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By Gregory H. Branham, Jeffrey S. Dover, Shilpi Khetarpal, Smita R. Ramanadham, and Allan E. Wulc

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By Shilpi Khetarpal

Nonsurgical Rhinoplasty, 1

By Usha Rajagopal, Jacqueline Watchmaker, and Jeffrey S. Dover

- ▶ Video content accompanies this article at <http://www.advancesincosmeticsurgery.com>.

This article describes brief history of nonsurgical rhinoplasty along with a description of nasal anatomy. Also included are product selection for optimum results, injection techniques to improve safety, and best patient selection for treatment. Detailed videos demonstrating each injection techniques of all nasal subunits.

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Facial Volume Rejuvenation Using Alloplastic Facial Implants, 5

By Ryan M. Diepenbrock

Facial volume loss related to the aging process and congenital volume deficiencies can easily and predictably be treated with the use of facial implants. When properly utilized, facial implants augment bony deficiencies with biologically compatible implants that are permanent with little chance of complication. Facial implants come in a variety of pre-formed (stock) shapes and sizes which are easily modified for individual customization. Additionally, with the use of virtual surgical planning, facial implants can be customized to encompass large volume augmentation or to address asymmetries. Whether utilized as a solo procedure, or as an adjunct to more invasive procedures, facial implants add volume to the facial skeleton to improve patients' final aesthetic results.

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Laser-Assisted Drug Delivery, 19

By Jessica G. Labadie, Omer Ibrahim, and Jeffrey S. Dover

- ▶ Video content accompanies this article at <http://www.advancesincosmeticsurgery.com>.

Laser-assisted drug delivery (LADD) is an emerging and rapidly evolving approach to the treatment of a variety of conditions including benign and malignant neoplasms, photoaging, pigmentary disorders, scar revision, and topical anesthesia. In LADD, a laser-induced zone of thermal damage (or microscopic ablation zone) renders the skin more vulnerable to topically applied medications, enhancing their absorption and optimizing their results. This article discusses the clinical evidence behind LADD, as well as proper patient selection, preparation, and appropriate surgical technique to safely and effectively perform LADD.

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Exosomes and Hair Restoration, 31

By Aditya K. Gupta, Deanna C. Hall,

Jeffrey A. Rapaport, and Christopher R. Paradise

Extracellular messenger vesicles known as exosomes are being investigated widely as a new therapy for hair loss. A wide body of preclinical research has demonstrated the potential of exosomes for hair regeneration. Exosomes can affect hair growth by targeting transport of molecular signals to hair follicle components and interacting with hair growth cycle regulation molecules. Preliminary human clinical data seem favorable. The molecular effects of exosomes on hair regeneration are not completely understood and may vary widely based on exosome source. Problems with unregulated human use have emphasized the need for greater standardization and control of exosome use.

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Use of Tranexamic Acid for Melasma, 43

By Taylor A. Bullock and Shilpi Khetarpal

Melasma is an acquired disorder of hyperpigmentation that can severely impact

appearance, self-esteem, and quality of life. No standard melasma treatment works for all patients and many patients have treatment-resistant melasma. Tranexamic acid is an effective off-label treatment that can be used orally and/or topically with minimal side effects. Tranexamic acid acts by reducing melanogenesis, blood vessel count, and erythema. Oral administration may be more effective than other routes of administration, at the expense of possible systemic side effects. Topical administration has been shown to be as effective as standard melasma treatments, with fewer side effects.

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Nonsurgical Facial Rejuvenation in Males,

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By Jameson Loyal

- ▶ Video content accompanies this article at <http://www.advancesincosmeticsurgery.com>.

There are many treatment options for men seeking facial rejuvenation. It is important to get a clear sense of the apprehensions, desires, and expectations of the patient before formulating a treatment plan. A stepwise approach that will highlight a patient's natural beauty rather than

drastically change their appearance is optimal. Combining neuromodulators, dermal fillers, and improving photodamaged skin with the goal of enhancing masculine facial features should be the overall aesthetic goal.

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Expanded Use of Biostimulators,

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By Nina Hartman

Biostimulators comprise a distinct type of dermal filler that act through the induction of dermal regeneration via the production and proliferation of type I collagen, elastin, and dermal fibroblasts. These qualities allow for both volume replacement and skin quality enhancement. Given their unique functions, the

use of biostimulatory fillers has been expanded to numerous off-face indications. The neck, décolletage, upper arms, above the knees, and thighs can be successfully treated with both calcium hydroxylapatite (CaHA) and poly-L-lactic acid (PLLA) to improve skin quality and laxity. The literature supports the use of PLLA as a safe and effective treatment of gluteal augmentation and CaHA for dorsal hand rejuvenation. When injecting biostimulatory fillers, it is absolutely imperative to understand the anatomy and ensure the correct plane of injection to avoid complications such as nodules and vascular occlusion.

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Energy-Based Devices for Vulvovaginal Rejuvenation, 71

By George Kroumpouzos, Sejal Ajmera Desai, and Tassahil Messas

Energy-based devices (EBDs) for vulvovaginal rejuvenation include laser sources such as fractional carbon dioxide and erbium:YAG, radiofrequency, and photobiomodulation. Clinical studies have shown significant improvements in vulvovaginal laxity, symptoms of genitourinary syndrome of menopause, and sexual function, associated with improvements in quantifiable, reproducible measures of vulvovaginal health. Our review shows that these modalities have a favorable short-term safety profile. However, the lack of reliable, objective methods to quantify vaginal introital laxity and factors contributing to sexual dysfunction complicates the evaluation of EBDs. More powerful randomized, controlled

trials with longer follow-ups and true sham are needed.

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Facial Gender-Confirming Surgery, 89

By Katherine Nicole Vandenberg and Jeffrey Howard Spiegel

Facial Feminization Surgery (FFS) is the blanket term for a group of procedures employed to alter the perceived gender of an individual's face. A majority of people seeking FFS are transgender woman who wish to soften their masculine features, but the techniques are valuable for cis women as well. Specifically, these surgical techniques include forehead and orbital cranioplasty, brow lift, hairline feminization, and mandible contouring. Reductive rhinoplasty, cheek augmentation, and anti-aging procedures including blepharoplasty, and facelift also have a role.

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Lower Face Botulinum Toxin, 99

By Lisa Akintilo, Jeremy B. Green, and Joely Kaufman

The use of botulinum toxin in the lower face has gained in frequency and popularity as both providers and patients are recognizing the substantial impact this treatment can have on overall facial esthetics. Rejuvenation of the lower face requires expert knowledge of facial anatomy and precise placement of toxin to prevent any untoward effects. Treatments must be customized to each individual patient to achieve optimal treatment goals. Providers must be knowledgeable of the anatomy of the lower face and the importance of careful toxin dilution and placement to achieve optimal results and minimize risk of complications.

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Otoplasty, 105

By Nneoma S. Wamkpah, Catie Newsom-Stewart, Abby Kimball, Laura Baratta, and John J. Chi

Otoplasty has existed for over a hundred years, with more than 200 modifications and refinements described in that time. Although there is no one standard technique, there is a standard goal: achieve normalized appearance and projection of the external ear. This review includes indications for surgery, pertinent anatomy, key physical examination findings, and stepwise surgical instructions. Then, basic concepts relevant to cartilage-sparing and cartilage-cutting techniques, complications and management of surgery, and a brief review of recently published otoplasty literature are outlined. Lastly, newer developments, such as nonsurgical otoplasty, are also described.

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Understanding Breast Implant Illness, 125

By Brian R. Buinewicz, Danielle Valoras, and Robyn Towt

The goal of this article is to provide you with a better understanding of breast implants and their impact on health. Studies have shown that the removal of implants leads to improved health in most patients. Breast implants have been associated with autoimmunity and other systemic symptoms for over 60 years. The terms for the symptoms have been labeled many things and only recently have they been referred to as breast implant illness (BII). BII

remains a poorly defined and controversial complication.

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Which Is Better?: An Academic Reputation or 100,000 Followers? Social Media’s Impact on Reputation, 137

By Gary Linkov and Marko Vuckovic

The combination of increased esthetic surgery popularity with growing social media usage has had a synergistic impact on how people make decisions about which doctor to choose. The physician’s image and character projected online needs to be congruent with how the practice functions and feels in real life. Our reputation as cosmetic surgeons is intricately tied to our social media presence.

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Special Considerations in the Treatment of Skin of Color, 143

By Chelsea Handfield, Shilpi Khetarpal, and Mara Weinstein Velez

The changing demographics of the US population has led to a surge in interest, knowledge and need for cosmetic procedures in ethnic skin patients (Fitzpatrick skin types IV–VI). In Dermatology, there is increased interest in lasers and energy-based therapies for use in ethnic skin to treat dyspigmentation, fine lines,

scars and unwanted hair. A challenge arises in ethnic skin related to the presence of varying quantities of melanin increasing the risks of procedure-related dyspigmentation. This article explores various energy-based devices and filler injections and how treatments can be modified for safe and effective use in ethnic skin patients.

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Acne Treatment Strategies 2023, 151

By Jordan Borash and Emmy Graber

Acne is an exceptionally prevalent disorder. There are several available treatment options consisting of topical, oral and procedural therapies. Frequently a combination of therapies is needed to combat acne. As many treatments take months to be effective, patients should be encouraged to be compliant and persistent to see optimal results. Each patient’s treatment regimen should be tailored depending on a multitude of factors including, but not limited to: severity of disease, acne morphology, distribution of acne (ie, facial or truncal), patient preferences, age, cost, and psychological burden. In this article, several mainstay treatment methods are discussed.

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Nonsurgical Chin Augmentation, 167

By Maria C. Bell, Perry B. Hooper, Ariel Eber, Jessica Labadie, and Jeffrey Dover

Chin augmentation has grown in popularity due to the chin's prominent role in the overall appearance of the face. Fillers provide a safe, versatile alternative to more invasive surgical options. Corrections can be made gradually, and treatments may be adjusted with age-related changes of the lower face. A variety of proposed metrics help physicians analyze the chin in the context of a patient's other features to guide treatment. Filler use may be complemented by supplemental procedures, such as neuromodulators, deoxycholic acid, ultrasound/radiofrequency-based therapy, and fractionated laser, depending on a patient's specific needs.

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Cellulite Management Update, 177

By Ariel E. Eber, Perry B. Hooper, Jessica G. Labadie, Prasanthi Kandula, Jeffrey Dover, and Michael S. Kaminer

▶ Video content accompanies this article at <http://www.advancesincosmeticsurgery.com>.

Cellulite is a common esthetic concern for a large majority of post-pubertal women usually regardless of body habitus and body mass index. Previous therapies have been largely ineffective or lack durable responses. Cadaveric studies have elucidated anatomic differences in the fibrous septae within the subcutaneous tissue between men and women. The orientation of the septae in women may explain the appearance of cellulite. Treatments targeting the fibrous septae have proven to be most successful and long-lasting. The aim of this article is to describe the latest updates in cellulite treatment, specifically vacuum-assisted tissue-stabilized guided subcision, targeted verifiable subcision, rapid acoustic pulse, and enzymatic treatment with collagenase *clostridium histolyticum*-aaes.

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Update on Melasma Management, 193

By Heidi Oi-Yee Li, Elena Pastukhova, and Jeffrey Dover

Melasma is a complex hyperpigmentary disorder with a multifactorial etiology. There are multiple treatment options that aim at achieving

pigment homeostasis, by either decreasing melanin production or accelerating its elimination. The mainstay of melasma management remains diligent photoprotection and topical therapy, such as hydroquinone and triple therapy (hydroquinone, retinoid, and steroid) creams. Additional novel topical treatments can be considered, such as tranexamic acid, cysteamine, azelaic acid, methimazole, metformin, and botanic agents like *Rumex occidentalis*. Microneedling as an adjuvant to topical therapies is an appropriate step-up second-line option.

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