AARS HOT TOPICS MEMBER NEWSLETTER

March 1, 2019 Issue

American Acne and Rosacea Society
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We encourage you to invite your colleagues and patients to get active in the American Acne & Rosacea Society! Visit www.acneandrosacea.org to become member and donate now on www.acneandrosacea.org/donate to continue to see a change in acne and rosacea.

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AARS

AARS in the Community

Don't forget to attend the **14th Annual AARS Networking Reception** for member and Corporate Benefactors tonight – March 1- at AAD! All current members, their guests, and Corporate Benefactors are welcome to attend. Also, there are several acne, HS and rosacea session during AAD with our AARS members presenting – check the AAD agenda and please participate!

Register Here!

Our first round of **AARS Patient Videos** are being finalized now for social media and website promotion! Check our website to hear more from acne and rosacea patients discussing the impact of their disease, treatment, and the need to see a dermatologist! Why did they wait? Was the prescription a suggestion or did they take it seriously? What do they think about antibiotic use? Are they considered an acne sufferer or survivor? Do you have an acne, HS or rosacea patient who would like to be featured with the AARS to share their unique story? Email info@aarsmember.org for more information today!

Save the Date for the **8th Annual AARS Scientific Symposium** at the Society for Investigative Dermatology hosted by President Dr. Mark Jackson! This will feature acne, HS, and rosacea presentations during a luncheon symposium on Wednesday, May 8, 2019 from 10:00 AM – 2:00 PM at the Hilton Chicago. Check out some of our prior presentations on the website and for further updates on the agenda and related activities!

AARS – Physician and Patient Education

Please use the discount code **AARS15 for 15% off of registration** to the **Symposium for Cosmetic Advances & Laser Education 14th Annual Meeting** to be held from May 9-11, 2019 at Music City Center in Nashville, Tennessee. This meeting, coordinated by AARS member Dr. Michael Gold, is for physicians and clinicians interested in learning more about the latest procedures in aesthetic medicine. There will be educational sessions, including an acne session with AARS Immediate Past President Dr. Julie Harper and Director Dr. James Del Rosso, and live patient workshops and an exhibit hall with the leading members of the industry. Visit www.scalemusiccity.com to view the agenda.

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Industry News

Ortho Dermatologics launches first cash-pay prescription program in dermatology. Ortho Dermatologics. Press Room. March 1, 2019. http://ortho-dermatologics.com/about-us/press-room/

Program will increase patient access to high quality dermatology brands for certain conditions that typically face insurance challenges and high prescription costs; no insurance, copays, or prior authorizations needed. Ortho Dermatologics, one of the largest prescription dermatology health care businesses, announced today the launch of an innovative cash-pay prescription program that will make many branded products available directly to patients with a valid prescription only – no insurance, co-pays or prior authorizations needed. The program is specifically designed to provide physicians and patients with direct access to a range of proven treatment options for certain

disease states that typically encounter insurance coverage hassles and high prescription costs including acne, actinic keratosis (AK), superficial basal cell carcinoma (sBCCs), barrier repair (e.g. eczema treatments), wounds and corticosteroid-responsive diseases (CRDs) like rashes, psoriasis, and atopic dermatitis (AD).

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Cutera to unveil excel V+ next generation laser platform at AAD Annual Meeting. Practical Dermatology, DermWire. Tuesday, February 26, 2019 http://practicaldermatology.com/dermwire/2019/02/26/cutera-to-unveil-excel-v-next-generation-laser-platform-at-aad-annual-meeting/?c=479&t=

Cutera, Inc. has launched its excel V+ laser platform, which the company describes as a technological advancement that includes 50 percent more power and treatment speed, optimized delivery systems and parameters for treating vascular lesions and pigmentation concerns. Cutera will unveil the excel V+ at The American Acadamy of Dermatologist (AAD) Annual Meeting, which begins on March 1 in Washington, DC. “I am very pleased to have collaborated with Cutera’s R&D team on the development of the excel V+. The technological advancements of the new laser enhance an already best-in-class platform. The new capabilities will transform the experience of my patients. The advancement of the technology means I will be able to treat veins and vascular lesions and skin pigmentation more efficiently, precisely, and with improved results," says E. Vic Ross, MD, a dermatologist at Scripps Clinic, San Diego, CA. The company says the excel V+ represents a significant leap forward in its current excel V laser platform for the treatment of rosacea, poikiloderma, leg veins, skin pigmentation, and acne scars. The advancements of the excel V+ include: Fully-integrated 532/+ 1064nm wavelengths, with the addition of Green Genesis, a micro-pulsed 532nm procedure. 50 percent more power with the 532nm wavelength. Large spot sizes up to 16mm for 2X faster treatments. New Dermastat tracing handpiece to quickly treat small vascular and pigmented lesions on the face and body "The launch of the excel V+ marks another milestone for Cutera's goals in providing best-in-class aesthetics technology for providers worldwide. We are proud to be at the forefront of these innovations over the past twenty years, and will continue to develop clinical advancements in laser and light-based technology that provide the best in patient care,” says Jason Richey, COO and Interim CEO of Cutera. Cutera will also be conducting live demonstrations of its extremely popular body sculpting device, truSculpt iD at AAD. Th company will also host twelve leading dermatologists in their AAD booth 1501, who will share valuable insights on the latest trends in aesthetics treatments and technology.

TARGET PharmaSolutions launches real-world study to advance the understanding of AD and other IMISCs. Practical Dermatology, DermWire. Monday, February 25, 2019 http://practicaldermatology.com/dermwire/2019/02/25/target-pharmasolutions-launches-target-derm-real-world-study-to-advance-the-understanding-of-atopic-dermatitis-and-other-immune-mediated-inflammatory-

TARGET PharmaSolutions, Inc., has launched its latest large-scale observational study, TARGET-DERM (NCT03661866). The study will deliver real-world evidence for several immune-mediated inflammatory skin conditions (IMISCs), initially focusing on patients with atopic dermatitis. TARGET-DERM’s first participant enrolled on January 25, 2019. The trial will enroll up to 15,000 participants, including adult and pediatric patients, at up to 100 sites in the United States, Canada, and Europe. TARGET-DERM will eventually include the skin conditios hidradenitis suppurativa, alopecia areata, and vitiligo. TARGET-DERM will create a research registry of patients with immune-mediated inflammatory skin conditions within academic and community real-world practices to assess the safety and effectiveness of current and future therapies. TARGET-DERM is led by an academic steering committee chaired by Emma Guttman-Yassky, MD, The Sol and Clara Kest Professor of Dermatology and

Immunology, and Vice Chair, department of Dermatology, The Icahn School of Medicine at Mount Sinai, New York, and Diamant Thaçi, MD, Professor and Head, Comprehensive Center for Inflammation Medicine, University of Lubeck, Germany. "We are excited to initiate enrollment and to advance the important work of further understanding inflammatory skin diseases and particularly AD, through this TARGET-DERM registry," Dr. Guttman-Yassky says. "There are many critical, unanswered questions regarding the mechanisms underlying eczema and these other complex immune-mediated skin conditions. TARGET-DERM is a unique opportunity to better understand the natural history of AD and other diseases and to evaluate different treatment regimens, outcomes and adverse events across a large, diverse patient population. It is our hope that this research can better inform how these conditions are approached and ultimately improve the lives of the millions of people who suffer from them." The TARGET-DERM study design is disease-focused, not treatment-specific, allowing for continuous acquisition of natural history and outcomes data. This includes patient reported outcomes (PROs), as new treatments enter the market and clinical programs evolve. TARGET-DERM will collect three years of retrospective data and five years of prospective data on its participants. This data will also be connected to an extensive biorepository which TARGET-DERM stakeholders can access for genomic studies and translational research. Information about the TARGET-DERM trial, including enrollment information, can be found here.

New Medical Research

Epidemiology and dermatological comorbidity of seborrhoeic dermatitis - population-based study in 161,000 employees. Zander N, Sommer R, Schäfer I, et al. Br J Dermatol. 2019 Feb 25. doi: 10.1111/bjd.17826. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30802934

Background: Seborrhoeic dermatitis (SD) is a common but epidemiologically poorly researched chronic skin disease. Objectives: To characterise the prevalence and dermatological comorbidity of SD in Germany. Methods: In the course of voluntary company skin checks, full body examinations were carried out in more than 500 companies by experienced dermatologists and documented electronically. Results: 161,269 participants were included (55.5% male, mean age 43.2+10.9 years). SD was identified in 3.2% (men: 4.6%, women 1.4%). A significant difference was found between age groups (2.0% in < 35; 3.6% in 35-64; 4.4% ≥ 65 years). Most frequent concomitant skin conditions were: folliculitis (17.0%, 95% CI 15.9-18.1), onychomycosis (9.1%, 95% CI 8.3-10.0), tinea pedis (7.1%, 95% CI 6.3-7.8), rosacea (4.1%, 95% CI 3.6-4.7), acne (4.0%, 95% CI 3.4-4.5) and psoriasis (2.7%, 95% CI 2.3-3.2). Regression analysis revealed the following relative dermatological comorbidity when controlling for age and gender: folliculitis (OR 2.1, 95% CI 2.0-2.3), contact dermatitis (OR 1.8, 95% CI 1.1-2.8), intertriginous dermatitis (OR 1.8, 95% CI 1.4-2.2), rosacea (OR 1.6, 95% CI 1.4-1.8), acne (OR 1.4, 95% CI 1.2-1.7), pyoderma (OR 1.4, 95% CI 1.1-1.8), tinea corporis (OR 1.4, 95% CI 1.0-2.0), pityriasis versicolor (OR 1.3, 95% CI 1.0-1.7) and psoriasis (OR 1.2, 95% CI 1.0-1.4). Conclusions: SD is a common disease which is more prevalent in men and older people and has an increased rate of dermatological comorbidity. However, absolute differences in prevalence of comorbidities are mostly small and negligible. Nevertheless, the findings underline the necessity of integrated, complete dermatological diagnostics and therapy.

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A novel moisturizer with high sun protection factor improves cutaneous barrier function and the visible appearance of rosacea-prone skin. Baldwin H, Santoro F, Lachmann N, Teissedre S. J Cosmet Dermatol. 2019 Feb 25. doi: 10.1111/jocd.12889. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30803131

Background: Consensus guidelines advocate general skincare for rosacea patients. Objectives: Two independent studies were performed to assess whether a tinted daily SPF-30 facial moisturizer (DFM30) improves barrier function of dry skin and the efficacy and tolerability of DFM30 on rosacea-prone skin. Methods: In study 1, electrical capacitance (EC) and transepidermal water loss (TEWL) were measured at baseline, 2, 4, 8, and 24 hours after a single application of DFM30 and on a control site in 21 healthy females with dry skin. Study 2 evaluated 33 females with mild to moderate rosacea and nontransient erythema. Efficacy and tolerability after once-daily DFM30 were assessed using a chromameter, image analysis of photographs, and trained rater and patient evaluations up to day 22. Results: In study 1, EC showed statistically significant increases at 2, 4, and 8 hours, and TEWL showed statistically significant decreases 2, 4, 8, and 24 hours after DFM30 application to healthy females compared to baseline. In study 2, covering skin redness improved significantly after DFM30 application on day 1; 33.3% showed improved covering skin redness compared to baseline. Patients reported significantly less redness on day 8 than day 3. Feelings of dryness and tightness/tension were lower 30 minutes after first application. Feeling of dryness was lower than baseline after 3 days, 1 and 3 weeks. Image analysis suggested redness was significantly lower on day 22 compared to baseline. Chromameter readings showed significantly lower erythema on the cheek compared to baseline. All patients stated that DFM30 relieves and neutralizes visible redness who also indicated that they would purchase DFM30, and the product was well tolerated. Conclusions: These studies show that DFM30 is suitable as part of the skincare regimens advocated by ROSacea COnsensus (ROSCO) for rosacea patients. DFM30 is an effective moisturizer that improves cutaneous barrier function and the appearance of rosacea-prone skin.

Randomized phase 3 evaluation of trifarotene 50 µG/G cream treatment of moderate facial and truncal acne. Tan J, Thiboutot D, Popp G, et al. J Am Acad Dermatol. 2019 Feb 22. pii: S0190-9622(19)30335-4. doi: 10.1016/j.jaad.2019.02.044. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30802558

Background: Acne vulgaris often affects the face, shoulders, chest, and back but treatment of non-facial acne has not been rigorously studied. Objectives: Assess the safety/efficacy of trifarotene 50 µg/g cream, a novel topical retinoid, in moderate facial and truncal acne. Methods: Two phase III double-blind, randomized, vehicle-controlled, 12-week studies of once-daily trifarotene cream vs vehicle in subjects aged ≥9 years. Primary endpoints were success rate on face Investigator Global Assessment (IGA, clear/almost clear and ≥2 grade improvement) and absolute change from baseline in inflammatory/non-inflammatory counts from baseline to week 12. Secondary endpoints were success rate on trunk (clear/almost clear and ≥2 grade improvement) and absolute change in truncal inflammatory/non-inflammatory counts from baseline to week 12. Safety was assessed through adverse events, local tolerability, vital signs, and routine laboratory testing. Results: In both studies, at Week 12, facial (IGA) and truncal (PGA) success rates and change in inflammatory and non-inflammatory lesion counts (both absolute and %) were all highly significant ($p<0.001$) in favor of trifarotene compared to the vehicle. Limitations: Adjunctive topical or systemic treatments were not studied. Conclusion: These studies demonstrate that trifarotene appears to be safe, efficacious and well-tolerated in treatment of both facial and truncal acne.

Download Reference Document

Open-label, investigator-initiated, single site exploratory trial evaluating secukinumab, an anti IL17A monoclonal antibody, for patients with moderate-to-severe hidradenitis suppurativa. Prussick L, Rothstein B, Joshipura D, et al. Br J Dermatol. 2019 Feb 22. doi: 10.1111/bjd.17822. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30801662

Hidradenitis Suppurativa (HS) is a chronic inflammatory skin disease of the apocrine gland-rich intertriginous areas.1 HS lesions have an elevated Th17 immune response, and it is often challenging to treat patients, with existing therapies having limited efficacy.2,3 We sought to investigate the role of secukinumab, a human monoclonal antibody that inhibits Interleukin-17A, in HS treatment.

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Erythematotelangiectatic rosacea may be associated with a subclinical stage of demodicosis. A case control study. Forton F, De Maertelaer V. Br J Dermatol. 2019 Feb 22. doi: 10.1111/bjd.17817. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30801673

Background: Facial densities of Demodex mite have been observed to be greater in patients with demodicosis and papulopustular rosacea than in healthy control patients. In patients with erythematotelangiectatic rosacea (ETR), this density has been observed to be similar to or greater than that of healthy controls. Erythema and telangiectasia, characteristics of ETR, are often observed among patients with pityriasis folliculorum, a discreet demodicosis, suggesting a possible link between these conditions. Objectives: To compare the facial Demodex densities of patients with clinical ETR and patients with healthy skin, demodicosis, rosacea with papulopustules, and other dermatoses. Methods: In this retrospective study, we recorded Demodex densities measured using two consecutive standardised skin biopsies (SSSB1 and SSSB2) in 23 patients with ETR, 20 healthy control patients, 590 patients with demodicosis, 254 with rosacea with papulopustules, and 180 with other facial dermatoses. Results: Patients with ETR had higher Demodex densities than did the healthy controls (mean ±SEM, SSSB1: 15.7±6.3 vs. 1.8±1.1 Demodex(D)/cm² [p=0.042]; SSSB2: 38.0±13.7 vs. 5.1±2.1 D/cm² [p=0.026]) and patients with other dermatoses (SSSB1: 0.4±0.1D/cm² [p=0.004]; SSSB2: 1.3±0.3 D/cm² [p=0.004]), but lower than patients with demodicosis (SSSB1: 82.7±4.2D/cm² [p=0.008]; SSSB2: 172.2±7.7 D/cm² [p=0.001]) or rosacea with papulopustules (SSSB1: 86.6±7.3 D/cm² [p=0.027]; SSSB2: 197.0±12.1 D/cm² [p=0.002]). Conclusions: ETR may be associated with non-visible Demodex proliferation, possibly corresponding to a subclinical stage of demodicosis. Dermatologists should be aware of this potential association and look for subclinical demodicosis in patients with ETR, so that topical acaricidal treatment can be offered if Demodex density is high.

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Treatment of atrophic facial acne scars with microneedling followed by polymethylmethacrylate-collagen gel dermal filler. Biesman BS, Cohen JL, DiBernardo BE, et al. Dermatol Surg. 2019 Feb 20. doi: 10.1097/DSS.0000000000001872. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30807389

Background: Microneedling and soft-tissue filler injections have been used independently to improve acne scarring. The effectiveness of a combined approach using microneedling followed by polymethylmethacrylate (PMMA)-collagen gel has not been carefully studied. Objective: The goal of this study was to assess the effectiveness and safety of microneedling alone versus microneedling followed by injection of PMMA-collagen gel filler for correction of atrophic facial acne scars. Methods: We conducted a multicenter, open-label, randomized, prospective study on subjects with distensible atrophic acne scars in the face to determine whether microneedling with PMMA-collagen gel is a superior acne scar treatment over microneedling alone. Forty-four subjects received 3 microneedling treatments over a 12-week period followed by randomization to treatments with PMMA-collagen gel (treatment group) or no further treatment (control group). Results: At 24 weeks, the treatment group achieved a statistically significant improvement in acne scores over microneedling alone. The improvement continued at 36 weeks. At 24

weeks, the treatment group showed a strong trend in improvement on the Physician Global Aesthetic Improvement Scale compared with microneedling alone.

Antibiotic susceptibility of propionibacterium acnes isolated from patients with acne in a public hospital in Southwest China: prospective cross-sectional study. Zhu T, Zhu W, Wang Q, et al. BMJ Open. 2019 Feb 19;9(2):e022938. doi: 10.1136/bmjopen-2018-022938. https://www.ncbi.nlm.nih.gov/pubmed/30782869

Objective: Antibiotics have been routinely used for several decades against Propionibacterium acnes (P. acnes), but antibiotic resistance of P. acnes is becoming a global problem. Only one related Chinese study is available. The aim of this study was to assess the antibiotic susceptibility of P. acnes obtained from patients with acne in Southwest China. Design: This. Samples were cultured in anaerobic medium to identify the presence of P. acnes. Susceptibility tests of isolated P. acnes were performed for tetracycline, doxycycline, clindamycin, erythromycin, azithromycin and was a prospective cross-sectional study. Cutaneous samples were obtained from acne lesions on the face of 375 patients clarithromycin using the Epsilometer test. Results: P. acnes was isolated from 227 patients; 224 isolates (98.7%) were susceptible to doxycycline and 220 (96.9%) were susceptible to tetracycline, followed by clindamycin and clarithromycin in 101 (44.5%) and 102 (44.93%) isolates, respectively. Susceptibility of P. acnes was detected for erythromycin in 96 (42.3%) patients, followed by azithromycin in 94 (41.4%). Subjects who received antibiotics (topical and oral) had higher frequencies of antibiotic-resistant P. acnes as well as increased antibiotic minimum inhibitory concentrations compared with patients without antibiotic treatment. Conclusions: P. acnes was highly sensitive to cyclines (doxycycline and tetracycline). P. acnes showed higher resistance rates to macrolides-lincosamides-streptogramins antibiotics (such as erythromycin, azithromycin, clarithromycin and clindamycin). The irrational use of antibiotics for acne treatment is probably a problem in China and elsewhere. These results suggest that dermatologists should be more prudent in prescribing antibiotics for acne.

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A novel combined light-based treatment of acne vulgaris with 1,450-nm diode laser and 450-nm blue light. Kwon HH, Choi SC, Jung JY, et al. Dermatol Surg. 2019 Feb 13. doi: 10.1097/DSS.0000000000001815. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30789515

Background: Nonablative 1,450-nm diode laser (DL) and visible blue light (BL) have been effectively used for acne with superior safety profiles. Objective: To evaluate synergistic effects of sequential DL and BL application for acne. Methods: A 20-week, randomized split-face study was conducted to compare clinical courses between 2 facial sides either receiving sequential application of DL and BL or BL alone in 24 patients with mild to moderate facial acne vulgaris. Patients were scheduled to receive 3 consecutive sessions at 4-week intervals. Objective assessments, including revised Leeds grades, lesion counts, and sebum output measurements, and patients' subjective satisfaction were investigated. Results: Both combination and BL sides demonstrated steady improvement of inflammatory acne lesions with 62.3% and 35.2% decreases at the 12-week follow-up visit compared with baseline respectively. For noninflammatory lesions and seborrhea, only combination regimen demonstrated improvement. Patients' subjective assessments paralleled objective findings. For safety profiles, no severe adverse effect was observed on both sides, and mild symptoms resolved spontaneously within a day. Conclusion: The combination regimen demonstrated synergistic efficacies for acne and seborrhea, with satisfactory safety profiles. Therefore, a few sessions of these light-based applications would be a viable option for acne treatments.

The effect of isotretinoin on insulin resistance and adipocytokine levels in acne vulgaris patients. Soyuduru G, Ösoy Adışen E, Kadıoğlu Özer İ, Aksakal AB. Turk J Med Sci. 2019 Feb 11;49(1):238-244. doi: 10.3906/sag-1806-44. https://www.ncbi.nlm.nih.gov/pubmed/30761880

Background/aim: Recent data draw attention to the effect of body composition, insulin resistance, and adipocytokines to acne vulgaris (AV) development. The aim of this study was to assess the association of AV with insulin resistance and adipocytokine levels and to evaluate the effect of isotretinoin on insulin resistance and adipocytokine levels. Materials and methods: In 29 AV patients and 29 healthy volunteers, body mass index (BMI) and body fat mass (BFM), lipid, adiponectin, leptin, resistin, retinol binding protein-4 (RBP4), and insulin levels were measured and insulin resistance was assessed by HOMA-IR index in serum samples taken twice from patients before and after isotretinoin treatment. Results: In AV patients, pretreatment HOMA-IR and adipocytokine levels were not found to correlate with disease severity. With five months of isotretinoin treatment, higher HOMA-IR values were found (P = 0.028). Isotretinoin therapy maintained lower mean resistin levels (P = 0.016), higher mean RBP4 levels (P = 0.040), but not affected the mean adiponectin and leptin levels (P = 0.113, P = 0.125, respectively). Conclusions: All data suggests that five months of isotretinoin therapy in AV patients causes insulin resistance and the increase in in-sulin resistance is not dependent on age, BMI, BFM, and lipid levels of these patients.

Efficacy of bisphosphonates in patients with synovitis, acne, pustulosis, hyperostosis, and osteitis syndrome: a prospective open study. Li C, Zhao Y, Zuo Y, et al. Clin Exp Rheumatol. 2019 Feb 7. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30767869

Objectives: To evaluate the clinical efficacy of bisphosphonates treatment for spinal bone marrow oedema (BME) in patients with synovitis, acne, pustulosis, hyperostosis, and osteitis (SAPHO) syndrome. Methods: SAPHO syndrome patients presenting to Peking Union Medical College Hospital from 2015 to 2016 were recruited. Patients were administered pamidronate disodium 1 mg/kg/d intravenously, for 3 days, at baseline and 3 months later. The symptoms were evaluated using the Visual Analog Score (VAS) for pain, and other clinical measures including, spinal BME scores, β-crosslaps, osteocalcin, and inflammatory factors, were collected. Results: A total of 30 patients (20 women and 10 men) with a median age of 47.2 (interquartile range 8.8) years were recruited. In a short time, the patients showed a significant decrease in VAS (before vs. after; first treatment: 5.70±1.62 vs. 2.30±1.29 cm, second treatment: 4.03±1.88 vs. 2.17±1.23 cm) and β-crosslaps (first treatment: 0.4441±0.1923 vs. 0.0859±0.0374 pg/ml, second treatment: 0.2891±0.1983 vs. 0.0962±0.0324 pg/ml) (all $p<0.05$). At 12-month follow-up, compared with the baseline, we noticed a significant drop in the VAS (5.70±1.62 vs. 2.43±1.25 cm), erythrocyte sedimentation rate (28.87±25.26 vs. 18.00±18.65 mm/h), high-sensitivity C-reactive protein level (11.76±10.19 vs. 5.84±5.88 mg/L), osteocalcin (2.30±1.27 vs. 1.65±0.80 ng/ml), and BME (30.50±24.09 vs. 22.13±27.79) (all $p<0.05$). No one had serious adverse events. Conclusions: Bisphosphonates can significantly and rapidly relieve symptoms in patients with SAPHO syndrome and have a long-term effect on inflammation and spinal BME. We suggest that bisphosphonates could be used as the first-line therapeutic drug for SAPHO syndrome, especially in patients with spinal BME.

Role of 11β HSD 1, rs12086634, and rs846910 single-nucleotide polymorphisms in metabolic-related skin diseases: a clinical, biochemical, and genetic study. Farag AGA, Badr EA, Eltorgoman AMA, et al. Clin Cosmet Investig Dermatol. 2019 Jan 23;12:91-102. doi: 10.2147/CCID.S193156. eCollection 2019. https://www.ncbi.nlm.nih.gov/pubmed/30774405

Background: 11β HSD1 generates cortisol from cortisone. 11β HSD1 single-nucleotide polymorphism (SNP) was associated with metabolic syndrome (MeTS). Although the relation of acne vulgaris (AV) and skin tags (STs) with MeTS has been reported, the relationship between 11β HSD 1 SNP and cortisol activity in those patients has not studied till now. Aims: To investigate, two 11β-HSD1 SNPs (rs846910 and rs12086634), serum lipid profile and cortisol levels in patients with AV and STs in an Egyptian population. Patients and methods: This case-control study was performed on 50 patients having STs and 50 complaining of AV and 50 sex- and age-matched controls. We searched for serum lipid profile, cortisol levels, and 11β-HSD1 rs846910 and rs12086634 SNPs using real time-PCR. Results: Compared to controls,11β-HSD1 rs846910 GA genotype carriers had significantly higher risks for developing AV and STs by 3.4- and 4.9-fold, respectively, and its A allele increases these risks by 3.1 and 4.4 times, respectively. Also, 11β-HSD1 rs12086634 TG genotype increases the risk of AV by 3.2-fold, as well as STs by 3.5-fold, and its G allele increases the risk of AV by 3.2-fold and STs by 7-fold. In AV and ST patients, rs846910 GA genotype demonstrated significant associations with elevated body mass index (BMI), and cholesterol, low density lipoprotein (LDL), cortisol, and decreased high density lipoprotein serum levels, respectively. However, rs12086634 GG genotype was significantly associated with increased BMI, cholesterol, and LDL serum levels in patients with AV and STs, in addition to the number of STs and serum cortisol levels in ST patients. Conclusion: 11β-HSD1 rs846910 and rs12086634 gene polymorphisms may contribute to AV and STs pathogenesis, that may be mediated through enhancing the enzymatic activity (increasing cortisol levels). AV and STs are associated with obesity and atherogenic lipid profile. Diagnosis of AV and STs may play a role in early detection of the MeTS.

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Clinical Reviews

Combination hyperbaric oxygen therapy and ustekinumab for severe hidradenitis suppurativa. Provini LE, Stellar JJ, Stetzer MN, et al. Pediatr Dermatol. 2019 Feb 25. doi: 10.1111/pde.13775. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30805965

Hidradenitis suppurativa is a painful chronic inflammatory skin condition characterized by inflammatory nodules that can lead to sinus tracts and scarring. Numerous treatments have been reported, though none have reliable efficacy. Antiinflammatory agents, such as tumor necrosis factor-alpha inhibitors and interleukin inhibitors, have been used as medical therapy for refractory cases. We describe here a case of severe hidradenitis suppurativa in a pediatric patient successfully treated with a combination of high-dose ustekinumab and hyperbaric oxygen therapy.

Platelet-rich plasma, a powerful tool in dermatology. Merchán WH, Chasoy ME, Alfonso CA, et al. J Tissue Eng Regen Med. 2019 Feb 22. doi: 10.1002/term.2832. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30793521

Platelet-rich plasma (PRP), a platelet concentrate contained in a small volume of plasma, has become a promising option in the last decade to treat different diseases related to the skin due to its high concentration of growth factors. When it is of autologous origin, it decreases the probability of suffering adverse reactions and transfusion-transmitted infections, thus it is an optimal and safe therapy for the patient. PRP has been used in the treatment of several dermatological conditions such as acne, alopecia and skin ulcers. Its use has also extended to other skin conditions such as melasma, hyperpigmentation, and burns, where it stimulates tissue repair and regeneration. The purpose of this article is to review the management and treatment of different dermatological alterations with PRP.

Although there are a variety of studies that support the use of PRP, more research is needed to standardize the protocols for obtaining, processing and applying it, as well as understanding the biological and molecular bases of its functioning.

The efficacy of combined diluted calcium hydroxylapatite-based filler and an energy-based device in the treatment of facial atrophic acne scars. Koren A, Isman G, Cohen S, et al. Clin Exp Dermatol. 2019 Feb 21. doi: 10.1111/ced.13952. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30793355

Background and objectives: Treatment options for atrophic acne scars include the use of various energy-based devices (EBDs) and dermal fillers. Aim: To evaluate the level of improvement and safety of four treatment modalities for atrophic acne scars employed in our center. Methods: We reviewed the medical records of all acne scar patients treated between 2013-2016 with one of four treatment modalities: ablative fractional CO2 laser (FACL), the radiofrequency (RF) bipolar device, the 1540 nm non-ablative fractional laser (NAFL), and the injection of diluted calcium hydroxylapatite (CaHA). The EBDs were used as monotherapy or in combination with diluted CaHA. Two non-involved dermatologists and the patients evaluated the aesthetic improvement achieved following the various modalities. The patients also rated their satisfaction, numbered the days of post-treatment downtime, and reported any adverse effects. Results: In total, 352 patients (mean age 28.7±8.7, 65.6% females) were treated for acne scars. The integrated mean dermatologists' and patients' GAS scores were the highest for the patients treated with the combined FACL-CaHA modality at separate sessions ($P < 0.001$). Patients treated with FACL reported more side effects and longer downtime and duration of erythema. Conclusions: The combination of a diluted CaHA-based filler injection followed by fractional ablative CO2 laser in separate treatment sessions yielded better aesthetic improvement compared to the other tested modalities.

Dermatologic surgical care for transgender individuals. Marks DH, Awosika O, Rengifo-Pardo M, Ehrlich A. Dermatol Surg. 2019 Feb 14. doi: 10.1097/DSS.0000000000001718. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/30789503

Background: Transgender individuals experience common and unique dermatologic concerns from severe acne associated with testosterone therapy in transmen to complications due to illicit silicone injections in transwomen. Currently, 2 survey studies and 4 reviews have addressed the dermatologic care of transgender individuals. However, none of them provide a focus on the dermatologic surgeon. Objective: To assess the dermatologic considerations in transgender individuals and the role of dermatologic surgeon in their care. Methods: The PubMed and MEDLINE databases were reviewed in June 2018 using keywords, such as transgender, procedures, hair removal, laser, and hormone therapy. Results: In total, 48 relevant publications addressing dermatologic care in transgender patients were reviewed. According to the literature, there are several critical dermatologic considerations in transgender patients, including hair growth and removal, acne vulgaris, facial procedures to masculinize and feminize the face, scar removal, and sexually transmitted infections. Conclusion: As dermatologic surgeons have the privilege to improve the health care of transgender patients, they must understand the common and unique concerns of transgender individuals. Given the considerable spectrum of physical goals expressed by transmen and transwomen, individual patient preference must ultimately guide his/her/their dermatologic care.

Natural skin care products as adjunctive to prescription therapy in moderate to severe rosacea. Draelos ZD, Gunt H, Levy SB. J Drugs Dermatol. 2019 Feb 1;18(2):141-146. https://www.ncbi.nlm.nih.gov/pubmed/30794364

Background: Rosacea is characterized by irritation associated with erythema, telangiectasias and papules/pustules. Whole formula nature-based sensitive skin products are formulated to maintain skin barrier and appropriate hydration that can lead to soothing benefits. Objective: To evaluate the efficacy and tolerability of a regimen consisting of a cleanser containing natural oils, beeswax, and witch hazel and day and night creams containing natural oils, glycerin, and botanical anti-inflammatories (NR); and a synthetic dermatologist-recommended regimen of cetyl alcohol, sodium lauryl sulphate-containing cleanser, and glycerin, polyisobutene-containing lotion (CR) in subjects with rosacea. Methods: 80 female subjects with rosacea who received 6 weeks of 0.75% metronidazole gel, were randomized to receive NR or CR, twice daily, for 4 weeks in conjunction with the gel. Blinded investigator global assessment of rosacea, investigator-rated, and subject-rated overall skin appearance was assessed using a 5-point scale (0=none, 4=severe) at baseline, 2 weeks, and 4 weeks. Noninvasive skin assessments for skin hydration and skin barrier function were made by corneometry and TEWL, respectively. Results: NR resulted in improvement in investigator global assessment of rosacea measures at 4 weeks from baseline (erythema, 28%; telangiectasia, 26%; papules/pustules, 34%: P<0.001) and CR resulted in a 8 to 12% improvement. Differences between treatments were statistically significant. Overall skin appearance measured by the investigator was clinically and statistically improved from baseline by 32% and 12% with NR and CR, respectively. Overall skin appearance measured by subjects was improved by both NR and CR from baseline with no differences between treatments. Both regimens improved barrier function from baseline to week 4 (13%, NR; 14%, CR). NR decreased hydration by 21% from baseline at week 4 while CR increased hydration by 14% (P<0.001 from NR). No clinically significant tolerability issues were reported in either regimen at week 4. Conclusion: NR was effective, well tolerated, and superior to CR in the management of rosacea, concomitantly treated with metronidazole. National Clinical Trial Identifier: NCT03392558

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Second joint position paper: Use of isotretinoin in severe acne. Gómez-Flores M, Poletti-Vázquez DE, García-Hidalgo L, et al. Rev Med Inst Mex Seguro Soc. 2019 Jan 28;56(5):441-446. https://www.ncbi.nlm.nih.gov/pubmed/30777411

Background: The use of isotretinoin is indicated in the treatment of severe acne; however, its adverse effects are important. Objective: To update the first Mexican Consensus on the use of isotretinoin in severe acne vulgaris, which took place in 2009. Methods: It was carried out a literature search between June 2009, and February 2015, in order to evaluate topics to be discussed; materials were sent to the experts to promote the debate among participants. The topics of interest were analyzed during the consensus with the Delphi modified method, using an instrument previously validated. 15 certified dermatologists with experience in handling acne with isotretinoin took part in the study; seven of them were involved in the previous consensus. Results: Several cases of isolated adverse events were identified. Neither systematic reviews, meta-analyses nor comparative, randomized, controlled clinical trials were published during the observation period. Conclusions: Isotretinoin is still the best treatment for severe nodulocystic acne. However, it must be taken into consideration its teratogenic effect on pregnant women and its association with inflammatory bowel disease, depression and suicidal ideas. Monitoring with laboratory tests is a tool for identifying possible adverse events.