brown pigmentation was reduced from 73.77±12.69% to 69.15±13.56% (p = 0.042) in the BF group, with a decrease in total dark spots from 20.47±16.57 to 13.76±12.04 (p = 0.010). No significant changes in total redness or brown pigmentation occurred in either of the control groups (p = 0.75 and 0.89). At 90 days, VAS scores were significantly improved for radiance, brown spots and dryness in the AIF group (p < 0.05), with no significant changes in the placebo group. Radiance, softness and overall quality scores were significantly improved in the BF group. The BF placebo group reported significant improvements in brown spot and dryness scores.

CONCLUSION: This study suggests that the AIF and BF supplements provide significant clinical benefits in the reduction of facial erythema and hyperpigmentation.

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The Management of Facial Hypertrophic Scars by Using Fractional CO2 Laser, Adipose-Derived Stem Cells, Regenerative Epithelial Suspension and Lipoinjection Combination

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DISCLOSURE/FINANCIAL SUPPORT: The authors declare none disclosure.

INTRODUCTION: Facial burns often get an inextricable situation in terms of healing and long-term morbidity. Many different procedures were used to overcome these challenging topics. Although results were more promising in terms of surgeons, is inadequate for patients. We present the efficiency of fractional CO2 laser(FL), Adipose-Derived stem cells(ADSC), Regenerative Epithelial Suspension(Recell®) and lipoinjection combination treatment on facial hypertrophic scars due to burns(FS).

MATERIAL AND METHODS: 20 patients (M: 12, F: 8) among the ages of 18–38 years (Mean:25.6) between 2012–2016 were included. Skin thickness and perfusion were assessed by using ultrasonography, Vectra® computer simulation was performed to obtain symmetric lipoinjection, skin biopsies were performed, hematoxylin-eosin, and Movat pentachrome staining were carried out on preoperative and postoperative 12. months. ADSC-enriched lipoinjection and FL was performed, Recell® was administered following. All of the patients underwent a satisfaction questionnaire.

RESULTS: Mean follow-up was 18 (14–24) months. A significant improvement in skin softness, thickness, elasticity, color and symmetry was obtained in all patients. An increase in Keratinocyte, type 1 collagen; a decrease in nodular type 3 collagen and elastin, epidermal rete ridges, proteoglycan, fibronectin, neurofilament, T cells, macrophages and mast cells was observed in the histopathological studies. A significant reduction in skin thickness, scar microcirculation and an increase in fatty tissue rates were obtained from USG, and all patients had higher scores in questionnaire.

CONCLUSION: FL has an active role on smoothing and regression of FS. ADSC-enriched lipoinjection is effective in the long term management of facial asymmetry. The Recell® application increases the amount of keratinocytes and provides significant skin quality.

ACKNOWLEDGEMENTS: Conflict of Interest: None

Efficacy of Laser and Light Therapy for the Treatment of Non-Atrophic Scars: A Systematic Review and Meta-Analysis

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DISCLOSURE/FINANCIAL SUPPORT: None of the authors has a financial interest in any of the products, devices, or drugs mentioned in this manuscript.

INTRODUCTION: Scarring is the unavoidable consequence of injury to the skin. Treatment of scars remains a challenge despite the various treatment options available. Within the past decade, laser and light therapy (LLT) has become widely used to treat scars. The purpose of this systematic review and meta-analysis is to evaluate the evidence for the treatment of non-atrophic scars (e.g. linear scars, hypertrophic scars, and keloids) with LLT.

METHODS: PubMed/MEDLINE, EMBASE and CENTRAL databases were searched for studies published
through March 2016. The methodological quality of controlled clinical trials was evaluated, assigned a corresponding level of evidence and assessed for risk of bias. A meta-analysis of the studies that met the eligibility criteria was performed in order to determine the overall response rate of linear scars, hypertrophic scars (HTS), keloids, and striae distensae following treatment with LLT.

RESULTS: Twenty-eight studies met the eligibility criteria. Most were Level II evidence (n=21), five were Level III and two were Level I. The most common scar type was HTS (n=16), followed by linear (n=9), keloids (n=7), and other or non-specified scar types (n=3). Limited evidence was found for striae distensae (n=1). The overall response rate for LLT was 0.65 (95% C.I. 0.53; 0.75) for linear scars, 0.61 (95% C.I. 0.45; 0.75) for HTS, 0.81 (95% C.I. 0.48–0.95) for keloid scars. Sub-analyses comparing laser modalities for each scar type revealed that fractional 1540/1550-nm Er:Glass and fractional 10,600-nm CO2 lasers yielded the greatest response rates for linear and HTS, respectively. Of the studies assessing each respective scar characteristic, 100% showed improvement in texture, 83.3% showed improvement in thickness, 76.9% showed improvement in pliability, 44.4% showed improvement in erythema, and 41.7% showed improvement in pigmentation.

CONCLUSION: This study is the first meta-analysis to confirm the efficacy of LLT in the treatment of non-atrophic scars. Treatment with LLT is most effective for improving scar texture, thickness and pliability and least effective for improving scar color. Despite the numerous studies investigating treatment of non-atrophic with LLT that have been published, poor methodology, insufficient reporting, and lack of universal outcome measures makes determining evidence-based guidelines particularly challenging. This highlights the need for high-quality RCTs with Level 1 evidence and follow-up times of at least 6 months to determine the role of LLT in scar treatment.

**DISCLOSURE/FINANCIAL SUPPORT:** Dr. Grotting is a founder and shareholder of CosmetAssure (Birmingham, AL), an author for Quality Medical Publishing (St. Louis, MO) and Elsevier (New York, NY), and a shareholder of Keller Medical (Stuart, FL) and Ideal Implant (Dallas, TX). The other authors have nothing to disclose. The authors received no financial support for the research, authorship, and publication of this article.

**INTRODUCTION:** Surgical site infections (SSIs) represent one of the most common postoperative complications in patients undergoing aesthetic surgery. Current literature evaluating SSIs following aesthetic surgical procedures is usually limited to single procedures, single institution or surgeon experiences with small sample size. The purpose of this study was to determine the incidence of major SSIs amongst some of the most commonly performed cosmetic procedures and amongst different procedure combinations. Additional goals were to delineate significant risk factors for postoperative SSIs after aesthetic surgery.

METHODS: A prospectively enrolled cohort of patients who underwent aesthetic surgery between 2008 and 2013 was identified from the CosmetAssure national insurance database. Primary outcome was occurrence of a major SSI requiring emergency room visit, hospital admission, or reoperation within 30 days of the index operation. Univariate and multivariate analysis evaluated potential risk factors for SSIs including age, gender, body mass index (BMI), smoking, diabetes mellitus, type of surgical facility, procedure by body region, and combined procedures.

RESULTS: A total of 129,007 patients were captured in the database, of which 599 (0.46%) were diagnosed with a major SSI. Mean age (43.8 ± 12.4 vs. 40.9 ± 13.9, p<0.01) and BMI (27.3 ± 5.5 vs. 24.3 ± 4.6, p<0.01) were higher in patients with SSIs. Patients with a SSI were more likely to be smokers (10.5% vs. 8.2%, p=0.04) and diabetic (4.5% vs. 1.8%, p<0.01). Females suffered more SSI than males (0.5% vs. 0.3%, p=0.02). Trunk or extremity procedures had a higher incidence of SSI compared to breast or face procedures (0.9% vs. 0.2%, p<0.01). On multivariate analysis, independent predictors of SSI included age (Relative Risk (RR) 1.01), gender (RR 1.86), BMI (RR 1.39), trunk or extremity procedures (RR 2.42), and combined procedures (RR 1.88).

CONCLUSION: SSIs following cosmetic surgical procedures are associated with numerous independent predictors, which should be taken into consideration when counseling