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AARS News

Call for AARS Volunteers in 2023

We have a variety of programs this year interacting with patients and our members that we'd love to include more dermatologists and dermatology NPs and PAs. We are launching a new case discussion virtual series, ongoing publication and interview opportunities, social media activities, and more! If you're interested, please email Stacey Moore, AARS Executive Director at info@aarsmember.org for more information.

New Medical Research

Supramolecular salicylic acid ameliorates rosacea-like eruptions by suppressing NLRP3-mediated inflammasome activation in mice. Wang J, Sun Y, Chen L, et al. Int Immunopharmacol. 2023 May;118:110057. doi: 10.1016/j.intimp.2023.110057. https://pubmed.ncbi.nlm.nih.gov/36989903/

Background: Rosacea is a chronic inflammatory skin disease with immunological dysfunction. Supramolecular salicylic acid (SSA) has the properties of keratolytic, antibacterial, and anti-inflammatory. However, the mechanism of SSA in the treatment of rosacea is still unclear. Objective: To investigate the efficiencies and molecular mechanisms of SSA in rosacea. Methods: Forty mice were randomly divided into four groups (10 in each group): control, LL-37, LL-37 + azelaic acid (AzA), and LL-37 + SSA. Forty μl LL-37 (320 μM) was administered intradermally into the dorsal skin of the mice in the latter 3 groups every 12 h and 4 times altogether (0 h, 12 h, 24 h, 36 h). Twenty % AzA was applied on the eruptions after the first and third LL-37 injection (0 h, 24 h) in LL-37 + AzA group, while 30 % SSA was applied after the first injection (0 h) in LL-37 + SSA group. The redness score and redness area were evaluated. The skin barrier function was measured by the transepidermal water loss (TEWL) and pH. The infiltration of inflammatory cells was evaluated by hematoxylin-eosin staining, and the inflammatory biomarkers were analyzed by RT-PCR and immunohistochemistry. Results: SSA alleviated LL-37-induced rosacea-like inflammation. The increased TEWL and pH induced by LL-37 were also reversed by SSA. In addition, SSA reduced inflammatory cell infiltration and suppressed the production of Toll-like receptor 2, Matrix metallopeptidase 9, kallikrein 5, LL-37 associated with rosacea, and inhibited LL-37-induced NOD-like receptor family, pyrin domain containing 3 (NLRP3)-mediated inflammasome activation in mice. Conclusions: Our findings indicated that SSA ameliorated LL-37-induced rosacea-like lesions by suppressing NLRP3-mediated inflammasome activation in mice.

Dapsone-loaded mixed micellar gel for treatment of acne vulgaris. Rao MR, Deshpande S, Deshpande P. AAPS PharmSciTech. 2023 Apr 26;24(5):109. doi: 10.1208/s12249-023-02564-1. https://pubmed.ncbi.nlm.nih.gov/37100968/

Mixed polymeric micelles are potential nanocarriers for topical drug delivery. Dapsone (DAP) is an antibacterial used as anti-acne agent, but challenged by low water solubility and poor skin permeability. In the present study, DAP-loaded mixed micellar gel was developed comprising Pluronics F-68 and F-127. Micelles were prepared by solvent evaporation method and particle size, ex vivo permeation, drug loading, and entrapment efficiency were determined. Central Composite Design was used to optimize formulation. Independent variables were concentration of Pluronics at three levels while micelle size and drug loading capacities were dependent variables. Droplet size ranged from 400 to 500 nm. Transmission electron microscopy revealed spherical morphology of micelles. Optimized micelles were incorporated into gel base using HPMC K100M, Sodium CMC, and Carbopol 980 as gelling agents. Gels were evaluated for pH, drug content, spreadability, rheology, syneresis, ex vivo permeation, and subacute dermal toxicity. Compared with solubility of free DAP (0.24+0.056 μg/ml), solubility in mixed micelles was 18.42±3.4 μg/ml in water at

room temperature. Order of spreadability of gels was Na CMC < HPMC < Carbopol 980. Carbopol gels displayed thixotropy with index of 3.17. Syneresis for all gels from day 0 to day 30 was found to be in range of 4.2 to 15.6% w/w. Subacute dermal toxicity studies showed no signs of erythema and edema on rat skin until 21 days. These results suggest that mixed micelles can significantly increase solubility and permeability and sustain release of DAP and are suitable carriers for topical DAP delivery in anti-acne therapies.

Evaluating the effect of tranexamic acid as mesotherapy on persistent post-acne erythema: A before and after study. Bazargan AS, Ziaeifar E, Abouie A, et al. J Cosmet Dermatol. 2023 Apr 21. doi: 10.1111/jocd.15776. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37082869/

Background: Acne vulgaris is a common skin disease that is more common in young population and it can be associated with some sequels after resolving the lesions. Post-inflammatory erythema is one of these complications that can be disturbing for patients and does not have any definite treatment. This study was aimed to evaluate the efficacy and safety of tranexamic acid (TA) as mesotherapy in treatment of post-acne erythema (PAE) treatment. Method: This clinical trial study was performed in the dermatology clinic on 17 patients with persistent PAE (3 months after acne recovery). Two sessions of treatment were performed by a physician with 2-week intervals; TA was injected as mesotherapy into the right side of each patient's face as the case group, while the opposite side was used as the control group. A Visioface device was used to compare before and after treatment photographs of each side of the face in color mode with quantitative measures such as lesions count, area, and area percent. Results: Finally, 15 patients completed treatment sessions. There were statistically significant differences in right side lesions before and after treatment with p-values of 0.047, 0.002, and 0.035 for count, area, and area percent, respectively. There was no significant difference before and after treatment in terms of count, area. and area-percent on the left side. Conclusion: According to the results of this study, TA injection as mesotherapy for resolving PAE can be effective. However, due to small sample size, further studies are needed.

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Clindamycin-benzoyl peroxide gel compared with clindamycin lotion for hidradenitis suppurativa; A randomized controlled assessor blinded intra-patient pilot study. Aarts P, Reeves JL, Ardon CB, et al. Dermatology. 2023 Apr 20. doi: 10.1159/000530758. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37080176/

Antibiotic resistance is a major concern, especially in HS. However, antibiotics form a cornerstone in its treatment. Topical clindamycin is known to cause bacterial resistance, but is still advised as monotherapy for the treatment of mild to moderate HS Methods This is a randomized controlled, assessor blinded, intra-patient pilot trial to compare the clinical efficacy of clindamycin-benzoyl peroxide gel with clindamycin lotion in patients with mild to moderate HS. Two contralateral body sites were randomized for treatment in each patient. The primary outcome was the difference in the International Hidradenitis Suppurativa Severity Score (IHS4) between the two groups after 12 weeks. Secondary objectives were: feasibility of the intra-patient design, efficacy within treatment groups, effect on HS pain, HS itch, patient satisfaction, antibiotic resistance, and the prolonged efficacy after 16 weeks. Results Ten patients were included resulting in two groups of 10 treated body sites. No significant differences were found between the two groups for all measurements after 12 or 16 weeks while both therapies lead to an improvement in the IHS4, pain and itch scores. A significant decrease was observed in the IHS4 for both the clindamycin lotion (-1,5; $p<0.05$) and the clindamycin-benzoyl peroxide gel (-2; $p<0.01$) after 16 weeks and the pain scores were reduced from 7 to 2.5, $p<0.01$ and 6.5 to 3, $p=0.03$, respectively. Using the IHS4-55, we identified 50% of patients as responders in both groups after 12 weeks. The intra-patient design, however, unexpectedly appeared to hinder the inclusion of patients. Conclusion Clindamycin-benzoyl peroxide gel showed favorable clinical efficacy results, similar to clindamycin lotion,

suggesting that it could replace clindamycin lotion in the treatment of mild to moderate HS and to prevent antibiotic resistance. A larger controlled trial is needed to validate these results.
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Development of an effective acne treatment based on CBD and herbal extracts: preliminary in vitro, ex vivo, and clinical evaluation. Cohen G, Jakus J, Baroud S, et al. Evid Based Complement Alternat Med. 2023 Apr 17;2023:4474255. doi: 10.1155/2023/4474255. eCollection 2023. https://pubmed.ncbi.nlm.nih.gov/37101713/
Acne vulgaris, the most common form of acne, is characterized by a mixed eruption of inflammatory and noninflammatory skin lesions primarily affecting the face, upper arms, and trunk. The pathogenesis of acne is multifactorial and includes abnormal keratinization and plugging of the hair follicles, increased sebum production, proliferation and activation of Cutibacterium acnes (C. acnes; formerly Propionibacterium acnes, P. acnes), and finally inflammation. Recent studies have found that cannabidiol (CBD) may be beneficial in the treatment of acne. The aim of this study was to explore natural plant extracts that, when combined with CBD, act synergistically to treat acne by targeting different pathogenic factors while minimizing side effects. The first stage of the study investigated the capacity of different plant extracts and plant extract combinations to reduce C. acnes growth and decrease IL-1β and TNFα secretion from U937 cells. The results found that Centella asiatica triterpene (CAT) extract as well as silymarin (from Silybum marianum fruit extract) had significantly superior anti-inflammatory activity when combined with CBD compared to either ingredient alone. In addition, the CAT extract helped potentiate CBD-induced C. acnes growth inhibition. The three ingredients were integrated into a topical formulation and evaluated in ex vivo human skin organ cultures. The formulation was found to be safe and effective, reducing both IL-6 and IL-8 hypersecretion without hampering epidermal viability. Finally, a preliminary clinical study of this formulation conducted on 30 human subjects showed a statistically significant reduction in acne lesions (mainly inflammatory lesions) and porphyrin levels, thereby establishing a tight correlation between in vitro, ex vivo, and clinical results. Further studies must be conducted to verify the results, including placebo-controlled clinical assessment, to exclude any action of the formulation itself.

Investigating the efficacy of modified lipoaspirate grafting to improve the appearance of atrophic acne scars: A pilot study. Vingan NR, Wamsley CE, Panton JA, et al. Aesthet Surg J. 2023 Apr 13;sjad102. doi: 10.1093/asj/sjad102. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37051925/
Background: Processed lipoaspirate grafting describes several techniques theorized to leverage the inflammatory and regenerative capacities of mechanically processed adipocytes to rejuvenate and correct skin pathology. While lipoaspirate grafting is typically leveraged to fill visible defects such as depressed scars and dermal lines, additional fat processing allows grafts to stimulate mechanisms of wound healing, including the promotion of fibroblast activation, neovascularization, and neocollagenesis. Objectives: This study intends to assess the efficacy and tolerability of processed lipoaspirate grafting monotherapy to improve the clinical appearance of atrophic acne scars. Methods: Subjects underwent a single autologous processed lipoaspirate grafting procedure at the site of atrophic acne scars. Objective and subjective scar analysis was performed at 3- and 6-months post-treatment. Scars were assessed via standard photography, topographic analysis, and noninvasive skin measurements. In addition, microbiopsies were obtained before and after treatment to assess histological or genetic changes. Clinical improvement was assessed using Subject and Clinician Global Aesthetic Improvement Scales (GAIS) and blinded photographic evaluation. Results: Ten subjects between ages 18 and 60 completed the study. Clinical evaluation demonstrated that fat grafting improved the appearance of atrophic acne scars. CGAIS and SGAIS score showed clinical improvement at both 3- and 6-month follow-up compared to baseline ($p<.05$) Blinded CGAIS scores also showed statistically significant improvement when clinicians compared clinical photographs taken at 6-month follow-up to baseline ($p<.0001$). Attenuation coefficient increased at 6-month follow-up suggesting collagen remodeling and reorganization over the

study period. Subjects experienced anticipated post-treatment symptoms including transient erythema and edema; however, no unexpected adverse events were reported. Conclusions: Micronized lipoaspirate injection is a viable and effective option to improve the appearance of facial acne scarring. Favorable improvements in atrophic acne scarring were captured by objective analysis of skin ultrastructure as well as improvement in subjective assessments of scarring.

Comparison of 2 hyaluronic acid-based fillers for the treatment of acne scars: Structural lifting versus biostimulatory effect. Mehrabi J, Shehadeh W, Gallo ES, et al. Dermatol Surg. 2023 Apr 12. doi: 10.1097/DSS.0000000000003789. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37052609/
Background: Hyaluronic acid (HA)-based fillers are effective at mitigating acne scars due to their filling effect. Complexes of high and low molecular weight HA demonstrated a delayed biostimulatory effect. Objective: The authors sought to compare the results of acne scar treatment using a filler composed of complexes of high and low molecular weight HA versus a traditional cross-linking HA filler. Methods: Thirty patients with moderate-to-severe atrophic acne scarring were included in this prospective, split-face, double-blinded, randomized controlled study. Each underwent 3 monthly injections of a novel formula of combined high and low molecular weight HA (P) to the base of acne scars on 1 side of the face and traditional cross-linking HA (JV) filler on the other. Patients were evaluated 6 months after their last treatment for objective and subjective improvements. Results: For JV, statistically significant reductions were observed in the acne scar volume but nearly no change in elasticity and stretch during early treatments. For P, no significant differences were observed in early treatments; however, statistically significant improvements were observed in later visits. Conclusion: Although the traditional JV filler demonstrated an earlier impact than P, the latter produced delayed positive changes that were more pronounced than the traditional filler.

Mood changes and clinical decision making in adolescent patients on isotretinoin therapy for acne vulgaris. Gradwohl K, Verghese M, Rosenblatt AE. Pediatr Dermatol. 2023 Apr 10. doi: 10.1111/pde.15324. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37037198/
Although numerous studies have demonstrated no causal relationship between isotretinoin and depression or suicide, subtle mood changes and idiosyncratic mood symptoms have been reported in patients on isotretinoin treatment for acne vulgaris, and few studies have described the full range of mood symptoms and clinical course after a mood change arises. We reviewed 247 patients, ages 10-25 years, with acne vulgaris on isotretinoin and found that 26/247 (10.5%) patients experienced mood changes, the most common being depressive symptoms, anxiety, aggression, and emotional lability. Regardless of treatment management, 22/25 (88%) patients experienced improvement of mood symptoms to baseline, and 22/25 (88%) were able to complete their isotretinoin course without symptom recurrence. Our findings highlight the importance of monitoring for a broad range of mood changes in patients on isotretinoin, especially those related to a pre-existing mood disorder and including those which do not meet formal criteria for a psychiatric disorder.
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Effects of mesotherapy introduction of compound glycyrrhizin injection on the treatment of moderate to severe acne. Chen Y, Han W, Li S, et al. J Cosmet Dermatol. 2023 Apr 10. doi: 10.1111/jocd.15681. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37036158/
Background: Compound glycyrrhizin has achieved outstanding results in the treatment of various skin diseases. However, the use of mesotherapy to inject compound glycyrrhizin into the skin to treat acne is still understudied. Aims: This paper aims to explore the effects of mesotherapy introduction of compound glycyrrhizin injection on the acne. Materials & methods: A total of 108 patients were included in this study and divided into the control group (n = 54)

and the observation group (n = 54). The control group was treated with topical clindamycin gel, while the study group was treated with topical clindamycin gel + mesotherapy and compound glycyrrhizin injection. Skin transepidermal water loss (TEWL), cuticle water content, acne severity, adverse reactions, and inflammatory reactions were documented before and after treatment in the two groups. Results: The usage of mesotherapy to inject compound glycyrrhizin into the skin of acne patients more effectively treat acne than traditional clindamycin gel. The mesotherapy compound glycyrrhizin can more effectively protect the skin barrier of patients and reduce the loss of skin moisture. Compared with the traditional clindamycin gel, the combination of mesotherapy and compound glycyrrhizin more effectively inhibit the inflammatory reaction in acne patients and reduce skin damage in acne patients. Discussion/conclusion: Mesoderm introduction of compound glycyrrhizin injection has better effects on the treatment of moderate to severe acne than clindamycin gel.
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Unraveling the pharmaceutical and clinical relevance of the influence of syringic acid loaded linoleic acid transferosomes on acne. Abd-Allah H, Ragaie MH, Elmowafy E. Int J Pharm. 2023 Apr 9;639:122940. doi: 10.1016/j.ijpharm.2023.122940. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37040824/
Natural medicines are promising platforms for competent topical treatment modalities benefiting the cosmetic implementation and proffering solutions to the current remedies. Therefore, the objective of this study was to formulate syringic acid (SA), well-known for its multilateral anti-inflammatory, antimicrobial and antioxidant potentials, in newly developed linoleic acid (LA) transferosomes as an anti-acne nano-form remedy. Herein, LA was incorporated in transferosomes owing to its antimicrobial effect and dermal penetrability. Comprehensive appraisal through physicochemical, antioxidant and dermal deposition investigations was conducted. Clinical assessment was also performed in acne patients and compared with the marketed product (Adapalene® gel). The relevant investigations of the optimum formula indicated stable vesicles with a small-sized diameter (147.46 nm), surface charge (-26.86 mV), spherical architecture, reasonable entrapment (76.63%), considerable antioxidant activity (IC50 = 11.1 µg/mL) and remarkable skin deposition (78.72%).More importantly, LA based transferosomes enclosing SA exhibited inflammation lessening in acne sufferers as manifested by greater reduction in the total count of the acne lesions reaching 79.5% in contrast to Adapalene® gel with only 18.7% reduction in acne lesions. Interestingly, no irritation and erythema were reported for the proposed transferosomes. Inclusively, the cosmetic formulation practice could reap benefits of the development of such vesicles.

Treatment of post-acne scarring with long-pulsed and Q-switched 1,064nm Nd:YAG laser. Gharib K, Seoudy W, Rageh MA, et al. J Clin Aesthet Dermatol. 2023 Apr;16(4):32-37. https://pubmed.ncbi.nlm.nih.gov/37077932/
Background: Acne scarring is one of the most dramatic consequences of inflammatory acne. It can lead to physical disfigurement and psychological burden on the affected individuals. Many treatment options for post-acne scarring are used, with variable results. Nonablative lasers, such as the 1,064nm neodymium-doped yttrium aluminum garnet (Nd:YAG) laser, are known to ameliorate acne scar appearance by stimulating collagen production and dermal remodeling. Objectives: We sought to evaluate the clinical efficacy, safety, and long-term effects of long-pulsed and Q-switched 1,064nm Nd:YAG lasers in the treatment of acne scars. Methods: From March to December 2019, a total of 25 patients with different skin types with acne scars were treated. Patients were divided into two groups. In Group I, 12 patients received a combination of Q-switched 1,064nm Nd:YAG laser, then long-pulsed 1,064nm Nd:YAG laser. In Group II, 13 patients received a combination of long-pulsed 1,064nm Nd:YAG laser, then Q-switched 1,064nm Nd:YAG laser. All patients received a total of six sessions at two-week intervals. Results: There were no statistically significant differences between the studied groups in skin type, lesions, or scar type. A positive response with either good or excellent results was documented in 43 patients, corresponding to 86. Six percent of the patients included in

this study. Excellent response was observed in a total of 17 patients (26.6%). Twenty-six patients (60%) showed a moderate-to-good response, while seven patients (13.4 %) showed a fair response. The majority of patients in this study had an excellent-to-good response, with an 86.6% improvement of post-acne scars after laser sessions. Conclusion: Q-switched and long-pulsed 1,064nm Nd:YAG lasers are considered an efficient and safe modality for the treatment of mild and moderate post-acne scars. Both lasers can enhance dermal collagen remodeling and spare the epidermis with minimal downtime after the procedure.
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A 6-month, multi-center, double-blind, controlled study to evaluate the effect of a biofilm disrupting acne cream on mild-to-moderate facial acne in female volunteer subjects. Marshall-Hudson A, Tuley M, Damstra M, et al. J Clin Aesthet Dermatol. 2023 Apr;16(4):43-52. https://pubmed.ncbi.nlm.nih.gov/37077927/
Objectives: The primary aim of this study was to assess the change in acne lesions and severity within all treatment groups over the course of a six-month study. Methods: This was a six-month, multisite, randomized, double-blind, controlled study in female subjects with mild-to-moderate acne to assess the clinical and psychological outcomes of treatment with biofilm disrupting acne cream 2x, biofilm disrupting acne cream 1x, biofilm disrupting acne cream without salicylic acid, 2.5% benzoyl peroxide (BPO) gel, and placebo. Subjects applied the assigned product to their face twice daily and were evaluated for clinical acne and quality of life outcomes at baseline and after six, 12, 18, and 24 weeks of treatment. Results: After 24 weeks of use, subjects treated with biofilm disrupting acne cream 2x had a significantly greater improvement in the Investigator Global Assessment (IGA), compared to those treated with 2.5% BPO gel. Based on dermatologic assessments, biofilm disrupting acne cream 2x, biofilm disrupting acne cream 1x, biofilm disrupting acne cream without salicylic acid, and placebo control were associated with less erythema and dryness, compared to 2.5% BPO gel. Limitations: Assessments within this study had the potential for subjective differences due to variability between evaluators. Conclusion: Biofilm disrupting acne cream 2x and biofilm disrupting acne cream 1x provided equivalent efficacy to 2.5% BPO gel with less of the adverse effects commonly associated with BPO, such as erythema and dryness. Both the biofilm disrupting acne cream without salicylic acid and the placebo control were associated with mild improvements to acne symptoms over the course of the 24-week study.
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Randomized open-label trial comparing teledermatology vs. face-to-face consultation in the follow-up of patients with mild-to-moderate acne. Heidemeyer K, Bodle L, Böll S, et al. Acta Inform Med. 2023 Mar;31(1):31-36. doi: 10.5455/aim.2023.31.31-36. https://pubmed.ncbi.nlm.nih.gov/37038496/
Background: Acne vulgaris is one of the most common dermatological diseases, especially in adolescents and young adults. Objective: The current study aimed to compare teledermatology versus face-to-face consultation in the follow-up of patients with mild-to-moderate acne. Methods: In this investigator-initiated, parallel arms, open-label, randomized clinical trial, after screening, participants were randomly assigned in a 1:1 ratio to be followed up through teledermatology or standard face-to-face consultations for a period of 6 months. The primary endpoint was the cumulative time spent by physician for consultations or online assessments. Results: Out of 24 patients (21 females and 3 males; mean age 23.0 ± 3.3 years) underwent randomization in the two study groups. In intention-to-treat analysis, the cumulative time spent by physician was higher in the teledermatology group compared to face-to-face consultations with an average difference of 8:24 mm:ss (95% CI: 1:17-15:31). However, the cumulative time spent by the patient was significantly lower in the teledermatology group (mean difference 1:21:39 hh:mm:ss; 95% CI: 41:51-2:01:27). An optimal reduction of acne-severity was observed in both groups, without significant differences between them. The patient's satisfaction did not change significantly over time and between groups, and was generally quite high. AEs were reported by one patient in the teledermatology group and four patients in the consultation group.

Conclusion: Acne might be an optimal disease to be followed up using a teledermatology platform, to relieve the burden on patients and medical staff. However, it is necessary to implement more user-friendly platforms in order to achieve the best possible results in the treatment and follow-up of acne patients.
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Clinical Reviews

Efficacy of procedural treatments for pediatric hidradenitis suppurativa: A systematic review. Masson R, Parvathala N, Ma E, et al. Pediatr Dermatol. 2023 Apr 24. doi: 10.1111/pde.15331. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37092729/
Hidradenitis suppurativa (HS) is a painful, inflammatory skin disease that has historically been understudied in the pediatric population. Procedural interventions, such as surgical excisions, skin grafts, and lasers, are important for comprehensive HS disease management. However, there is a lack of data on procedural treatments for HS in pediatric patients. The purpose of this study was to conduct a systematic review of the literature on the efficacy and safety of procedural treatments for HS in pediatric patients. In April 2022, MEDLINE and EMBASE databases were searched for articles on the efficacy of procedural treatments for HS in patients <18 years of age. Two independent reviewers extracted data from relevant studies. From 1974 to 2021, 23 articles with 81 patients were identified. Patients' Hurley stages included stage I (9.1%, 1/11), II (36.4%, 4/11), and III (54.5%, 6/11). The most extensively studied procedural interventions include negative pressure wound therapy (n = 30), surgical excision with skin graft/flap (n = 19), and endoscopic electrode or laser treatment (n = 11). In all, promising response rates for procedural management strategies were observed in the literature but the findings were largely based on case reports/series. Randomized controlled trials (RCTs), especially those geared toward minimally invasive procedural treatments, are needed to help guide clinicians on the most efficacious treatment modalities for pediatric patients with HS.

Cutibacterium acnes (formerly Propionibacterium acnes): Friend or foe? Boyanova L. Future Microbiol. 2023 Apr 12. doi: 10.2217/fmb-2022-0191. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37042433/
Cutibacterium acnes protects skin homeostasis. The species has three subspecies, and associations between C. acnes subsp. acnes and acne, C. acnes subsp. defendens and prostate cancer, and C. acnes subsp. elongatum and progressive macular hypomelanosis have recently been suggested. Different phylotypes/clonal complexes may cause prosthetic joint and other infections, and virulence factors such as fimbriae, biofilms, multidrug-resistance plasmids, porphyrin, Christie-Atkins-Munch-Petersen factors and cytotoxicity contribute to infections. Isolates are subtyped by multiplex PCR or multi- or single-locus sequence typing; however, these methods could be better synchronized. Resistance of acneic strains to macrolides (25.0-73.0%), clindamycin (10.0-59.0%) and tetracyclines (up to 37.0%) is worrisome, but susceptibility testing is now facilitated by European Committee on Antimicrobial Susceptibility Testing disk diffusion breakpoints. New therapeutic approaches include sarecycline, antimicrobial peptides and bacteriophages.

The role of combined oral contraceptives containing norgestimate for acne vulgaris treatment: A review. Grandi G, Guariglia G, Facchinetti F. Eur J Contracept Reprod Health Care. 2023 Apr 12;1-8. doi: 10.1080/13625187.2023.2197539. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/37042197/
Introduction: Both Food and Drugs Administration and European Medicine Agency (EMA) approve the use of a triphasic combined oral contraceptive (COC) containing ethinyl-oestradiol (EE) and norgestimate (NGM) for acne vulgaris treatment in women requiring an effective contraception. COCs can target sebum production and may also play a role in decreasing follicular hyperkeratinisation.Results: Specific advantages of the use of an anti-androgenic

progestin such as NGM in this condition are presented in this review, including the lowest venous thrombosis risk in the COCs scenario, as established by the EMA, associated with a very satisfactory cycle control. The results of aggregate analysis of published data (n = 163 vs. n = 161 treated subjects) demonstrate a significant effect in comparison with the placebo of a greater than 50% reduction, in terms of inflammatory lesions (from 19.0 to 8.2), comedones (from 35.2 to 17.7) and total lesions (from 54.3 to 25.9) count.Conclusions: The choice of a triphasic combination of EE/NGM seems a referenced, highly effective, easy-to-use and safe therapeutic approach for acne vulgaris, alone or in combination with different targeted drugs.

Preferred practice patterns and review on rosacea. Patel NV, Gupta N, Shetty R. Indian J Ophthalmol. 2023 Apr;71(4):1382-1390. doi: 10.4103/IJO.IJO_2983_22. https://pubmed.ncbi.nlm.nih.gov/37026270/
Rosacea is a chronic, inflammatory facial dermatosis commonly found in fair skin tone population. Recent studies have shown the increasing prevalence in the dark skin tone population as well. Ocular involvement is very common and can occur without cutaneous features. Common ocular features are chronic blepharoconjunctivitis with eyelid margin inflammation and meibomian gland dysfunction. Corneal complications include corneal vascularization, ulceration, scarring, and rarely, perforation. Diagnosis is largely based on clinical signs, although it is often delayed in the absence of cutaneous changes, particularly in children. The management ranges from local therapy to systemic treatment, depending on the severity of the disease. There is a positive association between demodicosis and rosacea; however, causality is always argued. In this review, we describe the epidemiology, clinical features, and treatment of rosacea and ocular rosacea.
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The novel use of cryopreserved human allograft in extensive Hurley stage III hidradenitis suppurativa. Matera D, Jacob L. Wounds. 2023 Apr;35(4):E134-E138. https://pubmed.ncbi.nlm.nih.gov/37068209/
Introduction: HS is a debilitating dermatologic condition in which apocrine sweat glands become occluded, leading to severe inflammation. Treatment usually ranges from conservative management to surgical intervention with the goal of treating existing lesions while reducing the rate of recurrence, progression, and scarring. Depending on the surface area involved, autologous skin grafting may be difficult when donor sites are limited due to the extent of disease, previous surgery, or scarring. This case report examines the efficacy of cryopreserved human allograft as a surgical treatment of extensive HS. Case report: A 37-year-old man presented with severe, refractory Hurley stage III HS in which cryopreserved human allograft was used to aid in wound contracture and granulation tissue formation. In addition, its use improved contour deformities and served as a bridge to autologous skin grafting, minimizing donor site size and morbidity. Conclusions: While autologous skin grafting is necessary for final wound closure, the use of cryopreserved human allograft provides biologic wound management that aids as a bridge to autologous skin grafting. As such, the authors advocate its use as a tissue scaffold in the management of severe, extensive HS and other dermatologic conditions requiring skin excision.

Surgical subcision for acne scars: A review of instrumentation. Lobo Y, Lim DS. Dermatol Surg. 2023 Apr 1;49(4):355-362. doi: 10.1097/DSS.0000000000003706. Epub 2023 Mar 14. https://pubmed.ncbi.nlm.nih.gov/36943759/
Background: Subcision is a surgical technique for managing atrophic acne scars. Over time, new instruments have emerged to increase the efficiency, efficacy, and safety of the subcision procedure, including sharp, blunt, and energy-assisted devices. Objective: To review the instrumentation used for the subcision of acne scars and to provide clinicians with practical information regarding the selection of instrumentation, with a focus on advantages and disadvantages. Methods: A search of PubMed, MEDLINE, and Google Scholar was conducted for articles from

January 2000 to June 2022 describing the use of subcision alone for the management of acne scarring. Demographic and clinical data were collected from the included articles. Results: A total of 417 patients from 17 articles were included; 155 patients underwent sharp subcision, 235 patients underwent blunt subcision, and 27 patients underwent energy-assisted subcision. The main indication for subcision was atrophic facial acne scars. Subcision using sharp, blunt, and energy-assisted instruments were all effective in treating atrophic acne scars. Adverse effects common to all subcision methods included erythema and edema. Conclusion: Subcision is a safe and effective modality for the revision of selected acne scars and is a valuable skill set for dermatologists who perform scar revision to master.

A rare phenomenon of lithium-associated acne inversa: A case series and literature review. Chaudhari D, Vohra RR, Abdefatah Ali M, et al. Cureus. 2023 Mar 12;15(3):e36051. doi: 10.7759/cureus.36051. eCollection 2023 Mar. https://pubmed.ncbi.nlm.nih.gov/37056525/

Lithium use has been associated with dermatological issues, including psoriasis, folliculitis, and acneiform outbreaks. The lithium dosage and the therapeutic range of serum lithium levels are closely correlated with the frequency of cutaneous adverse effects. Lithium-induced acne inversa is a less well-known adverse effect, causing significant morbidity. Acne inversa (hidradenitis suppurativa) is a chronic inflammatory illness of the skin seen in the folds of the skin and face and distinguished by the presence of painful nodules and fistulas, as well as a propensity for tissue fibrosis. We report two cases of bipolar affective disorder who received long-term lithium treatment and experienced acne inversa during treatment, which subsided once the lithium was withdrawn.

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