Originating From Adipose Tissue? Arteriosclerosis Thromb Vasc Biol. 1999 Apr;19(4):972-8. doi: 10.1161/01.atv.19.4.972 Alexopoulos N., Katritsis D, Raggi P. 2014. Visceral Adipose Tissue as a source of inflammation and promoter of arherosclerosis. Volume 233, Issue 1, Pages 104-112. https://doi.org/10.1016/j.atherosclerosis.2013.12.023 Skouby S., Gram J., Andersen L., Sidelmann J., Petersen K., Jespersen J., Hormone replacement therapy: Estrogen and progestin effects on plasma C-reactive protein concentrations. Americal Journal of Obstetrics and Gynecology. 2002 Volume 186, Issue 5, Pages 969-977. https://doi.org/10.1067/mob.2002.122414 Weisberg SP, Hunter D, Huber R, Lemieux J, Slaymaker S, Vaddi K, Charo I, Leibel RL, Ferrante AW, Jr. CCR2 modulates inflammatory and metabolic effects of high-fat feeding. J Clin Invest. 2006; 116: 115-124. https://pubmed.ncbi.nlm.nih.gov/16341265/ DOI: 10.1172/JCI24335 Xu H, Barnes GT, Yang Q, Tan G, Yang D, Chou CJ, Sole J, Nichols A, Ross JS, Tartaglia LA, Chen H. Chronic inflammation in fat plays a crucial role in the development of obesity-related insulin resistance. J Clin Invest. 2003; 112: 1821-1830. https://pubmed.ncbi.nlm.nih.gov/14679177/ DOI: 10.1172/JCI19451 Byrne C.D. Ectopic fat, insulin resistance and non-alcoholic fatty liver disease. Proc. Nutr. Soc. 2013;72

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1386

The Importance of Hormonal Balance in Safeguarding Health A Randomized Double-Blind Clinical Trial on VLDL, Triglycerides, Free T3, Leptin, Ghrelin, Cortisol and Visceral Adipose Tissue

50 - Body contouring & skin tightening

Background/Objectives: The purpose of this clinical trial was to delineate some of the negative consequences of high BMI on health and explore the possibility of a solution. We explored the blood test results of nine overweight adults with sedentary lifestyles, and an average BMI of 32.23. Results revealed a statistically significant reduction of visceral adipose tissue, very-low density lipoprotein (VLDL), and triglycerides. Testosterone, leptin, IGF-1 and Free T3 increased within the normal range, juxtaposed by cortisol and ghrelin that declined, but without dipping into abnormality.

Methods: These findings have important implications during the COVID-19 pandemic, where optimal immunity is deemed necessary in limiting susceptibility to the virus. Recent research indicates that weight gain often escalates vulnerability to respiratory track disturbances, cardiovascular disease (CVD) and diabetes. Consequently, pre-existing conditions increaseCOVID-19 mortality rates. CVD and diabetes emerge out of hormonal imbalances that involve Free T3, leptin, ghrelin, testosterone, and cortisol. Physical training is decidedly the most acclaimed solution, yet, the least implemented one, due to procrastination, or demoralization after investing constant exhaustive effort with no immediately visible physical change.

Results: COVID-19 confinement exacerbates the tendency for inactivity, and promotes stress-eating behaviours. Moreover, strenuous exercise, necessary for visceral fat reduction, results in a negative cortisol / testosterone relationship that provokes caloric consumption and inflammation. Offering an alternative to exercise that effectively improves health, boosts metabolism, and controls appetite, may serve as a proactive, and preventive method that can safeguard health.

Conclusions: The primary goal of this randomized double blind clinical trial was to bring attention to the systemic balance perspective of health maintenance. Deterioration into illness is gradual. It evolves out of minor dysregulations, inconspicuously disintegrating the structure of wellness. Hormonal levels within the normal range are widely accepted as optimum, without examining the actual ranking position that enables each variable defend or undermine health. A preventive perspective focuses on the rate of differentiation, observing the degrees of minor imbalances within normalcy, before they are exacerbated into a medical disorder. This is necessary to safeguard a biological network in flux. Variations within the normal range can be utilized to estimate both health improvement and the probability of illness vulnerability.

References: Dixon AE, Peters U. (2018). The effect of obesity on lung function. Expert Rev Respir Med. 2018 Sep;12(9):755-767. doi: 10.1080/17476348.2018. 1506331 Al-Goblan, A. S., Al-Alfi, M. A., & Khan, M. Z. (2014). Mechanism linking diabetes mellitus and obesity. Diabetes, metabolic syndrome and obesity : targets and therapy, 7, 587-591. https://doi.org/10.2147/DMSO.S67400 Després, J., Lemieux, I. Abdominal obesity and metabolic syndrome. Nature 444, 881-887 (2006). https://doi.org/10.1038/nature05488 Larsson, B. K. L. L. P. G., Svärdsudd, K., Welin, L., Wilhelmsen, L., Björntorp, P., & Tibblin, G. D. (1984). Abdominal adipose tissue distribution, obesity, and risk of cardiovascular disease and death: 13 year follow up of participants in the study of men born in 1913. Br Med J (Clin Res Ed), 288(6428), 1401-1404. doi: https://doi.org/10.1136/bmj.288.6428.1401 Rabkin SW, Mathewson FA, Hsu PH: Relation of body weight to development of ischemic heart disease in a cohort of young North American men after a 26 year observation period: the Manitoba Study. Am J Cardiol 1977, 39:452-458. DOI: 10.1016/s0002-9149(77)80104-5 Odegaard, A. O., Koh, W. P., Vazquez, G., Arakawa, K., Lee, H. P., Mimi, C. Y., & Pereira, M. A. (2009). BMI and diabetes risk in Singaporean Chinese. Diabetes care, 32(6), 1104-1106. https://doi.org/10.2337/dc08-1674 Resnick, H. E., Valsania, P., Halter, J. B., & Lin, X. (1998). Differential effects of BMI on diabetes risk among black and white Americans. Diabetes care, 21(11), 1828-1835. https://doi.org/10.2337/diacare.21.11.1828 Resnick, H. E., Valsania, P., Halter, J. B., & Lin, X. (1998). Differential effects of BMI on diabetes risk among black and white Americans. Diabetes care, 21(11), 1828-1835. https://doi.org/10.2337/diacare.21.11.1828 Peng YD, Meng K, Guan HQ, et a

Lebbar Noura
Italy
Lebbar Noura
Italy

#1405

Surgical blepharoplasty versus plasma eyelids rejuvenation: no fibrosis

43 - Anatomy related to non-or minimally invasive approaches

Background/Objectives: Plasma energy has been used for many years in Aesthetic Medicine & Dermatology specially for eyelids rejuvenation. The important eyelid retraction and improvement of the skin texture may lead us to think that it is probably due to the fibrosis caused by the important thermal damage.

Methods: Two patients have been treated for eyelids rejuvenation with plasma energy, they had each one 2 sessions spaced apart one month. They never had in past any other eyelids medical or surgical aesthetic procedure, and no dermatological disease as sclerodermia or pathological keloid scars. Both patients decided to have a surgical blepharoplasty in order to have a long lasting result. Both procedures medical with plasma & surgical are very efficient although they have different indications: the first is to improve the cutaneous texture, the second is aimed to remove definitively the skin excess.

Results: During the surgical blepharoplasty, i haven't noted any skin induration :the skin separation from the lower muscle layer during the surgery was very easy, the removed skin wasn't analysed histologically to confirm the absence of fibrosis. even tough the clinical evidence of absence of fibrosis was clear performing the surgical blepharoplasty. The scar after surgery healed perfectly in 10 days without any complication

Conclusions: The plasma energy produced by valid devices stimulate the collagen synthesis without causing any skin fibrosis. There is not any risk of complication performing a surgical blepharoplasty after a plasma energy eyelids rejuvenation. The medical blepharoplasty with plasma energy is a very safe method for eyelids rejuvenation and can be combined with a surgical blepharoplasty.

References: Li X , Fang L, Huang L. In vivo histological evaluation of fractional ablative microplasma radio frequency technology usinf a roller tip: an animal study. Laserz Med Sci. 2015 Dec;30(9):2287-94 Wang, Ding, Yang, Chen, Treatment of facial post-burn hyperpigmentation using micro-plasma radiofrequency technology Che Lasers Med Sci 2014 Di Brizzi EV, Russo T, Agozzino M, et al. Plasma radiofrequency ablation for treatment of benign skin lesions: Clinical and reflectance confocal microscopy outcomes. Skin Res Technol. 2019;00:1-4 Baroni A. Non surgical blepharoplasty with the novel plasma radiofrequency ablation technology ; Skin Res Technol. 2019 Sep 19. doi: 10.1111/srt.12774

Pashkovska Oksana
Ukraine

Pashkovska Oksana
Ukraine

#1451

How to spoil the face in one procedure

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Aims: Figure out how to analyse facial features for getting natural effect after fillers injection; Master the algorithm for using fillers to harmonize facial volumes. Introduction:â€‹ Each face is individual and our task is to obtain the aesthetic result and not enhance dissonance in facial proportions.â€‹ Injecting fillers we should take into account: proportions, angles of profile projection and special ratios of face zones. Results: An effective approach to the analysis of the proportions of the women with Caucasian face type; The algorithm for determining key correction zones to obtain a visible result while maintaining individuality.

Methods:

Results:

Conclusions:

Pashkovska Oksana
Ukraine

Pashkovska Oksana
Ukraine

#1452

Aging lips: special approach

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Aims:â€‹ To figure out how to analyse the face and morphology of lips; To recognise what makes lips look attractive for adult women; To master the approach of injection of different lip types in women after 40; Introduction: Lips augmentation is one of the most popular procedures, but the result does not always work aesthetically. Correcting the aging lips we should pay attention to the features of the face, morphology of lips and anatomy of the perioral zone. Results:â€‹ An effective approach to the analysis the features of the face and lips' forms of the Caucasian face type; The algorithm for correction of different lips' types in women after 40.

Methods:

Results:

Conclusions:

Youssef Christeen
United Arab Emirates

Youssef Christeen
United Arab Emirates

#1477

Using Stormal Vascular fraction injection for rapid and scarless wound healing

51 - Regenerative aesthetics

Background/Objectives: Cutaneous fibrosis or Scars develop as a result of suboptimal wound healing after serious tissue injuries such as extreme burns, trauma, and major surgery leading to prolonged inflammatory responses and pathological fibroproliferative responses in wounds The latest studies have investigated molecular regulators at each phase of wound healing, including the phases of inflammation, proliferation, and remodelling.1 Here we reviewed the current literature that illustrate molecular pathways that can be concentrated on novel methods to address different successful scar reduction pathways at the same time.2 One of these novel methods for scarless wound healing is Stromal Vascular Fraction (SVF) which is a component of the lipoaspirate obtained from liposuction of excess adipose tissue. Lipoaspirate, the waste product of liposuction (cosmetic surgery), contains a large population of stem cells called adipose-derived stem cells (ADSCs), which share a number of similarities with bone marrow stem cells, including the capacity for multilineage differentiation.3 Our objective is to review and evaluate that have used the stromal vascular fraction in order to have a scarless wound healing and to identify the current gap in the techniques of preparation and use of SVF.

Methods: The author systematically reviewed several different studies and case reports available on different search engines. The data was analyzed for any new unconventional tools or techniques that is using Stromal vascular fraction in scar reduction.

Results: Scar tissue consists mainly of myofibroblasts formed by fibrillar collagen. Factors that are essential for myofibroblast activation include the availability of active growth factors such as TGFß1 and PDGF; activation of inflammatory signaling; and mechanical response to stress.4 Results of studies have been done on animals showed that collagen in the group that had SVF was arranged more regularly with a broader gap between collagens. And also the mRNA expressions of TGF-ß and Smad3 in the SVF group were significantly down-regulated.5 another experiment showed that SVF contains EGF and VEGF cytokines which enhance the ability of keratinocyte cells to migrate and proliferate cells and have obvious effects on depressed scars for clinical use.6 Trials have been done on human showed also a huge improvement and significant increase in scar tissue score for all the patient who had the SVF injection.7

Conclusions: SVF injections improve tissue regeneration by adding stem cells and growth factors to boost Results in scar revisions or in tissue grafts. Important SVF-related scoring gains suggest SVF 's worth as an element of traditional scars administration.7

References: 1. El Ayadi A, Jay JW, Prasai A. Current approaches targeting the wound healing phases to attenuate fibrosis and scarring. Int J Mol Sci. Published online 2020. doi:10.3390/ijms21031105 2. Amini-Nik S, Yousuf Y, Jeschke MG. Scar management in burn injuries using drug delivery and molecular signaling: Current treatments and future directions. Adv Drug Deliv Rev. Published online 2018. doi:10.1016/j.addr.2017.07.017 3. Bora P, Majumdar AS. Adipose tissue-derived stromal vascular fraction in regenerative medicine: A brief review on biology and translation. Stem Cell Res Ther. Published online 2017. doi:10.1186/s13287-017-0598-y 4. Karppinen S-M, Heljasvaara R, Gullberg D, Tasanen K, Pihlajaniemi T. Toward understanding scarless skin wound healing and pathological scarring. F1000Research. Published online 2019. doi:10.12688/f1000research.18293.1 5. Chen L, Wang DL, Wei ZR, Wang B, Qi JP, Sun GF. Effects of local transplantation of autologous adipose-derived mesenchymal stem cells on the formation of hyperplastic scar on rabbit ears. Zhonghua Shao Shang Za Zhi. Published online 2016. doi:10.3760/cma.j.issn.1009-2587.2016.10.003 6. Ou LD, Zhang AJ, Li A, et al. Effect of human stromal vascular fraction gel on the treatment of patients with skin depressed scar and its mechanism. Zhonghua Shao Shang Za Zhi. Published online 2019. doi:10.3760/cma.j.issn.1009-2587.2019.12.006 7. Lee JW, Park SH, Lee SJ, Kim SH, Suh IS, Jeong HS. Clinical Impact of Highly Condensed Stromal Vascular Fraction Injection in Surgical Management of Depressed and Contracted Scars. Aesthetic Plast Surg. Published online 2018. doi:10.1007/s00266-018-1216-9

Moroz Olga
Russia
Moroz Olga
Russia

#1483

Relevance of Facial Sculpting

56 - Anti-aging & internal medicine

Background/Objectives: The issue of non-surgical facelift in patients with facial puffiness remains relevant. Using our technique, we can treat any type of facial aging and achieve excellent results - the effect of plastic surgery with a minimum rehabilitation period and minimal preparation.

Methods: Our procedure consists of two consecutive stages. The aim of the first stage is to remove intercellular fluid. To achieve this, we use drainage mesotherapy that involves injecting the product into the nasolabial folds and the double chin in order to reduce the volume of these areas. Drainage correction of the upper and lower eyelids is used to minimize their puffiness, which produces a more open, refreshed look. We treat the area of malar mounds to reduce their size. The second stage is aimed at restoring the facial support structures. To do this, we use the volume modelling technique with hyaluronic acid fillers. First, we analyze the proportions of the face and draw up a plan for the volume correction. In most cases, we model the malar region, temporal area, mandible angles, and chin. If necessary, additional treatment of the folds and lips is performed with hyaluronic acid.

Results: This combined approach ensures excellent results. The volume modelling technique restores the correct proportions of the face accentuating certain areas as needed, thus the effect of a refreshed, well-rested, young face is achieved. At the same time, combining our technique with drainage mesotherapy allows us to treat swollen faces. This procedure results in a reduced facial volume, so that the double chin, eye puffiness, malar mounds disappear and all that remains is a fresh, rested look.

Conclusions: This combined application of two techniques allows us to treat facial puffiness and achieve results comparable to plastic surgery while avoiding surgical intervention and with a minimum rehabilitation period.

References: (http://www.mesopharm.ru/item/479-GAG-Complex-DVL-Capyl-fl-4) (https://www.martinex.ru/articles/meso-errors/)

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1551

The Importance of Hormonal Balance in Aging and Health

50 - Body contouring & skin tightening

Background/Objectives: The purpose of this clinical trial was to delineate some of the negative consequences of high BMI on health and explore the possibility of a solution. We analysed the blood test results of nine overweight adults with sedentary lifestyles, and an average BMI of 32.23. Results revealed a statistically significant reduction of visceral adipose tissue, very-low density lipoprotein (VLDL), and triglycerides. Testosterone, leptin, IGF-1 and Free T3 increased within the normal range, juxtaposed by cortisol and ghrelin that declined, but without dipping into abnormality. Optimal health appears to be the best defence against all disease and aging. Physical training is decidedly the most acclaimed solution, yet, the least implemented one, due to procrastination, or demoralization after investing constant exhaustive effort with no immediately visible physical change.

Methods: Nine adults, five females and four males, ages 35 - 49 years, with an average BMI of 32.23, participated and completed this fifteen treatments clinical trial that took place over a period of five weeks. Inclusion criteria were: 1) Overweight or obese. 2) Sedentary lifestyle. 3) Had previously received laser and radiofrequency treatments with modest outcome and rebound results. 4) Not currently following a particular diet plan. We adopted a novel technology from London University designed after 27 years of empirical research to reduce visceral fat and increase muscle tissue.

Results: All subjects indicated a BMI decrease after the fifteen treatments. There was evidence that visceral adiposity, VLDL and triglycerides were reduced, accompanied by increased metabolism, and an optimal leptin/ghrelin inverse relationship, indicating that this method can serve as a proactive/preventive and possibly corrective measure to counteract the adverse effects of obesity. The substantial IGF-1 and skeletal muscle mass enhancement implied enhanced fitness. Offering an alternative to exercise that boosts metabolism, and controls appetite, may serve proactive, and preventive health method

Conclusions: The primary goal of this randomized double blind clinical trial was to bring attention to the systemic balance perspective of health maintenance. Deterioration into illness is gradual. It evolves out of minor dysregulations, inconspicuously disintegrating the structure of wellness. A preventive perspective focuses on the rate of differentiation, observing the degrees of minor imbalances within normalcy, before they are exacerbated into a medical disorder. This is necessary to safeguard a biological network in flux. Variations within the normal range can be utilized to estimate health prognosi

References: Dixon, A.E. and Peters, U. (2018) The Effect of Obesity on Lung Function. Expert Review of Respiratory Medicine, 12, 755-767. https://doi.org/10.1080/17476348.2018.1506331 [2] Al-Goblan, A.S., Al-Alfi, M.A. and Khan, M.Z. (2014) Mechanism Linking Diabetes Mellitus and Obesity. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, 7, 587-591. https://doi.org/10.2147/DMSO.S67400 [3] Després, J. and Lemieux, I. (2006) Abdominal Obesity and Metabolic Syndrome. Nature, 444, 881-887. https://doi.org/10.1038/nature05488 [4] Larsson, B., Svardsudd, K., Welin, L., Wilhelmsen, L., Bjorntorp, P. and Tibblin, G. (1984) Abdominal Adipose Tissue Distribution, Obesity, and Risk of Cardiovascular Disease and Death: 13 Year Follow up of Participants in the Study of Men Born in 1913. British Medical Journal (Clinical Research Ed.), 288, 1401-1404. https://doi.org/10.1136/bmj.288.6428.1401 [5] Rabkin, S.W. and Mathewson, F.A. (1977) Hsu PH: Relation of Body Weight to Development of Ischemic Heart Disease in a Cohort of Young North American Men after a 26 Year Observation Period: the Manitoba Study. The American Journal of Cardiology, 39, 452-458. https://doi.org/10.1016/S0002-9149(77)80104-5 [6] Odegaard, A.O., Koh, W. P., Vazquez, G., Arakawa, K., Lee, H.P., Mimi, C.Y. and Pereira, M.A. (2009) BMI and Diabetes Risk in Singaporean Chinese. Diabetes Care, 32, 1104-1106. https://doi.org/10.2337/dc08-1674 [7] Resnick, H.E., Valsania, P., Halter, J.B. and Lin, X. (1998) Differential Effects of BMI on Diabetes Risk among Black and White Americans. Diabetes Care, 21, 1828-1835. https://doi.org/10.2337/diacare.21.11.1828 [8] Resnick, H.E., Valsania, P., Halter, J.B. and Lin, X. (1998) Relation of Weight Gain and Weight Loss on Subsequent Diabetes Risk in Overweight Adults. Journal of Epidemiology & Community Health, 54, 596-602. https://doi.org/10.1136/jech.54.8.596 [9] Peng, Y.D., Meng, K, Guan, H.Q., et al. (2020) Clinical

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1552

The Importance of Hormonal balance in Aging and Health

50 - Body contouring & skin tightening

Background/Objectives: The purpose of this clinical trial was to delineate some of the negative consequences of high BMI on health and explore the possibility of a solution. We analysed the blood test results of nine overweight adults with sedentary lifestyles, and an average BMI of 32.23. Results revealed a statistically significant reduction of visceral adipose tissue, very-low density lipoprotein (VLDL), and triglycerides. Testosterone, leptin, IGF-1 and Free T3 increased within the normal range, juxtaposed by cortisol and ghrelin that declined, but without dipping into abnormality. Optimal health appears to be the best defence against all disease and aging. Physical training is decidedly the most acclaimed solution, yet, the least implemented one, due to procrastination, or demoralization after investing constant exhaustive effort with no immediately visible physical change.

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References: Dixon, A.E. and Peters, U. (2018) The Effect of Obesity on Lung Function. Expert Review of Respiratory Medicine, 12, 755-767. https://doi.org/10.1080/17476348.2018.1506331 [2] Al-Goblan, A.S., Al-Alfi, M.A. and Khan, M.Z. (2014) Mechanism Linking Diabetes Mellitus and Obesity. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, 7, 587-591. https://doi.org/10.2147/DMSO.S67400 [3] Després, J. and Lemieux, I. (2006) Abdominal Obesity and Metabolic Syndrome. Nature, 444, 881-887. https://doi.org/10.1038/nature05488 [4] Larsson, B., Svardsudd, K., Welin, L., Wilhelmsen, L., Bjorntorp, P. and Tibblin, G. (1984) Abdominal Adipose Tissue Distribution, Obesity, and Risk of Cardiovascular Disease and Death: 13 Year Follow up of Participants in the Study of Men Born in 1913. British Medical Journal (Clinical Research Ed.), 288, 1401-1404. https://doi.org/10.1136/bmj.288.6428.1401 [5] Rabkin, S.W. and Mathewson, F.A. (1977) Hsu PH: Relation of Body Weight to Development of Ischemic Heart Disease in a Cohort of Young North American Men after a 26 Year Observation Period: the Manitoba Study. The American Journal of Cardiology, 39, 452-458. https://doi.org/10.1016/S0002-9149(77)80104-5 [6] Odegaard, A.O., Koh, W. P., Vazquez, G., Arakawa, K., Lee, H.P., Mimi, C.Y. and Pereira, M.A. (2009) BMI and Diabetes Risk in Singaporean Chinese. Diabetes Care, 32, 1104-1106. https://doi.org/10.2337/dc08-1674 [7] Resnick, H.E., Valsania, P., Halter, J.B. and Lin, X. (1998) Differential Effects of BMI on Diabetes Risk among Black and White Americans. Diabetes Care, 21, 1828-1835. https://doi.org/10.2337/diacare.21.11.1828 [8] Resnick, H.E., Valsania, P., Halter, J.B. and Lin, X. (1998) Relation of Weight Gain and Weight Loss on Subsequent Diabetes Risk in Overweight Adults. Journal of Epidemiology & Community Health, 54, 596-602. https://doi.org/10.1136/jech.54.8.596 [9] Peng, Y.D., Meng, K, Guan, H.Q., et al. (2020) Clinical

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1554

Technological Advances in Wound Healing, Stretchmarks, Keloid Scars, and Facial Rejuvenation

51 - Regenerative aesthetics

Background/Objectives: We reviewed a number of wound repair, keloid and hypertrophic scar research methods that included lasers, microcurrent and ultra-low energy technologies. Laser research reports short-term improvement in wounds, keloid and hypertrophic scars, but without follow up to control for reoccurrence of keloids or diabetic lesions which generally reoccur following laser treatments. The microcurrent and ultra-low energy studies demonstrate significant healing where age is not a factor with no reoccurrence of diabetic wounds and other skin lesions. Our randomized, double-blind longitudinal research on eight wound repair clinical cases with an age range of 28 - 86, followed for one year, evidenced accelerated healing and no reoccurrence. The number of treatments required for substantial healing depended on the chronicity and severity of the lesion, with chronic severe lesions requiring more treatments, rather than age, a conclusion supported by ultra-low microcurrent research. These results on age-independent wound healing directly contradict a large body of literature postulating that healing is much slower with age due to immune insufficiency, age-accumulated oxidative stress, disrupted cell communications and sustained inflammation.

Methods: Eight subjects, one male and 7 females, 28 - 84 years of age, one Caucasian, 4 Hispanic and 3 Chinese were included in this clinical trial. Subjects were randomly selected out of 15 cases of wound healing cases treated by 4 independent clinicians in their private clinics. We utilized an ultra-low energy nanotechnology, originally invented in London University in 1992 and subsequently modified over a period of 20 years on the basis of unpublished in vitro, clinical and electronic research.

Results: The results of this clinical trial indicated age-independent wound repair in our eight 28 - 86 years old adult subjects of different ethnicities. The number of treatments required for skin repair was related to the chronicity and severity of the lesion, with more chronic severe lesions requiring more treatments irrespective of the subject's age. Subjects were monitored for at least one year after treatment, confirming the absence of reoccurrence. Our results were consistent with previous research using ultra-low microcurrents demonstrating accelerated wound healing, including diabetic foot lesions, where age was not a factor.

Conclusions: Age-independent wound repair seems to defy a number of aging theories postulating inevitable decline and irreversible inflammation. It directly contradicts the concept of "inflammaging" of a slower healing with age due to immune insufficiency, accumulative oxidative stress & inflammation.

References: Wells, A., Nuschke, A. and Yates, C. (2015) Skin Tissue Repair: Matrix Microenvironmental Influences. Matrix Biology, 49, 25-36. https://www.ncbi.nlm.nih.gov/pubmed/11976459 https://doi.org/10.1016/j.matbio.2015.08.001 [2] Grieb, G., Steffens, G., Pallua, N., Bernhagen, J. and Bucala, R. (2011) Circulating Fibrocytes-Biology and Mechanisms in Wound Healing and Scar Formation. International Review of Cell and Molecular Biology, 291, 1-19. https://doi.org/10.1016/B978-0-12-386035-4.00001-X [3] Redd, M., Cooper, L., Wood, W., Stramer, B. and Martin, P.N. (2004) Wound Healing and Inflammation: Embryos Reveal the Way to Perfect Repair. Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 359, 777-784. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1693361 https://doi.org/10.1098/rstb.2004.1466 [4] Grose, R., Harris, B.S., Cooper, L., Topilko, P. and Martin, P. (2002) Immediate Early Genes krox-24 and krox-20 Are Rapidly Upregulated after Wounding in the Embryonic and Adult Mouse. Developmental Dynamics, 223, 371-378. https://www.ncbi.nlm.nih.gov/pubmed/11891986 https://doi.org/10.1002/dvdy.10064 [5] Shaw, T. and Martin, P. (2009) Epigenetic Reprogramming during Wound Healing: Loss of Polycomb-Mediated Silencing May Enable Upregulation of Repair Genes. EMBO Reports, 10, 881-886. https://www.ncbi.nlm.nih.gov/pubmed/19575012 https://doi.org/10.1038/embor.2009.102 [6] Wong, V.W., Rustad, K.C., Akaishi, S., Sorkin, M., Glotzbach, J.P., Januszyk, M., Nelson, E.R., Levi, K., Paterno, J., Vial, I.N., Kuang, A.A., Longaker, M.T. and Gurtner, G.C. (2011) Focal Adhesion Kinase Links Mechanical Force to Skin Fibrosis via Inflammatory Signaling. Nature Medicine, 18, 148-152. https://www.ncbi.nlm.nih.gov/pubmed/22157678 https://doi.org/10.1038/nm.2574 [7] Sasaki, M., Abe, R., Fujita, Y., Ando, S., Inokuma, D. and Shimizu, H. (2008) Mesenchymal Stem Cells Are Recruited into Wounded Skin and C

Sofra Xanya
Hong Kong

Sofra Xanya, Ph.d
United Kingdom

#1555

Technological Advancements in Wound Healing, Stretchmarks, Acne, Keloids and Facial Rejuvenation

51 - Regenerative aesthetics

Background/Objectives: We reviewed a number of wound repair, keloid and hypertrophic scar research methods that included lasers, microcurrent and ultra-low energy technologies. Laser research reports short-term improvement in wounds, keloid and hypertrophic scars, but without follow up to control for reoccurrence of keloids or diabetic lesions which generally reoccur following laser treatments. The microcurrent and ultra-low energy studies demonstrate significant healing where age is not a factor with no reoccurrence of diabetic wounds and other skin lesions. Our randomized, double-blind longitudinal research on eight wound repair clinical cases with an age range of 28 - 86, followed for one year, evidenced accelerated healing and no reoccurrence. The number of treatments required for substantial healing depended on the chronicity and severity of the lesion, with chronic severe lesions requiring more treatments, rather than age, a conclusion supported by ultra-low microcurrent research. These results on age-independent wound healing directly contradict a large body of literature postulating that healing is much slower with age due to immune insufficiency, age-accumulated oxidative stress, disrupted cell communications and sustained inflammation.

Methods: Eight subjects, one male and 7 females, 28 - 84 years of age, one Caucasian, 4 Hispanic and 3 Chinese were included in this clinical trial. Subjects were randomly selected out of 15 cases of wound healing cases treated by 4 independent clinicians in their private clinics. We utilized an ultra-low energy nanotechnology, originally invented in London University in 1992 and subsequently modified over a period of 20 years on the basis of unpublished in vitro, clinical and electronic research.

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Sofra Xanya
Hong Kong

Sofra, Ph.d Xanya
United Kingdom

#1558

Adverse Effects of Sedentary Lifestyles: Inflammation, and High-Glucose Induced Oxidative Stress

50 - Body contouring & skin tightening

Background/Objectives: Sedentary lifestyles promote adipose tissue accumulation that generates systemic inflammation and oxidative damage. Physical activity induces cardiovascular fitness, increases muscle mass, and healthy blood glucose regulation, while reducing visceral fat, triglycerides and low-density lipoproteins. It is theoretically possible to develop a long-term multi-exercise regimen for health management and enhancement. Pragmatically, time and career restraints, individual choices, genetic factors, or demoralization due to the draconian commitment involved in weight loss, have rendered over a billion of individuals obese, or overweight, burdened by excess lipids, insulin resistance, elevated glucose levels, and inflammation, that foster a number of medical conditions including diabetes. Strenuous overtraining has ensued adverse effects, including an upsurge of proinflammatory cytokines, and hyperglycemia. We implemented an one-month long innovative method with 20 diabetic and prediabetic patients. Results demonstrated a statistically significant reduction of both fasting and PP blood glucose. Fasting and PP insulin reached optimal levels. There was a substantial decline in dyslipidemia, reflecting a reverse relationship of elevated HDL versus triglycerides descending towards the normal range. Results demonstrated a significant improvement in blood glucose regulation and insulin resistance, along with reduced dyslipidemia, reflecting an optimal reverse relationship of elevated HDL versus triglycerides descending towards the normal range.

Methods: Twenty obese and overweight adults, 15 - 82 years, with an average BMI of 35.41, eleven females and nine males, with either a diabetic or prediabetic condition, participated and completed the study, after they signed a consent form. Fifteen of the subjects were of Indian descent and five of them were Caucasian. Selection was made by randomly selecting medical history files from two different clinics and making sure that the participants fulfilled both the inclusion and exclusion criteria.

Results: Results demonstrated a significant improvement in blood glucose regulation and insulin resistance, along with reduced dyslipidemia, reflecting an optimal reverse relationship of elevated HDL versus triglycerides descending towards the normal range.

Conclusions: The substantial reduction of visceral fat was supported by the cm loss around the umbilicus and lower abdomen which represent the body areas where visceral adiposity accumulates; it was also confirmed by the sonography reports of seven subjects diagnosed with hepatic steatosis who presented evidence of no fatty liver after the twelve treatments.

References: Colberg, S.R., Sigal, R.J., Fernhall, B., et al. (2010) American College of Sports Medicine, American Diabetes Association Exercise and Type 2 Diabetes: The American College of Sports Medicine and the American Diabetes Association: Joint Position Statement Executive Summary. Diabetes Care, 33, 2692-2696. https://doi.org/10.2337/dc10-1548 [Citation Time(s):1] 2. Silver, D.L., Wang, N., Xiao, X. and Tall, A.R. (2001) High Density Lipoprotein (HDL) Particle Uptake Mediated by Scavenger Receptor Class B Type 1 Results in Selective Sorting of HDL Cholesterol from Protein and Polarized Cholesterol Secretion. The Journal of Biological Chemistry, 276, 25287-25293. https://doi.org/10.1074/jbc.M101726200 [Citation Time(s):1] 3. Fisher, E.A., Feig, J.E., Hewing, B., Hazen, S.L. and Smith, J.D. (2012) HDL Function, Dysfunction and Reverse Cholesterol Transport. Arteriosclerosis, Thrombosis, and Vascular Biology, 32, 2813-2820. https://doi.org/10.1161/ATVBAHA.112.300133 [Citation Time(s):1] 4. Cullimane, E., Siconolfi, S., Saritelli, A. and Thompson, P.D. (1982) Acute Decrease in Serum Triglycerides with Exercise. Is There a Threshold for an Exercise Effect? Metabolism, 31, 844-847. https://doi.org/10.1016/0026-0495(82)90085-3 [Citation Time(s):1] 5. Haslam, D.W. and James, W.P. (2005) Obesity. The Lancet, 366, 1197-1209. https://doi.org/10.1016/S0140-6736(05)67483-1 [Citation Time(s):1] 6. McIlwain, D.R., Berger, T. and Mak, T.W. (2013) Caspase Functions in Cell Death and Disease. Cold Spring Harbor Perspectives in Biology, 7, a026716. https://doi.org/10.1101/cshperspect.a026716 [Citation Time(s):1] 7. Russel, J., Golovoy, D., Vincent, A., Mhendru, P., Olzmann, J., Mentzer, E. and Fieldman, E. (2002) High Glucose-Induces Oxidative Stress and Mitochondrial Dysfunction in Neurons. The FASEB Journal, 16, 1738-1748. h

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1559

WHY NOBEL WINNING STUDIES FOCUS ON MOLECULAR MECHANISMS? The Time / Matrix Cellular Network Model of Anti-aging Medicine

51 - Regenerative aesthetics

Background/Objectives: The Nobel Prize in Physiology or Medicine 2018 was awarded jointly to James P. Allison and Tasuku Honjo for their discovery of Cancer therapy by inhibition of negative immune regulation. James P. Allison studied the T-cell protein CTLA-4 since 1990. He developed an antibody that could bind to CTLA-4 and block its function (see Figure). In 2010 an important clinical study showed striking effects in patients with advanced melanoma, a type of skin cancer. In several patients signs of remaining cancer disappeared by blocking CTLA-4 that disengages the T-cell brake allowing the immune system to attack cancer relentlessly. Such remarkable results had never been seen before in this patient group.

Methods: Tasuku Honjo discovered PD-1, another protein expressed on the surface of T-cells. PD-1, similar to CTLA-4, functions as a T-cell brake. The Nobel Prize in Physiology or Medicine 2017 was awarded jointly to Jeffrey C. Hall, Michael Rosbash and Michael W. Young "for their discoveries of molecular mechanisms controlling the circadian rhythm." There have been several reports suggesting that the pathophysiology of psoriasis may be associated with aberrant circadian rhythms.

Results: Ando et al. found that circadian clocks may be a potent regulator of psoriasis by affecting IL-23R expression. Janich P et al. found Human epidermal stem cell function is regulated by circadian oscillations. Izumi et al discussed Circadian disruption and cancer risk. Yasuniwa et al. showed how circadian disruption accelerates tumor growth and angio/stromagenesis through a Wnt signaling pathway.

Conclusions: The plethora of new research focusing on molecular mechanisms compose a dynamic process of a matrix of signalling controls processes, delivered at specific times. It's an elegant, almost symphonic interaction of cellular circadian clocks, the time dimension and the multi-dimensional intra- and inter- cellular signalling network. Identifying and reproducing signalling processes necessary to sustain health and the discrete intervals in which they have to be delivered is the ultimate goal of Signalling technology that started with the Pacemaker research in London University and expanded to motor nerve signalling and new discoveries in Quantum Physics principles underlying cellular signalling. Compromised signals from denatured proteins can be deleterious to this very specific process, while signals enhancing protein refolding can reinstate systemic functioning. In other cases, as in the case of CTLA-4 and PD-1 T-cell breaks, signalling that pauses certain mechanisms can be proven to be crucial both in Anti-aging Medicine and health status recovery.

References: Ishida, Y., Agata, Y., Shibahara, K., & Honjo, T. (1992). Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. EMBO J., 11(11), 3887-3895. Leach, D. R., Krummel, M. F., & Allison, J. P. (1996). Enhancement of antitumor immunity by CTLA-4 blockade. Science, 271(5256), 1734-1736. Kwon, E. D., Hurwitz, A. A., Foster, B. A., Madias, C., Feldhaus, A. L., Greenberg, N. M., Burg, M.B. & Allison, J.P. (1997). Manipulation of T cell costimulatory and inhibitory signals for immunotherapy of prostate cancer. Proc Natl Acad Sci USA, 94(15), 8099-8103. Nishimura, H., Nose, M., Hiai, H., Minato, N., & Honjo, T. (1999). Development of Lupus-like Autoimmune Diseases by Disruption of the PD-1 gene encoding an ITIM motif-carrying immunoreceptor. Immunity, 11, 141-151. Freeman, G.J., Long, A.J., Iwai, Y., Bourque, K., Chernova, T., Nishimura, H., Fitz, L.J., Malenkovich, N., Okazaki, T., Byrne, M.C., Horton, H.F., Fouser, L., Carter, L., Ling, V., Bowman, M.R., Carreno, B.M., Collins, M., Wood, C.R. & Honjo, T. (2000). Engagement of the PD-1 immunoinhibitory receptor by a novel B7 family member leads to negative regulation of lymphocyte activation. J Exp Med, 192(7), 1027-1034. Hodi, F.S., Mihm, M.C., Soiffer, R.J., Haluska, F.G., Butler, M., Seiden, M.V., Davis, T., Henry-Spires, R., MacRae, S., Willman, A., Padera, R., Jaklitsch, M.T., Shankar, S., Chen, T.C., Korman, A., Allison, J.P. & Dranoff, G. (2003). Biologic activity of cytotoxic T lymphocyte-associated antigen 4 antibody blockade in previously vaccinated metastatic melanoma and ovarian carcinoma patients. Proc Natl Acad Sci USA, 100(8), 4712-4717. Iwai, Y., Terawaki, S., & Honjo, T. (2005). PD-1 blockade inhibits hematogenous spread of poorly immunogenic tumor cells by enhanced recruitment of effector T cells. Int Immunol, 17(2), 133&n

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1560

How Gene Expression affects the anti-aging process

51 - Regenerative aesthetics

Background/Objectives: . In 2017 the Journal of the American Academy of Dermatology found that women with a much more youthful skin appearance than would be expected based on their chronological age, also presented a specific gene expression profile mimicking the biology of much younger skin, as if their skin looked younger because it behaved younger. These women had increased activity in genes associated with basic biologic processes, including DNA repair, cell replication, response to oxidative stress, and protein metabolism.

Methods: Gene expression is regulated by genetic effects and environmental factors. A large number of studies have investigated the expression quantitative trait loci studies, (eQTLs) and discovered that most genes are affected by at least one eQTL in at least one tissue. Byois et al. analysed gene expression changes with age in abdominal skin, subcutaneous adipose tissue and lymphoblastoid cell lines in 856 female twins in the age range of 39-85 years. A significant proportion of age-related changes in gene expression appear to be tissue-specific with only a few genes sharing an age effect in expression across tissues. The 43 shared genes in skin and adipose tissue showed a single common identifiable pathway related to the stress response.

Results: Signalling pathways are the key biological mechanisms that transduce extracellular signals to affect transcription factor mediated gene regulation within cells.Activation of different signalling pathways can lead to numerous physiological or cellular responses, such as cell proliferation, death, differentiation, and metabolism. Any interruption that occurs within these extra−/intra-cellular communication chains can cause diseases including developmental disorders and cancers.

Conclusions: The cells' signalling pathways can be identified by gene expression and protein-protein interaction (PPI) data. A number of computational methods utilize PPI data along with gene expression data to uncover known signalling pathways. In these methods the gene expression data sets are usually used to calculate the edge weight by gene expression correlation for the network. One approach utilizes PPI and gene expression data sets and applies integer linear programming to get an optimal subnetwork from the PPI network starting from membrane proteins and ending at transcription factors. A recently published method called HISP uses the same approach, but in addition applies genetic algorithms with operations including selection, crossover, and mutation to select the candidate topologies of resultant signalling pathways and uses gene knockout data to get directionality of the signalling pathways.

References: Reznick DN. The genetic basis of aging: an evolutionary biologist's perspective. Sci Aging Knowl Environ. 2005;14:pe7. doi: 10.1126/sageke.2005.11.pe7. [PubMed] [CrossRef] [Google Scholar] 2. Trabzuni D, Wray S, Vandrovcova J, Ramasamy A, Walker R, Smith C, Luk C, Gibbs JR, Dillman A, Hernandez DG, Arepalli S, Singleton AB, Cookson MR, Pittman AM, de Silva R, Weale ME, Hardy J, Ryten M. MAPT expression and splicing is differentially regulated by brain region: relation to genotype and implication for tauopathies. Hum Mol Genet. 2012;14:4094- 4103. doi: 10.1093/hmg/dds238. [PMC free article] [PubMed] [CrossRef] [Google Scholar] 3. Weindruch R, Kayo T, Lee C-K, Prolla TA. Gene expression profiling of aging using DNA microarrays. Mech Ageing Dev. 2002;14:177-193. doi: 10.1016/S0047-6374(01)00344-X. [PubMed] [CrossRef] [Google Scholar] 4. Ly DH, Lockhart DJ, Lerner RA, Schultz PG. Mitotic misregulation and human aging. Science. 2000;14:2486-2492. doi: 10.1126/science.287.5462.2486. [PubMed] [CrossRef] [Google Scholar] 5. Lu T, Pan Y, Kao S-Y, Li C, Kohane I, Chan J, Yankner BA. Gene regulation and DNA damage in the ageing human brain. Nature. 2004;14:883-891. doi: 10.1038/nature02661. [PubMed] [CrossRef] [Google Scholar] 6. Rodwell GEJ, Sonu R, Zahn JM, Lund J, Wilhelmy J, Wang L, Xiao W, Mindrinos M, Crane E, Segal E, Myers BD, Brooks JD, Davis RW, Higgins J, Owen AB, Kim SK. A transcriptional profile of aging in the human kidney. PLoS Biol. 2004;14:e427. doi: 10.1371/journal.pbio.0020427. [PMC free article] [PubMed] [CrossRef] [Google Scholar] 7. de Magalhaes JP, Curado J, Church GM. Meta-analysis of age-related gene expression profiles identifies common signatures of aging. Bioinformatics. 2009;14:875-881. doi: 10.1093/bioinformatics/btp073. [PMC free article] [PubMed] [CrossRef] [Google Scholar] 8. Grundberg E, Small KS, Hedman AK, Nica AC, Buil A, Keildson S, Bell JT, Yang TP, Meduri E, Barrett A, Nisbett J

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1561

SARS-CoV-2 - The Unforeseen Peril of David Winning Against Goliath: The Immune Giant Collapsing Under Its Own Rampaging Cytokine Storm

56 - Anti-aging & internal medicine

Background/Objectives: We examined SARS-CoV-2 (Covid-19) available treatments and prophylactic methods that included interventions associated with inhibiting the "type II transmembrane serine protease' (TMPRSS2) to limit the fusion between the Covid-19 Spike proteins and ACE2 receptors, or newly developed therapeutics like Remdesivir, interfering with the viral RNA replication. We explored the dilemma of ACE2 receptors that have a protective function against high blood pressure associated disorders, yet, they serve as the viral points of entry, elevating the probability of infection.

Methods: Human tissues' analysis reveals a higher ACE2 expression in adipose tissue, placing obesity-related conditions in the eye of the pandemic storm. It primarily exposes males due the surge of ACE2 receptors in the testes along with other tissues. Males manifest a relatively higher positive ACE2 correlations with certain immune cells in the lungs, thyroid, adrenals, liver and colon, while females evidence higher ACE2 correlations with immune cells in the heart. The remaining tissues' ACE2/immunity expressions are equivalent in both sexes, indicating that despite its preference for males, the threat of Covid-19 can easily target females. Recent reports indicate that Covid-19 is empowered by hindering the critical process of viral recognition during the adaptive immune response leading to the "cytokine storm," the aggravated immune response that indiscriminately perseveres, rampaging the host's vital organs.

Results: We analyzed the results from 29 patients, 20 females and 9 males with an average BMI of 29.9 in terms of visceral fat decrease and muscle mass increase, also their before and after hormonal imbalance delineated in their levels of cortisol, the anorexic hormone leptin and the orexigenic one, ghrelin. Sedentary lifestyle, age-related hormonal imbalance, and adiposity induced inflammation predispose the body to the immune collapse following Covid-19 invasion, spotlighting the detrimental aftermath of metabolic dysfunction, and excess food consumption provoked by elevated cortisol and dysregulated appetite hormones. ACE 2 expression is suppressed in the skeletal muscle, rendering fitness and weight management an effective Covid-19 preventive intervention, along with social distancing, hygiene, and facial coverings.

Conclusions: Physical activity, or exercise alternative methods have recently demonstrated statistically significant reductions of the inflammatory marker C-Reactive Protein (CRP), triglycerides, visceral fat, cortisol and the orexigenic hormone ghrelin, juxtaposed by optimal increases of IGF-1, skeletal muscle mass, Free T3, HDL, and the anorexic hormone leptin.

References: Bourgonje AR, Abdulle AE, Timens W, Hillebrands JL, Navis GJ, Gordijn SJ, Bolling MC, Dijkstra G, Voors AA, Osterhaus AD, van der Voort PH, Mulder DJ, van Goor H. 2020. Angiotensin-converting enzyme 2 (ACE2), SARS-CoV-2 and the pathophysiology of coronavirus disease 2019 (COVID-19). J Pathol. 251(3):228-248. doi: 10.1002/path.5471. Epub 2020 Jun 10. PMID: 32418199; PMCID: PMC7276767. Ferrario, C.M., Trask, A.J. and Jessup, J.A., 2005. Advances in biochemical and functional roles of angiotensin-converting enzyme 2 and angiotensin-(1-7) in regulation of cardiovascular function. American Journal of Physiology-Heart and Circulatory Physiology, 289(6), pp.H2281-H2290. https://doi.org/10.1152/ajpheart.00618.2005 Benter, I.F., Yousif, M.H., Dhaunsi, G.S., Kaur, J., Chappell, M.C. and Diz, D.I., 2008. Angiotensin-(1-7) prevents activation of NADPH oxidase and renal vascular dysfunction in diabetic hypertensive rats. American journal of nephrology, 28(1), pp.25-33. https://doi.org/10.1159/000108758 Elâ€Hashim, A.Z., Renno, W.M., Raghupathy, R., Abduo, H.T., Akhtar, S. and Benter, I.F., 2012. Angiotensinâ€(1-7) inhibits allergic inflammation, via the MAS1 receptor, through suppression of ERK1/2â€and NFâ€κBâ€dependent pathways. British journal of pharmacology, 166(6), pp.1964-1976. https://doi.org/10.1111/j.1476-5381.2012.01905.x Ocaranza, M.P. and Jalil, J.E., 2012. Protective role of the ACE2/Ang-(1-9) axis in cardiovascular remodeling. International journal of hypertension, 2012. doi: 10.1155/2012/594361 PMCID: PMC3270559. PMID: 22315665 Danser, A.J., Epstein, M. and Batlle, D., 2020. Renin-angiotensin system blockers and the COVID-19 pandemic: at present there is no evidence to abandon renin-angiotensin system blockers. Hypertension, 75(6), pp.1382-1385. https://doi.org/10.1161/HYPERTENSIONAHA.120.15082 Xia H, Srira

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1562

How to Solve the Visceral Fat Problem and Suppress Hunger. A Randomized Double-Blind Clinical Trial on Visceral Adipose Tissue, VLDL, Triglycerides, Free T3, IGF-1, Leptin, Ghrelin, Testosterone and Cortisol

50 - Body contouring & skin tightening

Background/Objectives: Inflammation and oxidative damage are immanent in visceral adiposity that is characterized by excess lipids and lipoproteins, viewed as the core components of arterial plaques, ultimately obstructing blood flow and lymphatic drainage. Accumulated toxicity dysregulates the orexigenic hormone ghrelin, and anorexic hormone leptin that are part of a reciprocal network controlling appetite. Weight gain promotes hormonal imbalance, expressed in disturbances in free T3, and an inverse low testosterone / high cortisol incongruity that provokes stress eating behaviors.

Methods: We explored a number of interventions designed to reduce visceral adipose tissue (VAT), including RF, laser plus working out, and exercise alone. Short term gymnastics evidenced a modest advantage in VAT decrease, but no changes in BMI or physical appearance. Overtraining appeared to negate the benefits of exercise by increasing inflammation and cortisol while suppressing testosterone and leptin, inevitably instigating hunger and weight gain. We examined the blood samples of ten overweight, healthy adults that underwent twelve treatments during the course of one month.

Results: Results demonstrated a statistically significant decline in VLDL, triglycerides and VAT, accompanied by a substantial increase in BMR and skeletal muscle mass. Importantly, Free T3, IGF-1, leptin, and testosterone were elevated towards the top of the normal range, while cortisol and ghrelin gravitated towards the low end of the normal range, without ever spiking outside the limits of hormonal balance. Subjects reported reduced cravings for sweets and fatty foods, yet, regular appetite.

Conclusions: Physical activity has been traditionally the reliable in reducing visceral fat; however, short-term workout produced negligible gains in weight loss and physical appearance. Furthermore, overtraining evidenced negative effects, including increased inflammation, leptin suppression, and an inverse negative cortisol / testosterone incongruity bound to negate the benefits of exercise by increasing food consumption. In the current trial, the blood samples of 10 healthy adults demonstrated a significant increase in BMR and skeletal muscle mass, contrasted by a decrease in VAT, VLDL, and triglycerides. Free T3, IGF-1, leptin, and testosterone were elevated towards the top of the normal range, while cortisol and ghrelin gravitated towards the low end of the normal range. These results have important implications for weight loss plus speedy fitness that balances hormones and safeguards health.

References: Ferrucci L., Fabbri E. Inflammageing: chronic inflammation in ageing, cardiovascular disease, and frailty. Nature Reviews, 2018 Cardiology volume 15, pages505-522(2018). https://www.nature.com/articles/s41569-018-0064-2. DOI https://doi.org/10.1038/s41569-018-0064-2 J S Yudkin, C D Stehouwer, J J Emeis, S W Coppack. C-reactive Protein in Healthy Subjects: Associations With Obesity, Insulin Resistance, and Endothelial Dysfunction: A Potential Role for Cytokines Originating From Adipose Tissue? Arteriosclerosis Thromb Vasc Biol. 1999 Apr;19(4):972-8. doi: 10.1161/01.atv.19.4.972 Alexopoulos N., Katritsis D, Raggi P. 2014. Visceral Adipose Tissue as a source of inflammation and promoter of arherosclerosis. Volume 233, Issue 1, Pages 104-112. https://doi.org/10.1016/j.atherosclerosis.2013.12.023 Skouby S., Gram J., Andersen L., Sidelmann J., Petersen K., Jespersen J., Hormone replacement therapy: Estrogen and progestin effects on plasma C-reactive protein concentrations. Americal Journal of Obstetrics and Gynecology. 2002 Volume 186, Issue 5, Pages 969-977. https://doi.org/10.1067/mob.2002.122414 Weisberg SP, Hunter D, Huber R, Lemieux J, Slaymaker S, Vaddi K, Charo I, Leibel RL, Ferrante AW, Jr. CCR2 modulates inflammatory and metabolic effects of high-fat feeding. J Clin Invest. 2006; 116: 115-124. https://pubmed.ncbi.nlm.nih.gov/16341265/ DOI: 10.1172/JCI24335 Xu H, Barnes GT, Yang Q, Tan G, Yang D, Chou CJ, Sole J, Nichols A, Ross JS, Tartaglia LA, Chen H. Chronic inflammation in fat plays a crucial role in the development of obesity-related insulin resistance. J Clin Invest. 2003; 112: 1821-1830. https://pubmed.ncbi.nlm.nih.gov/14679177/ DOI: 10.1172/JCI19451 Byrne C.D. Ectopic fat, insulin resistance and non-alcoholic fatty liver disease. Proc. Nutr. Soc. 2013;72

Murthy Rachna
United Kingdom

Murthy Rachna
United Kingdom

#1574

Improving Aseptic Injection Atandards in Aesthetic Clinical Practice

48 - Complications - avoidance and management

Background/Objectives: During this unprecedented time, when we are dealing with a new transmissible infection with significant inherent risks as well as risk to complicate treatments, aseptic practice becomes crucial. The aims of this presentation are to provide expert consensus guidance for practices performing injectable treatments, particularly with soft tissue filler, to reduce the risk of complications secondary to infection.

Methods: A consensus group of five expert aesthetic clinicians, all with significant experience in the prevention and management of complications, convened with the aim to recommended steps to achieve optimal aseptic practice, based on current evidence and extensive clinical experience. The specific objectives were to produce a step-by-step procedure for achieving and maintaining a high standard for aseptic conditions for aesthetic and define important considerations for reducing infection risk during the whole patient journey: pre-, during and post-aesthetic procedure.

Results: Consensus recommendations for maintaining asepsis of the face will be presented, divided into three phases for patients and health care professionals, covering pre-procedure (including patient selection), during-procedure, and post-procedure considerations. Briefly, selecting appropriate patients.[i] The level of personal protective equipment (PPE) to limit the spread of respiratory viral diseases.[ii] The use of Sodium hypochlorite/Hypochlorous acid to maintain asepsis, with benefits of specific preparations for peri-oral and peri-ocular asepsis,[iii]. [i] De Boulle K, Heydenrych I Patient factors influencing dermal filler complications: prevention, assessment, and treatment. Clinical, Cosmetic and Investigational Dermatology 2015:8 205-14. [ii] World Health Organization. Advice on the use of masks in the context of COVID-19. Interim guidance, 5 June 2020. [iii] Day A, Alkhalil A, Carney BC, et al. Disruption of Biofilms and Neutralization of Bacteria Using Hypochlorous Acid Solution: An In Vivo and In Vitro Evaluation. Adv Wound Skin Care 2017;30(12):543-51.

Conclusions: In aesthetic practices performing injectable treatments, such as dermal fillers, the risk of inflammatory complications secondary to skin infection can be managed through robust application of the aseptic technique. This expert consensus guidance recommends procedures to address the potential risks of cross-contamination and infection for both the patient and practitioner in a pandemic focused era.

References: [i] De Boulle K, Heydenrych I Patient factors influencing dermal filler complications: prevention, assessment, and treatment. Clinical, Cosmetic and Investigational Dermatology 2015:8 205-14. [ii] World Health Organization. Advice on the use of masks in the context of COVID-19. Interim guidance, 5 June 2020. [iii] Day A, Alkhalil A, Carney BC, et al. Disruption of Biofilms and Neutralization of Bacteria Using Hypochlorous Acid Solution: An In Vivo and In Vitro Evaluation. Adv Wound Skin Care 2017;30(12):543-51.

Sartorio Cristina
Italy

Sartorio Cristina
Italy

#1610

The combined treatment with focused ultrasound and Hyaluronic acid fillers for facial rejuvenation

45 - Combination treatments

Background/Objectives: Abstract Introduction: Ageing affects every cell in the body, but the skin shows the most obvious signs of the passage of time. During the aging process the skin becomes gradually thinner, drier with the loss of elasticity with the appearance of line and wrinkles. Combined treatment of Micro- and Macro-Focused Ultrasound (HIFU) and Hyaluronic Acid (HA) anti-ageing injections, may be an effective and safe treatment to refresh the appearance. Objective: The aim of this study is to analyse the efficacy and safety of the combined medical-aesthetic treatment with HIFU and Hyaluronic Acid dermal fillers in facial rejuvenation.

Methods: Materials and Methods: From March 2018 to March 2020 over one hundred patients have undergone to this combined protocol for facial rejuvenation. This medical-aesthetic treatment was performed using HIFU technology, Micro- and Macro-Focused Ultrasound in the SMAS area (Superficial Muscular-Aponeurotic System) and HA with these features: a mix of cross-linked and non-crosslinked Resilient HA (RHA), 15 mg/ml concentration in total, 1.9% of BDDE and 0.3% of lidocaine; a 15 mg/ml non-crosslinked HA supplemented with a Dermo-Restructuring Complex (DRC) and 0.3% of lidocaine. Moreover, photographs of the patients were taken, using 3D camera, before and after the treatments with a follow up of 6 and 12 months and 24 months.

Results: Results: In this study was evaluated the efficacy and safety of HIFU and HA in facial rejuvenation. The author discusses her personal applications of these combined procedures and shows of the results obtained using this combined medical-aesthetic treatments.

Conclusions: Conclusions: The combined treatment of HIFU and HA dermal fillers has proved to be an efficacy and safety option of aesthetic treatment. This combination approach produces a skin rejuvenation with an overall facial improvement appearance.

Sartorio Cristina
Italy

Sartorio Cristina
Italy

#1611

My personal approach to the correction of asymmetries and reshaping of the lips with measurements and 3D images.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Introduction The face is the area of the body where our identity is most expressed and the lips play a central role in the beauty and harmony of the face. Objective: The aim of this study is to show the effectiveness of the treatments with hyaluronic acid (HA) dermal fillers for both the correction of the asymmetry and the reshaping of the lips.

Methods: Materials and Methods: The study was carried out in subjects with different lips asymmetry. The treatment was performed with a dynamic Hyaluronic Acid (HA) dermal fillers with these characteristics: 23 mg/ml, 3.6% BDDE and 0.3% lidocaine. The RHA was injected using an electronic device. The volumetric changes were evaluated with a 3D camera. Moreover, a questionnaire was submitted to patients to assess the degree of the treatment satisfaction and the result obtained.

Results: Results: The Author shows the results obtained with her own approach in the correction of the asymmetry and the reshaping of the lips and the patient satisfaction.

Conclusions: Conclusions: This approach for the treatment of the asymmetry and the reshaping of the lips using a dynamic HA dermal filler, has allowed to achieve an immediate, complete and harmonious aesthetic result. Moreover, the use of the electronic device has led to perform an accurate, safe and more comfortable treatment for the patient.

Murthy Rachna
United Kingdom

Murthy Rachna
United Kingdom

#1621

Improving aseptic injection standards in aesthetic clinical practice

48 - Complications - avoidance and management

Background/Objectives: During this unprecedented time, when we are dealing with a new transmissible infection with significant inherent risks as well as risk to complicate treatments, aseptic practice becomes crucial. The aims of this presentation are to provide expert consensus guidance for practices performing injectable treatments, particularly with soft tissue filler, to reduce the risk of complications secondary to infection.

Methods: A consensus group of five expert aesthetic clinicians, all with significant experience in the prevention and management of complications, convened with the aim to recommended steps to achieve optimal aseptic practice, based on current evidence and extensive clinical experience. The specific objectives were to produce a step-by-step procedure for achieving and maintaining a high standard for aseptic conditions for aesthetic and define important considerations for reducing infection risk during the whole patient journey: pre-, during and post-aesthetic procedure.

Results: Consensus recommendations for maintaining asepsis of the face will be presented, divided into three phases for patients and health care professionals, covering pre-procedure (including patient selection), during-procedure, and post-procedure considerations. Briefly, selecting appropriate patients.[i] The level of personal protective equipment (PPE) to limit the spread of respiratory viral diseases.[ii] The use of Sodium hypochlorite/Hypochlorous acid to maintain asepsis, with benefits of specific preparations for peri-oral and peri-ocular asepsis,[iii].

Conclusions: In aesthetic practices performing injectable treatments, such as dermal fillers, the risk of inflammatory complications secondary to skin infection can be managed through robust application of the aseptic technique. This expert consensus guidance recommends procedures to address the potential risks of cross-contamination and infection for both the patient and practitioner in a pandemic focused era.

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Marchetti Marco
Italy

Marchetti Marco
Italy

#1623

VLCKD overview and focus on efficacy, safety and right nutrients intake

56 - Anti-aging & internal medicine

Background/Objectives: In last years, the very low calorie ketogenic diet (VLCKD) has become increasingly important as a diet therapy for weight loss. In particular, in aesthetic medicine, it is widely used for its effectiveness in body reshaping and for localized fat. The correct protein intake and duration of treatment are still a source of discussion. The objective of this review is to determine more precisely, according to the latest scientific evidence, the optimal nutrients intake and the duration of VLCKD to help the aesthetic doctor in drafting an effective but equally healthy ketogenic protocol especially in case of pathologies related to obesity.

Methods: Were analyzed the most representative works published in the last three years which contained the following keywords: VLCKD, Body Composition, Efficacy, Safety, Metabolic state, Muscle mass, which therefore highlighted parameters as protein intake, duration of treatment, results in terms of weight loss and body recomposition, inflammatory parameters and safety.

Results: VLCKD was effective and free from complications over two months. The protein intake that has given the greatest guarantee of the best body recomposition is the personalized one, parameterized on the patient's lean body mass. Weight loss is reported in all the studies analyzed, but fat loss with simultaneous saving in lean body mass has been highlighted exclusively for studies with higher protein percentages. All studies showed extensive safety profiles.

Conclusions: From the analysis of the literature it is possible to affirm that VLCKD in the treatment of obesity and overweight as well as localized fat, can be considered a valid, safe and effective resource for the aesthetic doctor even in the case of pathologies related to obesity, provided that a complete and personalized protein intake and a lipid intake with strong anti-inflammatory properties are guaranteed.

Suryadi Jessy
Indonesia

Suryadi Jessy
Indonesia

#1657

Nefertiti Neck with combination of Polycaprolactone Polylactic acid Thread, Botox & Mesotherapy by dr Jessy Suryadi

46 - Threads

Background/Objectives: Jawline & Neck is one of indicator of aging. Patients may become dissatisfied with the appearance of their neck. The changes of skin quality (excessive skin laxity due to loss of collagen and elastin), excessive submental fat (because of weight gain) or even Loss of subcutaneus fat (because of weight loss), and muscle tone (prominence of platysmal banding). They are common conditions that are need to be treated. If the patients prefer non surgical method, thread lifting is one of the way to tighten sagging. The procedure involves inserting threads into the soft tissues which are then pulled tight, lifting the skin. Polycaprolactone & Polylactic acid are absorbable threads which dissolve naturally within 16-18 months, the skin starts to produce more collagen and elastin which gives a longer-lasting result. The ideal patient for a Jawline thread lifting are aged 35 to 55 and have relatively good skin tone with a little sagging. Combination with Botox is needed when the Platysma muscle is quite strong, or there are prominence of platysmal banding. Combination with Hyaluronic acid (HA) is also needed to increase the skin quality. Hyaluronic acid a natural compound of dermal extracellular matrix which has an essential role in skin viscoelasticity, hydration, structure, and firmness. During aging process glycosaminoglycans are reduced, which leads to reduction of elasticity, collagen density, and resistance of the skin. Injection of cross-linked hyaluronic acid stimulates collagen synthesis and repairs extracellular matrix. And Combination with Mesotherapy is also needed, whenever there is an excessive submental fat or submental skin sagging.

Methods:

Results:

Conclusions:

Bloom Kierra
United States

Kierra Bloom
United States

#1662

test

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Test

Methods: test

Results: test

Conclusions: test

Araco Antonino
Italy

Antonino Araco
Italy

#1670

PROSPECTIVE SPLIT FACE STUDY ON CLINICAL EFFICACY AND SAFETY OF COMBINATION THERAPY OF POLYNUCLEOTIDE AND CROSSILINKED HYALURONIC ACID FOR NASOLABIAL FOLD

45 - Combination treatments

Background/Objectives: A mixture of high purified polynucleotide with chain lengths between 50 and 2000 base pairs are obtained from trout sperm by an extraction process. The high molecular weight hyaluronic acid (HA) is made up of molecular chains linked by chemical bonds (cross-linkage) that improve stability, rigidity and elasticity. In this study, we evaluate the clinical benefit of high purified polynucleotide injection combined with subdermal injection of HA for correction of moderate-to-severe nasolabial folds (NLFs).

Methods: 30-50-year-old women with NLFs grade 2 (moderate) or 3 (severe) on the 5-point validated severity scale (NFLFSS) were enrolled in the study. Exclusion criteria: smokers; patients under the age of 30 or over 50, group 1, 4 and 5 NFLFSS; subjects who had undergone injection or laser treatments to the face; active inflammation, infection or injury in the NFL area. Assessments were performed before, 1, 3 and 6 months after treatment with digital facial photographs, Antera 3D®, Vectra H2®. All patients received 1 ml of polynucleotide on the right NLF (stage 1). After 3 weeks, received 1 ml of polynucleotide on the right NLF (stage 2). After 3 weeks, received 4 ml of HA (2 ml per side) (stage 3). Patients assessed treatment satisfaction for each NLF using the PSQ satisfaction questionnaire, a 10-point scale.

Results: From September 2018 to October 2018, 40 women with an average age of 38.2 ± 6.3 who met the inclusion criteria were enrolled for the study. No significant side effects were reported during the study and all patients completed follow-up after 6 months. The quality of the skin has improved significantly assessed with Antera 3d. The NLFs were reduced by 83% and no difference between the right and left sides was detected. At 3 months from the treatment, the NLFs presented an overall reduction of 63%, while at 6 months the reduction was 14%. Patient satisfaction was high (7.28 ± 1.16) at 3 months and (6.18 ± 0.6) at 6 months. No statistically significant difference was observed in the filling power and duration of HA on the two sides of the face.

Conclusions: We proved teh clinical efficacy of high purified polynucleotide on skin quality, the reduction of NLFs by the injection of 4 ml of HA. The action of high purified polynucleotide polynucleotide affects the clinical action of the HA in terms of volumetric efficacy and duration.

References: 1. Gierloff M, Stohring C, Buder T, Gassling V, et al. Aging changes of the midfacial fat compartments: a computed tomographic study. Plast Reconstr Surg 2012;129:263-73. 2. Le Louarn C, Buthiau D, Buis J. Structural aging: the facial recurve concept. Aesthet Plast Surg 2007;31:213-8. 3. Beasley KL, Weiss MA, Weiss RA. Hyaluronic acid fillers: a comprehensive review. Facial Plast Surg 2009;25:86-94. 4. Dicker KT, Gurski LA, Pradhan-Bhatt S, Witt RL, Farach-Carson MC, Jia X. Hyaluronan: a simple polysaccharide with diverse biological functions. Acta Biomater. 2014;10(4):1558-70. 10.1016/j.actbio.2013.12.019. 5. Vigetti D, Karousou E, Viola M, Deleonibus S, De Luca G, Passi A. Hyaluronan: biosynthesis and signaling. Biochim Biophys Acta. 2014;1840(8):2452-9. 10.1016/j.bbagen.2014.02.001 6. Hiramoto K, Kobayashi H, Yamate Y, Ishii M, Sato EF. Intercellular pathway through hyaluronic acid in UVB-induced inflammation. Exp Dermatol. 2012;21(12):911-4. 10.1111/exd.12032. 7. Galeano M, Bitto A. Polydeoxyribonucleotide stimulates angiogenesis and wound healing in the genetically diabetic mouse. Wound Repair Regen 2008; 16:208-17. 8. Seoyoung K, Junhyung K. Polydeoxyribonucleotide improves peripheral tissue oxygenation and accelerates angiogenesis in diabetic foot ulcers. Aps 2017; 44:482-88 9. Papakonstantinou E, Roth M, Karakiulakis G. Hyaluronic acid: A key molecule in skin aging. Dermato-endocrinol. 2012. 1;4(3):253-8. 10.4161/derm.21923. 10. Croce MA, Dyne K, Boraldi F, Quaglino D Jr, Cetta G, Tiozzo R et al. Hyaluronan affects protein and collagen synthesis by in vitro human skin fibroblasts. Tissue Cell. 2001;33(4):326-31. 11.1054/tice.2001.0180 12. Ezure T, Amano S. Involvement of upper cheek sagging in nasolabial fold formation. Skin Res Technol 2012;18:259-64. 13. Baumann L. Skin ageing and its treatment. J Pathol. 2007;211(2):241-51. 10.1002/pa

Araco Antonino
Italy

Araco Antonino
Italy

#1671

Preliminary prospective and randomized study of highly purified polynucleotide versus placebo in treatment of moderate to severe acne scars.

42 - Scars & acne

Background/Objectives: Managing acne scars is a challenge and therapies are divided into nonsurgical and surgical. Highly Purified Technology Polynucleotides, PN-HPTTM are a compound which contains a mixture of DNA polymers of different lengths. Numerous studies have shown that PN-HPTTM also serves as an energy source, thus influencing cellular growth and cells vitality. Objectives: We aimed assessed the improvement in dermal quality and acne scars after PN-HPTTM versus placebo according to Antera 3D® and the patient responses to PSQ after a comparison of pre- and post-treatment photographs at 1, and 3 months.

Methods: We Included women aged 30-50 years old with grade 3-4 moderate-to-severe atrophic scars according to the Goodman classification; nonsmokers; had not had active acne during the past 5 years; Ten patients (PN-HPTTM group) were treated with 4.0 ml of PN-HPTTM, and ten patients (control) were treated with 4.0 ml of normal saline. All medical treatments were performed in a double blinded manner; neither the injection doctor nor the patient knew if the PN-HPTTM or the placebo was being administered.

Results: twenty women fit the inclusion criteria were enrolled in this study. Only patients in PN-HPTTM group improved significantly at 1 and 3 months after treatment compared to baseline.

Conclusions: Our prospective and randomized study showed that PN-HPTTM in monotherapy was safe and effective treatment for atrophic scar acne when compared with placebo. Prospective and randomized studies will be necessary to investigate the clinical effectiveness in a larger cohort of patients and for a longer follow up.

References: 1. Ghodsi SZ, Orawa H, Zouboulis CC. Prevalence, severity, and severity risk factors of acne in high school pupils: a community-based study. J Invest Dermatol 2009;129:2136-2141. 2. Williams C, Layton AM. Persistent acne in women: implications for the patient and for therapy. Am J Clin Dermatol 2006;7:281-290. 3. Layton AM, Henderson CA, Cunliffe WJ. A clinical evaluation of acne scarring and its incidence. Clin Exp Dermatol 1994;19:303-308. 4. Clark AK et al. Acne Scars: How Do We Grade Them? Am J Clin Dermatol 2018; 19:139-144. 5. Boen M et al. A Review and Update of Treatment Options Using the Acne Scar Classification System.Dermatol Surg 2019; 45:411-422. 6. Goodman GJ, Baron JA. Postacne scarring: a qualitative global scarring grading system. Dermatol Surg2006; 32:1458-66. 7. Li DG, Pournamdari AB, Liu KJ, Laskowski K, Joyce C, Mostaghimi A. Evaluation of Point-of-Care Decision Support for Adult Acne Treatment by Primary Care Clinicians. JAMA Dermatol 2020; Mar 4. 8. Dunaway S, Fleischer AB Jr. Assessing adherence to evidence-based guidelines of care for acne vulgaris. J Dermatolog Treat 2020; Mar 5:1-5. 9. Berry K, Lim J, Zaenglein AL. Acne Vulgaris: Treatment Made Easy for the Primary Care Physician. Pediatr Ann 2020; 1;49:e109-e115. 10. Oon HH, Wong SN, Aw DCW, Cheong WK, Goh CL, Tan HH. Acne Management Guidelines by the Dermatological Society of Singapore. J Clin Aesthet Dermatol 2019;12:34-50. 11. Pandey D, Agrawal S. Efficacy of Isotretinoin and Antihistamine versus Isotretinoin Alone in the Treatment of Moderate to Severe Acne: A Randomised Control Trial. Kathmandu Univ Med J 2019; 17:14-19. 12, Dréno B, Bissonnette R, Gagné-Henley A, Barankin B, Lynde C, Chavda R, Kerrouche N, Tan J.&nb

Araco Antonino
Italy

Antonino Araco
Italy

#1672

How to maximize clinical effectiveness and safety with high intensity micro-focused ultrasound for face and neck lifting.

50 - Body contouring & skin tightening

Background/Objectives: Recent studies have shown autologous collagen regeneration, efficacy on face and neck lifting and safety of transcutaneous micro-focused ultrasound procedures. Despite this, guidelines on clinical indications and technical aspects such as the proper number of energy spots to be delivered to the patients are lacking. For this reason, I set up a clinical protocol to maximize clinical effectiveness and safety. Objective: Evaluate the clinical efficacy and safety of microfocused ultrasounds. Establish guidelines for indication to microfocused ultrasounds. Evaluate the number of energy spots needed to produce an appreciable clinical result on facial rejuvenation

Methods: 925 women with a mean age of 51,3 years (range 33 - 64 years) in my cosmetic medical center in Milan (Italy), which presented soft to severe skin ptosis of the face according to APSS (Araco Ptosis Scale System). They received and average of 1.060 spots of micro-focused ultrasound as sole treatment. I assessed patients with digital photographs, anthera skin analysis and 3d reconstructions with VectraH2.

Results: All patients completed the follow-up after 12 months and no major side effects were reported and good results were recorded.

Conclusions: My protocol of treatment proved that high intensity micro-focused ultrasound micro-focused ultrasound is a safe and effective treatment for face and neck lifting.

References: 1.ASAPS: Cosmetic (Aesthetic) Surgery National Data Bank; 2018. 2. Kerscher M, Rzany B, Prager W, Turnbull C, Trevidic P, Inglefield C. Efficacy and Safety of IncobotulinumtoxinA in the Treatment of Upper Facial Lines: Results From a Randomized, Double-Blind, Placebo-Controlled, Phase III Study. Dermatol Surg 2015; 10:1149-57. 3. Sykes JM, Trevidic P, Suárez GA, Criollo-Lamilla G. Newer Understanding of Specific Anatomic Targets in the Aging Face as Applied to Injectables: Facial Muscles--Identifying Optimal Targets for Neuromodulators.Plast Reconstr Surg 2015; 136(5 Suppl):56S-61S. 4. Gassia V, Beylot C, B´echaux S. Botulinum toxin injection techniques in the lower third and middle of the face, the neck and the d´ecollet´e: the "Nefertiti lift" [in French]. Ann Dermatol Venereol 2009;136. 5. Ballin AC, Brandt FS, Cazzaniga A. Dermal fillers: an update. Am J Clin Dermatol 2015; 16(4):271-83. 6. Sundaram H, Fagien S. Cohesive Polydensified Matrix Hyaluronic Acid for Fine Lines. Plast Reconstr Surg 2015; 136(5 Suppl):149S-163S. 7. Vedamurthy M; IADVL Dematosurgery Task Force. Standard guidelines for the use of dermal fillers. Indian J Dermatol Venereol Leprol 2008;74:S23-7. 8. Streker M, Reuther T, Krueger N, Kerscher M. Stabilized hyaluronic acid-based gel of non-animal origin for skin rejuvenation: face, hand, and d´ecolletage. J Drugs Dermatol 2013;12:990-4. 9. Eviatar J, Lo C, Kirszrot J. Radiesse: Advanced Techniques and Applications for a Unique and Versatile Implant. Plast Reconstr Surg 2015; 136(5 Suppl):164S-170S. 10. Gubanova EI, Starovatova PA. A Prospective, Comparative, Evaluator-blind Clinical Study Investigating Efficacy and Safety of Two Injection Techniques with Radiesse

Araco Antonino
Italy

Antonino Araco
Italy

#1673

The Humanistic Web Marketing for aesthetic doctors

67 - Marketing & Practice management

Background/Objectives: Web marketing is becoming of fundamental importance for any economical business. In fact the sustainability of a cosmetic and aesthetic surgery center depends on the marketing ability. The web marketing has evolved from the so called 2.0 of the late 1990s where the communication activity focused on the product to marketing 3.0 where communication was shifting to the consumer. In recent years, web marketing is evolving again and today we talk about marketing 4.0. This is focused to the consumer and to his personal and intimate, personal, social, and cultural aspects. Humanistic web marketing looks for the intrinsic features of every single individual and works on those to convey a personalized and penetrating message.

Methods:

Results:

Conclusions:

Rovira Vladimir
Spain

Vladimir Rovira
Spain

#1675

Tear through correction with acid hyaluronic: Needle vs. Cannula.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Introduction: Tear through correction with fillers based on hyaluronic acid (HA) is a common treatment worldwide. Two technics are normally used, with needle and with cannula. Objective: The objective of the study was to campare both technics, their benefits, risks and possible side effects.

Methods: Materials and methods: A tear through treatment with HA filler (Teoxane Redensity II) performed in 60 patients, 30 - with a needle technic (group A), another 30 with cannula (group B). Short- and longterm risks and side effects were analysed.

Results: Results: The procedure were done with a topic anestesia in group A, without any anestesia en group B. All the risks and side effects were divided in two groups: short-term side effects which appeared at the moment of injection and resolved within 2 weeks (edema: group A - 23, group B - 2; redness: A - 29, B - 4; hematoma: A - 19, B - 1) and longterm risks and side effects which needed another procedure to be resolved (overcorrection: group A - 1, group B - 2; insufficient result: A - 12, B - 3; longterm persistent edema: A -1, B - 0)

Conclusions: Conclusions: It was demonstrated a good tolerence to the treatment in both groups. In group A there were sufficiently more short- and longterm revealed side effects compare to group B, which means that a cannula technic is less aggressive, more save, efficient and preferable one.

Mashkina Anastasiya
Russia

Mashkina Anastasia
Russia

#1676

Periorbital zone: gender approach to correction

45 - Combination treatments

Background/Objectives: Male and female periorbital zones have differences - anatomical, physiological, aesthetic. Aging of the periorbital zone in women and men also occurs in different ways. This is confirmed by research data and instrumental methods. The main anatomical landmarks that should be taken into account when working with the male and female eriorbital zone: the eyebrow and its location, the state of the lateral angle of the periorbital zone, the lower edge of the orbital foramen. Therefore, the approach to aesthetic correction for women and men should be different. Women and men can be recommended a different set of procedures and the course of the procedure itself will be different. The main points of application for the correction of both male and female periorbital zones: 1.improving the quality and hydration of the skin 2.contraction and tightening of the skin flap 3.reduction of the number of wrinkles The presentation accumulated clinical experience and schemes for gender approach correction in non-operative blepharoplasty.

Methods:

Results:

Conclusions:

Mashkina Anastasiya
Russia

Mashkina Anastasia
Russia

#1677

Periorbital zone: gender approach to correction

45 - Combination treatments

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Methods:

Results:

Conclusions:

Bloom Kierra
United States

Sue Ellen Cox
United States

#1678

SAFETY, PHARMACODYNAMIC RESPONSE, AND TREATMENT SATISFACTION WITH ONABOTULINUMTOXINA 40 U, 60 U, AND 80 U IN SUBJECTS WITH MODERATE TO SEVERE DYNAMIC GLABELLAR LINES

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: OnabotulinumtoxinA (onabotA) 20 U reduces glabellar line (GL) severity at maximum frown for up to 4 months. Small dose-ranging studies have suggested that >20 U doses may increase efficacy and duration of response for GLs.

Methods: A 48-week, double-blind, placebo-controlled study compared the safety, treatment satisfaction, and pharmacodynamic response of single onabotA 40, 60, and 80 U doses with the approved 20 U dose and placebo in adult females with investigator-assessed moderate or severe dynamic GLs on the Facial Wrinkle Scale (FWS). Key efficacy endpoints included the percentage of subjects with investigator-assessed ≥1-grade FWS improvement from baseline at maximum frown (responder rate) at week 24, median duration of response, and proportion of responders reporting "mostly" or "very satisfied" on the Facial Line Satisfaction Questionnaire (FLSQ).

Results: Of the 226 subjects in the modified intention-to-treat population, 88.9% were white, with a mean (SD) ageof 48.0 (12.2) years. Utilizing a constant injection volume of 0.05 mL per site across all onabotA doses, responder rates for placebo and onabotA 20, 40, 60, and 80 U at 24 weeks were 0%, 16.0%, 32.0%, 30.6%, and 38.5%, respectively, with statistically significant ($p < .05$) between-group differences favoring onabotA 40 and 80 U vs 20 U. Median duration of response was also longer for all higher onabotA doses (≥24.0 weeks) vs 20 U (19.7 weeks). FLSQ item scores demonstrated high subject satisfaction. No onabotA dose-response effect on safety was seen. One subject each experienced mild eyelid ptosis (80 U group) and eyebrow ptosis (20 U group); both events resolved without sequela.

Conclusions: This pharmacodynamic dose-response study showed increased duration of treatment response and patient-reported satisfaction with escalating onabotA doses compared with 20 U for treatment of moderate to severe GLs.

Bloom Kierra
United States

David Rupp
United States

#1679

A CELL-PENETRATING PEPTIDE (CPP) DID NOT DECREASE 150-KDA BONT/A TOXIN ADSORPTION TO SURFACES OR INCREASE TOXIN POTENCY OR DURATION IN A PROTOTYPE FORMULATION

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Unit potencies of botulinum neurotoxin type A (BoNT/A) drugs are not interchangeable due in part to unique manufacturing processes and drug formulations. Various excipients are used to stabilize BoNT/A and prevent adsorption to surfaces. We evaluated the effect of a cell-penetrating peptide (CPP) in a prototype formulation using toxin adsorption, in vivo potency, and duration analyses.

Methods: A CPP with the sequence RKKRRQRRRG-[K]15-GRKKRRQRRR was synthesized. Size-exclusion chromatography compared adsorption of 150-kDa BoNT/A toxin formulated in either potassium phosphate/NaCl buffer containing polysorbate 20, 23.5 µg/mL CPP with and without polysorbate 20, human serum albumin (HSA), or in buffer alone. Mouse digit abduction score (DAS) testing compared the potency and duration of 150-kDa BoNT/A toxin at an approximate ED50 dose formulated in histidine buffer/trehalose buffer containing polysorbate 20, 0.235 µg CPP/unit BoNT/A with or without polysorbate 20, or in bovine serum albumin (BSA)/0.9% NaCl.

Results: Toxin adsorption to the glass surface occurred in buffer control and CPP-only solutions at 7 hours, both with toxin recovery of <64%. At 14 and 21 hours, buffer control and CPP-alone samples had decreased toxin recoveries of <42%; samples containing HSA or polysorbate 20 continued to display toxin recoveries of >95%. In the DAS assay, BoNT/A prepared in polysorbate formulations with or without CPP exhibited similar, predictive DAS efficacy (>ED50) and duration versus formulation in BSA/0.9% NaCl. In contrast, the formulation in CPP alone, without polysorbate 20, demonstrated decreased potency (<<ED25) and duration.

Conclusions: Inclusion of a CPP in a BoNT/A formulation neither prevents toxin adsorption nor increases potency or duration.

Moroz Olga
Russia

Moroz Olga
Russia

#1683

The program "Face sculpture within an hour"

50 - Body contouring & skin tightening

Background/Objectives: The modern cosmetology clinic patient does not want to spend much time on the rehabilitation period, and not always ready to have a recourse to a plastic surgery. But at the same time, he wants to look always young and beautiful, as well as to obtain a visible result immediately. In light relevance of the conservative approach to the correction of age-related changes, cosmetologist O. N. Moroz (LLC Morozov) developed a Protocol for non-surgical lifting for patients with heavy faces - "Slim face in an hour", which was patented as" Method for non-surgical correction of the face shape " N 2723140. The Protocol consists of 2 main stages: Stage 1 - improvement of microcirculation and drainage of face soft tissues. Stage 2 - restoring lost volumes and reshaping face contouring with HA fillers. 5387 patients were included in the study. As a result of the correction, patient became look younger, face proportions were harmonized and restored, and the shadow was replaced. Evaluation of the effectiveness of the aesthetic program was conducted by both doctors and patients on the "effectiveness of aesthetic correction" scale. Both doctors and patients acknowledged that patients look younger, rested and positive. The proposed 2-stage combined methodic allows to perform aesthetic correction to patients with heavy saggy faces with minimal rehabilitation period but without surgery.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1684

Home Use Devices - New Thoughts & New Devices in 2021

49 - Lasers, EBDs & Light

Background/Objectives: Home use devices (HUDs) continue to grow and expand and have proliferated greatly into the general patient population who are looking for new methods of self-improvement without relying totally on our services. This presentation will describe the different categories of HUDs and how if you embrace them, incorporate them into your practice and into your treatment routines, we can achieve the best results for our patients. This presentation will show the latest in home cleansing devices, devices for treating acne and psoriasis, devices for rejuvenating the skin, devices for hair removal, devices for skin tightening, and even devices for fat reduction and feminine rejuvenation. We, as clinicians, will not stop this influx of new HUDs into the marketplace, but it is our job to assure that they are safe and efficacious and that our patients' well-being is always kept at the forefront for these new technologies.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1685

New Cosmeceuticals Making Waves in the US Market in 2021

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: The recommending and dispensing of cosmeceuticals has become part of the practice of aesthetic medicine in many, if not most practices in the US. We are introducing many new and exciting new products and ingredients into our armamentarium and we must understand what they all are about, what they potentially can do for our patients, and what their clinical trials are showing to convince us to use them with our patients. Whether we are talking about new antioxidant products, new growth factor products, products derived from stem cells or other skin lines, we must explore and evaluate how they came to be and how our patients will benefit from their use. Some of the newer skin care lines and products will be reviewed in this presentation as well as looking at how we are using cosmeceuticals to fight pollution effects on our skin - one of the big concerns facing us today. As well, we will review some of the most recent clinical trials on how best to use cosmeceuticals as a post-procedure skin care to enhance wound healing, decrease downtime, and improve the overall skin condition.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1686

New Fillers in the US Making Their Way through the Process in 2021

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: One major difference between Europe and the US when it comes to the dermal filler market, is that in Europe, there are many fillers and filler companies bringing a myriad of products to our colleagues, which allows them great variety when it comes to using them for wrinkle reduction or for volumization. This is in stark contrast to the US, where we have a limited number of dermal fillers, due to a more stringent approval process by the US FDA and by the higher costs of running the clinical trials needed to bring a filler to the market. Several new fillers have recently been or will be approved and several more are primed to begin US clinical trials looking for approval when those trials are complete. This presentation will review what is going on in the US, where things stand, and what we can hope for in the near to not too distant future.

Methods:

Results:

Conclusions:

Holden Amanda
United States

Holden Amanda
United States

#1687

The Art of the Consultation

71 - Unclassified topics

Background/Objectives: BACKGROUND Have you ever wondered why some people have that extra something that makes everyone attracted to their business or why some practices instantly successful while others struggle to attract patients? If you have not mastered the art of the consultation, then you need to attend this presentation. SUMMARY There are many components to a successful patient consultation. One of the first keys to connection is trust. It is essential to have a bedside manner that exemplifies confidence and compassion. In order to do this, the first step is mindset. As a provider, you must become this person each and every time you interact with patients, leaving all other stress and baggage behind. When I walk into the room to see a patient, I often imagine that I pass through a laser field upon entry that makes me the best version of myself. I next focus on being there only for the patient and on listening without any other mental distractions. The patient will make a judgment about whether or not to trust you in the first few minutes of the consultation simply based on your image and your body language. Posture is key for exuding confidence, and a smile goes a very long way. Next, how you address the client makes a difference. They want to know that you know their name. Say it again and again as you talk to them. Combine this with sitting at eye level with the patient, never standing or sitting at a higher position. This makes the pateint feel as if you are a friend or equal. Lastly, make sure to combine some component of touch. The human connection is powerful, and trust can be won with a gentle hand on the patient's arm or shoulder when you talk to them about their areas of concern. Finally, you want to make sure the patient

Methods:

Results:

Conclusions:

Holden Amanda
United States

Holden Amanda
United States

#1688

The Art of the Consultation

71 - Unclassified topics

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Methods:

Results:

Conclusions:

Suryadi Jessy
Indonesia

Suryadi Jessy
Indonesia

#1690

Nefertiti Neck with combination of Polycaprolactone Polylactic acid Thread, Botox & Mesotherapy by dr Jessy Suryadi

46 - Threads

Background/Objectives: Nefertiti Neck with combination of Polycaprolactone Polylactic acid Thread, Botox & Mesotherapy by dr Jessy Suryadi Jawline & Neck is one of indicator of aging. Patients may become dissatisfied with the appearance of their neck. The changes of skin quality (excessive skin laxity due to loss of collagen and elastin), excessive submental fat (because of weight gain) or even Loss of subcutaneus fat (because of weight loss), and muscle tone (prominence of platysmal banding). They are common conditions that are need to be treated. If the patients prefer non surgical method, thread lifting is one of the way to tighten sagging. The procedure involves inserting threads into the soft tissues which are then pulled tight, lifting the skin. Polycaprolactone & Polylactic acid are absorbable threads which dissolve naturally within 16-18 months, the skin starts to produce more collagen and elastin which gives a longer-lasting result. The ideal patient for a Jawline thread lifting are aged 35 to 55 and have relatively good skin tone with a little sagging. Combination with Botox is needed when the Platysma muscle is quite strong, or there are prominence of platysmal banding. Combination with Hyaluronic acid (HA) is also needed to increase the skin quality. Hyaluronic acid a natural compound of dermal extracellular matrix which has an essential role in skin viscoelasticity, hydration, structure, and firmness. During aging process glycosaminoglycans are reduced, which leads to reduction of elasticity, collagen density, and resistance of the skin. Injection of cross-linked hyaluronic acid stimulates collagen synthesis and repairs extracellular matrix. And Combination with Mesotherapy is also needed, whenever there is an excessive submental fat or submental skin sagging.

Methods:

Results:

Conclusions:

Khrushch Galyna
Russia
Khrushch Galyna
Russia

#1691

The new paradigm of surgical and non surgical rejuvenationâ€¨ of the eyelid and mid face.

45 - Combination treatments

Background/Objectives: The face of the each person are individual .And we have to thinking about beauty our patients as about absolutely personal and special according clinical cases Eyelid is a region of interest because it is a trigger zone that reflects the most natural appearance of early signs of aging. Everywhere the increasing need to improve the quality of life determines the relevance and importance of procedures for facial rejuvenation, the key point of the application which is undoubtedly the region of the mid face and eyelid area.

Methods: In order to strengthen the myofascial framework of the anterior lamella and indirectly strengthen the orbital septum, it makes sense to install the PDO threads using the grid technique on the periorbital area. for rejuvinate an upper eyelid we have had used an upper blepharoplasty. In order to correct palpebromalar groove and tear trough deformity we use volumetric filling with stabilized hyaluronic acid or nanofat. Also injection rhinoplastywith HA fillers and PDO threads i use as a part of a comprehensive program of beautification for the mid face . The videos and our clinoical cases will been represented .

Results: The application of the concept of selective remodeling in comprehensive non-surgical rejuvenation of the mid face is based on: assessment and differentiation of patients according to the morphotype of aging and degree of manifestation of age-related changes; targeted effect on the cause of manifestation according to the prevailing mechanism of change; preparation of the complex, layered, relevant gerontological medical and protector program correction; demonstration how innovative technologies use well-proven quality with the purpose of correction of age changes of the mid face and eyelid erea (clinical cases)

Conclusions: In conclusion, it should be noted that the possibilities of injection aeshetic correction of age-related changes in the periorbital area, unfortunately, are limited by the aging stage, morphotype of the patients , the level of social and economic possibilities of the patient. However, intelligent apply of moder scintific techniques ,cliver patient selection, correct combination of surgical and injectible techniques that act on all anatomic levels of involution changes, allows us get final good result .

References: [1] Nahai F. The art of aesthetic surgery. Principles and Techniques; Russian translation edited by A.M. Borovikov. - Moscow: OOO Bio Concept, 2010. - [2] Mendelson B.C., Jacobson S.R. Surgical anatomy of the midcheek: facial layers, spaces, and the midcheek segments. Clin Plast Surg 2008; 35: 395 - 404. [3] Drake R.L., Vogl A.W., Mitchell Adam W.M. Gray's Anatomy for Students. 2nd Edition. Elsevier Health Sciences. 2009; Pp. 1235 - 1237. [4] Flowers R.S. Tear trough implants for correction of the tear trough deformity. Clin Plast Surg 1993; 20: 403 -415. [5] Flowers R.S., Adil Ceydeli. Mag-5: a Magnificent Approach to Upper and Midfacial «Magic». Clin Plastic Surg 2008; 35: 489 - 515. [6] Massry G.G., Murphy M.R., Azizzadeh B.A. Master Techniques in Blepharoplasty and Periorbital Rejuvenation. Surgical Anatomy of the Forehead, Eyelids, and Midface for the Aesthetic Surgeon. Springer, 2011; Pp. 11 - 24. [7] Mendelson B.C., Muzaffar A.R., Adams W.P. Surgical anatomy of the mid- cheek and malar mounds. Plast Reconstr Surg 2002; 110: 892. [8] Mendelson B.C., Wong C.H. Aesthetic Surgery of the Face. Anatomy of the aging face. 2013; Section 6. - 87. [9] Pessa JE. An algorithm of facial aging: Verification of Lambros's theory by three-dimensional stereolithography, with reference to the pathogenesis of midfacial aging, scleral show, and the lateral suborbital trough deformity. Plast Reconstr Surg. 2000; 106: 479 - 488, discussion 489 - 490. [10] Mendelson B.Đ¡., Chin-Ho Wong. Changes in the Facial Skeleton With Aging: Implications and Clinical Applications in Facial Rejuvenation. Aesth Plast Surg 2012; 36: 753 - 760. [11] Mendelson B.C. Fat Preservation Technique of Lower-lid Blepharoplasty. Aesth Surg J. 2001; 21: 450 - 459.

Gold Michael
United States

Gold Michael
United States

#1692

IPL Technology - What We Know From Research from Long-Term Analyses

49 - Lasers, EBDs & Light

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

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1693

New Toxins in the US - What is Making its Way Through the Clinical Trial Domain in 2021

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Botulinum toxin A transformed the aesthetic and cosmetic arena into heights that no one saw coming when the first toxin was approved many years ago. Newer toxins have emerged into the clinical scene and this presentation will differentiate these newer toxins and show the clinical evidence that has entered into the public domain with respect to these toxins. In addition, several newer toxins are in clinical trials at this time, and preliminary, public domain data will also be presented. It is an exciting time still for toxins for cosmetic use and we will focus on how some of these newer toxins may make a difference for our patients.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1694

Acne Vulgaris Treatments with Lasers & EBD's in 2021

49 - Lasers, EBDs & Light

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

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1695

The Use of Silicone Gel in 2021 - What's New for the Treatment of Hypertrophic Scars, Stretch Marks, and in Our Post-Procedure World

42 - Scars & acne

Background/Objectives: The treatment of hypertrophic scars continues to evolve, and international guidelines on their treatment have shown that there are a number of modalities that are effective in their treatment. One constant remains that topical silicone gel is the appropriate first line therapy for these lesions. The evidence-based medicine supporting the use of silicone gel will be reviewed. In addition, the use of a novel silicone gel will also be reviewed, one that can be used on open wounds to potentially prevent scars from developing will also be reviewed and how this can also be used to prevent stretch marks in pregnant women. Silicone gel has had a long history and newer agents are going to make a difference in how we approach our patients post-procedure as well with older scars.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1696

RF Skin Tightening Update - 2021

49 - Lasers, EBDs & Light

Background/Objectives: The use of RF energy for skin tightening has become a mainstay in many aesthetic practices. This presentation will review the myriad of devices that are currently available and show the differences between monopolar and bipolar RF and how some use multiple "poles" to achieve their effects. The presentation will also show how this technology is incorporated into one's clinical practice. Skin tightening is an important part of aesthetic practices - and we need to understand the devices and what makes them unique.

Methods:

Results:

Conclusions:

Gold Michael
United States

Gold Michael
United States

#1698

Fat Reduction Devices in 2021 - What's New and What Works

49 - Lasers, EBDs & Light

Background/Objectives: The objectives of this presentation is to review the newest fat reduction devices and how best to use them for the successful treatment of fat reduction. Fat reduction is a very popular procedure and many devices have entered into our armamentarium to combat the problem. An evidence-based review will show how well these devices work in everyday clinical practice. Fat reduction with EBDs is real and we have the technology now to successfully reduce fat in appropriate patients.

Methods:

Results:

Conclusions:

Inene Victoria
United Arab Emirates

Inene Victoria
United Arab Emirates

#1704

Common complain after injection filler

48 - Complications - avoidance and management

Background/Objectives: DR victoria inene dermatologist works now in UAE

Methods:

Results:

Conclusions:

Weiner Steven
United States

Weiner Steven
United States

#1706

Duplex Ultrasound in An Aesthetic Practice

48 - Complications - avoidance and management

Background/Objectives: Duplex Ultrasound has been embraced by most medical specialties but only recently has starting to get acceptance in the field of aesthetics. Dr. Schelke from Amsterdam began using duplex ultrasound in her filler complications clinic about 10 years ago. She has treated hundreds of filler complications including: infections, granulomas, vascular occlusions, and nodules with the assistance of ultrasound. The objectives of this presentation are: 1) Understand basic ultrasound terminology and the best ultrasound for use in the face 2) Understand the benefits of ultrasound in an aesthetic practice 3) Understand the ultrasound appearance of commonly used dermal fillers 4) Understand what vascular mapping is and its benefits 5) To better understand facial anatomy Dr. Weiner explains his knowledge and experience of using duplex ultrasound in his practice. Initially, he will describe the basics of ultrasound and what is required for facial ultrasound. He goes over anatomy, vascular mapping, fillers, and complications using ultrasound. Duplex ultrasound is rapidly emerging as an extremely valuable technology for the injector. DUS can assist in vascular and anatomic mapping, thus leading to a safer experience for the patient. DUS is becoming the gold standard for evaluating and treating filler associated vascular occlusion. Adopting ultrasound into an aesthetic practice can potentially lead to better outcomes and can differentiate the practice from others.

Methods:

Results:

Conclusions:

Arbeláez Lelion Daniela
Colombia

Arbelaez Lelion Daniela
Colombia

#1707

The non surgical lip lift: a personal approach to a real lift

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: As face aesthetics have gained a huge impact on modern society, lips have become the centre of attention and play an important role on youthfulness and beauty.With the rise of surgical and non surgical lip enhancement procedures comes the complex study of anatomy and the understanding of the relationship between function and aesthetics, specially regarding the aging process.One of the main concerns on lip rejuvenation is the elongation of the distance between subnasal to labiale superius, or the philtrum length. There are surgical procedures to lift the upper lip, however taking into account the several complications associated with scarring, we propose a non surgical lifting based on the presence of SMAS on the upper lip. Even though, there is no clear layered tissue arrangement in the peribucal region, the SMAS represents the superficial portion of the orbicularis oris muscle, that allows the fixation of the superficial structures to the deep ones, the sphincter function of the muscle and, most importantly contributes to the antigravitational support mechanism for soft tissue, playing a crucial role against the aging phenomenon.

Methods: Before: Disinfection with topic chlorhexidine of the peribucal region and application of local anesthesia lidocaine 2% blocking the infraorbital nerve 0.5ml (intraoral access, following the canine eminence). During: made an entry point 3mm from the oral commissure, inserted a 25G cannula following the space created between the dry and wet upper lip vermillion border, bypassing to the deep dermis reaching the SMAS and deeper the superficial layer of the orbicularis oris a the level of the root of both philtrum columns inject 0.03 ml of hyaluronic acid on each one, rotating the cannula upwards to the nose to create the lifting effect and an anchorage to the SMAS superior and medially.

Results: After: lifting effect can be observed specially medially in the cupids bow, maximum lift effect can be achieved in multiple sections to avoid weight created by the inflammation process, we have achieved 5mm lifts through this technique.

Conclusions: Lifting effect of the upper lip may be achieved with hyaluronic acid anchoring medially the SMAS, care must be taken of the facial artery and nerves that run deeply.

References: 1. Hinganu D, Mihaela M, Hinganu M. The existence of labial SMAS - Anatomical, imaging and histological study. Annals cf Anatomy 218(2018) 271-275 2. Pensler J, Parry W, Ward J. The Superficial Musculoaponeuritic System in the Upper Lip: An Anatomic Study in Cadavers.Plastic and Reconstructive Surgery: April 1985 - Volume 75 - Issue 4 - p 488-492 3. Ara A. Salibian, MD, Rachel Bluebond-Langner. Lip Lift. Facial Plast Surg Clin N Am 27 (2019) 261-266 https://doi.org/10.1016/j.fsc.2019.01.004 4.Feras Y, Phoebe B. M, Vasileios V. Aesthetic Surgical Enhancement of the Upper Lip: A Comprehensive Literature Review. Aesth Plast Surg https://doi.org/10.1007/s00266-020-01871-3

Amselleml Jean Pierre
France

Amsellem Jean Pierre
France

#1712

MANDIBULAR LINE AND NECK ENHANCEMENT

43 - Anatomy related to non-or minimally invasive approaches

Background/Objectives: SUMMARY :Mandibular line and neck enhancement CFL in patients over age sixty , is made difficult by frequent charges in skin condition potentialy resulting in significant slackening of the skin at times without surplus tissue however often accompagnied by dehydration. A number of points need to be taken to achieve optimal outcome. The use of local anesthesic particulary in patients who are multiple medications. Hydrotomie needs to be applied in high doses to enhance the adipose lip :on average 300 cc of KLEIN ,solution. Latency period : at least 30 mns in order to achieve perfect vasoconstriction . Multiple entry sites :2 maxillary ones 1 under the chin and 2 at the nasal level. The use of multiple entry sites allows the crossing of the various tunnels,in 1/3 of the face as well as in the cervical area right up to the sub clavicular hollow. Post operative ungwing is crucial and bloody l There i THE CURRENT TREND IN COSMETIC SURGERY IS TO REALIZE A MINIMALLY INVASIVE PROCEDURE REDUCING INCISIONS AND CONSEQUENT SCARS AS MUCH AS POSSIBLE AND TO SIGNIFICANTLY REDUCE POST OPERATIVE RECOVERY PERIOD PERMITTING THE PATIENT TO PROMPTLY RETURN TO HER DAILY LIFE . 1 AMONG THESE THE USE OF L.C.F HAS BECOME WIDESPREAD

Methods:

Results:

Conclusions:

Amselleml Jean Pierre
France

Amsellem Jean Pierre
France

#1713

HOW TO CREATE BEAUTY

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: BEAUTY Without light, the most harmonious and symmetrical of faces is dull. It is light which makes Beauty irresistible. It is the sun's light dancing amongst the thousands of tree's leaves which gives the tree true magic. Beautification and rejuventation do not come simply from creating ideal proportions, but in creating a balance of the whole. Restoring volume to the face can eliminate the convexities and concavities which create unflattering shadows. Thus, light is restored. Much like an artist with small strokes of his brush can bring a painting to life. The way light falls on the nasal ridge or the arch of an eyebrow can be the difference between a common aesthetic result and the mark of a true artist. Ultimately, to recreate beauty, we must find each shadow and eliminate the hollow that created that shadow. With each shadow we can remove, we bring a certain luminosity to the face that confers youth and beauty. There is one way to beautify and rejuvenate our patients .....¨Hunt the shadows¨ ! Cheekbones represent the most important aspect of the face and we must give them the attention they deserve. Cheekbones are the primary structure of the middle third of the face. A cheekbone that is full and round represents an image of youth and vitality. The reverse can be said of a mid-face that is flattened. Furthermore, a flattened cheek area makes an individual look sad, drawn and tired. Recent studies by Val Lambros have shown that with time, the cheeks loose fatty tissue and become flattened. The other hypothesis is that the face takes on a more sagging dimension through the force of gravity making gravity a fundamental part of the aging process. It is actually counter productive to try to remove wrinkles by simply filling them. It is imperative to fill the area of lost volume which contributed to the creation of the wrinkle in the first place. In conclusion, he who says hollow says shadow, and he who says shadow says aging. To the contrary, he who says volume says light and he who says light says youth and Beauty.

Methods:

Results:

Conclusions:

Kim Jong Seo
South Korea

Kim Jong Seo
South Korea

#1716

Isovolemic Degradation of Polycaprolactone Particles , its Longevity and Calculation of Their Original Size from human biopsy study

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Polycaprolactone (PCL) implants show isovolemic degradation during phase-1 degradation; they maintain their volume as their molecular weight decreases. Phase-2 begins with PLC volume being reduced by bulk degradation with autocatalysis. Isovolemic degradation of PCL particles during phase 1 and their longevity should be established in humans. PCL particle size can be mathematically calculated through cross-sectioned PCL particles in biopsy slides.

Methods: Biopsy specimens were obtained from humans after giving them a subdermal injection for 4 years to measure cross-section diameters of PCL particles. In all (160) biopsy slides, all cross-sections of PCL particles were measured in size in microscopic photographs, and the real size of PCL particles was calculated through Equation of a circle (Equationcircle) and mean value theorem for integrals (IntegralTheorem). Diameters of Ellansé particles were measured with particle size analyzer.

Results: On average, the calculated PCL particle size using IntegralTheorem was 42.83 (immediately), then 43.18(1), 42.62(2), 40.90(3), and 34.46 μm(4 years), respectively. These results were similar to the diameters calculated using the Equationcircle. PCL size remained unchanged until 3 years, which began to decrease from the fourth year, making the transition point in between. In particle size analyzer, the mean diameter was 42.42 μm.

Conclusions: PCL particle size was mathematically calculated for 4 years in an in vivo biopsy study. Until 3 years after the injection, PCL particle diameter remained at 95.47% and showed phase-1 isovolemic degradation. From 4 years after the injection, particles decreased in size, showing phase-2 bulk degradation. PCL particles were smooth and circular for 3 years, and from the fourth year, the surface became very rough. The Ellansé-M longevity was longer than 4 years.

References: Kim Jongseo Isovolemic Degradation of Polycaprolactone Particles and Calculation of Their Original Size from Human Biopsy. Plast Reconstr Surg Glob Open. 2020;8(6):e2866. Published 2020 Jun 26. doi:10.1097/GOX.0000000000002866

Kim Jong Seo
South Korea

Jongseo Kim
South Korea

#1717

Isovolemic Degradation of Polycaprolactone Particles , Longevity and Calculation of Their Original Size from Human Biopsy

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Polycaprolactone (PCL) implants show isovolemic degradation during phase-1 degradation; they maintain their volume as their molecular weight decreases. Phase-2 begins with PLC volume being reduced by bulk degradation with autocatalysis. Isovolemic degradation of PCL particles during phase 1 and their longevity should be established in humans. PCL particle size can be mathematically calculated through cross-sectioned PCL particles in biopsy slides.

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Gold Michael
United States

Gold Michael
United States

#1718

Fractional RF Pins and Needles for Wrinkles & Scars - What's New in 2021

49 - Lasers, EBDs & Light

Background/Objectives: Fractional RF technology became a go-to treatment for wrinkles and scars several years ago. Clinical trials showed that with fractional RF pins and fractional RF needle technology, we could treat these concerns faster than most non-ablative fractional lasers with very good results. These clinical trials will be reviewed. Over the past few years, newer technologies have come to the market with enhanced features allowing faster treatments and with more coverage and potential deeper pin and needle penetration. These devices will be reviewed and the evidence-based medicine supporting their claims will be reviewed. Fractional RF pins and needle technology is still a modality that has a major play in our clinics and we will continue to see more advances in them over time.

Methods:

Results:

Conclusions:

Varga Rachel
Canada

Varga Rachel
Canada

#1721

Providing Optimal Rejuvenation to the Jawline and Perioral Area Using (BoNT-A) Neuromodulators and (HA) Dermal Fillers

45 - Combination treatments

Background/Objectives: Why is jawline treatment important? Describe facial aging over time Differences between men and women

Methods: Jawline and perioral rejuvenation is particularly challenging due to the intricate and active anatomy of the lower third of the face. It is, therefore, crucial that injectors take a global approach when providing treatments and consider soft tissue, fat, and bone structure of the lower third facial region prior to administering treatments for aesthetic rejuvenation to ensure safe and successful outcomes.

Results: The outcome of treatment can vary widely between providers and is influenced by the number of units used, injection points, and patient's response to BoNT-A treatments. With a multitude of variables, this article will describe how to best treat clients requesting submental and jowl projection reduction, achieve an optimal non-surgical jawline enhancement, and obtain general perioral and lower third facial rejuvenation of static and dynamic rhytids. All of these treatments can result in the repositioning of facial structures to better align with the ideal facial proportions.

Conclusions: Injection sites and amount of product can vary from one provider to the next. A microdroplet technique using subdermal injections around the rim of the orbicularis oris muscle can be beneficial for achieving the "lip flip" which is characterised by non-surgical improvement of the upper lip placement and show of the body of the upper lip upon smiling. An important consideration is the surrounding muscle groups of the perioral, jawline and neck structures.The nasalis muscle, which is often overlooked, is in close proximity to the perioral area and provides reduction of dynamic angled and horizontal upper lip lines and lowering the upper lip to reduce a "gummy show". Ensuring these muscle groups are addressed as a whole is a key strategy in providing a higher degree of non-surgical enhancement. If nearby muscle groups are excluded from the treatment of the jawline, over activation by way of recruitment of untreated surrounding muscle groups can result.

References: References: Bernstein, E. F., & Bloom, J. D. (2017). Safety and Efficacy of Bilateral Submental Cryolipolysis With Quantified 3-Dimensional Imaging of Fat Reduction and Skin Tightening. JAMA facial plastic surgery, 19(5), 350-357. https://doi.org/10.1001/jamafacial.2017.0102. Kilmer, S. L., Burns, A. J., & Zelickson, B. D. (2016). Safety and efficacy of cryolipolysis for non-invasive reduction of submental fat. Lasers in surgery and medicine, 48(1), 3-13. https://doi.org/10.1002/lsm.22440 Dong, J., Amir, Y., & Goldenberg, G. (2017). Advances in minimally invasive and noninvasive treatments for submental fat. Cutis, 99(1), 20-23. Deeks E. D. (2016). Deoxycholic Acid: A Review in Submental Fat Contouring. American journal of clinical dermatology, 17(6), 701-707. https://doi.org/10.1007/s40257-016-0231-3. Sebaratnam, D. F., Wong, X. L., Kim, L., & Cheung, K. (2019). Alopecia Following Deoxycholic Acid Treatment for Submental Adiposity. JAMA facial plastic surgery, 21(6), 571-572. https://doi.org/10.1001/jamafacial.2019.0640 Almukhtar, R. M., & Fabi, S. G. (2019). The Masseter Muscle and Its Role in Facial Contouring, Aging, and Quality of Life: A Literature Review. Plastic and reconstructive surgery, 143(1), 39e-48e. https://doi.org/10.1097/PRS.0000000000005083. Xie, Y., Zhou, J., Li, H., Cheng, C., Herrler, T., & Li, Q. (2014). Classification of masseter hypertrophy for tailored botulinum toxin type A treatment. Plastic and reconstructive surgery, 134(2), 209e-218e. https://doi.org/10.1097/PRS.0000000000000371. Kane, M. A., Gold, M. H., Coleman, W. P., 3rd, Jones, D. H., Tanghetti, E. A., Alster, T. S., Rohrer, T. E., Burgess, C. M., Shamban, A. T., & Finn, E. (2015). A Randomized, Double-Blind Trial to Investigate the Equivalence of IncobotulinumtoxinA and OnabotulinumtoxinA for Glabellar Frown Lines. Dermatologic surgery : official publication f

Kim Jong Seo
South Korea

Kim Jong Seo
South Korea

#1722

Isovolemic Degradation of Polycaprolactone Particles and Longevity : Calculation of Their Original Size from Human Biopsy

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Polycaprolactone (PCL) implants show isovolemic degradation during phase-1 degradation; they maintain their volume as their molecular weight decreases. Phase-2 begins with PLC volume being reduced by bulk degradation with autocatalysis. Isovolemic degradation of PCL particles during phase 1 and their longevity should be established in humans. PCL particle size can be mathematically calculated through cross-sectioned PCL particles in biopsy slides.

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References: Plast Reconstr Surg Glob Open 2020;8:e2866 doi: 10.1097/GOX.0000000000002866; Published online 26 June 2020.

Kim Jong Seo
South Korea

Kim Jong Seo
South Korea

#1723

Isovolemic Degradation of Polycaprolactone Particles and Longevity : Calculation of Their Original Size from Human Biopsy

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Polycaprolactone (PCL) implants show isovolemic degradation during phase-1 degradation; they maintain their volume as their molecular weight decreases. Phase-2 begins with PLC volume being reduced by bulk degradation with autocatalysis. Isovolemic degradation of PCL particles during phase 1 and their longevity should be established in humans. PCL particle size can be mathematically calculated through cross-sectioned PCL particles in biopsy slides.

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Gharib Khaled
Egypt

Gharib Khaled
Egypt

#1733

Post-acne scar split face therapy with1064-nm Nd : YAG Laser 1064-nm Long-Pulsed and Q-Switched

42 - Scars & acne

Background/Objectives: Acne happens when dead skin cells and oil from the skin are clogged with hair follicles. It affects areas of the skin that have a relatively large number of oil glands, such as the ears, upper chest and back of the skin. Areas of blackheads or whiteheads, pimples, greasy skin and potential scarring are described. Objective: The aim of this study was to evaluate the clinical efficacy, safety, and long-term effects in the treatment of acne scar using long pulsed and Q- switched 1,064-nm neodymium: yttrium-aluminum-garnet (Nd_YAG) lasers.

Methods: A total of 25 patients with different skin types suffering from mild, moderate and severe facial acne scars, were split face group: (Rt side with Long pulsed 1064nm Nd _YAG laser and Lt side with Q-switched 1064nm Nd_YAG laser)

Results: There was statistical significance increase in frequency of bad response among Rt side compared to other side. There was statistical significance increase in frequency of not satisfied among Rt side compared to other side. There was statistical significance increase in mean age among excellent and good responded cases in Groups. There were statistical significance increases in frequency of female among excellent and good responded cases in Lt side

Conclusions: Q-switched and long-pulsed 1064 nm Nd-YAG lasers are considered an efficient and safe modality for the treatment of mild to moderate post-acne facial scars, particularly in elderly patients (30-40 years of age) with type 4 skin without the need for downtime, and in this study their daily activity was not disturbed, but we found that long pulsed is more effective and satisfied.

References: 1-Benner N. and Sammons D. "Overview of the treatment of acne vulgaris". Osteopathic Family Physician: Osteopath. Fam. Physician 2013; 5 (5):185-190. 2- Riveria A.E "Acne scarring: A review and current treatment modalities." J Am Acad Dermatol 2008; 59:659-76.Disease Primers: 15033. 3- Coen B., BaurJ., and Gerone R. "Acne scarring: a review of available therapeutic lasers" LASER SURG MED. 2016; 48:95-115.9. 4- Well D. "Acne vulgaris: A review of causes and treatment options". JNP-J NURSE PRACT2013;38 (10): 22-31. 5- Zaleski-Larsen L.A. and Fabi S.G. "Acne Scar Treatment": A Multimodality Approach Tailored to Scar Type. Dermatol. Surg. 2016; 42:S13949. 6- Friedman P.M. "Treatment of atrophic facial acne scars with the 1064-nm Q-switched Nd:YAG laser: Six-month follow-up study". Arch Dermatol2004; 140(11):1337-1341. 7- Carniol P.J. " Evaluation of acne scar treatment with a 1450-nm midinfrared laser and 30% trichloroacetic acid peels", Arch Facial Plast Surg 2005; 7(4):251-255. 8- Friedman P.M. "3D in-vivo optical skin imaging for topographical quantitative assessment of non-ablative laser technology". Dermatol. Surg 2002; 28: 199 - 204. 9-Yaghmai D., Garden J., Bakus A., Massa M. "Comparison of a 1,064 Nm laser and a 1,320 Nm laser for the nonablative treatment of acne scars". Dermatol Surg 2005; 31(8): 903- 909. 10- Rao J. "Treatment of acne scarring". Facial Plast. Surg. Clin. North Am 2011; 19(2):275-291. 11- Maluki A.H and Falih H.M. "Treatment of atrophic facial scars of acne vulgaris by Q-switched Nd:YAG (Neodymium: YttriumAluminum-Garnet) laser 1064 Nm wavelength". J. Cosmet. Laser Ther 2012; 14(5):224-233. 12-Azar H.M. and Falih H.M. Treatment of atrophic facial scars of acne vulgaris by Q-Switched Nd:YAG (Neodymium

Gentile Pietro
Italy

Gentile Pietro
Italy

#1741

Human Follicle Stem Cells and Platelet-Rich Plasma Improve Hair Re-Growth in Androgenetic Alopecia: Clinical, Instrumental and Scientific Analysis

51 - Regenerative aesthetics

Background/Objectives: Platelet rich plasma (PRP) and Adipose derived Human follicle stem cells (AD-HFSCs) were tried as a potential treatment for androgenetic alopecia (AGA). However, little scientific papers reporting histological, clinical, tricoscopic evaluation and randomized study were indexed in pubmed. The aims of this work are to report the clinical effectiveness of AD-HFSCs and platelet-rich plasma evaluating the histological and tricoscopic results and reviewing the most updated information related to the bio-molecular pathway.

Methods: 21 patients were treated with AD-HFSCs injections and 57 patients were treated with PRP in two different randomized controlled clinical trials. Clinical, Histological and Trichoscopic evaluation were performed. The Wnt pathway and Platelet derived-growth factors effects were also analyzed.

Results: 23 weeks after the last treatment based on AD-HFSCs a mean hair thickness increments (29 ± 5.0%) over baseline values for the targeted area was reported. 12 weeks after the last injection with PRP mean hair count and hair density (31 ± 2%) increases significantly over baseline values. The increment of Wnt signaling in Dermal Papilla Cells evidently is one of the principal factors that enhances hair growth.

Conclusions: Signaling from mesenchymal stem cells and platelet derived growth factors positively influences hair growth through cellular proliferation to prolong the anagen phase (FGF-7), inducing cell growth (ERK activation), stimulating hair follicle development (ß-catenin), and suppressing apoptotic cues (Bcl-2 release and Akt activation).

References: 1. A randomized blinded retrospective study: the combined use of micro-needling technique, low-level laser therapy and autologous non-activated platelet-rich plasma improves hair re-growth in patients with androgenic alopecia. Gentile P, Dionisi L, Pizzicannella J, de Angelis B, de Fazio D, Garcovich S. Expert Opin Biol Ther. 2020 Sep;20(9):1099-1109 2. Systematic Review of Platelet-Rich Plasma Use in Androgenetic Alopecia Compared with Minoxidil®, Finasteride®, and Adult Stem Cell-Based Therapy. Gentile P, Garcovich S.Int J Mol Sci. 2020 Apr 13;21(8):2702. doi: 10.3390/ijms21082702 3. Autologous Micrografts from Scalp Tissue: Trichoscopic and Long-Term Clinical Evaluation in Male and Female Androgenetic Alopecia. Gentile P, Scioli MG, Cervelli V, Orlandi A, Garcovich S.Biomed Res Int. 2020 Jan 27;2020:7397162. doi: 10.1155/2020/7397162 4. Autologous activated platelet-rich plasma (AA-PRP) and non-activated (A-PRP) in hair growth: a retrospective, blinded, randomized evaluation in androgenetic alopecia. Gentile P, Garcovich S.Expert Opin Biol Ther. 2020 Mar;20(3):327-337. doi: 10.1080/14712598.2020.1724951 5. Impact of the Different Preparation Methods to Obtain Autologous Non-Activated Platelet-Rich Plasma (A-PRP) and Activated Platelet-Rich Plasma (AA-PRP) in Plastic Surgery: Wound Healing and Hair Regrowth Evaluation. Gentile P, Calabrese C, De Angelis B, Dionisi L, Pizzicannella J, Kothari A, De Fazio D, Garcovich S.Int J Mol Sci. 2020 Jan 9;21(2):431. doi: 10.3390/ijms21020431 6. Autologous Cellular Method Using Micrografts of Human Adipose Tissue Derived Follicle Stem Cells in Androgenic Alopecia. Gentile P.Int J Mol Sci. 2019 Jul 13;20(14):3446. doi: 10.3390/ijms20143446 7. Advances in Regenerative Stem Cell Therapy in Androgenic Alopecia and Hair Loss: Wnt pathway, Growth-Factor, and Mesenchymal Stem Cell Signaling Impact Analysis on Cell Growth and Hair Follicle Development. Gentile P, Garcovich S.C

Gentile Pietro
Italy

Gentile Pietro
Italy

#1742

Engineered Fat Graft Enhanced with Adipose-Derived Stromal Vascular Fraction Cells for Aesthetic Breast Augmentation and Reconstruction: Clinical, Histological and Instrumental Evaluation

51 - Regenerative aesthetics

Background/Objectives: Fat graft enhanced with adipose-derived stem cells (FG-e-ASCs) has been utilized in outcomes of radiotherapy after mastectomy, breast soft tissue defects, ulcers, and loss of substance. The authors present their experience using FG-e-ASCs in breast augmentation and breast reconstruction. The aim of this study was to evaluate the safety and efficacy of a study group (SG) regarding the use of FG-e-ASCs in breast augmentation for aesthetic improvement, comparing the results with a control group (CG) and at the same time the safety and efficacy of a study group (SG-1) regarding the use of FG-e-ASCs in breast reconstruction, comparing the results with a control group (CG-1) .

Methods: 46 patients affected by breast hypoplasia were treated with FG-e-ASCs, comparing results with a CG (n = 30) treated with fat graft not enhanced with adipose-derived stem cells (FG-ne-ASCs). A Clinical evaluation, magnetic resonance imaging (MRI), ultrasound (US), and mammography (MG) were performed. Postoperative follow-up took place at 1, 3, 7, 12, 24, and 48 weeks, and then annually. 121 patients (SG-1) that were affected by the outcomes of breast oncoplastic surgery were treated with FG-e-ASCs, comparing the results with the CG-1(n = 50) treated with FG-ne-ASCs. The preoperative evaluation included a complete clinical examination, a photographic assessment, biopsy, magnetic resonance (MRI) of the soft tissue, and ultrasound (US). Postoperative follow-up took place at two, seven, 15, 21, 36 weeks, and then annually.

Results: The patients treated, for breast augmentation, with FG-e-ASCs showed 58% maintenance of the contour restoring and of 3-dimensional (3D) volume after 3 years compared with the patients of the CG treated with FG-ne-ASCs, who showed 29% maintenance. In 67.4% (n = 31) of breast augmentation treated with FG-e-ASCs, we observed a restoration of the breast contour and an increase of 10.3 mm in the 3D volume after 36 months, which was observed in only 20.0% (n = 6) of patients in the CG treated with FG-ne-ASCs. Volumetric persistence in the SG was higher than that in the CG ($P < .0001$ SG vs. CG). In 72.8% (SG-1 n = 88) of breast reconstruction treated with FG-e-ASCs, we observed a restoration of the breast contour and an increase of 12.8 mm in the three-dimensional volume after 12 weeks, which was only observed in 27,3% (n = 33) of patients in the CG-1 that was treated with FG-ne-ASCs. Transplanted fat tissue reabsorption was analyzed with instrumental MRI and US. Volumetric persistence in the SG-1 was higher (70.8%) than that in the CG-1 (41.4%) ($p < 0.0001$ vs. control group).

Conclusions: The use of FG-e-ASCs was safe and effective in this series of cases performed.

References: 1. Fat Graft Enhanced With Adipose-Derived Stem Cells in Aesthetic BreastAugmentation: Clinical, Histological, and Instrumental Evaluation. Gentile P, Kothari A, Casella D, Calabrese C.Aesthet Surg J. 2020 Aug 14;40(9):962-977. doi: 10.1093/asj/sjz292 2. Engineered Fat Graft Enhanced with Adipose-Derived Stromal Vascular Fraction Cells for Regenerative Medicine: Clinical, Histological and Instrumental Evaluation in Breast Reconstruction. Gentile P, Casella D, Palma E, Calabrese C.J Clin Med. 2019 Apr 12;8(4):504. doi: 10.3390/jcm8040504 3. Characteristics and Potentiality of Human Adipose-Derived Stem Cells (hASCs) Obtained from Enzymatic Digestion of Fat Graft. Gentile P, Piccinno MS, Calabrese C.Cells. 2019 Mar 25;8(3):282. doi: 10.3390/cells8030282 4.Gentle Is Better: The Original "Gentle Technique" for Fat Placement in BreastLipofilling. Gentile P, De Angelis B, Di Pietro V, Amorosi V, Scioli MG, Orlandi A, Cervelli V.J Cutan Aesthet Surg. 2018 Jul-Sep;11(3):120-126. doi: 10.4103/JCAS.JCAS_24_18 5. Breast Reconstruction with Enhanced Stromal Vascular Fraction Fat Grafting: What Is the Best Method? Gentile P, Scioli MG, Orlandi A, Cervelli V.Plast Reconstr Surg Glob Open. 2015 Jul 8;3(6):e406. doi: 10.1097/GOX.0000000000000285 6. A comparative translational study: the combined use of enhanced stromal vascular fraction and platelet-rich plasma improves fat grafting maintenance in breast reconstruction. Gentile P, Orlandi A, Scioli MG, Di Pasquali C, Bocchini I, Curcio CB, Floris M, Fiaschetti V, Floris R, Cervell V.Stem Cells Transl Med. 2012 Apr;1(4):341-51. doi: 10.5966/sctm.2011-0065 7. Breast reconstruction with autologous fat graft mixed with platelet-rich plasma. Gentile P, Di Pasquali C, Bocchini I, Floris M, Eleonora T, Fiaschetti V, Floris R, Cervelli V.Surg Innov. 2013 Aug;20(4):370-6. doi: 10.1177/155

Amselleml Jean Pierre
France

Amsellem Jean Pierre
France

#1750

Perfectly round and enhanced buttocks with Hyaluronic Acid -contour

50 - Body contouring & skin tightening

Background/Objectives: METHODS -- drawing of patient injection areas -realization of entry points for local anesthesia -injection of tumescent anesthesia -injection of hyaluronc acid syringes contour -closing of entry points and installation of support bands CONCLUSION The injection of HA in the buttocks makes it possible to obtaon a rapid result without complications for the gluteal curve and the arch . the resutlt is natural and the risks of complications following the operaton are minimal . Injecting HA into the buttocvk is a safe procediure when the product used is certified CE MEDICAL CLASS 3 FILLER

Methods:

Results:

Conclusions:

Gennai Alessandro
Italy

Gennai Alessandro
Italy

#1767

the new SEFFI (Superficial Enhanced Fluid Fat Injection) is an aesthetic medical procedure : the new age of Autologous Regenerative Aesthetic Medicine

51 - Regenerative aesthetics

Background/Objectives: Recent studies of physiology of the aging face proved that the loss of volume and the aging of the tissue are the most important factors involved in facial aging. In the light of these evidences, the autologous regenerative medicine plays a central role in the facial rejuvenation. I standardized and published SEFFI (Superficial Enhanced Fluid Fat Injection) and in the last years I developed a new procedure aimed at performing this autologous regenerative treatment without any surgical skill , in medical facilities in a easy safe and effective way.

Methods: SEFFILLER techniques consist in selecting the small dimension of the tissue cellular clusters during the harvesting procedure trough special cannula, avoiding any kind of manipulation of selected tissue: it is our conviction that any manipulation, both mechanical and chemical, of the harvested tissue can damage the viable cells thus undermining the effectiveness of the engraftment and regenerative effects. Moreover we standardized and patented a special guide addressed to permit to Colleagues without liposuction skill to harvest the tissue in a safe, effective and standardized way.

Results: From Jan 2018 to Nov 2020 we performed 132 consecutive cases and results were satisfactory for 94% of the patients. Our studies and publications we proved the adipocytes viability, the good amount of SVF cellularity , ADSCs and the mesenchymal differentiation of ADSCs towards adipogenic, osteogenic and condrogenic lineage.

Conclusions: Regenerative aesthetic medicine is a very promising branch in many fields of Medicine. SEFFILLER is a procedure meant for aesthetic doctors without any liposuction skill who wish to perform the autologous regenerative treatment of the glance in his facility in a safe, easy , standardized and effective way

References: -SEFFI (Superficial Enhanced Fluid Fat Injection) for Aesthetic and Clinical Regenerative Treatments Alessandro Gennai , Silvia Zia , Barbara Roda , Alessia Maggio , Laura Bonsi ,Francesco Alviano, Andrea Zattoni , Pierluigi Reschiglian and Francesco P.Bernardini Global Journal of Dermatology & Venereology, 2020, 8, 32-40 -Hair Transplantation in Cicatricial Alopecia: The Role of Autologous Fat Transfer Piero Tesauro, Angelo Trivisonno, Alessandro Gennai, Andrea Marliani, Luigi Clauser INTERNATIONAL JOURNAL OF REGENERATIVE MEDICINE ISSN 2613-5914 - Volume 3(2): 11-11 2020 -Rejuvenation of the centre of the face: a new paradigm. Endoscopic lifting with fat grafting Gabriel Pignata , Alessandro Gennai , Francesco Bernardini Plast Aesthet Res 2018;5:23 -Characterisation of the Tissue and Stromal Cell Components of Micro-Superficial Enhanced Fluid Fat Injection (Micro-SEFFI) for Facial Aging Treatment Martina Rossi, PhD; Barbara Roda, PhD; Silvia Zia, PhD; Ilaria Vigliotta, MSc; Chiara Zannini, PhD; Francesco Alviano, PhD; Laura Bonsi, PhD; Andrea Zattoni, PhD; Pierluigi Reschiglian, PhD; and Alessandro Gennai, MD Aesthetic Surgery Journal 2018, 1-12 -Superficial enhanced fluid fat injection (SEFFI and MicroSEFFI) in facial rejuvenation Gennai A., Bernardini F. P.CellR4 2017; 5 (1): e2239 -Skin Rejuvenation and Volume Enhancement with the Micro Superficial Enhanced Fluid Fat Injection (M-SEFFI) for Skin Aging of Periocular and Perioral Regions Alessandro Gennai, MD; Alessandra Zambelli, MD; Erica Repaci, PhD;Rodolfo Quarto, MD; Ilaria Baldelli, MD; Giulio Fraternali, PhD; Francesco P. Bernardini, MD Aesthetic Surgery Journal 2016, 1-10 -Superficial Enhanced Fluid Fat Injection for Volume Restoration and Skin Regeneration of the Periocular Aesthetic Unit. An Improved Fat Grafting Technique to enhance the beauty of the eye. Francesco P. Bernardini MD, Alessandro Gennai MD JAMA Plastic Facial Surgery January-February 2016 Vol. 18 n. 1 -Superfic

Gennai Alessandro
Italy

Gennai Alessandro
Italy

#1768

Infranatant portion of micro fragmented adipose tissue: a good promising source of SVF for the management of Androgenic Alopecia

52 - Hair restoration

Background/Objectives: Adipose-derived stem cells (ADSCs) are pluripotent adult progenitor cells derived from embryonic connective tissue. ADSCs can differentiate towards adipogenic, osteogenic, condrogenic, myogenic cells but also towards non mesodermic cell lines (neuronal, endothelial, epithelial cells, etc.). They are also able to secrete a series of growth factors, such as VEGF (Vascular-Endothelial-Growth-Factor), HGF (Hepatocyte-Growth-Factor), FGF-2 (Fibroblast-Growth-Factor-2) and IGF-1 (Insulin-Like-Growth-Factor-1), which grant them a regenerative and angiogenic power. Today regenerative medicine mostly resorts to adipose-derived stem cells (ADSCs) because of their characteristics and easy availability.In the light of these evidences, in androgenic alopecia (AGA), some AA proposed the possibility to restore the hair cycle in male and female pattern baldness by stimulating the niche with autologous fat enriched with SVF

Methods: The adipose tissue harvesting procedure is performed under local anaesthesia. The adipose tissue was harvested with a 2 mm diameter microperforated cannula with 1 mm side port holes, mounted inside the special patented guide. Both cannula and guide are included in a single medical device coming from SEFFI technique . Once the adipose tissue was harvested, it was gently washed. The tissue was divided in two specimens: EMU: the tissue was emulsified with 20 passages from one syringe to another. CTRL: the tissue didn't undergo any emulsification. The two specimens (EMU and CTRL) were processed in the lab to quantify the number of adherent and proliferating cells in the tissue and infranatant after centrifugation.

Results: The emulsification procedure liberated alive and proliferating cells, proving the action of mechanical digestion of the technique, while preserving cell integrity. Cells were recovered from both adipose tissue and infranatant. Cells were able to attach and proliferate to obtain a 70% of confluence in few days of culture. We observed a high heterogeneity in cell recovery, which is probably caused by the inter-biological differences among individuals (age, sex, anatomical location, ...). In general, we observed that specimens derived with a 1 mm side port hole cannula and then emulsified (EMU) showed a higher number of cells in the infranatant part compared to the one derived from the tissue itself (1 EMU vs. 1EMU infra). In the control specimens (CTRL) the cellularity in the tissue and in the infranatant was similar (1 CTRL vs 1 CTRL infra)

Conclusions: This study opens the possibility to use only the infranatant component of the emulsified micro-fragmented adipose tissue without any need of enzymatic digestion

References: Elizabeth Brett, MS; Elizabeth R. Zielins, MD; Monica Chin, BS; Michael Januszyk, MD; Charles P. Blackshear, MD; Michael Findlay, MD; Arash Momeni, MD; Geoffrey C. Gurtner, MD; Michael T. Longaker, MD, MBA; Derrick C. Wan, MD Isolation of CD248-expressing stromal vascular fraction for targeted improvement of wound healing Wound Rep Reg (2017) 25 414-422 VC 2017 DONG-SIC CHAE, SEONGHO HAN, MINA SON & SUNG-WHAN KIM Stromal vascular fraction shows robust wound healing through high chemotactic and epithelialization property Cytotherapy, 2017; 19: 543-554 Smith AN, Willis E, Chan VT, Muffley LA, Isik FF, Gibran NS, et al. Mesenchymal stem cells induce dermal fibroblast responses to injury. Exp Cell Res 2010;316(1):48- 54. Singer NG, Caplan AI Mesenchymal stem cells: mechanisms of inflammation. Annu Rev Pathol 2011; 6:457-478 Delarosa O, Dalemans W, Lombardo E Mesenchymal stem cells as therapeutic agents of inflammatory and autoimmune diseases. Curr Opin Biotechnol 2012 ; 23:1-5. Rossi M. AF, Ricci F., Vignoli F., Marchionni C., Valente S., Zannini C., Tazzari P. L., Vignoli M., Bartoletti E., Bonsi L. In vitro multilineage potential and immunomodulatory properties of adipose derived stromal/stem cells obtained from nanofat lipoaspirates. CellR4. 2016; 4 (6):e2212. Planat-Benard V, Silvestre JS, Cousin B, et al. Plasticity of human adipose lineage cells toward endothelial cells: physiological and therapeutic perspectives. Circulation. 2004;109:656 - 663. Characterisation of the Tissue and Stromal Cell Components of Micro-Superficial Enhanced Fluid Fat Injection (Micro-SEFFI) for Facial Aging Treatment Martina Rossi, PhD; Barbara Roda, PhD; Silvia Zia, PhD; Ilaria Vigliotta, MSc; Chiara Zannini, PhD; Francesco Alviano, PhD; Laura Bonsi, PhD; Andrea Zattoni, PhD; Pierluigi Reschiglian, PhD; and Alessandro Gennai, MD Aesthetic Surgery Journal 2018, 1-12â€¨ Krampera M, Glennie S, Dyson J et

Napolez Adolfo
United States

Napolez Adolfo
United States

#1809

Botulinum toxin Type A injection for Masseteric muscle hypertrophy

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The masseter muscle is a quadrangular muscle that covers the mandibular ramus and coronoid process.It has both superficial and deep heads.Along with the mandible , this muscle has a significant role in the contour of the lower face. injection of botulinum toxin type A into the masseteric muscle results in a chemical denervation at the neuromuscular junction. The ensuing muscle atrophy reduces the bulkiness of the lower lateral face and gives a soft round contour to the lower face.

Methods:

Results:

Conclusions:

Sofra Xanya
Hong Kong
Sofra Xanya
Hong Kong

#1846

Adverse Effects of Sedentary Lifestyles: Inflammation, and High-Glucose Induced Oxidative Stress

50 - Body contouring & skin tightening

Background/Objectives: Sedentary lifestyles promote adipose tissue accumulation that generates systemic inflammation and oxidative damage. Physical activity induces cardiovascular fitness, increases muscle mass, and healthy blood glucose regulation, while reducing visceral fat, triglycerides and low-density lipoproteins. It is theoretically possible to develop a long-term multi-exercise regimen for health management and enhancement. Pragmatically, time and career restraints, individual choices, genetic factors, or demoralization due to the draconian commitment involved in weight loss, have rendered over a billion of individuals obese, or overweight, burdened by excess lipids, insulin resistance, elevated glucose levels, and inflammation, that foster a number of medical conditions including diabetes. Strenuous overtraining has ensued adverse effects, including an upsurge of proinflammatory cytokines, and hyperglycemia.

Methods: We implemented an one-month long innovative method with 20 diabetic and prediabetic patients. Results demonstrated a statistically significant reduction of both fasting and PP blood glucose. Fasting and PP insulin reached optimal levels. There was a substantial decline in dyslipidemia, reflecting a reverse relationship of elevated HDL versus triglycerides descending towards the normal range.

Results: The notable visceral fat reduction was validated by sonography reports that indicated no evidence of fatty liver in seven patients previously diagnosed with hepatic steatosis. These findings have important implications in improving the health status of obese diabetic and prediabetic individuals, by helping them jumpstart an active lifestyle, or by serving as an exercise alternative to reduce lipids, blood glucose levels and insulin resistance.

Conclusions: Our findings have significant implications for optimal health that can be enhanced and safeguarded by incorporating this method as part of an exercise regimen to reduce lipids, blood glucose levels and insulin resistance. Sustained physical training necessary to reduce visceral adiposity, along with its inherent inflammation and oxidative damage, is often experienced as cumbersome, exhausting, and demanding a lengthy commitment of several months to produce a visible body change. Obese diabetics and prediabetics usually resist exercise due to difficulty moving, embarrassment triggered by body image issues, fatiguing, and prolonged effort with no fast results that is often demoralizing. Adopting this method can bring the light at the end of the tunnel, and jumpstart an active lifestyle that will eventually improve their health.

References: Colberg, S.R., Sigal, R.J., Fernhall, B., et al. (2010) American College of Sports Medicine, American Diabetes Association Exercise and Type 2 Diabetes: The American College of Sports Medicine and the American Diabetes Association: Joint Position Statement Executive Summary. Diabetes Care, 33, 2692-2696. https://doi.org/10.2337/dc10-1548 [2] Silver, D.L., Wang, N., Xiao, X. and Tall, A.R. (2001) High Density Lipoprotein (HDL) Particle Uptake Mediated by Scavenger Receptor Class B Type 1 Results in Selective Sorting of HDL Cholesterol from Protein and Polarized Cholesterol Secre- tion. The Journal of Biological Chemistry, 276, 25287-25293. https://doi.org/10.1074/jbc.M101726200 [3] Fisher, E.A., Feig, J.E., Hewing, B., Hazen, S.L. and Smith, J.D. (2012) HDL Func- tion, Dysfunction and Reverse Cholesterol Transport. Arteriosclerosis, Thrombosis, and Vascular Biology, 32, 2813-2820. https://doi.org/10.1161/ATVBAHA.112.300133 [4] Cullimane, E., Siconolfi, S., Saritelli, A. and Thompson, P.D. (1982) Acute Decrease in Serum Triglycerides with Exercise. Is There a Threshold for an Exercise Effect? Metabolism, 31, 844-847. https://doi.org/10.1016/0026-0495(82)90085-3 [5] Haslam, D.W. and James, W.P. (2005) Obesity. The Lancet, 366, 1197-1209. https://doi.org/10.1016/S0140-6736(05)67483-1 [6] McIlwain, D.R., Berger, T. and Mak, T.W. (2013) Caspase Functions in Cell Death and Disease. Cold Spring Harbor Perspectives in Biology, 7, a026716. https://doi.org/10.1101/cshperspect.a026716 [7] Russel, J., Golovoy, D., Vincent, A., Mhendru, P., Olzmann, J., Mentzer, E. and Fieldman, E. (2002) High Glucose-Induces Oxidative Stress and Mitochondrial Dysfunction in Neurons. The FASEB Journal, 16, 1738-1748. https://doi.org/10.1096/fj.01-1027com DOI: 10.4236/health.2020.128076 1044 Health [8] Spitz, D.R., Azzam, E.I., Li, J.J. and Gius, D. (2004) Metabolic

Jiouchas Konstantinos
Switzerland

Jiouchas Konstantinos
Switzerland

#1850

Facial Contouring with Millennials

68 - Strategies for effective patient communication

Background/Objectives: Facial Contouring with Millennials -What are the millennials? -Why do we need to distinguish the difference with other generations? -What do we as physicians need to learn to improve our behaviour/ outcome on that generation?

Methods:

Results:

Conclusions:

Jacobs Jordan
United States

Jacobs Jordan
United States

#1863

Eyes Are The Window To The Soul

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: I am an injector.

Methods: To open I always make sure that I am knowledgeable about the client and the type of eye deformity that they might have. I check to see if the client has dark circles, herniated eyes, or edema eyes. It is important to take many photos and videos if possible. Good lighting is valuable in these photographs due to the fact that too much could flood out the imperfections. Having the subject look up to the ceiling is another small thing that could help make me aware of the extent of the subject's deformities. Then I select the appropriate filler to correct the deformity. First, I make sure that I can use the smallest needle possible usually a 29 or 30 gauge needle. Next, understanding the rhealogy and behavior of the fillers is priceless here. I use a needle over a cannula. A needle allows me to be super precise, having full control in choosing where the product is delivered.

Results: Sample

Conclusions: It is important to do tear trough injections because

Zgaljardic Zoran
Croatia

žgaljardić Zoran
Croatia

#1869

FACEàŽ- COMBINATION OF TECHNOLOGY AND CHEMICAL PEELS IN FACIAL REJUVENATION AND OTHER SKIN IMPERFECTIONS

45 - Combination treatments

Background/Objectives: Aim of this presentation is to present the results of combination treatment with fractionated radiofrequency, laser or pixell with chemical peels on skin resurfacing. Literature results do not show many results on that treatment combination. The authors called the technique- FACEàŽ

Methods: Superficial microholes are made on the skin surface with technology (laser, radiofrequency, pixell). Chemical peels are applied afterwards. The microholes that are made previously with the technology allow deeper penetration of the chemical peels and significantly enhance their effect. The risks of both treatments are minimal and are safe to combine. After the treatment it is advisable to put anti-age component as vitamin C, retinol, hyaluronic acid or collagen that can enhance the final result.

Results: Both techniques are proven to be effective in skin tightening and resurfacing. Combining both, the effects are multiplied while the downtime stays the same. After implementing this rejuvenation protocol in our practice, patient' satisfaction has significantly risen.

Conclusions: The power of the FACEàŽ technique is in the synergy between fractionated radiofrequency, laser or pixel and chemical peels that simultaneously biomodulate the skin in very effective way with excellent final result and virtually no downtime.

References: upon request

Capote Marilyn
United States

Capote Marilyn
United States

#1935

BEWARE OF THE CRAZY PATIENTS - THE REAL PANDEMIC

68 - Strategies for effective patient communication

Background/Objectives: Entrepreneurs and corporate innovators in the Medical Aesthetics Field need to find new ways to tackle business problems, especially after this world wide pandemic mind set. It is imperative that we not only recognize the "problematic patient" but that we are trained on how to deal with such. This will allow the Aesthetic Practice to grow faster and stronger in both their team skills and a more professional, smoother practice. Through case studies, inquiry, reflection, and realistic discussion, we will engage in critically assessing "the Susan" and learning how to apply effective action to this reality, using it to our advantage to make us exceed in performance. Attendees will walk away with the tools to build an extraordinary Medical Aesthetic culture that promotes advancement of both your organization and its people allowing you to get it right every single time!

Methods: Slideshow Presentation. Learn the relationship between recognizing "The Susan Culture " (problematic patient) and effective performance when you do get them. Increase awareness of extraordinary versus mediocre, even toxic, cultures. Understand the risks of not being intentional about culture. Inspire your team to shift into informed action. Gain actionable insight into elements that work to advance adaptive organizational culture.

Results: This presentation is designed for Medical Aesthetic professionals and influencers who want to: understand how to manage problematic patients, to maintain their practice's good reputation, and prevent potential legal headaches. â €â € The best way to avoid having to confront issues concerning problematic patients is to make sure that you don't associate with them in the first place. They will learn how to identify potential problem patients early on and figure out the best ways to encourage them to avoid your practice without offending them.

Conclusions: Attendees will understand the role of an effective practice and its pre-qualifying potential.They will learn on how to train their team effectively to prevent the problematic patients. They will be able to create realistic customer profiles, mapping value, and verifying a problem-solution fit. They will be trained on responses to handle and screen for potentially problematic patients, identifying red flags. Tips on the importance of teaming with an attorney to produce a contract for patients to sign prior to the administration of any procedures and they will be experts on "The Susan Culture".

References: This work was not supported by any direct or non-direct funding. It is under the author's own responsibility All references are from over 20 years of experience in the industry and multiple million dollar plus clinics.

Osminkin Vitaly
Russia

Osminkin Vitaly
Russia

#2020

COMPLEX METHOD FOR SKIN TISSUE REJUVENATION USING PLLA (POLY-LACTIC-ACID) & LASER THERAPY

45 - Combination treatments

Background/Objectives: Treatments to improve skin condition and achieve rejuvenating effects slowing down the aging process have become a popular field of study among practicioners. This study details the process of a complex treament using PLLA (Biodegradable Poly-lactic-acid) followed by a no skin contact laser teraphy on the aimed areas of the skin; working hand to hand with collagen stimulation from the inside of the tissues and therefore fullly boosting the effect of the injected PPLA by activating skin cell regeration from the outise crossing rigth thru the epidermis, resulting on a synergic high quality fibroblast prodcution and collagen stimulation which shows off with amaizing results on the treated areas.

Methods: The complex tratment is divided in two stages. The first stage is the injection of PLLA using cannula in the area of interest; The polylactic acid is injected in between the epidermis and the subcutaneous fat area. In otherwords, rigth into the dermis. The injected globular porous particles dissolved on sterile water for injection aims to bio-stimulate collagen production and fibroblast increasing tensile strength of the skin on a deep level. The second stage comes 7 days after injection (3 to 6 sessions, depending on the patient); Using a no skin contact laser which works on the injected area and surroundings in order to boost and stimulate the ongoing work which is happening on the dermis. while collaggen cells are migrating into the porous PLA particles, the laser penetrates the skin with each impulse heating up the temperature and nurturing those cells in pursuance of obtaining the most out of the procdure.

Results: Within 2 - 3 weeks after the first lasser session, the patient notices a vast improvment on the treated area. The new collagen and fibroblast cells boosted by the laser therapy are showing off resulting on a tight regenerated skin apperance. This complex treament provides a moisturized and shinny skin look which gets better and better with time. Patiens saw results as fast as 1 days right after the first laser session. the general skin complexity, tone and quality enhace.

Conclusions: The complex treatment of PLLA + no skin contact laser therapy helps practicioners to boost results of skin cell regenration and collagen stimulation on treated areas and surroundings. By using this protocol, we are able benefit the most out of both procedures which combined make up a matching team. The treatment provides fast and long lasting results on patients. No major side effects, redness nor inflamation was detected by any of the cases in this study.

Tirakyan Vahe
United States

Tirakyan Vahe
United States

#2024

TikTok Marketing Masterclass

67 - Marketing & Practice management

Background/Objectives: If you want to learn more about the ins and outs of the new viral social media platform TikTok, you're in luck! TikTok is one of the fastest-growing social media platforms ever and can be utilized as a great marketing platform for medical practices to grow their sales and increase their conversions organically - especially for those looking to target Millenials, Gen Z and Gen X which make up the largest proportion of consumers in the cosmetic sector. This course will work as a complete guide to help you learn how TikTok can be used to drive new potential patients to your practice as well as drive increased organic traffic to your other social media platforms like Instagram and your website. You will gain knowledge of various strategies that can help you promote your personal and business brand while saving time and money that practices often spend on other marketing platforms. In this Masterclass, you'll learn TikTok basics, how to build your audience, how to increase engagement on TikTok, and so much more!

Methods:

Results:

Conclusions:

Tirakyan Vahe
United States

Tirakyan Vahe
United States

#2029

Marketing Masterclass

67 - Marketing & Practice management

Background/Objectives: We'll show you how to target your audience where they spend most of their time... the internet. During this session, we'll take a deep dive into the world of medical marketing - particularly focusing on lead generation for your practice. You'll be introduced to a variety of marketing strategies and campaigns that not only produce exceptionally high returns on investment but also work to quickly fill your appointment book with high-quality consultations. Introduction: We all know how important it is to market your practice but the process can be complex and confusing - oftentimes with disappointing outcomes. Wouldn't it be nice to have a steady stream of prospective patients eager to see you for a consult or procedure?

Methods:

Results:

Conclusions:

Tirakyan Vahe
United States

Tirakyan Vahe
United States

#2034

Mastering the Art of Closing

67 - Marketing & Practice management

Background/Objectives: Is your sales team closing as well as they could be? Probably not... Crafted through years of research, practice, and implementation, we'll introduce a proven and easily replicable process that will help your sales team dramatically increasing the number of prospects they convert into happy and long-term paying patients. This workshop will walk you through sales psychology and strategies long used by many Fortune 500 companies and teach you how you can apply these very same techniques at your practice.

Methods:

Results:

Conclusions:

Cloud Ashley
United States

Cloud Ashley
United States

#2070

The Inquiry Call: Utilizing Unique Psychological Purchasing Triggers Of The Cosmetic Patient "Shopper" When Engaging With Prospective Patients On The 1st Phone Call

67 - Marketing & Practice management

Background/Objectives: Today's aesthetic patients are not only "shopping' for good procedural outcomes, they are also expecting the ultimate experience with your practice or medspa. The aesthetic patient tends to demonstrate more consumer behaviors than patient behaviors when considering a provider, and yes, they are shopping! Therefore, it is imperative to understand the psychological buying triggers that ultimately guide prospective patients to a solid "Yes!" with your practice. This session provides a blueprint to help identify the psychology behind the cosmetic patient's buying habits and position your practice to exceed patient needs and expectations at consultation. Proven strategies to attract and retain highly satisfied clients using psychology rather than forceful selling will be provided. Attendees should expect to leave the session with full understanding of the following: Understanding the Psychological Triggers that Propel Cosmetic Inquiry Callers to Choose Your Practice Instead of Your Competitor Turning New Patient Callers to Those Who Buy at Consultation Qualifying & Educating Callers Prior To Consultation Overcoming Objections Prior To Consultation - It's A Must! Confirmation Strategies to Decrease No Shows & Cancellation Rates Ashley will provide a free copy of her #1 bestselling book: "The Art of the Aesthetic Practice: 7 Fundamental Steps to Providing the Ultimate Patient Experience and Maximizing Profitability" to all who attend her session. About: Ashley Cloud is a consultant, speaker, and #1 bestselling author with over 20 years in the medical aesthetics industry. Having worked as an aesthetic business consultant for corporations such as Mentor Worldwide (a Johnson & Johnson company), along with thousands of providers, staff members, and practices in multiple countries, Ashley is uniquely qualified when it comes to understanding and developing the cosmetic practice. Ashley is dedicated to empowering practices and medical spas to create world-class services by implementing strategic, patient-centric, and results-driven processes that result in meaningful profit for her clients and positive transformation in patient's lives.

Methods:

Results:

Conclusions:

Cloud Ashley
United States

Cloud Ashley
United States

#2071

Utilizing the Psychology Behind the Cosmetic Patient's Buying Decisions to Create the Ultimate Patient Experience at Consultation and Significantly Increase Closing Rates and Patient Loyalty

67 - Marketing & Practice management

Background/Objectives: Today's aesthetic patients are not only "shopping' for good procedural outcomes, they are also expecting the ultimate experience with your practice. Studies show the aesthetic patient demonstrates more consumer behaviors than actual patient behaviors when considering a provider, and yes, they are shopping ~ even during the consultation! This session provides a blueprint to help aesthetic practices understand the psychology behind the cosmetic patient's buying triggers during the consultation, including deep discussions on how to use these unique triggers to best position the practices to exceed patient needs and expectations while simultaneously, and significantly, increase conversion rates, patient advocacy, and profits. Attendees should expect to leave the session with full understanding of the following: The Importance of Understanding and Utilizing Psychological Triggers in Order to Create Patient-Centric Consultations That Increase Scheduling Rates Overcoming Patient Objections at Consultation Call to Action Best-Practices Effective Follow-Up Post-Consultation Ongoing Communication Strategies That Increase Conversion Rates & Maximize Patient Advocacy Ashley will provide for free her #1 bestseller "The Art of the Aesthetic Practice: 7 Fundamental Steps to Providing the Ultimate Patient Experience and Maximizing Profitability" to all who attend her session. About: Ashley Cloud is a consultant, speaker, and #1 bestselling author with over 20 years in the medical aesthetics industry. Having worked as an aesthetic business consultant for corporations such as Mentor Worldwide (a Johnson & Johnson company), along with thousands of providers, staff members, and practices in multiple countries, Ashley is uniquely qualified when it comes to understanding and developing the cosmetic practice. Ashley is dedicated to empowering practices and medical spas to create world-class services by implementing strategic, patient-centric, and results-driven processes that result in meaningful profit for her clients and positive transformation in patient's lives.

Methods:

Results:

Conclusions:

Moroz Olga
Russia

Moroz Olga
Russia

#2154

The program "Face sculpture within an hour"

43 - Anatomy related to non-or minimally invasive approaches

Background/Objectives: The modern cosmetology clinic patient does not want to spend much time on the rehabilitation period, and not always ready to have a recourse to a plastic surgery. But at the same time, he wants to look always young and beautiful, as well as to obtain a visible result immediately. In light relevance of the conservative approach to the correction of age-related changes, cosmetologist O. N. Moroz (LLC Morozov) developed a Protocol for non-surgical lifting for patients with heavy faces - "Slim face in an hour", which was patented as" Method for non-surgical correction of the face shape " N 2723140.

Methods: The Protocol consists of 2 main stages: Stage 1 - restoring lost volumes and reshaping face contouring with HA fillers. Zones of volumetric correction and volumes of fillers are determined individually for each patient, taking into consideration the proportions and individual characteristics. The most common areas of correction are: cheekbones, temporal, chin area and mandibular angle. Stage 2 - improvement of microcirculation and drainage of face soft tissues. To that end a mesotherapy procedure is performed with venotonics injection (GAG complex DVL Capyl formula and / or aesthetic Form "Phyto Slim formula"). The main areas of injection: the area of the upper and lower eyelids, the area malar fat pads and the sub-mandibular area. As a result of microcirculation flow improvement, the drainage of soft tissues increases, along with a tissue edema decreases. Consequently, the face fatigue signs go away, patient looks more rested, less saggy and with "open eyes", the volume of the double chin area decreases. The face shape becomes more slimer.

Results: 5387 patients were included in the study. As a result of the correction, patient became look younger, restful, face proportions were harmonized and restored, and the shadow was replaced.

Conclusions: The proposed 2-stage combined methodic allows to perform aesthetic correction to patients with heavy saggy faces with minimal rehabilitation period but without surgery. The achieved result of the proposed complex treatment protocol is the achievement of the required face shape in 3 procedures, provided that the duration of the achieved effect is increased, including by eliminating the pastiness of the soft tissues of the face, reduced skin turgor, as well as reducing the duration of post-injection standard manifestations, such as traces of injection, swelling.

References: Address 1A Grizodubovoy St., Moscow, Russia/ E-Mail clinic_olgamoroz@mail.ru Tel +7 (495) 055 77 00 Instagram @morozolga_beauty

Gonzalez Rodolfo
Mexico

Gonzalez Rodolfo
Mexico

#2157

HIALURONIC ACID VS THREADS

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Rhinomodelation is a very common and requested procedure with delightful results for both, patients and surgeons; There is no doubt about that. But, everything continues to advance and there are improvements in treatments or at least more alternatives, in this case it´s important to discuss the pros and cons of these 2 techniques, doing it with hyaluronic acid or with tensioning threads. Which one is better and why? I would like to give a speech on this topic, not as a personal and / or professional opinion, but on a scientific basis for all those doctors dedicated to embellishing face, so they can have the right tools to select the most appropriate and innocuous technique with best results. What happens during the application of each one? What happens shortly after? What sequels may remain and therefore modifications to select a new procedure?

Methods:

Results:

Conclusions:

Moroz Olga
Russia
Moroz Olga
Russia

#2203

The program "Relevance of Facial Sculpting within one hour"

43 - Anatomy related to non-or minimally invasive approaches

Background/Objectives: The modern cosmetology has a trend for a natural and harmony result and clinic patients do not want to spend much time on the rehabilitation period, and not always ready to have a recourse to a plastic surgery. But at the same time, he wants to look always young and beautiful, as well as to obtain a visible result immediately. In light relevance of the conservative approach to the correction of age-related changes, cosmetologist O. N. Moroz (LLC Morozov) developed a Protocol for non-surgical lifting for patients with heavy faces - "Slim face in an hour", which was patented as" Method for non-surgical correction of the face shape " N 2723140.

Methods: The Protocol consists of 2 main stages: Stage 1 - restoring lost volumes and reshaping face contouring with HA fillers. Zones of volumetric correction and volumes of fillers are determined individually for each patient, taking into consideration the proportions and individual characteristics. The most common areas of correction are: cheekbones, temporal, chin area and mandibular angle. Stage 2 - improvement of microcirculation and drainage of face soft tissues. To that end a mesotherapy procedure is performed with venotonics injection (GAG complex DVL Capyl formula and / or aesthetic Form "Phyto Slim formula"). The main areas of injection: the area of the upper and lower eyelids, the area malar fat pads and the sub-mandibular area. As a result of microcirculation flow improvement, the drainage of soft tissues increases, along with a tissue edema decreases. Consequently, the face fatigue signs go away, patient looks more rested, less saggy and with "open eyes", the volume of the double chin area decreases. The face shape becomes more slimer.

Results: More then 5000 patients were included in the study. As a result of the correction, patient became look younger, restful, face proportions were harmonized and restored, and the shadow was replaced. The main is that this methodic gives not only a visual rejuvenating result but also has a healing effect. The proposed 2-stage combined methodic allows to perform aesthetic correction to patients with heavy saggy faces with minimal rehabilitation period but without surgery.

Conclusions: The achieved result of the proposed complex treatment protocol is the achievement of the required face shape in 3 procedures, provided that the duration of the achieved effect is increased, including by eliminating the pastiness of the soft tissues of the face, reduced skin turgor, as well as reducing the duration of post-injection standard manifestations, such as traces of injection, swelling.

References: The aim of the study was to determine the influence of our technique for treating any type of facial aging and achieve excellent results - the effect of plastic surgery with a minimum rehabilitation period and minimal preparation. The method was patented N 2723140 on 2019

Chmielewski Robert
Poland

Robert Chmielewski
Poland

#2258

Comprehensive multi-level facial tissue correction using autologous stem cells (SVF) and smart network technique

45 - Combination treatments

Background/Objectives: Every face is different, but what is common for male, female and transgender face is that they age in same way. The aging process is almost same in aspect of skin which becomes less elastic, ligaments which hold fat compartments become loosening, muscles get weaker while bones get resorption. We can't stop aging process, but we can slow it down, by using of Autologous Stem Cells (SVF) in Smart Network Injection Technique The advantage of the holistic method is the initiation of natural repair processes aimed to rebuild the natural scaffolding of the skin, which erodes with age. The skin is the patient's natural business card. The skin, without wrinkles, filled, elastic, naturally rejuvenates the patient face. The better the quality of the skin is, the younger the patient looks. One of the newest, very effective therapy which aims to tissue regeneration is the Autologous Stem Cells - SFV method combined with SMART injection technique. The protocol method is divided into two parts: Firstly, inject subcutaneously NCTF booster to lower tissue oxidative stress. Such base creates better environment for phase two, which is the insertion of autologous steam cels (SVF) What is therapeutic triad and SFV For effective tissue regeneration we have to use therapeutic triad which contains: NCTF Booster, SVF and SMATRT Network injection technique. These three sources give support matrix with mix of growth factors and stem cells. SVF- Fatty-vascular fraction of adipose tissue supplies high concentration of mesenchymal Stem Cells with unique potential to differentiate into different cells like: anti-inflammatory cells, Immunomodulatory cells, Pro-angiogenic cells and Anti-apoptotic cells The goal of SMART is to recreates a natural foundation of the skin liner. Also restoration of subdermal layer for stimulation of skin and deep tissues regeneration. Summary and therapy outlook for SMART Antiaging Network + ACP/SVF: It is an innovative approach of natural long-lasting face rejuvenation, skin and deep tissues extracellular matrix reconstruction Conclusions: v Efficient long - lasting antiaging therapy v It is natural face Reshaping and Rejuvenation v It is Recreation of the natural Foundation liner for the skin v Deep subcutaneous tissue Reconstruction and Regeneration v Creates an optimal physiological environment for skin cells; v Stimulates reparative and reconstructive processes

Methods:

Results:

Conclusions:

Chmielewski Robert
Poland

Robert Chmielewski
Poland

#2259

Nonsurgical SMAS lifting with supporting volumetry. Comprehessive approach to natural face rejuvenation

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Is it possible to have natural young look without gravitational effect? Contemporary aesthetic medicine takes a comprehensive approach to treatment and is innovating at a fast rate. These new techniques focus on natural look. Although aging itself is irreversible, its process can be slowed down, helping the face look 5-10 younger. The key features of looking young are skin tension, skin quality and retained face oval. Our innovative technique resists the gravitational effect of aging without the need for surgical intervention. Importance of anatomy knowledge With antigravity it is crucial to stress the underlying importance of facial anatomy - in particular the scalp, the forehead, the temples - in the process of a natural non-surgical facelift. There is a direct correlation between the scalp layer (galea aponeurotica) and SMAS structures, and the interplay of the two help the skin maintain its natural position on the face. With age, the hollow structures (ligament fascia- aponeurosis) lose their resilience (physiological loss of hyaluronic acid in tissues). This results in the degradation of deep underlying fat compartments, which causes changes to facial geometry (head) and visible gravitational sagging (gravity sagging). Essence of the technique The essence of the technique is to reconstruct the lost volume of support structures, to recover natural harmonious facial geometry (head) and to regenerate extracellular matrix and connective tissue structures (SMAS, galea aponeurotica) We use our ARTlift Supporting volumetry technique to rebuild the natural face oval without any intervention in its natural shape. The treatment requires a special combination of entry points responsible for face lifting. From these points the HA is spread across the subcutaneous skin layer. Revolumising begins with the upper face level, starting with the scalp and temple, and then progresses to the mid-face level. A single treatment was needed to accelerate oval lift and moisturize the effect and synthesis of endogeneous colagen. This treatment stimulate SMAS reconstruction. We recommend that the treatment be repeated every 6 months to optimize effects (with less amaount of filler). This treatment excellent improves firmness and skin elasticity. Safe Your face and Age Nicely with ARTlift concept

Methods:

Results:

Conclusions:

Chmielewski Robert
Poland

Chmielewski Robert
Poland

#2260

Nonsurgical SMAS lifting with supporting volumetry. Comprehessive approach to natural face rejuvenation

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Is it possible to have natural young look without gravitational effect? Contemporary aesthetic medicine takes a comprehensive approach to treatment and is innovating at a fast rate. These new techniques focus on natural look. Although aging itself is irreversible, its process can be slowed down, helping the face look 5-10 younger. The key features of looking young are skin tension, skin quality and retained face oval. Our innovative technique resists the gravitational effect of aging without the need for surgical intervention. Importance of anatomy knowledge With antigravity it is crucial to stress the underlying importance of facial anatomy - in particular the scalp, the forehead, the temples - in the process of a natural non-surgical facelift. There is a direct correlation between the scalp layer (galea aponeurotica) and SMAS structures, and the interplay of the two help the skin maintain its natural position on the face. With age, the hollow structures (ligament fascia- aponeurosis) lose their resilience (physiological loss of hyaluronic acid in tissues). This results in the degradation of deep underlying fat compartments, which causes changes to facial geometry (head) and visible gravitational sagging (gravity sagging). Essence of the technique The essence of the technique is to reconstruct the lost volume of support structures, to recover natural harmonious facial geometry (head) and to regenerate extracellular matrix and connective tissue structures (SMAS, galea aponeurotica) We use our ARTlift Supporting volumetry technique to rebuild the natural face oval without any intervention in its natural shape. The treatment requires a special combination of entry points responsible for face lifting. From these points the HA is spread across the subcutaneous skin layer. Revolumising begins with the upper face level, starting with the scalp and temple, and then progresses to the mid-face level. A single treatment was needed to accelerate oval lift and moisturize the effect and synthesis of endogeneous colagen. This treatment stimulate SMAS reconstruction. We recommend that the treatment be repeated every 6 months to optimize effects (with less amaount of filler). This treatment excellent improves firmness and skin elasticity. Safe Your face and Age Nicely with ARTlift concept

Methods:

Results:

Conclusions:

Chmielewski Robert
Poland

Chmielewski Robert
Poland

#2261

SMART Lips Concept.Comprehensive approach to natural reconstruction of the perioral area, the chin, and the jowl

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: OBJECTIVES: The perioral area, the chin, and the jowl are the most important parts of the face. Wrinkles, sagging face around the lip area, and narrowing lips are leading to a sad and tired expression. The newest approach is rather aimed at rebuilding and „rehanging" face instead of pumping it. The study involved patients at the age of 45-60 years with sagging skin and lips in the perioral area. INTRODUCTION: The technique to „rehang" and rebuild the perioral area, the chin and the jowl was created based on an in-depth analysis of the facial anatomy. The technique rebuilds lost volume and elasticity of the anatomical layers of the area, which gives the patient a natural lift effect. Based on the cannula method, which precisely recreates volume of subcutaneous fat compartments, the technique shows how to combine injections dedicated to individual areas: upper lip, lower lip, nasolabial fold and chin area. MATERIALS/METHOD: Hyaluronic acid filler with high-viscoelasticity values injected with 25-27 G-50 mm cannula was used to accelerate volumizing of the retro-orbicularis oris fat and subcutaneous fat compartments. It is recommended to begin with the reconstruction of the upper part of philtrum followed by remodeling of the upper and lower lips. The final stage of remodeling concerns volumizing techniques for the lip-chin area, including the mental fat compartments. CONCLUSIONS: The purpose of SMART LIPS Concept is natural reconstruction of the lost volume of perioral area, lips and chin in the supporting-trophic subcutaneous layer Key outcomes of therapy: - Natural lip reshaping and rejuvenation. - Recovery of hydro balance of perioral area and subdermis. - Activation of microcirculation and oxygenation of lips and subdermal tissues. - Stimulation of reparative processes in dermis and subdermal layers of lip (perioral) area. - Efficient antioxidant therapy. - High mechanical support of aging skin.

Methods:

Results:

Conclusions:

Bhardwaj Vinay
United States

Bhardwaj Vinay
United States

#2319

A holistic approach to image and understand underlying mechanism behind reorganization of extracellular matrix in aged human skin: Ex-vivo study using anti-aging serum

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives:

Methods:

Results:

Conclusions:

Moradi Amir
United States

Moradi Amir
United States

#2323

A Randomized, Controlled, Evaluator-Blinded Study of HA-RD for Chin Augmentation and Correction of Chin Retrusion

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Chin projection is critical to facial attractiveness and often neglected in aesthetic analysis. This 48-week, controlled study (NCT03624816) evaluated effectiveness and safety of HA filler HA-RD for chin augmentation and correction of chin retrusion. The primary objective was to evaluate correction of chin retrusion 12 weeks after last injection (HA-RD) or baseline (no-treatment control).

Methods: Subjects were injected with a total mean of 3.6 mL HA-RD in the chin (n=106) (initial and optional 4-week touch-up) or not treated (n=33) (randomized 3:1). Assessments included live evaluator-blinded chin retrusion scale (GCRS), aesthetic improvement (Global Aesthetic Improvement Scale), subject satisfaction (FACE-Q©), adverse events and subject diary for pre-defined injection-related symptoms.

Results: The primary objective was met; GCRS responder rate (≥1 grade improvement from baseline) was higher for HA-RD (81%) than control (6%) at 12 weeks ($p<0.001$). At Week 48, GCRS responder rate still remained higher for HA-RD (74%) than for control (11%, $p<0.001$). Aesthetic improvement was high throughout the study as reported by investigators (≥96%) and subjects (≥85%). Subject satisfaction rates were high for both style and size of the chin both at Week 12 (≥96%) and at Week 48 (≥75%). Treatment-related adverse events and pre-defined injection-related symptoms were transient and predominantly mild.

Conclusions: HA-RD was effective for correction of chin retrusion, well-tolerated and associated with a high degree of aesthetic improvement and subject satisfaction. Effectiveness was sustained throughout 48 weeks.

Schlessinger Joel
United States

Schlessinger Joel
United States

#2324

A randomized, double-blind, placebo-controlled study of a new dilution and injection volume of AbobotulinumtoxinA for treatment of glabellar lines

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: According to current US label for AbobotulinumtoxinA (ABO), reconstitution with 1.5 or 2.5 ml per 300U vial is allowed. The objective of this study (NCT03960957) was to evaluate efficacy and safety of a larger dilution and injection volume (300U vial reconstituted with 3.0 mL 0.9% NaCl) compared to placebo, using 0.1 mL per injection point for treatment of moderate to severe glabellar lines (GL).

Methods: The primary endpoint was evaluated 1 month after treatment using the 4-point GL severity scales ILA and SSA (investigator's live - and subject's self assessment) at maximum frown. A responder had a score of 0 or 1 in GL severity and ≥2-grade improvement from baseline on both scales. Other assessments included ILA/SSA evaluations, aesthetic improvement and safety for 6 months.

Results: Subjects were randomized 3:1 to ABO (n=224) or placebo (n=77). Overall, most subjects were female (88%) and mean age was 44 years. The primary efficacy objective was met with an ABO responder rate of 65.8% at Month 1. Median time to onset was 2 days. Subjects with ≥1-grade improvement from baseline (ILA) were significantly higher for ABO than placebo through Month 6. Median time to return to baseline from a score of 0 or 1 on both ILA and SSA was 247 days for ABO. A majority of subjects in the ABO group reported aesthetic improvement 6 months after treatment. The treatment was well-tolerated.

Conclusions: This study demonstrated high efficacy and well-tolerated safety profile with fast onset and long duration of effect of an injection volume of 0.1 mL (10 U ABO) per injection site for treatment of moderate to severe glabellar lines. Aesthetic improvement was high and lasted through 6 months.

Akef Reza
Canada

Akef Reza
Canada

#2325

vascular complication after skin booster

48 - Complications - avoidance and management

Background/Objectives: Case presentation. vascular complication after injection of a low elastisty Ha filer (skin booster) Rview the signs nas symptoms complications managemnet

Methods: Case Study

Results: Pt has been assesed and mnagmde for vascular complications with very god result

Conclusions: Vascular complication with Ha filler is very rare but early diagnosisi and proper mnagmnet is the key these complication can heppaerned in very low risk area of the face even with using 25G cannula. The symptoms can be very atypical and mimiking other complications such as bruises chacking the warning signs, early diagnosis, proper mangmnet, proper referal and good fololw up is very improtant

References: Aesthetic surgical journal Americal plastic surgey journal

Six Ngampis
France

Six Ngampis
France

#2333

Test La

42 - Scars & acne

Background/Objectives: Test Test

Methods:

Results:

Conclusions:

Monin Guillaume
France

Monin Guillaume
France

#2334

test 2

41 - Pigmentation

Background/Objectives: test

Methods:

Results:

Conclusions:

Moradi Amir
United States

Moradi Amir
United States

#2339

A randomized, evaluator-blinded, comparator-controlled study to evaluate HA-RC for cheek augmentation and correction of midface contour deficiencies

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The objectives of this randomized, evaluator-blinded, comparator-controlled study was to evaluate safety and effectiveness of HA-RC for cheek augmentation and correction of midface contour deficiencies.

Methods: Subjects with loss of fullness in the midface area were randomized 2:1 to treatment (≤6 mL) with HA-RC or control (HA-JV). The primary objective was to demonstrate non-inferiority of HA-RC relative to control in change from baseline on a midface volume scale1 (MMVS), 12 weeks after last injection. Other assessments included aesthetic improvement, subject satisfaction, and safety.

Results: Subjects were treated with HA-RC (n=142) or control (n=68). Overall, most subjects were female (89%) and mean age was 53 years. Total mean volume injected was statistically less for HA-RC than control (4.3 mL and 4.9 mL, respectively, p=0.0134). Mean change from baseline in MMVS score at Week 12 was -1.4 (HA-RC), -1.3 (control), thus primary objective was met. HA-RC effectiveness was supported by a high degree of aesthetic improvement (≥77%) and subject satisfaction throughout the study. Treatments were well tolerated; related adverse events were generally mild and transient.

Conclusions: HA-RC was non-inferior to control in midface fulness 12 weeks after injection. Aesthetic improvement and subject satisfaction was high and lasted throughout the study. HA-RC was well tolerated.

References: 1. Lorenc ZP, Bank D, Kane M, Lin X, Smith S. Validation of a four-point photographic scale for the assessment of midface volume loss and/or contour deficiency. Plastic and reconstructive surgery. 2012;130(6):1330-1336.

Kestemont Philippe
France

Kestemont Philippe
France

#2340

Treatment of moderate-to-severe glabellar lines using ready-to-use liquid abobotulinumtoxinA: Pooled data from two double-blind, randomized, placebo-controlled Phase III studies

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Most botulinum toxin A formulations require reconstitution before use. Liquid abobotulinumtoxinA (ABO solution) is being developed as a ready-to-use formulation to reduce preparation time and improve reproducibility in dose delivery. Results from the double-blind, placebo-controlled cycle of studies NCT02353871 and NCT02493946 were pooled to evaluate ABO solution treatment of glabellar lines (GL).

Methods: Subjects with moderate-to-severe GL at maximum frown were injected with 50 U of ABO solution (n=250) or placebo (n=122), randomized 2:1. GL severity was assessed on 4-grade scales by subjects (SSA) and investigators (ILA). Subjects also assessed time to onset of effect and satisfaction with GL appearance. Adverse events were collected throughout the studies.

Results: Proportions of subjects with GL severity of none or mild at maximum frown were significantly higher for ABO solution than placebo up to 6 months after treatment (<0.001), peaking at Month 1 (ILA: 88% ABO solution vs 3% placebo; SSA: 77% vs 6%). For ILA responders at Month 1, 24% reported onset of effect within 24 h. At Month 1, 85% in the ABO solution group were satisfied with GL appearance. At Month 6, 10% (ILA) and 15% (SSA) had GL severity of none or mild and 26% were satisfied with GL appearance. Treatment-related adverse events were non-serious and of mild or moderate intensity.

Conclusions: Treatment with ready-to-use ABO solution was effective for correction of GL and associated with high rates of subject satisfaction. The effect had a rapid onset and was sustained for up to 6 months after injection. Treatment of GL with ABO solution was well tolerated.

Kestemont Philippe
France

Kestemont Philippe
France

#2341

Long-lasting improvement of glabellar lines using ready-to-use liquid abobotulinumtoxinA: post hoc analysis of a double-blind, randomized, placebo-controlled Phase III study

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Most botulinum toxin A products require reconstitution before use. Liquid abobotulinumtoxinA (ABO solution) is being developed as a ready-to-use formulation to reduce preparation time, and improve precision and reproducibility in dose delivery. This was a post hoc analysis of a double-blind randomized study (NCT02353871) to evaluate efficacy of a new ABO solution treatment of glabellar lines (GL).

Methods: Subjects with moderate-to-severe GL at maximum frown were injected with 50 U ABO solution (n=125) or placebo (n=59), randomized 2:1. GL severity was assessed by subjects (SSA) and investigators (ILA) using 4-grade scales. A ≥1-grade improvement was analyzed post hoc. Subject-reported psychological well-being was assessed using a FACE-Q© scale. Adverse events were collected throughout the study.

Results: GL severity improved ≥1 grade in 93% of subjects at Week 2 after ABO solution injection based on ILA. The effect remained for 81% of subjects at Month 3 and 40% at Month 6. Time to return to baseline was nearly 6 months (median: 172 days for ILA) after ABO solution treatment. SSA results were similar but with peak response at Month 1-2 (87%). Subjects reported improved psychological well-being for 56 months after treatment with ABO solution (less than 0.05 vs. placebo) for FACE-Q scale items feeling attractive, feeling great about themselves, and liking themselves. The treatment was well tolerated.

Conclusions: Treatment with ABO solution achieved long-lasting ≥1 grade GL severity improvement for up to 6 months. The median time to return to baseline was nearly 6 months after injection. Improved subject psychological well-being was also sustained for up to 6 months. The treatment was well tolerated.

Palm Melanie
United States

Palm Melanie
United States

#2343

A randomized study on safety and effectiveness of a biostimulatory poly-L-lactic acid injectable implant after changes in reconstitution

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The objective of this randomized, evaluator-blinded study (NCT03780244) was to evaluate safety and effectiveness of a biostimulatory poly-L-lactic acid (PLLA) injectable implant for correction of nasolabial folds after changes in reconstitution and injection procedures compared to US label.

Methods: Subjects were treated with PLLA reconstituted with 8 mL or 5 mL sterile water for injection. The 8 mL product included an additional 1 mL 2%-lidocaine and was injected immediately after reconstitution. Primary endpoint was blinded evaluation of change from baseline of both nasolabial folds at Week 48 using a wrinkle assessment scale (WAS)1. Aesthetic improvement and adverse events were assessed.

Results: A total of 59 subjects were included in the 8 mL group and 21 subjects in the 5 mL group. Most subjects were female (95%), mean age was 51.5 years. Both groups demonstrated high WAS responder rates (at least 1-grade improvement from baseline) at Week 24 (≥75%) and Week 48 (≥67%; hence primary effectiveness endpoint met). Aesthetic improvement was high (≥86%) throughout the study. Adverse events related to study product or injection procedure were reported by 33% of subjects in the 5 mL group and by 12% in the 8 mL group, most events being mild and transient.

Conclusions: PLLA reconstituted with 8 mL SWFI + 1 mL 2%-lidocaine, demonstrated a comparable treatment effect to that of the 5 mL group in reducing wrinkle severity of nasolabial folds at Week 48. Safety was not compromised using a higher reconstitution volume including lidocaine, injected immediately after reconstitution.

References: Lemperle G, Holmes RE, Cohen SR, Lemperle SM. A Classification of Facial Wrinkles. Plast Reconstr Surg. 2001;108(6):1735-50.

Moncada Bustamante Ivan
Spain

Moncada Bustamante Ivan
Spain

#2350

Acute Telogen Effluvium Post infection SARS- Cov-2 (COVID-19) associated with androgen receptors

52 - Hair restoration

Background/Objectives: Currently, SARS-CoV-2 infection has recently been associated with dermatological manifestations and is believed to affect patients with androgenetic alopecia more severely. Despite the recent appearance of the virus, Moreno-Arrones They carried out a multicenter prospective study which included patients diagnosed with telogen effluvium in the period March-August 2020. Of the 214 patients included in the study, 191 patients (89.7%) had a diagnostic confirmation of previous SARS-CoV-2 infection . The authors hypothesize that in the case of TE associated with SARS-CoV-2, the virus can induce the immediate release of an anagen from the hair follicles, which causes a transition to the catagen phase and subsequently to the telogen phase. Proinflammatory cytokines released during the context of infection are probably the trigger for ET although medications (including heparinoids) could also be involved.3

Methods: The patient is instructed to perform a Hair Genetic Test where the following was obtained as a result: - GPR44-2: Moderately reduced PGD2 receptor activity. - PTGFR-2, 3: Moderately reduced PGF2a receptor activity. - SR5DA-1: Moderately accelerated type I steroid-reductase activity (Higher DHT Level). - ACE: Strongly increased angio-tensin conversion activity. - IGFR-1: Tendency to have moderately reduced IGF-1 (Somatomedin C) levels.

Results: The genetic test shows a greater activity of the angio-tensin converting enzyme, causing a higher concentration of ACE-II, a potent blood vasoconstrictor, as well as a greater activity in the SR5DA1 gene, causing an accelerated activity in said receptor (5 Alpha reductase I) by increasing DHT levels. Therefore, in addition to the initial treatment with PRP sessions and based on the genetic results, we propose a topical solution in a magisterial formulation: 7% minoxidil and 0.8% carnitine to counteract the effects of the accelerated activity of ACE, as well as Dutasteride 0.25. % to block the receptor 5 Alpha reductase I and II, with which a marked improvement could be observed both in the stabilization of the fall and in the quality of the follicles from the first month after said treatment

Conclusions: Although the phenomenon of telogen effluvium secondary to COVID-19 has been reported in the recent scientific literature, it remains imperative to increase awareness in patients and treating physicians about the possibility of this sequela. With an increasing number of recovering patients, the risk of developing this physically and emotionally distressing dermatological manifestation will likely continue to rise.

References: 1.- Malkud S. Telogen Effluvium: A Review. J Clin Diagn Res. 2015;9(9):WE01-WE3. 2.- Asghar F, Shamim N, Farooque U, Sheikh H, Aqeel R. Telogen Effluvium: A Review of the Literature. Cureus. 2020;12(5):e8320. 3.- Moreno-Arrones OM, Lobato-Berezo A, Gomez-Zubiaur A, et al. SARS-CoV-2-induced telogen effluvium: a multicentric. J Eur Acad Dermatol Venereol. 2020; Epub ahead of print.

Shelemba Evgeniya
Ukraine

Shelemba Evgeniya
Ukraine

#2353

Less is more? Tips to achieve more profound results with less amount of filler

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: In the last few years patients prefer more natural and sculptured look without excessive volumes and overfilled cheeks and lips. There are several practical pearls that help to enhance facial features of the patient without injecting large amounts of fillers. In our study we have applied all of these practical pearls to 10 female patients of different age, from different generations and with different aging patterns. 1. Lateral fist. Advantages in the knowldge of facial anatomy made during last few years have allowed us to understand the ligament line of face and that first injections made lateral to the line of ligaments help to support and lift the medial face, therefore medial face needs smaller amount of fillers to acheive symmetrical results 2. Properties of filler. The degree of firmness of filler, measured with rheometry, affects the lifting capacity of the filler and the ability of its tissue integration. When we perform injections with respect to ligament line, we choose filler with highest G' and lowest swelling factor. 3. Age of patients and degree of tissue sagging. In older patients we apply the Lateral first principle, but we also start injections from upper parts of face, moving to mid- and then lower face, which leads us to the importance of temporal filling. According to the latest research in this field, the level of injections in the temporal area has a great impact on the result. The supraperioteal injection technique has the greatest influence on the improving of temporal volume, the interfascial injection technique has good effects on improving the position of the eyebrow and the subdermal injection technique helps to improve the contour of the jawline. Our injection protocols utilize a multi-layer injection approach with a tailored proportion of each teqnique based on the aesthetic needs of the patient. Before and after photos of patients injected accoring to these principles are attached. In each case small amount of HA fillers (from 2 to 6 syringes for full face correction) and no other procedures (no threads, no SMAS lifting machines) have been used.

Methods:

Results:

Conclusions:

Bhardwaj Vinay
United States

Bhardwaj Vinay
United States

#2356

A holistic approach to image and understand underlying mechanism behind reorganization of extracellular matrix in aged human skin: Ex-vivo study using anti-aging serum

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: Skin aging, extrinsic and intrinsic, is characterized by disintegration and decrease in structural components of dermal extracellular matrix (ECM), such as collagen, elastin and glycosaminoglycans (GAGs). There are various approaches to control aging, for example, microinjections (Botox, collagen, hyaluronic acid, etc.), photo-rejuvination using laser and intense power light, chemical peels and cosmetic anti-aging products. In this research, we report our findings on using the state-of-art imaging techniques to visualize reorganization of collagen fibers in the dermis by Atomic Force Microscopy (AFM) for nanoscale information, Reflectance Confocal Microscopy (RCM, vivascope 1500) for microscale information, and histochemical imaging for macroscopic information after treatment of skin biopsies from an aged donor with an anti-aging test product for 6 days. There is a better alignment of the collagen fibers (AFM, RCM) and elastin fibers (immunohistochemical imaging) after treatment with the anti-aging product. Enzyme-Linked Immunosorbent Assay (ELISA) further corrobrates the imaging results, showing 2-3 times significant increase ($P < 0.05$) in pro-collagen type 1 and elastin, and noticeable increase in hyaluronic acid. A significant increase in alpha-smooth muscle actin, and noticeable increase in tenascin-X further insinuate the pathway behind the increase in production and alignment of collagen and elastin fibers (ECM remodeling). The imaging techniques used in this study have direct implications in preclinical and clinical research, as there is a need for such high resolution methods to visualize histological and ultrastructural changes in ECM organization, not only in context to cosmetics and anti-aging research but also to understand pathophysiology of other skin conditions and diseases.

Methods:

Results:

Conclusions:

Moncada Bustamante Ivan
Spain

Moncada Bustamante Ivan
Spain

#2360

Acute Telogen Effluvium Post infection SARS- Cov-2 (COVID-19) associated with androgen receptors

52 - Hair restoration

Background/Objectives: Background: Telogen effluvium (ET) can be defined as a diffuse, scarless hair loss that occurs about 3 months after a triggering event, it is generally self-limiting. Currently, SARS-CoV-2 infection has recently been associated with dermatological manifestations, including telogen effluvium.

Methods: Hair Genetic Test (Fagron TrichoTest) TM Serological test IgM / IgG SARS-CoV-2 ELISA Trichoscopy Magisterial Formulation (Topical, Oral) Based on Genetic AlterationsThe suggested treatment proposal was a combination of topical and oral therapy. Regarding the topical route, a magisterial formulation CSP 100ml (hydroalcoholic), minoxidil 7%, dutasteride 0.25%, carnitine 0.8% and tretinoin 0.01% was indicated. Additionally, selenium yeast was indicated, 100mg / day, orally. Additionally, platelet-rich plasma (PRP) treatment was performed. After 3 sessions of PRP and topical treatment, a marked improvement in the density and quality of the hair and the follicular units can be observed.

Results: Complementary studies were carried out which yielded the following results: -Hemogram and blood chemistry within normal ranges, - Hormonal Profile: DHEAS 2.59 nmol / L, Testosterone 0.53 nmol / L, TSH 1.25 mU / L. -Vitamins and Trace Elements: Zn 13.8 microM / L, phosphorus 41.9 nmol / L, vitamin B1 217 nmol / L, vitamin B12 123 pmol / L -Thorax radiography: lung fields with preserved volumes, preserved cardiothoracic index, free phrenic cost sinuses. -ELISA: Ac SARS-Cov-2 IgM 1.6 (Negative), Ac SARS-Cov-2 IgG 9.9 (Positive). Based on the signs and symptoms presented by the patient, the clinical judgment was acute telogen effluvium after SARS-Cov-2 (COVID-19) infection. The patient is instructed to perform a Hair Genetic Test where the following was obtained as a result: -GPR44-2: Moderately reduced PGD2 receptor activity, -PTGFR-2, 3: Moderately reduced PGF2a receptor activity. -SR5DA-1: Moderately accelerated type I steroid-reductase activity (Higher DHT level). -ACE: strongly increased angio-tensin conversion activity. -IGFR-1: Tendency to have moderately reduced IGF-1 (Somatomedin C) levels.

Conclusions: It is necessary to emphasize that, although the case is probably of post-infectious etiology, thanks to the genetic test , the diagnosis of female androgenetic alopecia (FAGA) could be made very early stages and thanks to them the treatment was oriented in a preventive way. It is also important to highlight the implication of prostaglandins and inflammatory mediators in the follicular cycle and the research space for the development of future treatments

References: REFERENCIAS 1.- Malkud S. Telogen Effluvium: A Review. J Clin Diagn Res. 2015;9(9):WE01-WE3. 2.- Asghar F, Shamim N, Farooque U, Sheikh H, Aqeel R. Telogen Effluvium: A Review of the Literature. Cureus. 2020;12(5):e8320. 3.- Moreno-Arrones OM, Lobato-Berezo A, Gomez-Zubiaur A, et al. SARS-CoV-2-induced telogen effluvium: a multicentric. J Eur Acad Dermatol Venereol. 2020; Epub ahead of print. 4.-Wambier CG, Goren A. SARS-COV-2 infection is likely to be androgen mediated. J Am Acad Derma-tol. 2020;83(1):308-309. 5.-Goren A, Vanño-Galv an S, Wambier CG, et al. A preliminary observation: male pattern hair loss among hospitalized COVID-19 patients in Spain—a potential clue to the role of androgens in COVID-19 severity. [e-pub ahead of print] J Cosmet Dermatol. 6.- Birch MP, Messenger JF, Messenger AG. Hair densi-ty, hair diameter and the prevalence of female pattern hair loss. Br J Dermatol. 2001;144(2):297-304. 7.-Dhurat R., Saraogi P. Hair evaluation methods: merits and demerits. International Journal of Trichology. 2009;1(2):108-119. doi: 10.4103/0974-7753.58553. 8.- Tosti A. Hair shaft disorders. In: Tosti A, editor. Dermoscopy of Hair and Scalp: Pathological and Clinical Correlation. Illustrated ed. USA: CRC Press; 2007. pp. 51-3. 9.- Arora NS, Ramanayake T, Ren YF, Romanos GE. Platelet- rich plasma: a literature review. Implant Dent 2009: 18 (4): 303-310. 10.- Rossi A, et al. Evaluation of a Therapeutic Alternative for Telogen Effluvium: A Pilot Study. Journal of Cosmetics, Dermatological Sciences and Applications, Vol. 3, 3A, 2013 11.- Cornejo-Garcì?a JA, et al. Pharmacogenomics of Prostaglandin and Leukotriene Receptors. Front. Pharmacol. 2016. 7:316. 12.- Kelly Y, et al. Androgenetic Alopecia: An Update of Treatment Options. Drugs. 2016 Sep;76(14) 13.- Woodward DF, et al. Internationa

Jacobs Jordan
United States

Jacobs Jordan
United States

#2424

Eyes Are The Window To The Soul

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The tear trough deficiency is a loss of volume under the eyes and can be treated non-surgically with facial fillers. This periorbital region is an extremely difficult area to treat and master for Aesthetic Providers; a delicate region with no room for error, oftentimes there are complications and huge risks involved which prevent practitioners from attempting to treat this unforgiving area. Luckily, there is a simple method with consistent outcomes, which is easy to deliver with the extensive knowledge of facial anatomy, the rheology of dermal fillers, and precise psychomotor skills. A simplified and reproducible technique should encourage more Aesthetic Injectors to confidently address and execute this region.

Methods: Directly insert the needle perpendicular to the platform of the bone, carefully delivering microboluses of the filler while gently walking it towards the medial aspect of the tear trough towards the medial canthus. Once the extent of the needle length is reached, the needle should be withdrawn and reinserted, repeating this motion until the entire tear trough is complete. At completion, one would slowly withdraw the needle out of the entry point and manually mold the filler with either a clean fingertip or sterile Q-tip in the direction of the medial canthus until the product is completely smooth and evenly distributed. Never exceed 2 mLs of filler bilaterally in one treatment to avoid running the risk of filler migration, prolonged edema or an unnatural result.

Results: Through technical experience and close post-procedure monitoring, over 100 patients between the ages of 18 and 80 years of age were treated and showed immediate improvements of the periorbital region including the tear trough. Improvements include decreased hollowing, increased brightness (due to light reflection) and decreased laxity of the skin. Oedema, erythema and tenderness occurred a few days to weeks postinjection, with a few cases of minor ecchymosis. After 4 to 6 weeks, skin discoloration, quality, tone, and integrity improved noticeably. Five patients of different tear trough deformity and product selection were selected to illustrate the effectiveness of this technique.

Conclusions: Directly treating the tear trough with filler augmentation has proven to effectively treat and rectify the common concerns of eye bags, under eye hollowing, dark circles and lower eyelid skin laxity. This study illustrates the value of a simplified and reproducible technique which consistently gives a predictable result with minimal safety risks and optimal outcomes. Patient satisfaction is maximized as provider confidence increases, improving the delivery method and decreasing the rate of complications.

References: Corduff, Niamh. An Alternative Periorbital Treatment Option Using Calcium Hydroxyapatite for Hyperpigmentation Associated with the Tear Trough Deformity. PRS Global Open. 2020;8:e2633. Syed N. Hussain MD, Sonia Mangal MBBS, Greg J. Goodman MBBS. The Tick technique: A method to simplify and quantify treatment of the tear trough region. Wiley Periodicals Inc. 2019;18:1642-1647.

Liatsopoulou Aikaterini
Greece

Liatsopoulou Aikaterini
Greece

#2426

Use of Handheld Dermatoscope for the Evaluation of Laser Hair Removal Efficacy

49 - Lasers, EBDs & Light

Background/Objectives: Background Unwanted hair growth is a common aesthetic problem and its removal is a constant demand, creating the need for effective, safe and practical treatment modalities. Presently, laser hair removal has prevailed as a leading option, offering the most balanced results between long- term efficiency and downsides. However, despite the vast use of photoepilation systems, the ideal method has not yet been found. Literature regarding the efficacy of laser hair removal presents contrasting results and that can be attributed to the fact that available studies lack standardized protocols. One of the design parameters that clearly differs among studies is the method used to assess treatment outcome. The need for a unanimously accepted, non- invasive, practical, yet objective evaluation technique is imperative in laser hair removal efficacy studies. Summary The aim of this presentation is to explore the merits of trichoscopy, with particular interest in its application for the assessment of laser hair removal. Trichoscopy, or dermoscopy of the hair and scalp, is a rising technique, that offers many possibilities in clinical and investigative dermatology. It is a simple, fast and easily accepted technique that could serve as a valuable tool for clinical monitoring of the response to laser treatment, as well as for quantification of laser efficacy results in trials. The use of trichoscopy either in its simple form (handheld dermatoscopes attached to cameras/ smart phones) or advanced videodermoscopy analysis systems, could prove a valuable tool in the objective evaluation of laser hair removal. It allows the quantification of hair reduction via hair counts, as well as the distinction between vellous and terminal hair, for greater accuracy. The merits of trichoscopy render the dermatoscope a suitable tool for the assessment of hair removal modalities. It is a practical, non-invasive, patient and doctor friendly technique that offers the oportunity for rapid, yet objective analysis of hair. Further research is needed for the instrument's standardization and the study of its validity and reliability properties, concerning its use as an assessment tool for hair removal efficacy.

Methods:

Results:

Conclusions:

Maizetova Zulya
United Kingdom

Maizetova Zulya
United Kingdom

#2427

Genomic instability assessment as early cancer prevention in healthy people

65 - Stem cells, Genomics, Epigenetics

Background/Objectives: Genomic instability is a phenomenon arising in normal cells through accumulation of genetic and epigenetic changes. Genomic instability is linked to cancer and is an important characteristic of tumor cells. Genomic instability is thought to be involved in cancer genesis too: in fact, a minimal fraction of cells in an organism that have acquired genomic instability are not cleared away, eventually giving rise to a tumor. The latest research confirms that genomic instability is a fundamental characteristic of cancer cells. But contrary to germline mutations, genomic instability is not a marker of the risk of cancer; rather, genomic instability is indicative of the cancer prodromal stage, that is the stage, lasting several years, during which cells progressively accumulate somatic mutations in clinically healthy individuals showing no cancer symptoms. Alborelli et al studied genomic alterations by means of molecular barcoded ultradeep sequencing. They first analyzed tissue and blood sample from patients with a histologically confirmed diagnosis of cancer and observed that certain mutations were detected only by blood cfDNA (circulating free DNA) analysis, confirming the potential clinical value of measurng the frequency in parallel to tissue biopsy. Mutation rate in cfDNA is analyzed by means of Multi Biomarker Next Generation Sequencing (NGS). NGS is an innovative DNA sequencing technology that allows to sequence a high number of small DNA fragments at the same time, with a very high coverage of a region of interest - especially important for identifying mutation associated to cancer that are present at low fractions. The advances in molecilar genomics lead to the development of the assessment of the prodromal, totally asymptomatic, stage of solid cancer (brain cancer excluded) by means of the analysis and the annual monitoring of mutation rate (hence, genome instability) in cfDNA. The real-time analyses of somatic mutation frequency in clinically healthy people enables to attenuate the cancer risk with lifestyle and therapeutic investigations.

Methods:

Results:

Conclusions:

Romashkina Anastasia
Russia

Romashkina Anastasia
Russia

#2430

When will we begin to correct scars after surgery?

48 - Complications - avoidance and management

Background/Objectives: The formation of hypertrophic scars and contractures are the main problem in the area of surgery, We determine 2 groups of patients: one we theated by injections of sodium succinate in 5-10 days after surgery, the second were without injections. All the patients of 1 group have a positive effect of less rheabilitation perion, abscence of hypertrophic scars.

Methods:

Results:

Conclusions:

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2431

Scleroderma: what's new in the treatment

51 - Regenerative aesthetics

Background/Objectives: Treatment of scleroderma is aimed at improving microcirculation and preventing the progression of the spread and thickness of the lesion. High molecular hyaluronic acid is an anti-inflammatory agent: it reduces the level of proinflammatory cytokines, reduces leukocyte infiltration and tissue edema, along with vascular wall permeability. Succinic acid normalizes microcirculation and cellular energy metabolism, function of fibroblasts, macrophages, mast cells, endotheliocytes. To monitor morphological changes during treatment, multiple examination procedures with accurate and non-invasive methods are important. This allows us to employ a method of confocal laser scanning microscopy in vivo (CLSM) as a monitoring tool for localized scleroderma.

Methods: The correction of localized scleroderma was performed out in 10 female patients aged 25 - 40 years old. We used a preparation containing high molecular hyaluronic acid (11 mg/ml) and succinic acid (16 mg/ml). Each patient received 2 ml (technique of papular injections). The course included procedures 1 every 2 weeks. Results were evaluated using International Global Aesthetic Improvement Scale (GAIS), the questioning of patients before and after the procedures, and in vivo confocal laser scanning microscopy data obtained on the first and the last day of the course, and 30 days after the end of the course.

Results: Two month after beginning of the course, skin improvement was observed in 8 (80%) patients a positive dynamic: a reduction in the intensity of thickness of the lesion and the appearance of skin sensitivity in the focus of scleroderma. After the treatment there was a decrease in the severity ofpigmentation (1,7 and 1,2 points), thickness of the skin (1,9 and 1,4 points). Confocal scanning laser microscopy showed positive changes in the structure of the epidermis and derma: normalization of vascular functions and improvement in the structure of collagen fibers were observed. Allergic reactions to drug administration have not been recorded. Absence of effect and negative dynamics during therapy were not revealed.

Conclusions: The protocol of treatment employing preparation containing hyaluronic (1,1 mg/ml) and succinic acid (1.6mg/ml) can be effective for localized scleroderma. The in vivo confocal laser scanning microscopy can be an effective tool for the therapy monitoring in scleroderma.

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2432

When will we begin to correct scars after surgery

51 - Regenerative aesthetics

Background/Objectives: Postoperative scars are a problem that is often addressed to a cosmetologist. The formation of hypertrophic scars and contractures, soreness in the area of the postoperative wound, longlasting edema are the main complaints of patients, which can persist 3-4 months or more after the operation.

Methods: Under observation were 20 women aged 25 to 40 years, who underwent mammoplasty and / or abdominoplasty. The patients were divided into 2 groups: group 1 (10 people) underwent early correction of postoperative scars, group 2 (10 people) did not undergo scar treatment. Patients of group 1 received 4 procedures each using a combined preparation containing succinic acid in the form of 16 mg / ml sodium succinate and 11 mg / ml hyaluronic acid. The drug was administered intradermally using the technique of papular injections with a 30G needle, 2.0 ml per procedure, with an interval of 1 time in 2 weeks. Injections were performed along the scar, with a careful study of the area of â€‹â€‹formation of hypertrophic scars and contractures.

Results: All patients of the 1 group showed positive dynamics in the form of a decrease in the severity and pallor of scars, the absence of the formation of hypertrophic scars and contractures, puffiness and discomfort in the area of â€‹â€‹the postoperative scar. Discomfort in the area of â€‹â€‹the scar persisted for a long time in patients of the 2 group; in 60%, the formation of hypertrophic scars along the entire length of the scar or locally was noted. During the clinical assessment of the treatment performed by patients and doctors, it was revealed that patients of the 1 group were satisfied with the result obtained (average GAIS score 2.8 points), while those of the 2 group were not (average GAIS score 0.4 points). Also, a point scale was used to assess discomfort in the area of â€‹â€‹the scar (soreness, feeling of tension). The assessment was carried out on the following scale: 0 - no sign, 1 - weakly expressed, 2 - moderately expressed, 3 - strongly expressed. Discomfort was absent in group 1 patients (0.4 points), in group 2 it was pronounced (2.6 points). Allergic reactions to drug administration have not been reported. The lack of effect and negative dynamics during therapy were not identified.

Conclusions: The drug containing hyaluronic and succinic acids is well tolerated and promotes rapid recovery of patients after surgery.

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2433

Acne: how to recovery scars

42 - Scars & acne

Background/Objectives: After the regress of acne inflammation the aim is to restore the skin and reduce pigmentation, correct scars, improve microcirculation and restore skin quality. For recovery we use laser therapy, IPL, peels, PRR. For improving the result and increasing drugs delivery are used fractional administration of the drug using dermaroller. High molecular hyaluronic acid is an anti-inflammatory agent: it reduces the level of proinflammatory cytokines, reduces leukocyte infiltration and tissue edema, along with vascular wall permeability. Succinic acid normalizes microcirculation and cellular energy metabolism, function of fibroblasts, macrophages, mast cells, endotheliocytes. To monitor morphological changes during treatment, multiple examination procedures with accurate and non-invasive methods are important.

Methods: The correction of pigmentation and atrophic scars was performed out in 20 female patients aged 25 -35 years old. We used a preparation containing high molecular hyaluronic acid (5,5 mg/ml) and succinic acid (16 mg/ml) and peel containing salicylic, mindalic, lactic acids. Each patient received 5 ml of injection (technique of fractional injections) and 2 ml peels. The course included procedures 1 every 2 weeks. Results were evaluated using International Global Aesthetic Improvement Scale (GAIS), the questioning of patients before and after the procedures, and in vivo confocal laser scanning microscopy data obtained on the first and the last day of the course, and 30 days after the end of the course.

Results: After two procedurs skin improvement was observed in 18 (80%) patients a positive dynamic: decrease in the severity of scars, pigmentation and skin hydration. After the treatment there was a decrease in the severity of pigmentation (1.7 and 0,9points), thickness of the skin (1.9 and 1,1 points). Confocal scanning laser microscopy showed positive changes in the structure of the epidermis and derma: normalization of vascular functions and improvement in the structure of collagen fibers were observed.

Conclusions: The protocol of treatment employing preparation containing hyaluronic (5,5 mg/ml) and succinic acid (1.6mg/ml)in technique of fractional injections and peel can be effective for acne scars and pigmentation. The in vivo confocal laser scanning microscopy can be an effective tool for the therapy monitoring of disease.

Lucero-daga Samantha
United States

Lucero-daga Samantha
United States

#2435

Making Pigmentation a Figment of the Imagination

41 - Pigmentation

Background/Objectives: Clear, even toned skin is often a goal for many individuals. Up until recently, laser and intense pulsed light treatments alone were more widely used to treat a variety of pigmentation issues especially for skin types I-III, but could make pigmented lesions in darker skin types worse (Passeron et al., 2019). However, lasers are expensive and usually less effective in safely treating skin types IV-VI. Fortunately, the FDA has cleared multiple modalities in recent years to achieve even-toned skin for skin types I-VI. Although not every pigmentation issue is "curable," there are modalities that can definitely reduce the appearance of the issue. The modalities I would like to focus on regarding treatment for pigmentation issues are: Microneedling, chemical peels, and skincare products. The skin pigmentation issues I would like to address are: Rosacea, Melasma, PIH, and sun damage. Being able to treat pigmentation with modalities alternative to laser treatments not only provides a valuable service to the client but can be relatively lucrative and time efficient to the practice.

Methods:

Results:

Conclusions:

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2436

Injections in protocols of correction sensitive skin

45 - Combination treatments

Background/Objectives: Sensitive skin diseases during the reconvalescence need aparticipation of both a dermatologist and a cosmetologist with the goal of full physiological epithelization, moisturizing and preventing scarring and pigmentation. After the inflammatory dermatoses, we observe not only deeply dehydrated skin, which is associated with a decrease in the amount of hyaluronic acid, but also changes in the microcirculation, which manifests itself in the form of impaired tone and vascular permeability. Often during the convalescence of dermatoses there remains stable hyperpigmentation or depigmentation and atrophic scars, which is facilitated by a long process of regeneration at the sites of damage.

Methods: The correction of sensitive skin diseases was performed out in 20 female patients aged 30-40 years old in the stage of reconvalescence. We used a preparation containing high molecular hyaluronic acid (18 mg/ml) and succinic acid (16 mg/ml). Each patient received 2 ml (technique of papularinjections). The course included from 3 procedures (1 every 2 weeks). Results were evaluated using International Global Aesthetic Improvement Scale (GAIS), the questioning of patients before and after the procedures, and in vivo confocal laser scanning microscopy data obtained on the first and the last day of the course, and 30 days after the end of the course.

Results: Two weeks after beginning of the course, skin improvement was observed in all patients a positive dynamic: a reduction in the intensity of hyperpigmentation, a more active skin regeneration (compared to similar areas in the same patient), improved skin turgor and elasticity, increased skin hydration. After the treatment there was a decrease in the severity of telangiectasia(mean score before treatment - 1.2, after treatment - 0.2), pigmentation (1.7 and 0.9 points), dry skin (1.1 and 0.1 points). A good moisturizing effect was noted in 18 (90%) patients, moderate - in 2 (10%). Confocal scanning laser microscopy showed positive changes in the structure of the epidermis and derma: infiltration and edema were decreased, normalization of vascular functions and improvement in the structure of collagen fibers were observed.

Conclusions: The protocol of treatment employing preparation containing hyaluronic (1,8mg/ml) and succinic acid (1.6mg/ml) can be effective for patients with sensitive skin diseases.

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2437

Peels in correction of sensitive skin diseases

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: Patients with atopic and seborrheic dermatitis, rosacea are not used peels due to fear of increasing sensitivity of the skin. Correction of post-inflammatory pigmentation, improvement of skin quality, reduction of keratosis on the surface are also necessary for these patients.

Methods: The correction with peels have 5 patients with atopic dermatitis, 5 - seborrheic dermatitis, 5 - rosacea. We use peel with lactic, mandelic and citric acids. The course included procedures 1 every 2 weeks. Results were evaluated using International Global Aesthetic Improvement Scale (GAIS), the questioning of patients before and after the procedures, and in vivo confocal laser scanning microscopy data obtained on the first and the last day of the course, and 30 days after the end of the course.

Results: In two weeks after beginning of the course, skin improvement was observed in all patients a positive dynamic: improving skin quality, reducing post-inflammatory pigmentation, hyperkeratosis, dry skin. Confocal scanning laser microscopy showed positive changes in the structure of the epidermis and derma: ÑƒÐ¼ÐµÐ½ÑŒÑˆÐµÐ½Ð¸Ðµ Ð²Ð¾Ñ‰Ð¿Ð°Ð»ÐµÐ½Ð¸Ñ, improvement in the structure of collagen fibers were observed. Allergic reactions to drug administration have not been recorded. Absence of effect and negative dynamics during therapy were not revealed.

Conclusions: The protocol of treatment employing peels with mandelic, lactic, citric acids can be effective for sensitive skin diseases. The in vivo confocal laser scanning microscopy can be an effective tool for the therapy monitoring.

Romashkina Anastasiya
Russia

Romashkina Anastasia
Russia

#2438

Rosacea: protocols of aesthetic correction

51 - Regenerative aesthetics

Background/Objectives: Rosacea during the reconvalescence need a participation of both a dermatologist and a cosmetologist with the aim of normalization of microcirculation, moisturizing the skin, reducing inflammation and vascular severity. For this purpose laser, injections and peels are used. Each method has its advantages and disadvantages.

Methods: The correction of rosaceawas performed out in 20 female and male patients aged 25-40years old in the stage of reconvalescence. We used a preparation containing high molecular hyaluronic acid (11 mg/ml) and succinic acid (16 mg/ml), LightPod Neo, peels. The course included from 3 procedures (1 every 2 weeks). Results were evaluated using International Global Aesthetic Improvement Scale (GAIS), the questioning of patients before and after the procedures, and in vivo confocal laser scanning microscopy data obtained on the first and the last day of the course, and 30 days after the end of the course.

Results: Two weeks after beginning of the course, skin improvement was observed in all patients a positive dynamic in to varying degrees: a decrease in redness and vascular severity was observed in patients who received laser and IPL treatment, peels - reducing redness and severity of inflammation, injections - reducing redness, skin reactivity and improving skin quality.Allergic reactions have not been recorded. Absence of effect and negative dynamics during therapy were not revealed.

Conclusions: Developed protocols for the correction of patients with rosacea, taking into account the clinical picture of the disease.

Samadi Aniseh

Firooz Alireza
Iran

#2439

Long term effects of two 24-hour moisturizing products on skin barrier structure and function: A biometric and molecular study

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: Moisturizing products are commonly used to improve skin hydration in dry skin and recently there are a few formulations showing moisturizing effects up to 24 hours after single application. Aquaporin family and specifically aquaporin 3 (AQP3) are water-transporting proteins, which might be associated with the degree of skin hydration. In this randomized clinical trial we assessed the effects of 2 brands of 24-hour moisturizers on the skin barrier function, as well as the AQP3 gene expression.

Methods: Two moisturizer products were applied once daily by20 volunteers with mean age of 36.15 ±9.55 year. Upper right and left forearms were randomly assigned to application of each product, whereas the right lower forearm served as control site for daily application of a cream base formulation. Biophysical assessments including trans epidermal water loss (TEWL), stratum corneum hydration, pH, surface lipids, and elasticity parameters were performed before intervention, 1, 4 and 24 hours after single application of creams, as well as following 2 weeks daily application and one week after termination of use. Also 5-mm punch biopsies were performed from application sites of product B and cream base formulation in for 5 participants after 2 weeks of application.

Results: A single treatment with both products led to 24-hour increase in skin moisture in comparison with the control site (p-value <0.01). Daily application of both products for 14 days also led to significant improvement in skin moisture (p-value<0.01), TEWL (p-value<0.01) and elasticity parameters. The increase in skin hydration was associated with upregulation of AQP3 gene expression in treated area for one of the formulations (p-value=0.04).

Conclusions: The tested 24-hour moisturizers may only need to be applied once daily to improve skin barrier function and hydration, and upregulate AQP3 mRNA expression.

References: Samadi A, Ahmad Nasrollahi S, Maghsoudi Ashtiani M, Abels C, Firooz A. Changes in skin barrier function following single and repeated applications of 4 types of moisturizers: A randomized controlled trial. J Eur Acad Dermatol Venereol. 2020 Feb 11. Epub ahead of print Dumas M, Sadick NS, Noblesse E, Juan M, Lachmann-Weber N, Boury-Jamot M, Sougrat R, Verbavatz JM, Schnebert S, Bonté F Hydrating skin by stimulating biosynthesis of aquaporins. J Drugs Dermatol. 2007 Jun;6(6 Suppl):s20-4. Schrader A, Siefken W, Kueper T, Breitenbach U, Gatermann C, Sperling G, Biernoth T, Scherner C, Stäb F, Wenck H, Wittern KP, Blatt T. Effects of glyceryl glucoside on AQP3 expression, barrier function and hydration of human skin. Skin Pharmacol Physiol. 2012;25(4):192-9

Borzykh Olga
Russia
Borzykh Olga
Russia

#2440

Clinical and genetic predictors of complications in aesthetic medicine

48 - Complications - avoidance and management

Background/Objectives: Complications, as part of the adverse events, in cosmetology is becoming an increasing problem. At the same time, the causes of all adverse events can be divided into 3 large groups: related to drugs, related to the work of the cosmetologist and related to the patient. I suggest that we go into more detail about the reasons associated with the patient. At the same time, subgroups can also be noted in this group, such as violation of recommendations after the procedure, violations of local (and/or humoral immunity), sensitization, violation of the functioning of connective tissue, and others. Just a violation of the functioning of the connective tissue has recently been in the focus of more attention. There is the term hereditary connective tissue dysplasia, which includes hereditary syndromes (such as Ehlers-Danlos syndrome, osteogenesis imperfecta, and others) - they are less common. As well as the so-called multifactorial diseases with a genetic predisposition, manifested by a violation of the functioning of connective tissue. There is no consensus on terminology, as well as opinions on diagnostics and management. In Russia, the National Society of Therapists applies the term "Connective Tissue Dysplasia" to these conditions, in the clinical manifestations of which the skin syndrome manifests itself as hyperextension of the skin, translucent vascular pattern, velvety skin, and others. Studies have shown the role of connective tissue dysplasia in increasing the risk of hypertrophic and atrophic scars after aesthetic procedures, as well as in premature aging of the facial skin. In Europe contries the term "Connective tissue dysplasia" is not used for non-hereditary syndromes, and the inferiority of the connective tissue structure is described through polymorphisms of genes involved in the synthesis and spatial orientation of the collagen molecule, such as Col1A1, Col1A2, Col3A1, Col5A1, PLOD1, PLOD2 and others. Thus, when assessing the risk of adverse events, we can rely on the clinical signs of connective tissue dysplasia and / or analysis of gene polymorphism in the patient.

Methods:

Results:

Conclusions:

Carrera Bastos Pedro
Portugal

Carrera Bastos Pedro
Portugal

#2442

THE ROLE OF DIET AND LIFESTYLE IN LOW-GRADE CHRONIC INFLAMMATION

60 - Inflammation and methylation

Background/Objectives: A variety of lifestyle and environmental factors, such as smoking, pollution, psychological stress, sleep disturbance and circadian disruption, physical inactivity, and western-type hypercaloric diets (which are high in sugar, refined grains, alcohol, salt, trans fatty acids, oxidized lipids, and advanced glycation end-products, and low in various micronutrients, fiber, prebiotics, omega-3 fatty acids and phytochemicals), coupled with visceral obesity, increased intestinal permeability and dysbiosis can persistently activate numerous inflammatory pathways, leading to a state of low-grade chronic inflammation (LGCI). In turn, LGCI can cause several chronic conditions, such as dyslipidemia, hypertension, type 2 diabetes, non-alcoholic fatty liver disease, coronary heart disease, stroke, osteoporosis, sarcopenia, various types of cancer, endocrine disorders, depression, and neurodegenerative diseases. Moreover, it contributes to the exacerbation and perpetuation of osteoarthritis and chronic kidney disease, disturbs the status of various micronutrients, and compromises the adaptive immune function, precluding an adequate response to infectious agents and vaccines and the establishment of immunological tolerance to self-antigens (thereby increasing the risk for autoimmune diseases). Therefore, lifestyle and nutritional interventions that prevent, decrease, and resolve inflammation are of paramount importance and will be the main topic discussed in this presentation. References: 1 - Furman D, et al. Nat Med. 2019 Dec;25(12):1822-1832. 2 - Calder PC. BMJ Nutr Prev Health. 2020 May 20;3(1):74-92 3 - Childs CE, et al. Nutrients. 2019 Aug 16;11(8). pii: E1933. 4 - Custodero C, et al. Ageing Res Rev. 2018 Sep;46:42-59. 5 - Mohammad S, Thiemermann C. Front Immunol. 2021 Jan 11;11:594150. 6 - Pereira B, Xu XN, Akbar AN. Front Immunol. 2020 Oct 14;11:583019.

Methods:

Results:

Conclusions:

Sullivan Robert
Ireland

Sullivan Robert
Ireland

#2443

Beauty is No Longer Skin Deep. Ageing, Non-Thermal Lasers, Fat Cells and the Mitochondria, why they are so Important in Aesthetic Medicine

50 - Body contouring & skin tightening

Background/Objectives: Non-Thermal Low-Level, or true cold lasers have been used in medicine in various forms since the mid 1960s. For many decades this modality has been poorly understood and often confused with other light therapies. This unique therapeutic modality is now becoming more understood and more excepted for its extraordinary qualities. This presentation looks at the research around cellular ageing, mtDNA stimulation and production, the importance of the mitochondria and stem cell in maintaining health and vitality. Activation of these processes are beneficial in antiageing, collagen and elastane production, fat cell management, and boosting the immune response. We can intervene to change and improve out appearance and external beauty, now thanks to NTLLL, we can inspire beauty from within to assist and benefit our general appearance and self-esteem. NTLLL can restore, rejuvenate and inspire our cells to behave as the did when we were younger. Proven effective in Fat Cell Management including body sculpting, cellulite management, weight management, and obesity management. Other areas ate pain reduction and control, inflammatory management, re and pre-habilitation and neurological management. Journey with me into the world of NTLLL

Methods:

Results:

Conclusions:

Sullivan Robert
Ireland

Robert Sullivan
United Kingdom

#2444

Beauty is No Longer Skin Deep. Ageing, Non-Thermal Lasers, Fat Cells and the Mitochondria, why they are so Important in Aesthetic Medicine

51 - Regenerative aesthetics

Background/Objectives: Non-Thermal Low-Level, or true cold lasers have been used in medicine in various forms since the mid 1960s. For many decades this modality has been poorly understood and often confused with other light therapies. This unique therapeutic modality is now becoming more understood and more excepted for its extraordinary qualities. This presentation looks at the research around cellular ageing, mtDNA stimulation and production, the importance of the mitochondria and stem cell production. Activation of these processes are beneficial in antiageing, collagen and elastane production, fat cell management, and boosting the immune response. We can intervene to change and improve out appearance and external beauty, now thanks to NTLLL, we can inspire beauty from within to assist and benefit our general appearance and self-esteem. NTLLL can restore, rejuvenate and inspire our cells to behave as the did when we were younger. Proven effective in Fat Cell Management including body sculpting, cellulite management, weight management, and obesity management. Other areas ate pain reduction and control, inflammatory management, re and pre-habilitation and neurological management.

Methods: presentation founded on research

Results: as per the presentation

Conclusions: as presented

Sullivan Robert
Ireland

Robert Sullivan
United Kingdom

#2445

Beauty is No Longer Skin Deep. Ageing, Non-Thermal Lasers, Fat Cells and the Mitochondria, why they are so Important in Aesthetic Medicine

71 - Unclassified topics

Background/Objectives: Non-Thermal Low-Level, or true cold lasers have been used in medicine in various forms since the mid 1960s. For many decades this modality has been poorly understood and often confused with other light therapies. This unique therapeutic modality is now becoming more understood and more excepted for its extraordinary qualities. This presentation looks at the research around cellular ageing, mtDNA stimulation and production, the importance of the mitochondria and stem cell production. Activation of these processes are beneficial in antiageing, collagen and elastane production, fat cell management, and boosting the immune response. We can intervene to change and improve out appearance and external beauty, now thanks to NTLLL, we can inspire beauty from within to assist and benefit our general appearance and self-esteem. NTLLL can restore, rejuvenate and inspire our cells to behave as the did when we were younger. Proven effective in Fat Cell Management including body sculpting, cellulite management, weight management, and obesity management. Other areas ate pain reduction and control, inflammatory management, re and pre-habilitation and neurological management.

Methods: established research

Results: as per presentation

Conclusions: as per presentation

Snozzi Philippe
Switzerland

Philippe Snozzi
Switzerland

#2446

Retrobulbar Hyaluronidase Injections for Treating Filler Related Blindness - An Approach Doomed to Failure?

48 - Complications - avoidance and management

Background/Objectives: Vision impairment or blindness is the most feared filler-related complication, usually leading to life-long disability for the patient. With increasing numbers of aesthetic treatments performed worldwide, the numbers of blindness cases are increasing as well, with hyaluronic acid injections now being the most common cause [1]. Three emergency treatment approaches have been proposed so far: intravenous thrombolysis, selective intraarterial thrombolysis, or retrobulbar injections, using hyaluronidase with or without a thrombolytic agent such as alteplase. Whereas the intravenous approach has only been used in an animal model so far [2], the selective intraartial approach was applied in several patients. However, outcomes were disappointing [3,4] and even interventional stroke was reported [5]. Furthermore, a recent publication indicates that the timeframe for a successful intervention might be as short as 12-15 minutes [6], making inpatient treatments such as the intravenous or intraarterial approach very unlikely. Thus, most treatment attempts nowadays focus on the retrobulbar injection approach, as the intervention can be applied rapidly and in an in-office setting, as long as the physician is trained appropriately. In his presentation, the speaker presents an overview of published cases of retrobulbar injections, highlighting on the pitfalls of the approach. He presents evidence that this approach will most likely be subject to failure questioning whether it is advisable to offer the training to aesthetic injectors. References Beleznay K. Aesthet Surg J. 2019 May 16;39(6):662-674. Chiang C. Plast Reconstr Surg. 2016 Dec;138(6):1221-1229. Oh BL. Neuroophthalmology. 2014 Jan 28;38(1):39-43. Kim YK. J Korean Med Sci. 2015 Dec;30(12):1847-55. Zhang L. Aesthet Surg J. 2021 Feb 12;41(3):344-355. Tobalem S. BMC Ophthalmol. 2018 Apr 18;18(1):101. About the speaker Dr. Philippe Snozzi is a Swiss aesthetic physician and board-certified general practitioner, who has been working with injectables for more than 15 years. He has been a trainer and expert in the field of injectables and lecturing and training other physicians in Switzerland and internationally. He is a faculty member of the Allergan Medical Institute and was involved in developing the core modules for an european injector training pathway. Furthermore Dr. Snozzi has a special interest in teaching about filler complications and has co-authored several scientific publications, including one on complication management which won the best paper award from PRS Global Open in 2019.

Methods:

Results:

Conclusions:

Janovska Jana
Latvia
Janovska Jana
Latvia

#2448

Relationship between DNA methylation and Metabolic syndrome. The epigenetic clock.

51 - Regenerative aesthetics

Background/Objectives: Introduction The association between DNA methylation and age in humans is well established for whole blood, and also in adipose tissue, brain and mesenchymal stem cells, loci have been found where DNA methylation changes with age (Roderick et al, 2018). The evidence that the age-related changes in DNA methylation play a role in aging comes from studies of anti-aging interventions (e.g., caloric restriction, iron deficiency, dyslipidemia). DNA methylation is not a static modification. Variation in healthy aging and lifespan is ascribed more to various non-genetic factors than to inherited genetic determinants, and a major goal in aging research is to reveal the epigenetic basis of aging (Sangkyu Kim et al 2018). DNA methylation can modulate gene expression in response to exposure to various substances, such as nutrients, smoking, and environmental chemicals. Genomic DNA contains epigenetically modifiable DNA bases, and the most studied is 5-methylcytosine. To figure out more non-genetic risk factors and obtain most important methylation pathways study were done. There are no studies about methylation and metabolic syndrome related co-factors, in this study we present results, how BMI, and presence of MetSy impacts methylation.

Methods: Both Gender Caucasian patients were analyzed age group 30-60 years. Analyzed group included 2 specific categories MetSy and non-MetSy (based on IDF criterion). Waist circumference and BMI were conducted, as well as, lifestyle factors and skin ageing signs (using Skin Aging Index (Janovska et al, 2019). Blood biochemical analyses (cholesterol, HDL, LDL, vitamin D level, CRP) were determined. As all the data involved in the analysis of data by Kolmogorov - Smirnov test conform to the normal distribution ($p>0.05$), for descriptors statistics and graphical data representation was used parametric statistics.

Results: Statistical parametric analysis on age difference (AgeDiff). MetSy patients have higher Methyl Age than control group. MetSy patients has around 14,6 plus age ($p> 0,05$). Average AgeDiff to chronological age in non- MetSy patients are 11,4 years, but in MetSy patients +20,2 years.

Conclusions: The initial results are very promising as the MetSy group has a considerably higher MethylAge, which fits to the hypothesis that multiple morbidities in MetSy have a negative impact on DNA hydroxymethylation.

Martínez Canales Sanchez Pedreño Tomas
Spain

Ravera Karina
Argentina

#2449

FillZon BBXL: Clinical-radiological study to evaluate efficacy and safety in volumizing and body contouring.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: FillZon BBXL is a high molecular weight Hyaluronic Acid synthesized according to NASHA technology and specially designed at the molecular level to perform body volumizing treatments. This study was conducted to evaluate the efficacy and safety of this new hyaluronic acid when used in gluteal plumping and contouring treatments.

Methods: 10 healthy female patients over 25 years of age were recruited, who underwent 3 gluteal volumization treatments due to aesthetic causes and one case due to a unilateral congenital volumetric deficit. These patients had clinical and radiological follow-up for 15 months, the safety and efficacy of the product was clinically evaluated by physical examination, high-resolution soft tissue ultrasound and Nuclear Magnetic Resonance, report of adverse effects, Global Aesthetic Improvement Scale and degree of satisfaction of patients.

Results: In this study, the patients received a minimum of 100 ml of high molecular weight hyaluronic acid and a maximum of 350 ml depending on the clinical case to be resolved. The results were clinically evaluated in various aspects such as: shape, size, global appearance of the buttocks and tissue turgor. Radiologically, the following parameters were evaluated by ultrasound and especially by MRI: Time of permanence of the injectable implant in situ, pattern of integration in the recipient tissue and degradation rate.

Conclusions: All patients obtained very satisfactory results both in the personal pisco-emotional, clinical and radiological aspects. There were no adverse effects or complications related to the treatment. The degradation rate of hyaluronic acid remained within the expected parameters. Fifteen months after the implantation of the hyaluronic acid, remnants of it continue to be seen with excellent appearance and volume of the buttocks.

Calorigero Fortunata
United States

Fortunata Calorigero
United States

#2451

Functional Clinical AestheticsTM

45 - Combination treatments

Background/Objectives: Background: Fortunata Calorigero, DBM. is specialized in the field of botanical medicine and aesthetics. She has carried out several experiments and studies about the effects of personalized treatments on aesthetic conditions observed from a clinical perspective. Now her focus is placed on the interoperability of the beneficial properties from plants and other natural sources triggering those physiological mechanisms apt to restore health and beauty from whithin. Summary: The Functional Clinical AestheticsTM model explores an avantgarde approach to health and beauty care. The Functional Clinical AestheticsTM model features methods of analysis and assessment, through the applications of Complementary Medicine to conventional techniques of aesthetic care, to develop a customised therapeutic program specifically based on your very unique genome profile, lifestyle, environment, diet and other concurrent factors. From the physiological root cause to a personalized therapeutic program with the primary goal of treating the imbalances that lead to aesthetic imperfections. A customised protocol based on the combination of conventional aesthetic treatments and high performance, multi-functional organic preparations (topical and/or oral) addressing the physiological root cause(s). Natural ingredients only. Thoroughly selected and backed by evidence-based science from thousands of scientific papers and clinically effective results. Cruelty Free, Parabens Free, Fragrance Free, Dyes Free, Alcohol Free.

Methods:

Results:

Conclusions:

Mayer Christine
Italy

#2456

Ketogenic diet based on amino acid supplement and very low carbohydrate content

64 - IV therapies - Nutrition and detoxification

Background/Objectives: Obesity plays an important pathophysiological role in the development of health problems, respecting the complex interaction of genetic, nutritional and metabolic factors. A randomized case-control study was conducted to compare the efficacy of two nutritional protocols: a very low carb ketogenic diet (VLCKD), supplemented by an amino acid supplement with whey protein in comparision to a highly restrictive low calorie diet (VLCD)

Methods: The clinical study was conducted with a randomized case-control in which twenty-five healthy were examined for their health and nutrition status through anthropometric assessment and body composition analysis.

Results: It has been shown that a very low-carbohydrate ketogenic diet (VLCKD) was more effective than a highly restrictive low-calorie diet (VLCD), as evidenced by the study: Very-low calorie ketogenic diet with amino acid supplement versus very low-calorie diet for preserving muscle mass during weight loss: At the end of the VLCKD diet, as opposed to the VLCD diet, no significant differences were observed in trunk lean body mass, lean body mass distribution (android and gynoid), and total lean body mass ($p > 0.05$). After the VLCKD diet, no increase in the frequency of sarcopenia was observed.

Conclusions: the pilot study showed that a VLCKD diet was found to be highly effective in terms of reducing body weight without causing loss of lean body mass, preventing the risk of sarcopenia. Further clinical trials in a larger population and for long-term body weight maintenance and risk factor management effects of the VLCKD diet will be needed. However, an adequate dietary approach would have a significant impact on reducing the costs of public spending, in light of potential data on the increase in the percentage of obese people

References: Eur Rev Med Pharmacol Sci.2016 Jul;20(12):2613-21. Very-low-calorie ketogenic diet with aminoacid supplement versus very low restricted-calorie diet for preserving muscle mass during weight loss: a pilot double-blind study. Merra G1, Miranda R, Barrucco S, Gualtieri P, Mazza M, Moriconi E, Marchetti M, Chang TF, De Lorenzo A, Di Renzo L.

Mayer Christine
Italy

#2457

Ketogenic diet based on amino acid supplement and very low carbohydrate content

64 - IV therapies - Nutrition and detoxification

Background/Objectives: Obesity plays an important pathophysiological role in the development of health problems, respecting the complex interaction of genetic, nutritional and metabolic factors. A randomized case-control study was conducted to compare the efficacy of two nutritional protocols: a very low carb ketogenic diet (VLCKD), supplemented by an amino acid supplement with whey protein in comparision to a highly restrictive low calorie diet

Methods: The clinical study was conducted with a randomized case-control in which twenty-five healthy were examined for their health and nutrition status through anthropometric assessment and body composition analysis.

Results: It has been shown that a very low-carbohydrate ketogenic diet (VLCKD) was more effective than a highly restrictive low-calorie diet (VLCD), as evidenced by the study: Very-low calorie ketogenic diet with amino acid supplement versus very low-calorie diet for preserving muscle mass during weight loss: At the end of the VLCKD diet, as opposed to the VLCD diet, no significant differences were observed in trunk lean body mass, lean body mass distribution (android and gynoid), and total lean body mass ($p > 0.05$). After the VLCKD diet, no increase in the frequency of sarcopenia was observed.

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References: Eur Rev Med Pharmacol Sci.2016 Jul;20(12):2613-21. Very-low-calorie ketogenic diet with aminoacid supplement versus very low restricted-calorie diet for preserving muscle mass during weight loss: a pilot double-blind study. Merra G1, Miranda R, Barrucco S, Gualtieri P, Mazza M, Moriconi E, Marchetti M, Chang TF, De Lorenzo A, Di Renzo L.

Shang Jie
United States

Burkes-henderson Shona
United States

#2458

0.5% Pure Retinol Formulation Improves Photodamaged Skin and Minimizes the Risk of Post-inflammatory Hyperpigmentation in Asians

41 - Pigmentation

Background/Objectives: Retinol (Vitamin A1) is an essential nutrient with benefits to skin appearance. Skin care products containing retinol are marketed globally. Higher concentration retinol products are commonly associated with potential skin irritation (erythema, edema) and can lead to irregular skin hyperpigmentation due to skin inflammation. This is a common concern with using retinoids in skin of color. The severity of irritation correlates with the potency of retinoid. Thus, literature recommends adjusting the timing and concentration of the retinoid can influence the reaction. In consultation with dermatologists, we developed a modified retinization protocol and then investigated the tolerability and efficacy of a high concentration (0.5% pure retinol cream) in an Asian population.

Methods: Studies were placed in China to evaluate panelist tolerability. Study endpoints included dermatologist evaluation of erythema, edema, and dryness and panelist self-evaluation of erythema, dryness and sensory discomfort. Separate clinical studies were conducted on Asian panelists to evaluate skin pigmentation attributes, such as hyperpigmentation and skin tone evenness, along with anti-aging parameters: fine lines and wrinkles, overall photodamage and skin texture as clinical measurements.

Results: Studies found high tolerability and reduction in dermatologist-assessed erythema, edema, and dryness in Asian panelists. Panelist self-evaluations reported fewer moderate sensory discomfort scores and a reduction in erythema and dryness. The formulation provided statistical improvements in hyperpigmentation, skin tone evenness, fine lines and wrinkles, overall photodamage and skin texture ($p<0.05$) at both 4-and 8-weeks.

Conclusions: Topical application of 0.5% pure retinol formulation significantly improved hyperpigmentation and overall skin appearance, while reducing the risk of post-inflammatory hyperpigmentation in an Asian population.

Baikoff Georges
France

Baikoff Georges
France

#2459

Can we change the eye color?

41 - Pigmentation

Background/Objectives: the aim of this paper is to show and explain the audience a new field in cosmetic surgery: how to change safely the colour of eyes.

Methods: different methods wil be presented; artificial iris and corneal tattoing. techniques, indications and comlications will be described and detailed

Results: articial iris can be used after sever trauma of the eye and aniridia in combination with anterior segment reconstruction, but in a normal eye the rate of complcations is very high because there is not enough room in the anterior segment. But for cosmetic reason (brown eyed people who wnats blue eyes) the safet way is corneal tattoing wit medical pigments.

Conclusions: Conclusions; it is possible to propose safely corneal tattoing to patients asking for changing their eye color

Sue Ellen Cox
United States

Cox Sue Ellen
United States

#2460

Subject-relevant Outcomes of On-label 50U AbobotulinumtoxinA Treatment for Moderate-to-Severe Glabellar Lines across Three Individual Trials

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The 50U dose of abobotulinumtoxinA (ABO) is approved for glabellar line (GL) treatment. Here we present efficacy, subject satisfaction, and safety results from three recent clinical trials using this dose, with a focus on ≥1-grade glabellar line improvement and subject satisfaction, reflecting clinical outcomes of significance for the subjects.

Methods: Subjects with moderate-to-severe GL were treated with 50U ABO and followed for 6 to 9 months in three studies (NCT03736928, double-blind, Phase 2; NCT03960957, double-blind, Phase 3; NCT03687736, open-label, Phase 4). Evaluations included investigator- and subject-assessed GL severity scale (GLSS), a subject satisfaction questionnaire, subject-reported onset of effect (diary), and adverse events.

Results: In each study, 80, 224, and 120 subjects were evaluated, the majority achieving improvement in GLSS. Median time to onset of effect was 2 days in all three studies. At Month 6, 53%, 46% and 37% of subjects in each trial maintained ≥1-grade improvement in investigator-assessed GLSS, and at Month 9, 18% of subjects in the Phase 2 trial still had ≥1-grade improvement. The majority of subjects were satisfied with their treatment and found the result to be natural-looking up to Month 6 in all three trials. Treatment-related adverse events were mostly mild, and none were serious.

Conclusions: ABO 50U for glabellar line treatment was efficacious and well-tolerated across all three trials, with rapid onset, and ≥1-grade improvement and subject satisfaction lasting for up to 6 to 9 months after injection.

Dayan Steven
United States

Dayan Steven
United States

#2461

Subject Satisfaction with AbobotulinumtoxinA for Moderate-to-Severe Glabellar Lines: A Randomized, Dose-Escalating, Double-Blind Study

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: AbobotulinumtoxinA (ABO) is approved for glabellar line (GL) treatment using a dose of 50U. Subject satisfaction with GL treatment using higher ABO doses up to 125U vs placebo was evaluated as part of a Phase 2 study. The primary endpoint was Month 1 composite response, defined as a ≥2-grade GL severity scale (GLSS) improvement and a GLSS score of 0 or 1 assessed by both investigator and subject.

Methods: ï»¿AbobotulinumtoxinA (ABO) is approved for glabellar line (GL) treatment using a dose of 50U. Subject satisfaction with GL treatment using higher ABO doses up to 125U vs placebo was evaluated as part of a Phase 2 study. The primary endpoint was Month 1 composite response, defined as a ≥2-grade GL severity scale (GLSS) improvement and a GLSS score of 0 or 1 assessed by both investigator and subject.

Results: Around 80 subjects were evaluated per group. Subject satisfaction was high after treatment, >90% were satisfied with their appearance and agreed that they looked natural and appeared refreshed at Month 1. Subjects' well-being improved, and they were less bothered about their GL and perceived themselves as younger up to Month 9. At Month 9, 18% (50U), 26% (75U), 35% (100U), 31% (125U) retained a ≥1-grade improvement (investigator GLSS). The median time to return to baseline GLSS scores was 226, 240, 252, and 256 days, respectively. Treatment was generally safe across all doses.

Conclusions: ABO was efficacious and well-tolerated across all doses from 50U to 125U, with ≥1-grade severity improvement maintained for up to 9 months. Subjects reported natural results and high rates of satisfaction, sustained to Month 9, as well as a wider positive impact on well-being and age assessment. Subject satisfaction is an aspect of clinical importance, which captures treatment effect over time.

Joseph John
United States

Joseph John
United States

#2462

A Randomized, Dose-Escalating, Double-Blind Study to Evaluate AbobotulinumtoxinA for the Treatment of Moderate-to-Severe Glabellar Lines

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: To evaluate the efficacy and safety of treatment of glabellar lines (GL) using abobotulinumtoxinA (50U, 75U, 100U or 125U) versus placebo, and the impact of dose escalation on duration of effect. The primary objective was to evaluate Month 1 composite investigator- and subject-assessed responder rate (≥2-grade improvement and glabellar line severity scale [GLSS] score 0 or 1) at maximum frown.

Methods: In this 9-month, dose-escalating, double-blind, Phase II study (NCT03736928), subjects received a single dose of abobotulinumtoxinA or placebo (randomized 4:1) for the treatment of moderate-to-severe GL. Assessments included investigator- and subject-assessed GLSS, time to onset, subject satisfaction, aesthetic improvement and adverse events.

Results: Each dose group included ~80 subjects. The primary objective was met; Month 1 composite ≥2-grade responder rate was 80% (50U), 89% (75U), 90% (100U), and 95% (125U) compared to 3% (placebo), $p<0.001$. Median time to onset was 2 days. Median time to return to baseline GLSS scores was 226, 240, 252, and 256 days. Month 9 responder rates of investigator-assessed ≥1-grade improvement were 18% (50U), 26% (75U), 35% (100U) and 31% (125U). Aesthetic improvement and subject satisfaction were high. Treatment-related adverse events were mainly mild, transient, and similar across doses.

Conclusions: AbobotulinumtoxinA was efficacious and well-tolerated across all doses, with rapid onset, duration up to 9 months and high subject satisfaction and aesthetic improvement.

Lazzarotto Andrea
Italy
Lazzarotto Andrea
Italy

#2463

Thermoregulated endodermal radiofrequency. Face and neck. Two-year experience with standardized protocols.

49 - Lasers, EBDs & Light

Background/Objectives: INTRODUCTION The thermoregulated endodermal radiofrequency is based on the emission of electromagnetic waves that cause a controlled rise in temperature in the dermal and hypodermic level. The increase in temperature causes a denaturation of the collagen fibers with the consequent immediate contraction of the fibers themselves which lasts for the following four to six months. The high temperature stimulates the fibroblasts with subsequent new synthesis of collagen, elastin and hyaluronic acid; the synergistic action of all these aspects reduces skin laxity with a consequent "lifting effect".

Methods: MATERIALS AND METHODS Each patient (40 total patients of which 36 female and 4 male aged between 35 and 68 years) treated with two endodermal radiofrequency sessions, using a specific probe and fan technique, 4 months apart at the face and neck. Temperatures used between 49° and 53°.

Results: RESULTS Clinical and photographic evaluation at T0, T1 (before the second session) and T2 (4 months after the second session).

Conclusions: CONCLUSIONS The procedure is very simple and scarcely invasive, requiring only minimal local anesthesia at the point of entry of the probe. The energy transferred to this depth contributes to the reduction of wrinkles and the improvement of skin tone.

Bloom Kierra
United States

Rohrich Rodney
United States

#2464

Phase 2 Randomized, Placebo-Controlled, Dose-Ranging Study to Evaluate the Safety and Efficacy of OnabotulinumtoxinA for the Treatment of Platysma Prominence

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: To evaluate the safety and efficacy of onabotulinumtoxinA compared with placebo to reduce the appearance of platysma prominence in adult participants.

Methods: This randomized, placebo-controlled, double-blind study evaluated onabotulinumtoxinA in participants with at least moderate platysma prominence (eg, vertical neck bands). Participants meeting all eligibility criteria were randomized in a 1:1:1 ratio to receive a single treatment of onabotulinumtoxinA high dose (HD), onabotulinumtoxinA low dose (LD), or placebo on day 1 and followed for 4 months. Efficacy was assessed by the investigator and participant independently using a valid severity scale, and analyzed by a serial gatekeeping multiple comparisons procedure.

Results: A total of 171 participants enrolled; 169 were included in the safety population. Participants were predominantly female and white (each >92%); mean age was 50 years and mean body mass index was 22.9 kg/m2. Treatment with onabotulinumtoxinA HD and LD was associated with a significant ≥1-grade improvement versus placebo at day 14 by investigators (88.2%, 77.8% vs 12.0%, respectively; $p<0.0001$) and participants (88.2%, 75.9% vs 18.0%, respectively; $p<0.0001$). Most treatment-related adverse events (AEs) were procedure related, mild in severity, and consistent with previously published studies; all resolved by study end (HD, 18.5%; LD, 13.6%; placebo, 12.5%). There were no treatment-related serious adverse events. The most common onabotulinumtoxinA-related AE was neck muscle weakness, reported in 5 participants in the HD group.

Conclusions: Treatment of platysma prominence with onabotulinumtoxinA HD or LD is more effective than placebo. OnabotulinumtoxinA yielded a safety profile consistent with the literature.

Sulovsky Monika
Austria

Sulovsky Monika
Austria

#2465

A Prospective Open-label, Multicenter Study Evaluating a Non-cross-linked Hyaluronic Acid in Correction of Facial Fine Lines.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Lateral canthal lines (LCL) and perioral rhytids (PR) are prominent signs of aging which can be treated by intradermal injection of soft-tissue fillers. This study aimed to assess the effectiveness of a non-cross-linked glycerol-added hyaluronic acid (HA) to correct fine lines on the face including LCL and PR.

Methods: This prospective, open label, multicenter study assessed as primary clinical endpoint the aesthetic improvement of LCL and PR after repetitive, intradermal injections (at week 0, 3 and 6) of a non-cross-linked glycerol-added HA (Princess®RICH, today distributed as Saypha®RICH) in 58 female Caucasian study participants (mean age 52.6±9.1 years) at week 8 and also at week 12, 16, 24 and 36, respectively, using the global aesthetic improvement scale (GAIS). Likewise, changes in skin tone, elasticity and hydration were investigated by means of cutometry and corneometry, as was the subjects' satisfaction with the treatment.

Results: All of the of subjects (n=58) were found to be responders to the HA treatment (mean injection volume of 2.6±1.1 ml of HA per person) of fine lines either of LCL, PR or both areas at Week 8, which partially lasted up to week 36. This was substantiated by a significant improvement of skin elasticity and skin tone ($p < 0.05$), and also in skin hydration. Accordingly, the majority of the subjects (93.1% at week 8 and 71,4% at week 36) was "satisfied' or "very satisfied' with the intervention. No treatment-related serious adverse events were recorded.

Conclusions: The performance of this hyaluronic acid clearly showed high effectiveness in the correction of fine lines on the face (PR and LCL). The high satisfaction rate of study participants of up to 6-9 months combined with a comparably low rate of intervention-associated hematoma and swelling makes this HA a preferable choice in the daily aesthetic practice for patients presenting with LCL and PR.

Cherhava Helena
Ukraine

Cherhava Olena
Ukraine

#2466

Gummy smile: individualization of minimally invasive correction techniques according to etiology.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: A beautiful smile is one of the main indicators of human charm. However, unfortunately, such aesthetic defect as gummy smile add considerable dissonance to the face aesthetics. Excessive gingival exposure is a clinical condition which is attracting a great attention and focus recently nowadays. Objective of this work is the analysis of the anatomy of the patient's face and planning of manipulations of the aesthetic medicine according to etiology of gummy smile.

Methods: Minimally invasive techniques of aesthetic medicine such as botulinum toxin therapy and augmentation with injectable fillers perfectly correct this aesthetic problem. But on the background of the polyetiology of gummy smile, it is important to determine the true cause of the defect, as this significantly affects the correction schemes and manipulation combinations.

Results: We will discuss different cases with the problem of gummy smile, but different etiology. The results of the work show that each case and the scheme of correction of this problem are strictly individual and require first of all a deep understanding of the anatomy of the dental-maxillary system and a work of muscles. This moment is decisive for effective and most aesthetic results of gummy smile correction.

Conclusions: Botulinum toxin therapy and augmentation with injectable fillers easy and fast correct such a problem as gummy smile, or ideally complement a comprehensive approach to treatment with a combination of this pathology and other maxillofacial anomalies and deformities.

References: References 1. Ali MJ, Ende K, Maas CS. Perioral rejuvenation and lip augmentation. Facial Plast Surg Clin North Am 2007:15:491-500 2. Arnett GW, Bergman RT. Facial keys to orthodontic diagnosis and treatment planning. Part II. Am J Orthod Dentofacial Orthop 1993;103: 395-341. 3. Barton FE Jr, Carruthers J, Coleman S, Graivier M. The role of toxins and fillers in perioral rejuvenation. Aesthet Surg J 2007; 27:632-640

Cherhava Helena
Ukraine

Cherhava Olena
Ukraine

#2469

Photography in aesthetic medicine is an integral part of the procedure protocols.

68 - Strategies for effective patient communication

Background/Objectives: For a modern doctor quality photography: is an element of documentation provides the chance to qualitatively analyze an initial situation, to plan manipulations and to choose the correct chronology of their combination is an excellent educational material, since it allows you to objectively compare the results of past years is a motivating factor for patients and advertising for the doctor

Methods: It should be noted that there is a classic protocol by which we take photos of the patient. Each photo is requires a certain perspective of the patient in order for the photo to be truly informative and objective. Another important thing is the equipment, namely camera, lens and flash. Knowledge in selecting of the necessary techniques and the classic protocol of photographs allows the doctor to consider the treatment plan more globally and provides predictable accurate outcomes.

Results: On the example of a clinical cases, we consider the step-by-step planning of procedures of minimally invasive methods on a base of quality photo protocol. Excellence will never be achieved by chance; rather, it comes from a consistent, systematic approach to diagnosis, communication, treatment planning, and implementation.

Conclusions: Quality photoes provides: • Competent, individualized and accurate treatment planning • Eaasy communication of the team of doctors working with the patient or specialists of different profiles, regardless of geolocation • Patient communication and motivation • Improving technical skills • High quality documentation of the work process and results.

References: References Ali MJ, Ende K, Maas CS. Perioral rejuvenation and lip augmentation. Facial Plast Surg Clin North Am 2007:15:491-500 Arnett GW, Bergman RT. Facial keys to orthodontic diagnosis and treatment planning. Part II. Am J Orthod Dentofacial Orthop 1993;103: 395-341. Barton FE Jr, Carruthers J, Coleman S, Graivier M. The role of toxins and fillers in perioral rejuvenation. Aesthet Surg J 2007; 27:632-640 C. Coachman, M.A. Calamita, N. Sesma Dynamic documentation of the smile and the 2D/3D digital smile design processInt. J. Periodontics Restorative Dent., 37 (2) (2017), pp. 183-193 Coachman, C., Van Dooren, E., Gürel, G., Landsberg, C.J., Calamita, M.A., Bichacho, N., 2012. Smile design: from digital treatment planning to clinical reality. In: Cohen, M. (Ed.). Interdisciplinary treatment planning, vol. 2, comprehensive case studies. Quintessence, pp. 119-174. MorleyJ, EubankJ.Macroesthetic elements of smile design. J Am Dent Assoc 2001;132:39-45. Janzen E. A balanced smile - a most important treatment objective. Am J Orthod Dentofacial Orthop 1997;72:359-372.

Cherhava Helena
Ukraine

Cherhava Olena
Ukraine

#2470

"Pitfalls" of lip augmentation.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Attractive, harmonious facial features primarily depend on the proper formation of the bones of the maxillofacial area. It is the solid structures that determine the initial shapes, proportions and contours of the face. They are the "foundation" and support of all soft structures. Therefore, the correct analysis and understanding of what is the norm and where the pathology of solid structures can "hide" is crucial for the success of any minimally invasive intervention, including lip augmentation.

Methods: Analysis of the patient's face with an emphasis on the anatomy of the jaws, occlusion and the shape and position of individual teeth, which can make unpredictable results of lip contouring and proper consideration of these factors.

Results: The report highlights the features of the anatomy of the hard tissues of the maxillofacial area, which must be taken into account in the lip augmentation.

Conclusions: Each area of â€‹â€‹the face carries certain information for the interlocutor. The middle third is responsible for youth, the nose is the center of aesthetics, and the lips focus on themselves as a zone of attractiveness and eroticism. Also we "read" the entire spectrum of human emotions from insane happiness to sharp discontent in the lower third of the face. And of course this zone should harmoniously correlate with the face as a whole and emphasize only the best aspects of the person's personality. So lips should: match facial features, harmonize in shape and volume with the lines that form the teeth, be a marker of nationality, emphasize the positive aspects of a person's character, and neutralize the negative, maximum "camouflage" intraoral pathologies (bite, position of the teeth in the arch and others)

References: Ali MJ, Ende K, Maas CS. Perioral rejuvenation and lip augmentation. Facial Plast Surg Clin North Am 2007:15:491-500 Arnett GW, Bergman RT. Facial keys to orthodontic diagnosis and treatment planning. Part II. Am J Orthod Dentofacial Orthop 1993;103: 395-341. Barton FE Jr, Carruthers J, Coleman S, Graivier M. The role of toxins and fillers in perioral rejuvenation. Aesthet Surg J 2007; 27:632-640 C. Coachman, M.A. Calamita, N. Sesma Dynamic documentation of the smile and the 2D/3D digital smile design process Int. J. Periodontics Restorative Dent., 37 (2) (2017), pp. 183-193 Coachman, C., Van Dooren, E., Gürel, G., Landsberg, C.J., Calamita, M.A., Bichacho, N., 2012. Smile design: from digital treatment planning to clinical reality. In: Cohen, M. (Ed.). Interdisciplinary treatment planning, vol. 2, comprehensive case studies. Quintessence, pp. 119-174.

Baba Ala
Jordan
Baba Ala
Jordan

#2473

THREADS FOR OUTSTANDING BEAUTIFICATION (Combination therapy & Special Indications)

46 - Threads

Background/Objectives: Threads lifting is one of most promising preocedures in aesthetology for their outstanding immediate results and long duration action, in addition their stimulating properties improving not only the shape of face and neck, but the quality of skin also. 1.Supernatural younger look and beautiful shapes by Combination of Threads, BoNTA and Dermal Fillers is my favourate: I Will display many cases where i combined Threads for improving the nasolabial fold, Marionatte lines and lifting the cheeks, Jawline, double chin and neck Fillers for temples, Tear Trough, Chin, Lips and Cheeks BoNTA for Forehead and frown wrinkles and eyebrows lifting 2.Peri Oral and lips beautification could be done by threads with outstanding results that we cant get with other availble options: Oral comissures are very important landmarks for facial beauty and in some patient they are dropped giving a sad look esp with aging and we can use BoNTA and soft fillers to elevate them with nice results in some patients and with minimal results in other patients. I present to new technique i use in my clinic for many patients targeting the oral comissure by elevating them, flipping the lips and pointing the chin with threads. at this technique we work just on the peri oral area without the need to work on lifting the midface as usual especially for the patient who deosnt need to work on their whole face to correct the perioral area and to beautify the lips. Methods: - I use PLLA Cogs threads 21G L-cannula type - 2 insertion points was made 1cm lateral and 1cm above the comissure - 2 Threads were inserted SubQ towards the upper lips close to the vermilion boarder - 3 Threads were inserted SubQ towards the lower lips one is close to the vermilion boarder and the two other threads 2-3mm lower each others Results: (attached photos) -Narrowing the angle of mouth -Elevation of oral comissure -Lips flipping -Pointing of the chin

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2475

Subdermal induction of heat in the face: scarification or biostimulation?

50 - Body contouring & skin tightening

Background/Objectives: An electrode inserted under the skin can induce heat locally. The other pole can be either a neutral plate or a parallel electrode gliding over the skin surface. The subdermal temperature can be monitored by the thermocouple tip simultaneously serving as the electrode and the surface temperature can be monitored with an infrared camera. With settings aiming at controlled tissue injury, scar tissue can be released and lifting by contraction can be achieved. With lower settings aiming at biostimulation, gentle contraction over the course of several months and occasional improvement of local oedema can be observed. These are the settings most commonly used by the author. Clinical photography shows gentle lifting of the eyebrows, the cheeks and the soft tissues overlying the jawline occurring over the course of three months. In some patients, a feeling of heaviness, caused by low-positioned eyebrows, disappears. Primary malar oedema ("malar mounds") is a common source of frustration for patients and physicians. Unlike in secondary cases, there are hardly any more options than manual lymphatic drainage and, if applicable, the advice to stop smoking. Malar mounds are in the field of treatment of the midfaces. It has been a fortunate observation that malar oedema tends to decrease following subdermal induction of heat. It tends to gradually recur after one to one and a half years. Subdermal induction of heat requires local anaesthesia and can be time-consuming. It offers aesthetic improvement to patients who have not been treated with subdermal injectables or threads. It is a valuable treatment for primary malar oedema. Although contraction by scarification may be valuable to treat more advanced ageing, biostimulation has a value on its own and helps to postpone more invasive treatments. The results can be confirmed by clinical photography, but they are subtle. Therefore, subdermal induction of heat is more suitable as part of the armamentarium in a long-term therapeutic relationship than as a one-shot treatment.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2476

Subdermal induction of heat in the face: scarification or biostimulation?

50 - Body contouring & skin tightening

Background/Objectives: An electrode inserted under the skin can induce heat locally. The other pole can be either a neutral plate or a parallel electrode gliding over the skin surface. The subdermal temperature can be monitored by the thermocouple tip simultaneously serving as the electrode and the surface temperature can be monitored with an infrared camera. With settings aiming at controlled tissue injury, scar tissue can be released and lifting by contraction can be achieved. With lower settings aiming at biostimulation, gentle contraction over the course of several months and occasional improvement of local oedema can be observed. These are the settings most commonly used by the author. Clinical photography shows gentle lifting of the eyebrows, the cheeks and the soft tissues overlying the jawline occurring over the course of three months. In some patients, a feeling of heaviness, caused by low-positioned eyebrows, disappears. Primary malar oedema ("malar mounds") is a common source of frustration for patients and physicians. Unlike in secondary cases, there are hardly any more options than manual lymphatic drainage and, if applicable, the advice to stop smoking. Malar mounds are in the field of treatment of the midfaces. It has been a fortunate observation that malar oedema tends to decrease following subdermal induction of heat. It tends to gradually recur after one to one and a half years. Subdermal induction of heat requires local anaesthesia and can be time-consuming. It offers aesthetic improvement to patients who have not been treated with subdermal injectables or threads. It is a valuable treatment for primary malar oedema. Although contraction by scarification may be valuable to treat more advanced ageing, biostimulation has a value on its own and helps to postpone more invasive treatments. The results can be confirmed by clinical photography, but they are subtle. Therefore, subdermal induction of heat is more suitable as part of the armamentarium in a long-term therapeutic relationship than as a one-shot treatment.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2477

Suborbicularis oculi injection with a 25G cannula: gentle and deep... but not too deep.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Deep filler injection in infraorbital hollows does not change the elasticity of the skin, the orbicularis oculi muscle or the inferior, superficial orbital fat pad. There is therefore less chance of an unnatural appearance occurring during facial animation. However, when the injection is performed as close to the bone as possible, the hollow may be displaced anteriorly without being properly filled. Additional injection may cause an unsightly prominence just caudal to the hollow, or the physician may be tempted to add "just a little bit" at a more superficial level or to perform "tower" injections, thereby changing the elasticity of superficial tissues. Injection immediately below the orbicularis oculi muscle with a 25G cannula may give us better results than injection on the bone. There is a way around the medial insertion of the orbicularis oculi muscle and the orbitomalar and zygomaticocutaneous ligaments.

Methods: Clinical photography of successful and flawed results were compared to the evolution of the author's injection technique and anatomical studies in the literature. Cadaver dissections were performed after injection of dyed filler to verify the feasibility and reliability of suborbicularis injection with a 25G cannula by beginners and experts.

Results: When injections are performed as close to bone as possible, the malar septum may prevent a filler deposit from expanding in all directions, and rather direct it downwards. Smaller subcutaneous septa, part of the orbitomalar and zygomaticocutaneous ligaments or in continuity with these ligaments, may in the same way block forward expansion and direct the filler downwards. A 25 G cannula, introduced perpendicularly caudal to the defect and redirected, can reach the inner canthus without meeting resistance in the large majority of cases, both cranial and caudal to the muscle and ligament insertions, with adequate clinical effect of the injection. Cadaver dissections of injections by both experienced and less experienced injectors show that a submuscular deposition is relatively easy to achieve.

Conclusions: A 25G cannula is the best compromise between safety and efficacy for suborbicularis oculi injection. It offers a good chance to reach all parts of the inferior orbital margin hollow and to stay in the intended plane of injection, where the cannula meets very little resistance. Intentional injection of the orbicularis oculi insertion or attempts to release the muscle or ligament insertions can be avoided. Injection as close to bone as possible holds a higher chance of an incomplete result or creating an undesirable prominence just caudal to the defect.

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2478

The midface... again. An injection strategy for better lower eyelid support.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The middle vertical third of the face (anterior cheeks, jowls) is more mobile than the lateral and medial thirds. It has larger subcutaneous fat lobules. Deep to the zygomatic muscles, the suborbicularis oculi (SOOF), deep medial and buccal fat pads allow more gliding relative to the skull. When a person is in the upright position, the surface of the maxilla and of the lower aspect of the zygoma is facing downwards, and more so with ageing. Persons with a negative corneomalar vector have less skeletal support than those with a positive vector. Subcutaneous injection of the anterior part of the cheeks may at first improve contours, but adds to the volume that is least supported. Filler above the orbital part of the orbicularis oculi muscle changes subcutaneous elasticity. This may make facial animation look unnatural. Malar oedema may become more apparent. Deep injection in the SOOF, deep medial and buccal fat pads at a certain distance from the skull may also add weight to the soft tissues and thereby worsen lower eyelid support in the upright position. We propose to limit subcutaneous cheek injections for recontouring (and biostimulation) to anterior cheek hollows, where there is no bony support, and to the lateral aspect of the face. For midfacial recontouring, especially in cases where better support of the lower eyelids is necessary, we propose deep injection in three manoeuvres. An anterior bolus is delivered at the intersection of the axis of the malar eminence and the axis of the tear trough with a 30G sharp needle. The contact of the sharp needle with the bone assures that the filler is deposited as deep as possible, simulating bone expansion rather than adding weight to the soft tissues. The calibre of the needle and dividing the bolus into several, small aliquots reduce the risk of damage by inadvertent intravascular injection. Over the superolateral aspect of the zygomatic body and on the arch, bony support is favourable. Injections can be performed with a 22G 7 cm cannula. The rigidity and length allow to inject filler all the way up to the temporal hairline, in one or more directions according to the desired shape. Lateral expansion contributes greatly to increasing anterior support and decreases the amount of filler needed medially. Avoiding multiple punctures gives better appreciation of the results during the treatment. Finally, the 22G cannula can be used for medial injection in continuity with the tear trough, while remaining on the safe side with the infraorbital nerve and avoiding the orbital margin proper. The required quantity is lower after proper lateral and anterior expansion.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2479

Subdermal induction of heat in the face: scarification or biostimulation?

50 - Body contouring & skin tightening

Background/Objectives: An electrode inserted under the skin can induce heat locally. The other pole can be either a neutral plate or a parallel electrode gliding over the skin surface. The subdermal temperature can be monitored by the thermocouple tip simultaneously serving as the electrode and the surface temperature can be monitored with an infrared camera. With settings aiming at controlled tissue injury, scar tissue can be released and lifting by contraction can be achieved. With lower settings aiming at biostimulation, gentle contraction over the course of several months and occasional improvement of local oedema can be observed. These are the settings most commonly used by the author. Clinical photography shows gentle lifting of the eyebrows, the cheeks and the soft tissues overlying the jawline occurring over the course of three months. In some patients, a feeling of heaviness, caused by low-positioned eyebrows, disappears. Primary malar oedema ("malar mounds") is a common source of frustration for patients and physicians. Unlike in secondary cases, there are hardly any more options than manual lymphatic drainage and, if applicable, the advice to stop smoking. Malar mounds are in the field of treatment of the midfaces. It has been a fortunate observation that malar oedema tends to decrease following subdermal induction of heat. It tends to gradually recur after one to one and a half years. Subdermal induction of heat requires local anaesthesia and can be time-consuming. It offers aesthetic improvement to patients who have not been treated with subdermal injectables or threads. It is a valuable treatment for primary malar oedema. Although contraction by scarification may be valuable to treat more advanced ageing, biostimulation has a value on its own and helps to postpone more invasive treatments. The results can be confirmed by clinical photography, but they are subtle. Therefore, subdermal induction of heat is more suitable as part of the armamentarium in a long-term therapeutic relationship than as a one-shot treatment.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2480

Subfrontalis injection in the forehead: improving contour and eyebrow support.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Filler injection under the frontalis muscle may increase the curve and length of the frontalis muscle trajectory, either elevating the eyebrows or diminishing the resting frontalis muscle tone. Especially in female patients, forehead roundness may have an aesthetic value of its own. The risk of intravascular injection in the supraorbital or supratrochlear vessels or in the anterior branch of the temporal vessels is a real concern. The skin and subcutis of the forehead are very reactive. Serial puncture with a needle not only holds a higher risk of embolization, it is also more likely that local deposits will reach more superficial layers and cause lumps.

Methods: Participants in an injection course were asked to inject dyed filler under the frontalis muscle with a 25G 50 mm cannula, from a central point at the glabella and at the upper border of the eyebrows on the midpupillary lines. Clinical photography of aesthetic patients and film fragments of the author's preferred technique were compared.

Results: Both less and more experienced colleagues can easily inject neatly under the frontalis muscle over a distance of a few centimetres around the injection points. At the periphery of the trajectory of the cannula, the product is more likely to end up in a frontalis muscle or central galea. There is no typical, easy guiding plane because of the elastic resistance of the superficial aspect of the periosteum. There is no typical change in resistance when the cannula travels from submuscular to intramuscular. Forehead hollows frequently have the shape of a bird, with a higher central area, the flatness over the frontal sinus corresponding to the body and the narrower lateral areas between frontal bossing and eyebrow prominence corresponding to the wings.

Conclusions: Given the sensibility of the central forehead, a supraorbital and supratrochlear nerve block is highly recommended before filler injection. Using a cannula reduces but does not completely take away the risk of intravascular injection. Entry points at the glabella and the eyebrows assure that the cannula is perpendicular or oblique to the vessels where their diameter is largest and their course is deepest. In flat areas, a submuscular trajectory is easy to maintain, but in curved areas there is no clinical sign of intramuscular injection. It is recommended to use extra, lateral injection points when the roundness of the frontotemporal transition zone is an impediment to staying at the correct level. Deep forehead filler injection is an advanced indication, requiring sound anatomical knowledge and previous clinical experience with cannulas.

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2481

Forehead relaxation: botulinum toxin plus biostimulation, threads or fillers?

45 - Combination treatments

Background/Objectives: The majority of patients with horizontal forehead wrinkles need their frontalis muscles as accessory eyelid openers, either because the eyebrows are weighing on the upper eyelid or because eyelid opening itself is impaired. Beside the candidates for surgical eyelid correction, superior brow elevation by direct excision or superolateral elevation with permanent, percutaneous or surgically inserted threads, many patients do not need surgery or refuse it. Minimally invasive eyebrow lifting can open the possibility of myomodulation of their frontalis muscles. Subdermal induction of heat is performed under local anaesthesia with an electrode cannula, inserted under the skin. The cannula is part of a thermocouple monitoring subcutaneous temperature, while the temperature of the skin surface is being monitored with an infrared camera. The neocollagenesis, resulting from temperatures that do not cause scarring, can elevate the eyebrows. The absence of foreign material is an advantage and leaves the way for any additional treatment. The delay of three months before the result is being reached is a downside. The effect of the heat on botulinum toxin is unknown. It is there advisable to perform toxin injections in a later session. Resorbable, barbed sutures are an elegant and easy means to lift the eyebrows. The result is almost immediate. They can also be inserted medially in the forehead for vertical elevation, where permanent sutures may cause permanent neural irritation. In combination with botulinum toxin, they are the most straightforward way to both elevate eyebrows and modulate muscle activity. The downsides are a short-lived effect and a small risk of infection. The injection of fillers under the frontalis muscles and central galea, slightly expanding their course over the forehead, may come closest to restoration of youthful muscle preload, but it is debatable if this alone is sufficient to clear the way for botulinum toxin completely. In patients who have a direct aesthetic benefit of a rounder forehead contour, this may be the best treatment to begin with. When lifting procedures are combined, least interference can be expected if subdermal induction of heat is performed first, followed by filler injection, then by the subcutaneous insertion of threads. A lifting procedure can either raise the eyebrows or allow the frontalis muscles to relax more at rest. This makes objective evaluation more difficult. An apparently unchanged position of the eyebrows with less horizontal wrinkles or disappearance of a heavy feeling may still be a therapeutic success, which is difficult to quantify on clinical pictures alone.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2482

The temporal fossa: no need for obliteration - different products for different planes

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The temples deepen over the years because of bone loss and soft tissue atrophy. Ample examples of beautiful, young faces with slightly hollow temples demonstrate that a visible temporal hollow does not necessarily have to be filled, let alone obliterated. Aesthetic judgement about temporal depth is subjective and culture-dependent. Smooth transitions between the forehead, the temples and the midface have aesthetic value of their own, while ageing sharpens the contour of the temporal crest and the zygomatic arch. Increasing visibility of subcutaneous blood vessels and changes to the skin surface contribute to an older appearance. Temple depth can be decreased by deep injection of a highly cross-linked HA gel or 3,5% agarose perpendicularly, with a needle. This works best anterosuperior to the centre of the fossa. More caudally, the bulk of the muscle may reduce the visible effect or product may disappear into the temporal extension of the buccal fat pad . Deep injection may hold a smaller risk of embolisation than its superficial counterpart, considering the calibre of the various temporal arteries. The use of a sharp needle 30 g helps to minimise pain and prevent fast bolus injections. Irregularities are less likely to occur, but more material is required than for superficial injection. If smoother transitions are required rather than raising the deepest part of the temple, superficial collagen induction with calcium hydroxylapatite, injected subdermally, may be more appropriate than deep injections. This may also increase skin thickness, thereby hiding superficial blood vessels a bit better. Alternatively, agarose 1.5% can provide an immediate recontouring effect. Given the high vascularity of the subcutaneous layer in the temples, the use of a cannula (25G) and slow, retrograde injection are recommended. The loose areolar plane below the superficial temporal fascia may be easier to inject than the superficial subcutis, with a 25 g or 22 g cannula gliding on top of the deep temporal fascia. It does not offer the possibility to hide visible blood vessels. This plane offers more aesthetic benefit per injected volume than the intramuscular level and can better soften the transition towards the forehead and the zygomatic arch. It is very close to the superficial temporal vessels, which are embedded in the superficial fascia. HA gels are less suitable for subcutaneous injection in the temples, as the typical reactive, venous congestion and the irregular, reactive oedema may require a long time to subside.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2483

Lower third expansion: deep injection on the chin, at the pre-jowl and on the mandibular angle.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: A jawline recontouring plan is essentially multifactorial. Small adjustments can be made by subcutaneous injections with a cannula. Midfacial sagging is best addressed first. Marionette line treatment is generally multi-layered. Thorough compensation of a constitutionally short chin, mandibular bone loss or flattening of the angle occurring with age, requires intramuscular injection close to bone. Resorbable fillers lasting well over a year provide proper expansion and soft tissue support. Deep injections to increase the projection of the chin, the pre-jowl, the retro-jowl and the mandibular angle areas, are mainly intramuscular, in the mentalis, depressor labii inferioris, and masseter muscle insertions respectively. Piercing a muscle with a cannula searching for bone contact is difficult and causes a lot of pain. Several excellent volumising fillers, such as highly cross-linked hyaluronic acid gels or agarose 3,5% , can be injected comfortably with a 30G needle at a low and safe flow. The unequivocal feeling of bone contact with the tip of a sharp needle confirms intramuscular positioning, which helps to prevent errors. Bolus injections can be divided in subunits of less than 0,1 ml for safety reasons without exiting the muscle every time. Film fragments are shown illustrating the fairly straightforward injection technique Minor to moderate retrogenia with our without minor class II occlusion is a typical indication for which a single syringe can make a huge difference for overall facial appearance, as shown by clinical photography. Cadaver dissections show dyed filler in the origin of the mentalis muscles or in the small recess between both muscles. Clinically, chin frowning during closure of the mouth usually disappears after this treatment, as the lower lip is better supported. Although the position of the tip of the chin changes little with age, significant bone loss occurs cranial to the mandibular border of the chin and the pre-jowl area. Deep injection of the pre-jowl area helps to dissimulate a small jowl. It is also the structural foundation of the treatment of marionette lines. Injection in the insertion of the masseter muscle simulates expansion of mandibular width and sharper angle contour. Redraping of the overlying soft tissues has a positive impact on jowling. A retro-jowl hollow can be filled directly on the bone. Clear contact of the needle tip with the mandible is necessary to ensure that the injection is effectively in the masseter and not in the parotid gland, or worse, in the facial vessels on top of the masseter or the external carotid artery posteromedial to the ramus.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2484

Nasal tip support and radix augmentation with fillers: getting it right and keeping it right.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: If the inclination of the cartilaginous dorsum allows, adding some volume at the radix by submuscular filler injection to hide a small hump can provide excellent results. Stiffening the connective tissue between the medial crurae of the alar cartilages from the anterior nasal spine almost to the tip of the nose can effectively lift some droopy nasal tips. The use of cannulas, staying at the midline, compression of collateral blood vessels and subcision of scar tissue before injection all contribute to safe practice and avoidance of intravascular injection. It is tempting to perform all injections from a single point at the tip of the nose, after local anaesthesia and vasoconstriction at the entry point. However, cadaver dissections after the injection of dyed filler show that a cannula is very likely to enter the nasal musculature if the trajectory is long. More specifically, tilting the cannula upwards to stay under the muscle may be less efficient than we may think if we follow our clinical impression only. If the objective of the procedure is to hide a small hump, the recommended point of entry of a 25G cannula is just caudal to the tip. Volumizing hyaluronic acid gels (HA) stay soft and non-particulate gels can be remodelled some time after injection. Although central retinal artery occlusion is hard to treat, impending skin necrosis can be prevented by off-label injection of hyaluronidase. This category of fillers is therefore a product of choice for this delicate indication, especially early in the learning curve. However, injection of more than 1 ml in one session is not recommended. High volumes of HA tend to flatten out and spread somewhat, leading. In small noses, building up the dorsum by sequential injections has its limits, beyond which a wider dorsum than intended may be created. The support of a drooping tip may fade earlier than the improved dorsal contour, which can effectively last for years. Agarose gel, an organic filler purified from red algae, gets surrounded by histiocytes and macrophages within hours and is completely dissolved in situ. Clinical practice and photography show that considerable augmentations of the dorsum maintain shape very well and that stable tip support can be achieved. This may be explained by the absence of long-term oedema and the cellular response maintaining the filler in place. The filler cannot be dissolved, but anecdotal evidence shows how increased tip support could be reversed by dispersing the filler with saline in a patient who was dissatisfied with the result. Agarose is an reliable tool for nasal reshaping and can be considered as a liquid implant.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium
Vandeputte Joan
Belgium

#2485

Gentle lip volume augmentation for a natural result.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Despite the omnipresence of exaggerated lip augmentations and frankly botched results, lip injections remain immensely popular. Hyaluronic acid gels (HA) are very soft and stay so during their lifetime. Brands with an extremely low incidence of granuloma are available. Impending necrosis in this highly vascular area can be averted by off-label hyaluronidase injection. HA's are likely to remain the products of choice for lip injections in the near future. However, due to the light, reactive oedema that sometimes occurs in combination with the presence of the product, even completely accurate injections can slightly change the elasticity and mobility of the lips, while normal suppleness is very important for a natural result. The subcutis is thin and can easily get overfilled during attempts at intradermal injection, leading to stiffness and a duck beak appearance. Close to the lip border, the subcutis is slightly wider, which may explain why a bar of excessive volume can sometimes be observed close to lip borders. Therefore, when treating vertical wrinkles or enhancing the relief of the philtrum, it is recommended to select dermal fillers that can be injected very superficially in the dermis (blanching technique) and stay strictly intradermal. When the contour of the lips is enhanced by subcutaneous injection of the border, the aliquots are best kept very small and the speed of injection very low, preventing the filler from spreading under the skin. Volumising injections under the lip vermilion can at least temporarily cause a little overall change in elasticity, probably due to reactive oedema. A little tilt of the lip border can look like inadvertent subcutaneous injection. It is good practice not to inject more than 0,5 ml per lip per session for volumizing purposes and to evaluate again three weeks later, when the immediate reactive oedema has subsided. Linear retrograde injection of HA gel under the dry vermilion with a 25G cannula and adding a central bolus in the upper lip with a 30 G needle, under vestibular block, is a reliable technique offering a decent level of patient comfort. Preserving two small, uninjected zones in the upper lip and one central uninjected area in the lower lip helps to maintain normal mobility, even in case some oedema arises the first weeks. Unless marionette line wrinkles need to be addressed, a few millemetres close to the lip junction is best left untreated Although remodelling the filler after injection by firm finger pressure after injection is strongly recommended, cadaver dissections after the injection of dyed fillers shows remarkably little effect of external compression.

Methods:

Results:

Conclusions:

Vandeputte Joan
Belgium

Vandeputte Joan
Belgium

#2486

Spreading Pattern and Tissue Response to Hyaluronic Acid Gel Injections in the Subcutis: Ultrasound Videos, Ultrasound Measurements, and Histology

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Despite the popularity of hyaluronic acid (HA) filler treatments, few publications focus on their effects on adipose tissue. The authors assessed the deposition pattern in the subcutis of injected HA, the tissue response at short and intermediate term, and the effects of remodelling the filler by strong finger pressure immediately after the treatment.

Methods: Two brands, specifically developed by the industry for deep injection, were compared. The gels were injected subcutaneously in 5 candidates for abdominoplasty or breast reduction, in the area of excision, 6 to 98 days before surgery. Ultrasound measurements and films were compared with postoperative histological findings. Tissue response was scored semi-quantitatively.

Results: Real-time ultrasound showed a slightly different deposition pattern of the 2 brands. Histologically, both were present in large pools of the same magnitude and looked the same. Linear retrograde injection sometimes resulted in a globular deposit due to elastic recoil of septae. After remodelling and over time, HA deposits became difficult to detect by ultrasound. Firm remodelling of the tissue immediately after injection or time had no significant effect on filler spread or tissue response. Except for 1 zone of granuloma formation, tolerance for both fillers was good.

Conclusions: HA deposition in adipose tissue occurs in much larger pools than in the dermis. Ultrasound examination is useful during and immediately after the injection but less reliable after filler remodelling or over time. Filler deposition can be less precise, and reshaping by finger pressure can have less effect than expected.

References: Aesthetic Surgery Journal, Volume 41, Issue 2, February 2021, Pages 224-241

Jones Brian
United States

Hitchcock Thomas
United States

#2487

A Study to Evaluate the Efficacy and Tolerability of a FDA and CE Class II Microneedling Device to Improve the Aesthetic Appearance of Facial and Neck Skin

51 - Regenerative aesthetics

Background/Objectives: Microneedling or collagen induction therapy is widely applied to treat, improve and rejuvenate skin from intrinsic and extrinsic factors affecting it. The procedure employs tiny needles to puncture the epidermis and dermis resulting in micro-injuries, initiating the wound healing cascade. These microneedling stimulates thickening of the epidermis and dermis layers, improvement in extracellular matrix proteins, resulting in healthier skin appearance and texture, as well as, hyperpigmentation. In two seperate clinical studies, the efficacy and tolerability of an FDA and CE Class II device was evaluated to improve facial and neck appearance.

Methods: The first study to assess facial rhytids, 35 participants were enrolled, ages 35- 65 years, with Fitzpatrick skin types II-IV. 32 participants completed this 7-visit study. 2 subjects dropped out for non-product related issues. Patients underwent 4 microneedling sessions up to 2.5 mm depth, spaced 30 days apart, with two follow up visits. Overall assessment was based on two blinded-grader evaluations of pre- and post- photos. Photo evaluations used standard photography of full face and neck. Study assessments at baseline, 1 and 3 months post-treatment: Facial wrinkling: Lemperle Wrinkle Assessment Scale assessment at various facial locations, and neck. Fine lines: Carruthers Scale Additionally, both Clinicians and Subjects assessed the outcome using a Global Aesthetic Improvement Scale In the second study, a total of 16 healthy female subjects, ages 43-69, with Fitzpatrick's skin type II - IV) participated, 14 subjects completed the project. Two subjects dropped out for private reasons Patients underwent 3 microneedling sessions spaced 30 days apart. Standardized photography was done using the VISIA device to document treatment effects and as reference for subject self-evaluation and live rating by a delegated grader. Before and after pictures were also provided to blinded evaluator for blinded assessment, along with FACE-Q questionnaires

Results: The first study demonstrated a primary clinical outcome measured statistically significant improvement in fine line and wrinkle appearance on the face and neck. The procedure was well-tolerated even up to a maximum depth of 2.5mm with no AEs associated with the procedure. The second study showed that more than 70% of the subjects were satisfied with the treatment in general and more than 55 % of the subjects would recommend the treatment. The treatment was generally safe and effective to treat hyperpigmentation on the face

Conclusions: Microneedling is a safe and effective way to improve the appearance of lines,wrinkles and hyperpigmentation of the face and neck.

Prygova Inna
Sweden
Prygova Inna
Sweden

#2489

LONG-TERM EFFICACY AND SAFETY OF ABOBOTULINUMTOXINA SOLUTION FOR THE TREATMENT OF MODERATE-TO-SEVERE GLABELLAR LINES: A PHASE III, DOUBLE-BLIND, PLACEBO-CONTROLLED AND OPEN-LABEL REPEAT INJECTION STUDY

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Powder formulations of botulinum toxin A (BoNT-A) require reconstitution before injection. We assessed long-term efficacy and safety of abobotulinumtoxinA (aboBoNT-A) solution, a new ready-to-use liquid formulation for glabellar line (GL) treatment.

Methods: Multicenter, phase III study, with randomized double-blind placebo-controlled (DBPC) and open-label (OL) phases (NCT02493946; 2014-003841-86). Patients: 18-65 years old; BoNT-naïve; dissatisfied/very dissatisfied with moderate/severe vertical GLs at baseline maximum frown (MF). Patients were randomized 2:1 (aboBoNT-A solution 50 U: placebo) in DB phase and received £4 OL cycles; OL phase included de novo patients. Long-term analysis (LTA) included patients who received ^{3}1 aboBoNT-A solution injection during the DB or OL phases.

Results: LTA included 595 patients from 24 sites (DBPC phase: aboBoNT-A solution n=126, placebo n=64). Mean (SD) age in DBPC aboBoNT-A solution and placebo, and LTA groups was 47.8 (9.4), 47.2 (9.0) and 46.6 (10.0) years, and 91.3%, 90.6% and 89.1% were female, respectively. At Day 29 of DBPC phase, per Investigators Live Assessment of GL severity at MF, 81.6% vs 0.8% were responders in the aboBoNT-A solution vs placebo group, respectively (primary endpoint; p<0.0001). This was consistent across LTA cycles 1-4 (82.2-87.8%; Figure). Responders for Subject-Self Assessment of GL severity and patient satisfaction with GL appearance with aboBoNT-A solution vs placebo at Day 29 were 68.1% vs 2.3% and 83.1% vs 5.7%, respectively (both p<0.0001), consistent with LTA cycles 1-4: 72.5-80.6% and 85.2-87.8%, respectively. No new/unexpected adverse events vs the known safety profile of aboBoNT-A (powder) or neutralizing antibodies were seen across cycles.

Conclusions: These data support long-term safety and efficacy of aboBoNT-A solution for moderate-to-severe GL treatment. Injectors and patients may benefit from convenient, consistent, and precise dosing of a ready-to-use liquid formulation. Funding: This study was sponsored by Ipsen

Mueller Daniel
Austria

Müller Daniel S.
Austria

#2490

Volumization of the young and the old temple using a highly cross-linked HA filler

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: A plethora of age - related changes contribute to hollowing of the temples, as bone remodeling, atrophy of the temporalis muscle, thinning of the skin and deflation of the subcutaneous and deep temporal fat create the appearance of a skeletonized face.

Methods: A total of 30 women with a mean age of 53.1 ± 12.1 years underwent bilateral temporal volumization with a highly crosslinked HA filler with a concentration of 25 mg/ml + lidocaine. Adverse events and satisfaction were assessed after three and six months. 3 - Dimensional surface imaging was performed at baseline and after two weeks, three and six months to assess volumetric changes over time.

Results: A mean volume of 5.55 ± 1.9 cc was injected per subject. All encountered AEs were reversible and resolved. The overall satisfaction of the procedure was very high after 3 and 6 months and raters showed a significantly agreement in their assessment of the aesthetic improvement, while the self - reported patient satisfaction was substantially high as well.A statistically significant change in SVC was observed with $p < 0.001$. The SVC decreased by 21.6% between the 14 days and 6 months follow - up.

Conclusions: This investigation looked at the volume changes after volumization of the temple and at the patient's as well as practitioner's satisfaction. Overall, the product showed a good longevity over the course of 6 months with 2/3 of the initially injected volume still visible and a very high patient satisfaction. Future studies will be needed to assess the longevity over a longer period of time.

Artzi Ofir
Israel

Artzi Ofir
Israel

#2492

The novel hybrid device: 1570 nm non-ablative and 10,600nm ablative fractional lasers for skin rejuvenation - 20 patients' case series

49 - Lasers, EBDs & Light

Background/Objectives: Laser skin resurfacing has continued to evolve over the past two decades. Recently, A novel automated hybrid fractional laser incorporates a powerful CO2 10,600nm and a 1570nm lasers was introduced into the market. The aim of the study was to retrospectively evaluate the safety and efficacy of the dual, side by side CO2 and 1570nm wavelengths.

Methods: From March 2019 to March 2021, 18 women and 2 men, Fitzpatrick skin types II-IV, mean age of 51 ± 14 years were treated using a spot by spot (HyGrid mode) emission of CO2 10,600nm laser and 1570nm laser to evaluate treatment efficacy, pain tolerance and downtime. Each subject underwent 3 treatments, spaced 4-6 weeks apart. Topical anesthetic cream was applied for 45 minutes prior to treatment. Treatment parameters were as follows: CO2: 30-40W, pulse duration 0.4-1.0 msec. 1570nm: 6-10W, On time 2-4 msec, Density 3-4. CO2 to 1570nm ratio was remained 1:1 in all patients. Follow up visits were at 1 week, 4 weeks, and 3 months after the last treatment. As a standard of care in our center, Photographs, numeric pain scores during treatment, and subject satisfaction scores were evaluated. Photographs were analyzed by 3 blinded evaluators. The level of improvement and satisfaction rates were scored by patients. Adverse effects were retrieved from medical charts.

Results: Of the 20 subjects, 80% showed significant skin improvement on photographic analysis. Average numeric pain score was a 3.4 on a 0-10 scale. Patients' results demonstrated a 85% satisfaction (17/20, Score 3 or 4) with treatment. Side effects included swelling and erythema which all resolved within two to three days and downtime was 3-7 days for all subjects. No adverse events were reported.

Conclusions: The non-ablative and ablative hybrid fractional laser can be used to treat photodamaged skin safely and effectively with high patient satisfaction and minimal adverse events. Based on our histological and clinical results we demonstrate that combining both wavelengths side by side using the HyGrid mode, varying the different parameters, enables the creation of columns with a controlled ablation/coagulation ratio. This allows the user to modify the treatment according to the patients' tolerance, skin condition and skin type. Moreover, controlling ablation and coagulation would result in triggering different wound healing responses and therefore a customized treatment for different indications. Preliminary clinical results suggest a combination of low settings of CO2 together with 1570nm can achieve the same effect of CO2 high settings alone but with the advantage of being less painful, less downtime and providing an additional thermal intradermal tightening effect.

References: Benjamin Carl Marcus. Nonablative and Hybrid Fractional Laser Skin Rejuvenation Facial Plast Surg Clin North Am. 2020 Feb;28(1):37-44

Artzi Ofir
Israel

Artzi Ofir
Israel

#2493

The combination of ablative CO2 (10,600nm) and non-ablative (1570nm) fractional lasers for the treatment of hypertrophic scars - a 2 years' experience of a new hybrid laser - case series

49 - Lasers, EBDs & Light

Background/Objectives: There is a continuous need to find out the best treatment for hypertrophic scars (HTSs). Different fractional ablative or non-ablative lasers have been evaluated for scar treatment. The aim of this study was to determine the effectiveness and safety of an automated Hybrid platform incorporating a powerful CO2 10,600nm and a 1,570nm laser for the treatment of HTSs.

Methods: From March 2019 to March 2021, twenty-five (25) HTS cases were treated using the hybrid (CO2 10600nm and 1570nm) ProScan applicator, emitting patterns were either side by side meaning each spot of a single wavelength or sequentially; both on the same spot. Following laser emission TAC was applied and actively inserted using a patented ultrasound technology within the same platform. All patients received 3 treatment3 in 6-8 weeks intervals Treatments were performed at the following parameters: CO2: Power 30-60W, on time 0.6-1.4 msec, 1570nm; Power 12W, on time 4 msec density 3-4 and Ablative to non-ablative ratio was 1:1 in all cases. Ultrasound parameters were 50% impact ability and 50-60 Hz, time spent on each scar was according to its size. The improvement of scar tissue, as compared to baseline, was analyzed after 3 months using the Vancouver Scar Scale (VSS) and Patient-Observer Scar Assessment Scale (POSAS) by two independent evaluators. The level of improvement and satisfaction rates were scored by patients. Adverse effects were noted at follow up. Separately, A histological porcine study was conducted to evaluate the ablation and coagulation effect of emitting CO2 nm and 1570nm separately or sequentially.

Results: All 25 patients with 25 post traumatic/surgical hypertrophic scars completed the course of treatments and the follow-up visit. Vancouver Scar Scale (VSS) and POSAS-O were significantly improved 3 months post last treatment. Pliability, scar height and vascularity were the most improved parameters. All subjects reported the laser treatment resulted in moderate to significant improvement and were somewhat satisfied or very satisfied with their experience. No adverse events were reported. Downtime was 5-7 days for all subjects.

Conclusions: This study demonstrates that hybrid CO2 10600nm and 1570nm fractional laser is an effective and safe treatment modality for HTSs. The device allows versatility for the user to tailor the treatment to reflect the individual scar characteristics and to be able to use topical agents more effectively.

References: Meghan Seago et al. Laser Treatment of Traumatic Scars and Contractures: 2020 International Consensus Recommendations. 2020 Feb;52(2):96-116.

Artzi Ofir
Israel

Artzi Ofir
Israel

#2494

High Setting Thermo-mechanical ablation - objective changes following a treatment course of Non-laser, Non- RF novel fractional device - a multi-center study

49 - Lasers, EBDs & Light

Background/Objectives: Thermomechanical ablation (TMA) therapy (Tixel, Novoxel®, Israel) is an innovative technology. Along with its drug delivery enhancement features it is being widely used for facial skin rejuvenation. Our study explores Tixel beneficial effect on the different features of facial skin rejuvenation along with patients' satisfaction rate, aiming to suggest practical recommendations for an optimal aesthetic result.

Methods: A prospective study of 24 consecutive patients seeking treatment for facial skin rejuvenation, treated in two centers (Israel, Tel Aviv - n= 12 and UK, London, n=12) using TIXEL between March 2018 to March 2020. Subjects received 2-3 treatment (pulse duration 8-14msec, protrusion 500-1000mm), 3-5 weeks apart. A single pass with 30% overlap was performed. The standard as well as the periorbital tip were used to each patient. Digital photographic documentation was obtained at baseline, before each treatment and 3 months post last treatment. Ten before and after photographs were presented to 10 different non-involved physicians determine the changes observed following high setting Tixel treatment course. Changes that were mentioned more than twice by 2 different evaluators for at least 2 different sets of pictures were included for further scoring: Blood vessels and erythema, Complexion, Periorbital wrinkles, Pigmentation and tone, Pore size, Vitality, wrinkles and laxity. Randomly, 24 left and 24 right before and after photographs were presented for evaluation. The seven parameters as well as an extra general change parameter were scored by 4 experienced dermatologists on a six-point scale according to the degree of improvement: -1= worse result; 0= no change; 1= 1%-25% improvement; 2= 26%-50% improvement; 3= 51%-75% improvement; 4= 76%-100% overall improvement.. Finally, patients "satisfaction with the results, treatment experience and fulfillment of expectations were obtained on a five-point scale.

Results: Among the 24 participants, 87.5% completed three treatments, while 12.5% completed two. Their average age was 56 (range 39-69). The greatest improvement was demonstrated in skin complexion, with an average score of 2.1, followed by vitality and periorbital wrinkling Patients' satisfaction with skin improvement, treatment experience and fulfillment of expectations was high.

Conclusions: TMA is a safe and effective method of improving facial skin quality. Addressing patient's expectations while maximizing the benefits of this novel technology, will provide superior aesthetical results.

References: Monica Elman. Fractional treatment of aging skin with Tixel, a clinical and histological evaluation. J Cosmet Laser Ther. 2016;18(1):31-7. Amnon C Sintov.A novel thermo-mechanical system enhanced transdermal delivery of hydrophilic active agents by fractional ablation. Int J Pharm. 2016 Sep 25;511(2):821-30.

Cross Sarah
United States

Safa Marva
Switzerland

#2495

A Prospective, Open-Label Study to Evaluate the Impact of VYC-12L Injection on Skin Quality Attributes in Healthy Volunteers

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Aging is associated with changes in skin structure and function that can negatively impact skin quality. VYC-12L is an injectable crosslinked hyaluronic acid filler designed to treat superficial cutaneous depressions such as fine lines, and for additional improvement of skin quality, such as hydration and elasticity. To better understand the clinical benefit of VYC-12L on skin quality attributes, this study used clinical probes, histology, and genomic analyses to assess the effects following treatment.

Methods: In this prospective, single-center, nonrandomized, open-label study, healthy men and women aged 30-50 years with Fitzpatrick skin types II or III received 1 intradermal treatment of VYC-12L over an 8 x 4 cm area on the left volar forearm. Skin quality parameters were measured from treated and untreated areas with clinical probes at baseline and months 1 and 3 after injection. Cutaneous punch biopsies were collected 1 (VYC-12L and untreated) and 3 (VYC-12L only) months after treatment to evaluate histologic and genomic changes. Injection site reactions (ISRs) and adverse events (AEs) were evaluated at all time points after injection.

Results: Eleven participants received VYC-12L treatment. Participants were majority female (n=9; 81.8%) with a mean age of 41 years and Fitzpatrick skin phototypes II (54.5%) and III (45.5%). At months 1 and 3, the VYC-12L-treated area had significantly higher hydration in the stratum corneum than the untreated zone, as measured by Corneometer. VYC-12L treatment resulted in significant changes in Cutometer measurements at months 1 and 3 which indicated skin tissue that was firmer and more resistant to deformation. Histologic analyses showed significant increases in AQP3 and Ki67 expression in the epidermis 1 and 3 months after VYC-12L treatment and a qualitative increase in collagen I staining in the papillary dermis of VYC-12L-treated tissue at month 3. Genomic analyses showed treatment-related upregulation of genes involved in adipocyte differentiation, lipid metabolism, keratinocyte renewal, and maintenance of the dermal extracellular matrix. ISRs were mild-to-moderate in severity and resolved by the month 1 visit. Five participants reported 19 AEs; the majority (68.4%) were related to the biopsy procedure and none were related to VYC-12L. One participant withdrew prior to the month 3 visit due to dissatisfaction with biopsy healing.

Conclusions: Changes in hydration, firmness, and extracellular matrix density and composition consistent with improved skin properties were observed following VYC-12L treatment at both 1 and 3 months, demonstrating VYC-12L can treat cutaneous defects and act as a substrate for tissue repair.

Stankovic Nenad
Serbia

Stanković Nenad
Serbia

#2496

Periorbital aging during COVID19 pandemic and its rejuvenation - best practices

45 - Combination treatments

Background/Objectives: Recent SARS-CoV-2 pandemic highlighted the importance of social interaction. The burden of the many measures (lock-down, mask-wearing) limiting social relationships has introduced a supplementary stress, since social contact is crucial for health. Periorbital aging during COVID19 pandemic and its rejuvenation, the importance of the periorbital area, framing the glance, as it remains in those conditions the only "visible" interactive feature of the human face.

Methods: The periorbital area is one of the first facial regions to show signs of aging, primarily due to volume depletion of the soft tissue and bone resorption. Nonsurgical, office-based procedures are important for overall periorbital rejuvenation. They commonly include hyaluronic acid fillers, neuromodulators (BTX-A), use of ablative and nonablative lasers and chemical peels in the upper and lower eyelids and broader periorbital region, paying attention to the anatomy of this facial region and the type of product to be used beside the expected results of the procedure and its possible adverse effects and complications.

Results: A lifestyle devoted to mindfulness and vagal activation will allow to escape from uncontrolled immune thunderstorm. One of the crucial elements of this strategy lies in the promotion of self-confidence and self-esteem, both contributing to increase body awareness and allowing major shielding against different sources of stress. The results of aesthetic treatments by injections and lasers clearly show a visible anti-aging effect that could be valuable also in encouraging the patients to focus on co-morbidities such as diabetes, obesity or hypertension. In particular the peri-orbital area reflecting the inflammatory and necrotic state of the implied tissues, can be completely restored and enlightened. Last but not least, the rejuvenating effect is sustained by glance quality, moving from sad and depressed to sparkling and smiling.

Conclusions: Globally, responses to viral infections and especially to SARS-CoV-2, could be considered as a model of aging. Indeed, they bring together in an accelerated fashion what actually happens throughout the normal lifespan. Moreover, social limitations imposed by mandatory measures are enhancing an already high level of stress in several populations. The peri-orbital area remaining the major social contact, it is urgent to develop specific protocols for the rescue of this facial zone. Results show that the combination of anti-stress therapies together with precise aesthetic interventions can preventively modulate the increased stress and inflammation burden of the pandemic accelerators of aging.

Monteiro Grasiela
Brazil

Monteiro Grasiela
Brazil

#2497

Microbiological Profile of Hyaluronic Acid Fillers after the cosmetic use and storage

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Purpose : Verify the microbiological profile of hyaluronic acid fillers after the cosmetic use in facial procedures at the dermatological office in appropriate aseptic technique. Learning objectives : 1) Discuss special considerations to avoid contamination of the hyaluronic acid in the cosmetic use at office. 2) How to avoid skin infections such as cellulitis, granulomas and postfilling adverse nodular reactions and biofilms in soft tissue filling procedure. 3) Present the best appropriate sterile filling technique .

Methods: A comprehensive literature review was done in Pubmed in the past five years and the searched terms were soft tissue filler, hyaluronic acid and sterility. We stored 40 serynges of hyaluronic acid from 1 month to 48 months at 4 °C in the refrigerator after filler injection for facial cosmetic treatments and performed microbiological tests at the University of Caxias do Sul Laboratory about aerobic and anaerobic bacterial,fungal and mycobacteria cultures.

Results: We found no contamination in 40 serynges of hyaluronic acid and no growing of any aerobic or anaerobic bacteria, fungal culture or mycobacteria in the 40 samples after cosmetic use and storage.

Conclusions: Our study shows that we can keep the sterility of the hyaluronic acid after cosmetic use in facial procedures in aseptic technique.

Stankovic Nenad
Serbia

Stanković Nenad
Serbia

#2498

My approach to under-eye circles during COVID19 pandemic

45 - Combination treatments

Background/Objectives: Wearing masks during COVID19 pandemic has even more pronounced the importance of periorbital area. Infraorbital dark circles refer to the conditions that present with darkness of the infraorbital eyelids. Although it is not a medical concern, it can be a cosmetic concern for a large number of individuals. Dark circles around the eyes are a complex issue with two main possible causes: Discoloration due to the accumulation of melanin in the skin around the eyes and the accumulation of heme resulting from blood leakage. Shadowing due to the volume loss of suborbicular oculi fat (SOOF) Given their multifactorial nature and the fact that individual patients may have more than a single underlying cause, cosmetic practitioners should be well versed in a number of potential treatment options encompassing all facets of under-eye dark circles. New therapeutic options are also forthcoming. Longer-lasting HA fillers, wavelength tunable laser devices, and topicals speeding up healing and enhancing results after fractionated laser therapy will all serve to make the future of dark circle treatment unabatedly bright.

Methods:

Results:

Conclusions:

Stankovic Nenad
Serbia

Stanković Nenad
Serbia

#2499

Periorbital rejuvenation: combination of non-surgical treatments for best results with minimal downtime

45 - Combination treatments

Background/Objectives: The periorbital region serves as a barometer of chronologic and environmental age and, as such, patients often seek its cosmetic rejuvenation. There is a high patient demand for periorbital rejuvenation because the periorbital area are often the first facial areas to show visible signs of aging. In addition to wrinkles and skin laxity, aging appearance of the periorbital area is caused by changes in tissue volume resulting from soft-tissue atrophy and bone loss in the aging face. For many years, surgical techniques dominated the facial rejuvenation process. However, in recent times practice has been moving consistently towards non-invasive cosmetic procedures thanks to both clinician choice and patient request. The increasing availability of such procedures and their convenience as a result of minimal "downtime' are propelling this trend These changes are among the easiest areas to correct using several noninvasive techniques. Non-cross-linked HA combined with amino acids and antioxidants and light chemical peels without desquamation, along with neuromodulators, can be used to enhance the appearance of the periorbital region.

Methods: The author shares his experience using different techniques for nonsurgical periorbital rejuvenation. Material: Non-cross-linked HA with complex actives: Antioxidants Flavonoids Saponins Polyphenols Peptides Trace element and light chemical peels without desquamation, along with neuromodulators, were used to enhance the appearance of the periorbital region. The relative benefits and risks of each treatment were detailed.

Results: Patients from minimal photodamage with mild wrinkles to moderate wrinkling and severe photodamage were treated with different combinations of materials. High-quality before and after photographs were taken, documenting the results.

Conclusions: Proper patient selection and assessment of aging severity are critical to determine the best therapeutic option. One deformity should not be singled out when rejuvenating the periorbital area. The best results are obtained when the entire periorbital area is treated at the same time.

Stankovic Nenad
Serbia

Stanković Nenad
Serbia

#2500

My variation of Russian technique for lips. Focus on natural results

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Lip augmentation procedures with hyaluronic acid dermal fillers have become increasingly popular worldwide because full lips are often considered beautiful and youthful. The goal of a lip augmentation procedure is to create smooth lips with adequate volume and a natural appearance. Various techniques for lip augmentation have been utilized and described. This fashion and the new hype of lip enhancement is often referred as "Russian Lips technique" but may as well be "lip tenting." It is a simple way to have optimal control over both shape and volume in lip enhancement, especially in patients with asymmetrical lips, lip pockets and in those who require correction from previous suboptimal lip augmentation. Unlike traditional lip filler, an injector employing the Russian Lip technique injects the product vertically starting at the base of the lip and drawing the product outward toward the lip border. Rather than starting from the lip border and working inward, the injector works the product from the inside out. An appreciation of perioral anatomy as well as the structural characteristics that define the aging face is critical to achieve optimal patient outcomes. Although techniques and technology evolve continuously, hyaluronic acid (HA) dermal fillers continue to dominate lip augmentation armamentarium. That said, the choice of filler material contributes to the success of the injection techniques used, and facilitates a safe, effective, and natural appearing outcome. The shape and fullness of the lips have a significant role in facial aesthetics and outward appearance. The corrective needs of a patient can range from a subtle enhancement to a complete recontouring including correction of perioral rhytids. A comprehensive understanding of the lower face anatomical features and injection site techniques is a must to obtain most natural looking results instead of the look of an ugly duckling.

Methods:

Results:

Conclusions:

Monteiro Grasiela
Brazil

Monteiro Grasiela
Brazil

#2501

Efficacy of botulinum toxin type A for treating facial hyperidrosis

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Learning objectives: 1) Review of the facial anatomy muscles 2) Review of the hyperidrosis condition 3) Treatment options for facial hyperidrosis 4) Video demonstrating the use of botulinum toxin to treat facial hyperidrosis avoiding side effects Summary : Facial hyperidrosis (FH) is a disorder that consists in excessive sweating and involves hyperactivity of the sympathetic nervous system.Patients usually report blurred vision from sweating and feel distressed with their appearance . This condition has the potential to affect the mental status of an individual and social environments, impairing their quality of life. Some cases are resistant to topical treatment and oral anticholinergic medications. In this severe FH cases botulinum toxin A (BTX-A) injections may be performed. The use of BTX-A for treating the whole face in patients affected by FH is underexplored. We present suggestions about dilution, syringe selection,dose and best injection technique to avoid side effects such as facial asymmetry or brow ptosis to treat this condition succesfully.

Methods:

Results:

Conclusions:

Surowiecka Agnieszka
Poland

Surowiecka Agnieszka
Poland

#2502

Combined therapies in scar treatment- role of autologous derived products in scar remodelling

42 - Scars & acne

Background/Objectives: A scar is a connective tissue formed in the healing process at the site of the trauma. The quality and appearance of the scar depend on many factors, including endogenous factors (e.g. cachexia, skin laxity, smoking) and exogenous factors (e.g. infections, localization, surgeon's skills). Treatment of the scar should begin at the stage of planning the surgical incision and selecting the suture material (primary prophylaxis). The use of Langer's line, ie the line of reduced tension, is a very important aspect of obtaining the best aesthetically pleasing scar. Placing sutures in order to bring the wound closer, including traumatic wound, should be performed without tension at the edges, which protects against ischemia. Proper nourishment of the patient before surgery, prevention of malnutrition during convalescence, quick improvement and prophylaxis of surgical site infection are extremely important factors influencing the final appearance of the scar. Comprehensive scar treatment usually requires a combination of several methods (secondary prevention / treatment). The appropriate technique should depend on the appearance and biology of the scar. The most commonly used methods of scar treatment are: laser treatments, microneedle radiofrequency, carboxytherapy, dermabrasion, microneedling, chemical peels, platelet-rich plasma (PRP) and silicone-containing agents. Injections of glucocorticoids, cytostatic and immunomodulating drugs should be reserved for keloids and large hypertrophic scars. Very important, unfortunately often overlooked in the periprocedural period, is wound rehabilitation and early manual work with a scar. Surgical excision of the scar is the last resort with the risk of a larger and less aesthetic scar. In this study results of differemt protocols adjusted to scar biology were shown. The combinations based on autologous derived products-PRP and mesenchymal stem cells derived from fat tissue. Various devices such as CO2 laser, RF with microneedling or cutting threads were used to soften, shrink or mobilize scar tissues.

Methods:

Results:

Conclusions:

Monteiro Grasiela
Brazil
Monteiro Grasiela
Brazil

#2503

Chin: new technique for safety filler injection

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Learning objectives : 1) Review of the chin and jawline anatomy 2) Review of chin types 3) Present the differences in treating male and female chins 2) Video demonstrating the best technique to use cannula for fillers in the chin area with a manouver. The filler injections in the chin area offer simple correction with many different approaches . The chin is very important in aesthetic facial assessment. We need to recognize the chin projection, length, width, orthognatic and odontological problems. The chin becomes more anterior and shorter with the aging process. A small or recessed chin can contribute to early loss of the jawline definition. Injectable fillers can reshape the chin and improve facial contours and profile . We can use neddle or cannula to project and elongate the chin . The cannula offers less chance of vascular occlusion but it is more difficult than neddle in this area. Firstly because the injection in the chin is painful and the cannula is thicker than needle at the same size. Secondly, the volume of the mentalis muscles when we need filler in the submuscular or supraperiosteal makes insertion of the cannula more difficult than needle in the mental area. We present a maneuver that makes the insertion of the cannula in the submuscular plane easier. This maneuver was created by Dr André Braz when using AB Face technique previously published in the scientific literature.

Methods:

Results:

Conclusions:

Siperstein Robyn
United States

Siperstein Robyn
United States

#2504

An Evaluator-Blind, Split-Neck, Randomized Placebo Controlled Clinical Study Investigating the Efficacy and Safety of the Hyaluronic Acid Filler HARR for Correction of Static Horizontal Neck Rhytids Utilizing Either a Cannula or Needle

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Background: Patients often request the same cosmetic treatments utilized on their face to be used on their necks for a uniform cosmetic outcome. While hyaluronic acid fillers have been studied on the face extensively, their safety and efficacy on the neck has not yet been evaluated in a prospective clinical trial in the United States. Objective: To analyze the efficacy and side effects using a hyaluronic acid filler in the treatment of static horizontal neck rhytids using either a cannula or a needle.

Methods: Twenty-six subjects scoring 1 to 3 on the 5 point Transverse Neck Line Scale, were randomized to receive a treatment with up to 1cc on each side with either HARR (n=20) or saline (n=6) utilizing a 27-gauge cannula randomized to one side and a 32-gauge needle on the other. Touch up treatments with the same assignment were allowed on Day 30 as needed. Subjects were graded using Canfield photography, the Transverse Neck Line Scale, the Global Aesthetic Improvement Scale, and questionnaires.

Results: A significant improvement from baseline to 30 days after the last treatment was achieved on the Transverse Neck Line Scale when comparing HARR to saline according to both subject ([t(52)=3.107, p=0.003) and blinded evaluator [t(52)=4.080, p=.0002] without any significant side effects. In addition, while subject GAIS scores were similar on the cannula and needle sides, with 96% rating the area improved on the needle side and 92% on the cannula side, according to scores on the Transverse Neck Line Scale, both subjects (t=2.979, p= is .008) and the blinded evaluator [t(40)=3.559, p=.002] rated the side utilizing the needle as having a significantly greater improvement than the side utilizing the cannula.

Conclusions: Conclusion: This was the first prospective study in the United States analyzing the use of hyaluronic acid filler in the neck which received an Investigation Device Exemption (IDE) from the FDA. In this study, a hyaluronic acid gel with XpressHAn technology was used to achieve significant improvement in transverse neck rhytids with minimal adverse effects. While both the cannula and the needle with HARR achieved significant iprovements in a transverse neck line scale over saline, utilizing a needle with HARR resulted in significantly better improvement than using the cannula.

References: 1. Jones D, Carruthers A, Hardas B, Murphy DK, Sykes JM, Donofrio L, et al. Development and Validation of a Photonumeric Scale for Evaluation of Transverse Neck Lines. Dermatol Surg. 2016;42 Suppl 1:S235-S42. 2. Brandt FS, Boker A. Botulinum toxin for the treatment of neck lines and neck bands. Dermatol Clin. 2004;22(2):159-66. 3. Vanaman M, Fabi SG, Cox SE. Neck Rejuvenation Using a Combination Approach: Our Experience and a Review of the Literature. Dermatol Surg. 2016;42 Suppl 2:S94-S100. 4. Raspaldo H, Niforos FR, Gassia V, Dallara JM, Bellity P, Baspeyras M, et al. Lower-face and neck antiaging treatment and prevention using onabotulinumtoxin A: the 2010 multidisciplinary French consensus--part 2. J Cosmet Dermatol. 2011;10(2):131-49. 5. Fife DJ, Fitzpatrick RE, Zachary CB. Complications of fractional CO2 laser resurfacing: four cases. Lasers Surg Med. 2009;41(3):179-84. 6. Lee SK, Kim HS. Correction of horizontal neck lines: Our preliminary experience with hyaluronic acid fillers. J Cosmet Dermatol. 2018;17(4):590-5. 7. Tseng F, Yu H. Treatment of Horizontal Neck Wrinkles with Hyaluronic Acid Filler: A Retrospective Case Series. Plast Reconstr Surg Glob Open. 2019;7(8):e2366. 8. Han TY, Lee JW, Lee JH, Son SJ, Kim BJ, Mun SK, et al. Subdermal minimal surgery with hyaluronic acid as an effective treatment for neck wrinkles. Dermatol Surg. 2011;37(9):1291-6. 9. Minokadeh A, Black JM, Jones DH. Effacement of Transverse Neck Lines With VYC-15L and Cohesive Polydensified Matrix Hyaluronic Acid. Dermatol Surg. 2018;44 Suppl 1:S53-S6. 10. Chao YY, Chiu HH, Howell DJ. A novel injection technique for horizontal neck lines correction using calcium hydroxylapatite. Dermatol Surg 2011;37:1542-5. 11. Restylane Refyne [package insert]. Galderma, Inc., San Diego, CA; October 2007

Bloom Kierra
United States

Jason Rivers
Canada

#2505

Canada Global HARMONY Study: Improvements in Subject Satisfaction With Facial Appearance and Psychological Impact of Combined Aesthetic Treatment

45 - Combination treatments

Background/Objectives: The Canada Global HARMONY study evaluated the psychological and emotional impact of multimodal aesthetic treatment with deoxycholic acid (ATX-101), hyaluronic acid fillers (VYC-12L, VYC-15L, VYC-17.5L, VYC-20L), onabotulinumtoxinA (onabotA), and medical-grade skincare products (facial cleanser, serum, moisturizer, sunscreen) over the course of 12 months.

Methods: This prospective, open-label, multisite study enrolled adults 30-65 years of age with mild to moderate facial photodamage and moderate to severe facial rhytides (forehead lines, glabellar lines, crow's feet lines). All subjects received treatment with one or more HA fillers (2 optional touch-ups) and onabotA (1 optional touch up). In addition, a subset of subjects had moderate to severe submental fullness. This group received between one and six ATX-101 treatments prior to treatment with fillers and toxin Skincare products were applied daily starting with filler treatment until study completion. The primary efficacy endpoint was the change from baseline to final study visit in the FACE-Q Satisfaction with Facial Appearance Overall Scale score. Secondary endpoints included change from baseline in the FACE-Q Expectations of Life Change, Aging Appraisal, Psychological Function, Social Function, and Satisfaction with Skin scores; the subject's assessment of age-related facial appearance by the Self-Perception of Age (SPA) measure; and improvement on the subject- and investigator-assessed Global Aesthetic Improvement Scale (GAIS). Adverse events (AEs) were monitored throughout the study.

Results: Of the 59 enrolled, 58 subjects (median age, 54 years; 87.9% female) were treated; in addition to skin care, HA fillers and onabotA treatment, 13 of the 58 subjects qualified to receive at least 1 ATX-101 treatment. The mean change from baseline to final visit in the Satisfaction with Facial Appearance Overall Scale score showed significant improvement in all subjects (30.3 points; $P<0.0001$). Similar results were observed for Aging Appraisal, Psychological Function, and Social Function scores ($P<0.0001$ for all endpoints). On the SPA measure, 43 of the 58 subjects (74%) reported they looked an average of 3.5 years younger at the final study visit. Over 98% of subjects and investigators rated facial appearance as improved/much improved from baseline on the GAIS. Twenty-nine of the 58 subjects (50%) reported 68 treatment-emergent AEs; none were serious and all resolved spontaneously.

Conclusions: This study demonstrates significant benefits and considerable improvements in patient-reported satisfaction with multimodal treatment that consists of deoxycholic acid, fillers, neuromodulators, and skincare products used in concert.

Bloom Kierra
United States

Rivers Jason
Canada

#2506

Canada Global HARMONY Study: Improvements in Subject Satisfaction With Facial Appearance and Psychological Impact of Combined Aesthetic Treatment

45 - Combination treatments

Background/Objectives: The Canada Global HARMONY study evaluated the psychological and emotional impact of multimodal aesthetic treatment with deoxycholic acid (ATX-101), hyaluronic acid fillers (VYC-12L, VYC-15L, VYC-17.5L, VYC-20L), onabotulinumtoxinA (onabotA), and medical-grade skincare products (facial cleanser, serum, moisturizer, sunscreen) over the course of 12 months.

Methods: This prospective, open-label, multisite study enrolled adults 30-65 years of age with mild to moderate facial photodamage and moderate to severe facial rhytides (forehead lines, glabellar lines, crow's feet lines). All subjects received treatment with 1 or more HA fillers (2 optional touch-ups) and onabotA (1 optional touch-up). In addition, a subset of subjects had moderate to severe submental fullness. This group received between 1 and 6 ATX-101 treatments prior to treatment with fillers and toxin. Skincare products were applied daily starting with filler treatment until study completion. The primary efficacy endpoint was the change from baseline to final study visit in the FACE-Q Satisfaction with Facial Appearance Overall Scale score. Secondary endpoints included change from baseline in the FACE-Q Expectations of Life Change, Aging Appraisal, Psychological Function, Social Function, and Satisfaction with Skin scores; the subject's assessment of age-related facial appearance by the Self-Perception of Age (SPA) measure; and improvement on the subject- and investigator-assessed Global Aesthetic Improvement Scale (GAIS). Adverse events (AEs) were monitored throughout the study.

Results: Of the 59 enrolled, 58 subjects (median age, 54 years; 87.9% female) were treated; in addition to skin care, HA fillers, and onabotA treatment, 13 of the 58 subjects qualified to receive at least 1 ATX-101 treatment. The mean change from baseline to final visit in the Satisfaction with Facial Appearance Overall Scale score showed significant improvement in all subjects (30.3 points; $P<0.0001$). Similar results were observed for Aging Appraisal, Psychological Function, and Social Function scores ($P<0.0001$ for all endpoints). On the SPA measure, 43 of the 58 subjects (74%) reported they looked an average of 3.5 years younger at the final study visit. Over 98% of subjects and investigators rated facial appearance as improved/much improved from baseline on the GAIS. Twenty-nine of the 58 subjects (50%) reported 68 treatment-emergent AEs; none were serious and all resolved spontaneously.

Conclusions: This study demonstrates significant benefits and considerable improvements in patient-reported satisfaction with multimodal treatment that consists of deoxycholic acid, fillers, neuromodulators, and skincare products used in concert.

Bloom Kierra
United States

Rivers Jason
Canada

#2507

Canada Global HARMONY Study: Improvements in Subject Satisfaction With Facial Appearance and Psychological Impact of Combined Aesthetic Treatment

45 - Combination treatments

Background/Objectives: The Canada Global HARMONY study evaluated the psychological and emotional impact of multimodal aesthetic treatment with deoxycholic acid (ATX-101), hyaluronic acid fillers (VYC-12L, VYC-15L, VYC-17.5L, VYC-20L), onabotulinumtoxinA (onabotA), and medical-grade skincare products (facial cleanser, serum, moisturizer, sunscreen) over the course of 12 months.

Methods: This prospective, open-label, multisite study enrolled adults 30-65 years of age with mild to moderate facial photodamage and moderate to severe facial rhytides (forehead lines, glabellar lines, crow's feet lines). All subjects received treatment with 1 or more HA fillers (2 optional touch-ups) and onabotA (1 optional touch-up). In addition, a subset of subjects had moderate to severe submental fullness. This group received between 1 and 6 ATX-101 treatments prior to treatment with fillers and toxin. Skincare products were applied daily starting with filler treatment until study completion. The primary efficacy endpoint was the change from baseline to final study visit in the FACE-Q Satisfaction with Facial Appearance Overall Scale score. Secondary endpoints included change from baseline in the FACE-Q Expectations of Life Change, Aging Appraisal, Psychological Function, Social Function, and Satisfaction with Skin scores; the subject's assessment of age-related facial appearance by the Self-Perception of Age (SPA) measure; and improvement on the subject- and investigator-assessed Global Aesthetic Improvement Scale (GAIS). Adverse events (AEs) were monitored throughout the study.

Results: Of the 59 enrolled, 58 subjects (median age, 54 years; 87.9% female) were treated; in addition to skin care, HA fillers, and onabotA treatment, 13 of the 58 subjects qualified to receive at least 1 ATX-101 treatment. The mean change from baseline to final visit in the Satisfaction with Facial Appearance Overall Scale score showed significant improvement in all subjects (30.3 points; $P<0.0001$). Similar results were observed for Aging Appraisal, Psychological Function, and Social Function scores ($P<0.0001$ for all endpoints). On the SPA measure, 43 of the 58 subjects (74%) reported they looked an average of 3.5 years younger at the final study visit. Over 98% of subjects and investigators rated facial appearance as improved/much improved from baseline on the GAIS. Twenty-nine of the 58 subjects (50%) reported 68 treatment-emergent AEs; none were serious and all resolved spontaneously.

Conclusions: This study demonstrates significant benefits and considerable improvements in patient-reported satisfaction with multimodal treatment that consists of deoxycholic acid, fillers, neuromodulators, and skincare products used in concert.

Filaj Vladimir
Albania

Filaj Vladimir
Albania

#2508

Adventures and misadventures in liposuction of the calves and knees. What you should be aware of.

53 - Anatomy related to surgey

Background/Objectives: Liposuction is amongst the most popular cosmetic surgical procedures worldwide and is pretty safe with a very low incidence of major complications in the hands of skilled plastic surgeons. As a matter of fact, a faultless liposuction of the calves and ankles is near the top of the list in providing a high satisfaction rate. The aesthetic goal is the achievement of slender leg and ankle contour, but this must be in proportion to neighboring body regions. A slender and appealing leg is defined by three main factors :length, thickness and shape. Fat distribution in lower leg is unfortunately genetically predisposed and stubborn to diet and exercise which leads to low self confidence and making people desperate to seek cosmetic surgery. Calves and ankles reduction procedures are the most difficult regions at which competent liposuction can be accomplished successfully. However satisfactory result can be achieved when done by experienced surgeons.

Methods: We present a case with unsatisfactory outcomes from liposuction of the thighs, calves and ankles in a 38-year-old female done elsewhere. The results were very bad aesthetically with overcorrection liposuction of the calves and a lot of contour surface irregularity, asymmetry, dimples and grooves. We share our clinical and surgical approach to improve the overall appeearance of her legs.

Results: We recommended her several procedures of autologous fat grafting in the calves, to improve the contour irregularities aiming to achieve proportionate and slender legs.

Conclusions: Liposuction of the calves and ankles is a "risky area". The surgeon should be very cautious in examining the patient in details to see if liposuction of the calves and ankles is the proper procedure to adress their interest. Many psychological factors effect the patient's judgement causing them to undergo any cosmetic procedure with any surgeon who agrees to perform such procedure. While proper selection of patients suitable for treatment is important, it is also important explaining what they may expect after the procedure. Several times it is required to combine different refinement techniques in order to achieve satisfactory results.

References: 1. Chamosa M. Comprehensive liposuction of lower limbs: Basic concepts. Aesthetic Plast. Surg. 1996;20:49-52. - PubMed 2. Park Jin Yong. Liposuction. Singapore: Springer Nature; 2018. p. 155. - DOI 3.Kim J, Fansler J, Lopes J. Calf and Ankle Liposuction. Medscape. 2018 4. Reed LS. Lipoplasty of the calves and ankles. Clin Plast Surg. 1989;16(2):365-368. - PubMed 5.Watanabe K. Circumferential liposuction of calves and ankles. Aesthetic Plast Surg. 1990;14:259-269. - PubMed 6.Mladick RA. Circumferential "intermediate" lipoplasty of the legs. Aesthetic Plast. Surg. 1994;18:165-174. - PubMed 7.Mladick RA. Advances in liposuction contouring of calves and ankles. Plast Reconstr Surg. 1999;104(3):823-831. - PubMed 8. Kim YH, Cha SM, Naidu S, et al. Analysis of postoperative complications for superficial liposuction: a review of 2398 cases. Plast Reconstr Surg. 2011;127(2):863-871. doi: 10.1097/PRS.0b013e318200afbf. - DOI - PubMed 9. Lillis PJ. Liposuction of the knees, calves, and ankles. Dermatol Clin. 1999;17(4):865-879. doi: 10.1016/s0733-8635(05)70134-0. - DOI - PubMed 10. Ersek RA, Salisbury AV. Circumferential liposuction of knees, calves, and ankles. Plast Reconstr Surg. 1996;98(5):880-883. doi: 10.1097/00006534-199610000-00024. - DOI - PubMed 11. Illouz YG, de Villers YT. Body Sculpturing by Lipoplasty. 1989:124-126. 275-280.

Galazka Mariola
Poland

Galazka Mariola
Poland

#2509

Contouring and reconstruction of lower face- therapeutic options.

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Lower face is anatomically defined as a chin, a jaw and a neck. Aging process impacts this area multidimensionally, specific causes being: loss of skin elasticity, fat tissue volume and bone mass loss, weakening of face muscles and their lower capacity. There is also congenital defects of chin and jawline growth, namely: micrognation or retrognation. There are many patients suffering from these conditions. Surgical methods imply higher risk and slower recuperation. Non- invasive techniques with the use of hyaluronic acid which will be presented may be an acceptable alternative to surgical procedures.

Methods:

Results:

Conclusions:

Siperstein Robyn
United States

Siperstein Robyn
United States

#2510

A Retrospective Review of the Safety and Efficacy of Utilizing Triamcinolone Mixed with Hyaluronic Acid Fillers to Reduce Post Procedure Swelling in the Infraorbital Area

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Background: The tear trough is often listed as the most challenging area to treat with hyaluronic acid filler, mostly because the high risk of swelling. Patient's often cite the need to attend work, school, or social events as a reason why they cannot have procedures or need to postpone them and their satisfaction with the procedure is not just related to the end-result but also the side-effects they experience during and after the procedure. Objective: This retrospective review assesses efficacy and safety of low-dose triamcinolone (1mg/cc) in hyaluronic acid fillers to decrease swelling after infraorbital injection.

Methods: This double-center, single injector, retrospective analysis includes 447 patients who underwent 706 infraorbital hyaluronic acid filler treatments under 1412 eyes from April 2013 to March 2020. Short-term post-procedural swelling (≤2 weeks) was assessed through follow-up phone calls which were documented in the patient's chart (n=495). The effect of patient characteristics and other variables were also analyzed.

Results: After patients' first infraorbital treatment, swelling occurred in 51% (103/202) of those treated with hyaluronic acid filler only, as compared to 23% (29/124) in those with 1mg of triamcinolone mixed with the hyaluronic acid filler, which is a reduction of more than half and statistically significant ($x2[1, N=326]=24.296$, $p<.00001$). All treatments without triamcinolone utilizing 0.55cc or less had significantly less short-term swelling (37.1% [26/70]) than those utilizing over 1cc (60% [15/25]) [$x2[1, N=95]=3.9231$, $p=.048$]. There was no significance when comparing patient's age, sex, Fitzpatrick skin type, or history of allergies in those that had post-procedure swelling and those who did not. There were no adverse events such as hypopigmentation or atrophy from the addition of triamcinolone in this review.

Conclusions: The addition of triamcinolone to hyaluronic acid filler as described in this study (1mg/cc) appears to be a safe method for reducing post-procedure swelling within the first few weeks following injection. Additional recommendations to decrease swelling when not using triamcinolone include using volumes equal or less than 0.55cc total for both sides.

References: 1. Ho, D., J. Jagdeo, and H.A. Waldorf, Is There a Role for Arnica and Bromelain in Prevention of Post-Procedure Ecchymosis or Edema? A Systematic Review of the Literature. Dermatol Surg, 2016. 42(4): p. 445-63. 2. Urdiales-Galvez, F., et al., Treatment of Soft Tissue Filler Complications: Expert Consensus Recommendations. Aesthetic Plast Surg, 2018. 42(2): p. 498-510. 3. King, M., Management of Edema. J Clin Aesthet Dermatol, 2017. 10(1): p. E1-E4. 4. Nestor, M.S., G.R. Ablon, and M.A. Stillman, The use of a contact cooling device to reduce pain and ecchymosis associated with dermal filler injections. J Clin Aesthet Dermatol, 2010. 3(3): p. 29-34. 5. Shapiro, J., Current treatment of alopecia areata. J Investig Dermatol Symp Proc, 2013. 16(1): p. S42-4. 6. Shiffman, M.A., Letter: Treatment of local, persistent cutaneous atrophy after corticosteroid injection with normal saline infiltration. Dermatol Surg, 2010. 36(3): p. 436. 7. El-Amawy, H.S. and S.M. Sarsik, Saline in Dermatology: A literature review. J Cosmet Dermatol, 2020. 8. Habal, M.B., Prevention of postoperative facial edema with steroids after facial surgery. Aesthetic Plast Surg, 1985. 9(2): p. 69-71. 9. G Griepentrog, M.L., C Burkat, B Lemke, J Rose, Periorbital Edema Following Hyaluronic Acid G

Pocovi Diego
United States

Kolenda Jack
Canada

#2511

Clinical Evaluation of A mesotherapy Formulation with topical application for the treatment of skin aging and improvement of skin quality in Healthy Adults

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: An open label prospective Canadian observational study for polycomponent mesotherapy formulation (NCTF BOOST 135HA) was conducted to collect both patient and physician experience. The aim of the study was to establish a consensus for topical treatment management. Across Canada, 40 participants from 10 different clinics were enrolled into the study that were either skin treatment naïve or experienced, and included different skin types and thicknesses. Patients received three treatments (Day 0, 15, and 30) with each visit including pre-treatment, treatment, and post treatment procedures. The consensus statement proposes flexibility in the treatment protocol to ensure patients can be managed within clinical workflow and accommodate patient specific needs, including optional chemical peels for participants who can be sensitive to the procedure. Dermal rollers are recommended with a depth of 0.5 mm to 1.0 mm to enhance better penetration of the polycomponet mesotherapy formulation. Patient and physician feedback was positive and treatment outcomes noted claims of mild to moderate increase in glow, hydration as well as improvement of pores size reduction and reduced appearance of rosacea, improvement of minor scars and fine wrinkles.

Methods:

Results:

Conclusions:

Kassem Islam
Egypt
Kassem Islam
Egypt

#2512

Gummy smile Digital work flow

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Gummy smile is considered a multidisplenary problem targeted by dentist , deramatologist and plastic surgeron diagnosis using digital workflow are discussed

Methods: 15 different cases are treated using computer guided workflow

Results: post operative follow up for cases

Conclusions: Using a digital work flow and computer guided surgery and injection provide a safe method for gummy smile mangment

References: 1. Peck S, Peck L, Kataja M. The gingival smile line.AngleOrthod.1992;62:91-100; discussion 101-102.2. Ackerman JL, Ackerman MB, Brensinger CM, Landis JR. Amorphometric analysis of the posed smile.Clin Orthod Res.1998;1:2-11.3. Ackerman MB, Ackerman JL. Smile analysis and design in thedigital era.J Clin Orthod.2002;36:221-236.4. Khanna B. Lip stabilisation with botulinum toxin.Aesthet DentToday2007;1:54-59.5. Tamura B. Facial anatomy and the application of fillers andbotulinum toxin: Part 2.Surg Cosmet Dermatol.2010;4:291-303.6. Rubin LR. The anatomy of the smile: Its importance in thetreatment of facial paralysis.Plast Reconstr Surg.1974;53:384-387. (17) (PDF) A Simplified Method for Smile Enhancement: Botulinum Toxin Injection for Gummy Smile. Available from: https://www.researchgate.net/publication/230755369_A_Simplified_Method_for_Smile_Enhancement_Botulinum_Toxin_Injection_fo Apr 03 2021].

Starace Michela
Italy

Starace Michela
Italy

#2514

CLINICAL STUDY ON THE EFFECTIVENESS AND TOLERABILITY OF PREFORMED GROWTH FACTORS VEHICULATED THROUGH IONOPHORESIS ON PATIENTS WITH ANDROGENETIC ALOPECIA AND TELOGEN EFFLUVIUM.

52 - Hair restoration

Background/Objectives: Introduction: Androgenetic alopecia is characterized by a progressive miniaturization of hair follicles in a pattern distribution in genetically predisposed individuals. The efficacy of conventional therapies is variable, and therefore, there is a need for adjuvant and newer modalities of treatment in order to give faster and better outcomes. Objective: Evaluation of the efficacy and tolerability of a combined therapy: preformed growth factors vehiculated through iontophoresis in patients with androgenetic alopecia and associated telogen effluvium, in order to obtain faster hair regrowth.

Methods: Materials & Methods: We performed the treatment on 60 patients with androgenetic alopecia and telogen effluvium associated between June 2018 and June 2019. The total number of sessions was 4 every 3 weeks. Global photography and trichoscopy were collected at every session of therapy. All patients filed out a brief questionnaire of self-assessment.

Results: Results: Results were very promising, with improvement of hair density and thickening of the hair shaft diameter in most of patients seen with both global photography and trichoscopy. All patients were satisfied of the clinical result and reported a complete reduction in hair loss. No serious adverse side effects were reported.

Conclusions: Conclusions: The use of growth factors associated with iontophoresis technique is a useful treatment for treating and preventing androgenetic alopecia. In addition, in case of associated telogen effluvium, this technique permit stopping hair shedding earlier, especially when cosmetic procedures do not give enough results with a better satisfaction by patients.

References: References: 1. Piraccini BM, Alessandrini A. Androgenetic alopecia. G Ital Dermatol Venereol. 2014 Feb;149(1):15-24. 2. Kanti V, Messenger A, Dobos G, Reygagne P, Finner A, Blumeyer A, Trakatelli M, Tosti A, Del Marmol V, Piraccini BM, Nast A, Blume-Peytavi U. Evidence-based (S3) guideline for the treatment of androgenetic alopecia in women and in men - short version. J Eur Acad Dermatol Venereol. 2018; 32(1): 11-22. 3. Starace M, Alessandrini A, D'Acunto C, Melandri D, Bruni F, Patrizi A, Piraccini BM. Platelet-rich plasma on female androgenetic alopecia: Tested on 10 patients. J Cosmet Dermatol. 2019 Feb;18(1):59-64. 4. Rebora A. Telogen effluvium: a comprehensive review. Clin Cosmet Investig Dermatol. 2019 Aug 21; 12: 583-590. 5. Starace M, Alessandrini A, Brandi N, Piraccini BM. Preliminary results of the use of scalp microneedling in different types of alopecia. J Cosmet Dermatol. 2020 Mar;19(3):646-650.

Rufolo Guglielmo
Italy
Rufolo Guglielmo
Italy

#2517

Cosmetic Facial Sculpting

45 - Combination treatments

Background/Objectives: Surgical facial sculpting is a procedure considered to be on of main surgical intervention in cosmetic surgery. This is a case report of a patient underwent at the surgical intervention during winter time who demand for improving the jaw line of facial contour. After a clinical evaluation I've considered to extract the panniculus adipose (Bichat ball) by both of side of the cheeks with the extraction of them and considering the intra-oral access surgical approaching.

Methods: Considering the muscle, subdermal support of the lateral two-thirds of the brow, the naso-jugal fold, the malar and buccal fat pads, the lateral lip commissures, and the perioral region, including the pre-jowl sulcus, all restore youthful facial contour and harmony. Marking the areas interested just evaluated, I began an incision with two centimeter width and with intra-buccal access. Afterwords i make sure to extract the fatty pad (Bichat Balls) by both of side of the cheeks and afterword onclude with a closure of the mucosa with not-absorbable stitches to take it off few days after the surgical intervention.

Results: Facial sculpting is a procedure improves the facial contour of the cheeks, the perioral contour releasing more harmony of the shapes. The softer, more relaxed appearance contrasts to the somewhat "pulled" appearance of subjects who have had surgical overcorrections. Treatments can be combined with other procedures in cosmetic surgery and with facial lipofilling to cover whole areasneed to be interested by deficiency of tissue.

Conclusions: This is a method concerns to improve facial aspect of jaw contour at who show up a typical round shape and look for improve a better smooth contour of the jaw.

References: 1) Facial sculpting: Comprehensive approach for aesthetic correction of round face.Thomas MK, D'Silva JA, Borole AJ. Indian J Plast Surg. 2012 Jan;45(1):122-7. doi: 10.4103/0970-0358.96608. PMID: 22754167 Free PMC article. 2) Facial sculpting and tissue augmentation. Carruthers JD, Carruthers A. Dermatol Surg. 2005 Nov;31(11 Pt 2):1604-12. doi: 10.2310/6350.2005.31248.

Mueller Daniel
Austria

Müller Daniel S.
Austria

#2518

Efficacy and Safety of a Novel Neurotoxin (Letibotulinum Toxin) in the Treatment of Glabellar Lines - 3 Randomized, Double-blind, Placebo-Controlled Studies Followed by Open-label Extensions

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: The appearance of vertical glabellar lines can be ameliorated using neurotoxin injections into the procerus muscle and into the bilateral deep medial and superficial lateral part of the corrugator muscle.

Methods: A total of n = 1276 patients with a mean age of 50.3 ± 11.6 years were investigated in three identically designed, randomized, double - blind, placebo - controlled investigations followed by open - label extensions. The subjects received 5 injections (4 U/0.1 ml per injection site, with one injection into the procerus muscle and two injections into the bilateral corrugator muscles) per treatment visit, being equivalent to a total dose of 20 U active letibotulinum toxin or 0,5 ml of placebo. Subjects randomized to receive placebo received placebo for their first treatment and could enter the open-label extension after the first treatment cycle. Change of Facial Wrinkle Scale (FWS) Score at maximum frown were assessed after 7, 14, 28 and 56 days by the investigator and the subject. The patient satisfaction was assessed after the first treatment cycle. Adverse events were record.

Results: Based on the composite endpoint of assessments of both, the investigator and subject (i.e. only if both raters agrees), a total of 78.2% of the subjects treated with letibotulinum toxin presented with a reduction of ≥ 1 of the FWS score at maximum frown after 7 days, 86.1% after 14 days, 83.6% after 28 days and 72.7% after 56 days with $p < 0.001$ compared to the rate of responders in the placebo group at all investigated time points. After the first treatment cycle of the subjects treated with letibotulinum toxin, 80.7% agreed that the result was pleasing, 75.6% agreed that the result was just as expected, 73.9% agreed that the result turned out great, 69.6% agreed that they were surprised how good they looked in the mirror, 66.4% agreed that the result looked fantastic and 58.1% agreed that the result is miraculous vs. 7.5%, 8.8%, 4.4%, 3.1%, 2.2% and 1.6% in the placebo group respectively. 2.9% of the subjects treated with letibotulinum toxin presented with an either possibly, probably or definitely related study medication related treatment emergent adverse event, while 2.9% presented with a injection procedure related treatment emergent adverse event. 1.5% and 1.0% presented with a severe and serious treatment emergent adverse event respectively.

Conclusions: This study confirmed the superior efficacy of letibotulinum toxin compared to placebo in the treatment of vertical glabellar lines. There was a high satisfaction with the treatment for subjects in the letibotulinum toxin group. The safety profile of the novel letibotulinum toxin showed very few adverse events.

Damree Shameema
United Kingdom

Damree Shameema
United Kingdom

#2519

Adipose Stem Cell exosomes in skin rejuvenation, rosacea and other cosmetic dermatological conditions.

51 - Regenerative aesthetics

Background/Objectives: Objectives: 1. Understanding the biological characteristics of Adipose Stem Cell Exosomes (ASC-exosomes), their toxicology and safety profile.2. Comparison of clinical efficacy and safety of ASC-exosomes versus growth factor, platelet rich plasma and conditioned media extract.3. Clinical applications of ASC-exosomes in skin rejuvenation, rosacea,melasma in isolation and in combination with energy-based devices.4. Critical evaluation of multi-centre clinical cases conducted over past 2 years across three continents. Introduction: ASC-exosomes are extracellular microvesicles with potent regenerative functions of mesenchymal stem cells. They are the mediators of cell-to-cell communication with numerous growth factors and functional miRNA that have regenerative, anti-inflammatory and immunemodulatory effects on skin cells. ASC-exosomes can be used in isolation or combined with energy-based devices.

Methods: In vitro and in vivo studies investigating the profiling of exosomes were perfomed. Patients were treated for skin rejuvenation, rosacea, melasma with ASC-exosomes in isolation and in combination with an energy-based device.

Results: Scientific Data ASC-exosome profiling: 1. 180 out of 1050 proteins found in ASC-exosomes have cell proliferative, wound healing and growth factors functions for the skin.2. 100 out of 600 miRNAs have anti-itching, anti-inflammatory and proliferative functions for the skin.3. They are safe (cell free), high purity (99.5% pure isolated exosomes), highly stable (bilipid anti-apoptotic membrane), superior efficacy(functional miRNA and GF), have anti-inflammatory and regenerative properties. 4. The functions of ASC-exosome in skin rejuvenation are a x6 fold increase in collagen production and x2.5-fold increase in elastin by increasing the proliferation of dermal fibroblast cells.5. The anti- inflammatory effects of ASC-exosome is an 80% reduction in IL-4 and Il-31, reducing the level of Ig E by 70% and TNF-alpha by 90%. International Clinical Case Series: 1.UK and South Korea:a. Face and Neck Skin Rejuvenation: microneedling radiofrequency (MRF)with ASCexosome.b. Face and Neck Skin Rejuvenation: CO2 laser resurfacing with ASCexosomes. 2. USA:a. Face Skin Rejuvenation: Er:Yag laser with ASC-exosomesb. Face Skin Rejuvenation: plasma laser with ASC-exosomesc. Face Skin Rejuvenation: fractional CO2 laser with ASC-exosomes

Conclusions: ASC-exosome show superior clinical effects with high safety profile in skin rejuvenation and other dermatological conditions, especially when combined with energy based devices. We conclude that ASC-exosomes can be the next generation "cell free' regenerative aesthetic treatment.

Damree Shameema
United Kingdom

Damree Shameema
United Kingdom

#2520

Adipose derived stem cell exosomes for hair regrowth and scalp rejuvenation.

52 - Hair restoration

Background/Objectives: Objectives, to undertsand 1.The relationship between hair follicles and adipose cells. 2. The hair follicle ageing process.3. The biological characteristics of Adipose derived Stem Cell exosomes (ASC-exosomes), their toxicology and safety profile.4. The functions of miRNAs and proteins of ASC-exosome in hair regrowth and scalp rejuvenation. 5. The mechanism of action of ASC-exosomes a)The Seed Factors - hair growth, cell proliferation and anti-senescence. b) The Soil Factors - anti-inflammation, wound healing and regeneration. 6. Comparison of clinical efficacy and safety of ASC-exosomes versus growth factors (GF), platelet rich plasma (PRP), conditioned stem cell media (CSCM),finasteride and minoxidil. 7.Clinical cases conducted over the past two years across three continents. Introduction: Exosomes are extracellular microvesicles with regenerative functions of mesenchymal stem cells. They are the mediators of cell-to-cell communication with numerous growth factors and functional miRNA which have regenerative and anti-inflammatory effects on dermal papilla cells (DPC). They can be used in isolation or have synergistic effects in combination with energy-based devices.

Methods: Scientific Studies investigating the morphology and function of ASC-exosomes on DPC. International Clinical Case Series: Patients were treated for male and female pattern hair loss and alopecia with ASC-exosomes +/- an energy-based device.

Results: Scientific Data about ASC-exosome protein profiling :a)100 proteins out of 1050 proteins and 15miRNAs out of 600 miRNAs found in ASC-exosomes have cell proliferative, wound healing and growth factors functions specific to DPC. b)a minimum of 15 proteins and 30 miRNAs had anti-inflammatory properties, 40 proteins and 2 miRNAs have regenerative properties to DPC. c) an increase in growth by 60% and 45% protection against senescence. e)In comparison to GF, PRP and CSCM, ASC-exosomes have found to be safe (cell free), high purity(99.5% pure isolated exosomes), highly stable (bilipid anti-apoptotic membrane), superior efficacy(functional miRNAs and GFs), have anti-inflammatory and regenerative properties. International Clinical Case Series: a)Combination of ASC-exosomes with mesotherapy +/- LLLT b)Combination of ASC-exosomes with microneedling radiofrequency and LLLT.

Conclusions: ASC-exosome is a novel cell-free therapeutic with promising results for alopecia. It is superior to conventional approaches. It's regenerative, anti-inflammatory and anti-ageing properties makes it highly effective and safe.The synergistic effects of ASC-exosomes in combination with energy-based devices will yield impressive results.

Damree Shameema
United Kingdom

Damree Shameema
United Kingdom

#2521

Novel Treatment of cutaneous hypermelanosis with Adipose Derived Stem Cell exosomes.

41 - Pigmentation

Background/Objectives: Objectives: 1. Understand the effect of exosomes derived from adipose stem cells on melanogenesis and their skin brightening effect. 2. Objective analysis of a prospective, split face, randomized placebo-controlled study assessing the skin brightening effect of ASC-exosomes. Introduction: Many depigmenting agents, such as kojic acid, hydroquinone, retinoids, and vitamin C have been widely used as topical treatments with limited efficacy and adverse effects. Treating hypermelanosis remains challenging, leaving an unmet need for safer and more effective innovative treatment modalities. Previous studies have shown that stem cells and their derivatives, including conditioned media, have inhibitory effects on skin pigmentation. However, evidence supporting the skin brightening effect of exosomes derived from stem cells is lacking. Exosomes derived from adipose stem cells are extracellular vesicles and primarily mediate the paracrine effects of ASC therapy and are a promising next-generation-cell-free therapeutic option.

Methods: Clinical Study : This clinical study was conducted with an ASC-exosome formulation in a prospective, split-face, double blind, randomized placebo-controlled study to assess its skin brightening efficacy. The placebo (without ASC-exosomes) or test (with ASC-exosomes) formulation was applied twice a week for 8 weeks on the face of 21 female volunteers. Melanin levels were measured using a mexameter before and 2,4 and 8 weeks after treatment. Clinical Case Series: After informed consent was obtained, a cohort of patients was treated for hypermelanosis with ASC-exosomes. Follow up of patients supported by photographic recordings of progress was performed.

Results: Clinical Study 1 results: 1.A Reduction in MII began 2 weeks after treatment and a statistically significant reduction ($p<0.01$) was observed 4 weeks and 8 weeks after treatment compared to placebo-treated areas. 2.A reduction of melanin in different age groups. N=11 for 40s and n=8 for 50s, $p<0.05$ vs placebo-treated area was considered statistically significant. The reduction in melanin was more pronounced in women aged <50 years, as observed 4 weeks after treatment. Clinical cases: Before and after photographic evidence will be discussed.

Conclusions: We can conclude that the use of ASC-exosomes reduced melanin production at the intracellular level, reducing hypermelanosis and eventually leading to skin brightening. Future invitro and clinical studies are required to support these innovative treatment modalities.

Millet François-gilles
France

Millet François
France

#2523

Genital Aging and Therapeutic Possibilities. Hyaluronic acid contribution

47 - Genital rejuvenation

Background/Objectives: From adolescence to menopause the female genitalia changes. These are natural physiological changes that are both anatomical and functional. The non-keratinized squamous epithelium which mainly lines the vulva and vagina undergoes over time (from teenage, deliveries,... to menopause) changes under hormonal influences which will gradually lead to tissue atrophy responsible for a significant deterioration in the quality of life. Thus, during menopause, vaginal dryness, modification of the ecosystem, recurrent infections, tissue fragility, and dyspareunia appear.

Methods: There are many non-hormonal therapeutic possibilities and new production techniques make it possible to obtain targeted hyaluronic acid to restore the quality of cellular hydration and restore volumes in order to improve comfort and quality of life. We will present A reminder on the pathophysiology of menopause, its tissue and functional consequences on the quality of life. The various non-hormonal therapeutic possibilities with in particular the contribution of new hyaluronic acids (3D Matrix, crosslinks) and their tissue applications to restore anatomy (tissue filling) and quality of life (vaginal dryness). Description of the different injection techniques....

Results:

Conclusions: We will assess their respective places in the activity of a cosmetic medicine practice.

Montastier Christiane
France

Montastier Christiane
France

#2525

CLINICAL STUDY ON THE REPAIR OF THE FUNCTION BARRIER BY A COSMETIC FORMULATION CONTAINING AN EXTRACT OF DEDIFFERENTIATED CRITHMUM MARITUM CELLS

40 - Cosmeceuticals, Peels & Superficial regimens

Background/Objectives: The stratum corneum (SC) is the remarkable final product of epidermis maturation. Its structure depends on a continuous dynamic process regulated by the balance between corneocyte shedding and germinative cell proliferation. A precise balance between respiration and glycolysis ensures the metabolism homeostasis, which is altered in aging skin. In further investigations the rejuvenated skin physiology was linked to a metabolism switch induced by crithmum maritum stem cells actives (CM). A clinical study was realized to assess the recovery rate of the epidermal permeability barrier function following controlled stripping and application of formulation containing high concentration of CM.

Methods: In vitro: To follow the bioenergetics, we used the Seahorse XF96 analyzer to measure glycolysis function and respiration on fibroblasts treated with extract of CM and defined a Cellular Metabolism Index (CMI) as a dynamic measure of response. Young healthy cells high CMI, high bioenergetic reserve capacity, high ATP-linked respiration and low proton leak, and stressed aging cells have a low CMI. In vivo: On 24 healthy subjects older than 50 years with altered SC by strippings. This procedure followed a 14- days skin preconditioning by two daily applications of serum containing CM. An untreated skin contralateral side served as a control. The epidermal permeability repair kinetics was assessed for 14 days by the measurements of TEWL by Tewametre at different time after strippings.

Results: In vitro:We were able to demonstrate that dedifferentiated CM extract can induce a metabolic switch within skin cells on both young and old fibroblasts. We measured that dedifferentiated CM extract boost the cellular metabolism, by increasing the mean CMI of young and old fibroblasts by 10 times. In vivo: On the treated zone by the serum we have observed a significant increase of the TEWL after stripping at T14d and T14d+2h, at T15d and T16d compared to the baseline T14d. On the zone control we have also observed a significant increase of the TEWL after stripping at T14d and at T14d+2h and T15d and T16d and T17d compared to the baseline at T14d. AT T21d and T28d, no difference between treated zones versus non treated ones and the baseline at T14d.

Conclusions: These results demonstrate that Crithmum Maritum native cells (CM) extract is able to induce a metabolism to restore skin homeostasis corresponding to a more juvenile physiology. The serum, power cell*, rich in CM extract, used in this clinical study demonstrates boosting effects on the kinetics of epidermal permeability barrier repair.

References: Lequeux C et al., Model in vitro healing to test the influence of dedifferentiated Crithmum Maritum cells on dermal repair and epidermal regeneration. Skin Pharmacol Physiol. 2011;24(2):75-80. Caucanas M et al., Dynamics of skin barrier repair following preconditioning by a biotechnology-driven extract from samphire stem cells. JOCD. 2011;584.

Cohen Joel
United States

Cohen Joel L
United States

#2527

Subject Satisfaction with Two Treatments a Year (Every Six Months) of AbobotulinumtoxinA is High Among Both Previously Treated and Toxin-naïve Cohorts

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Patients who have previous experience with and those naïve to aesthetic botulinum toxin treatments may have different expectations, leading to differences in satisfaction. Furthermore, some have suggested onset and duration of effect may differ. Therefore, a post-hoc analysis of a study of twice-yearly treatment with abobotulinumtoxinA was done to compare outcome by prior treatment experience.

Methods: A post-hoc analysis of toxin-naïve subjects vs. previously treated was performed of an open-label, multicenter study evaluating subject satisfaction after glabellar line (GL) injections of 50U abobotulinumtoxinA at baseline and re-treatment at 6 months (NCT03687736). Follow-up at Month 1, 3, 6, 7, 9, and 12 assessed subject satisfaction, subject-reported FACE-Q, and GL severity score (GLSS).

Results: Subject satisfaction rates were high at Month 12 for both previously treated (93%) and toxin-naïve (97%) , though toxin-naïve subjects were more likely to be highly satisfied (66% vs. 57%). Moreover, toxin-naïve subjects reported feeling better about themselves, more satisfaction with their appearance, and feeling more attractive 6 months after each treatment. Previously treated subjects reported earlier onset of effect (24 hours: 35-37% vs. 14-24% toxin-naive). Subject-assessed GLSS responder rates were higher for toxin-naïve, while investigators found higher rates in previously treated.

Conclusions: Subject satisfaction with two treatments a year (every 6 months) was high, whether they had experience with previous toxin treatments or not. Clinical efficacy did not appear to differ, though toxin-naïve subjects were more likely to report high overall satisfaction.

Cohen Joel
United States

Cohen Joel L
United States

#2529

Millennial Subject Satisfaction with Two Treatments of AbobotulinumtoxinA a Year

44 - Treatment with Injectables (Botulinum toxin & dermal fillers)

Background/Objectives: Millennials are increasingly becoming a larger part of the aesthetic market. However, expectations are high, particularly with their first aesthetic treatment, which data shows is likely to be botulinum toxins. They also represent a subset which may not be as open to frequent aesthetic treatments.

Methods: A post-hoc analysis compared subject satisfaction by age in a 12-month, open-label, multicenter study (NCT03687736) of two glabellar line injections of 50U AbobotulinumtoxinA (at baseline and 6 months). Age groups were segmented by decade, from 20-61+ years old, with millennials defined as age 21-40. Subject satisfaction and subject-reported FACE-Q were evaluated 6 months after each treatment.

Results: While overall satisfaction rate was high across all age groups (≥86%), a higher proportion of millennials was highly satisfied (21-40: 75%; 50-60+: 49%). Millennials were happier with their glabellar lines at baseline, but all age groups reported large improvements 6 months after second treatment (mean Rasch score increase: 10.1-28.2). The youngest and oldest groups had larger improvements in psychological wellness (mean Rasch score increase 6 months after each treatment: 21-30: 4.1-8.9, >60: 8.6-15.7). At study end, 100% of millennials stated they would like to receive the treatment again.

Conclusions: While all age groups were satisfied with and experienced psychological benefits from treatment, millennials appeared to be particularly happy with two treatments a year of abobotulinumtoxinA.