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AARS News

As we move into the next year, I would like to update you with a few announcements from the American Acne & Rosacea Society (AARS).

First, I thank the outgoing Board of Directors for their service. There has been a lot going on over the past 18 months that has required a lot of patience, pivoting, cancellations, and modifications of our usual meetings and processes, and we appreciate the support of AARS from all. A highlight was our 9th Annual AARS Scientific Virtual Symposium with the SID with some amazing presentations by the selected investigators. Another highlight was getting to honor Diane Thiboutot for her continuous service to science, naming her to the distinguished group of Honorary Chairs.

Second, we are excited to announce the new Board of Directors of the AARS:

President – Andrea Zaenglein, MD, FAAD

President Elect – James Del Rosso, DO, FAOCD, FAAD

Treasurer – Valerie Callender, MD, FAAD

Secretary – Bethanee Schlosser, MD, PhD, FAAD

Directors: Jonathan Weiss, MD, FAAD; Emmy Graber, MD, FAAD; Jonette Keri, MD, PhD, FAAD

I wish them all well for their term and am excited to continue to support you all in continuing the mission of the AARS.

Sincerely,



J. Mark Jackson

Immediate Past President, AARS

Support the AARS through Amazon - Start with a Smile this Holiday Season!

You can support the AARS when you shop for holiday essentials, gifts, decorations and more through AmazonSmile. Buy your gifts through smile.amazon.com and Amazon will donate a percentage directly to the American Acne & Rosacea Society!



New Medical Research

Fractional carbon dioxide laser or erbium:yttrium-aluminum-garnet laser assisted by topical application/intradermal injection of platelet-rich plasma for postacne scars. Chen J, Wan Y, Lin Y, Jiang H. *Plast Reconstr Surg.* 2021 Dec 1;148(6):915e-927e. doi: 10.1097/PRS.00000000000008513. <https://pubmed.ncbi.nlm.nih.gov/34847111/>

Background: Fractional carbon dioxide or erbium:yttrium-aluminum-garnet (YAG) laser combined with platelet-rich plasma has been used for postacne scars. Nevertheless, there is limited evidence on its use because of the small size of relevant studies. This study aims to evaluate the efficacy of platelet-rich plasma-assisted laser for postacne scars. Methods: Randomized controlled trials comparing carbon dioxide or erbium:YAG laser combined with platelet-rich plasma to laser alone were searched for using the PubMed, Embase, Web of Science, Cochrane Library, and Google Scholar databases. Results: In total, 13 studies involving 672 cases were included. The overall degree of clinical improvement favored platelet-rich plasma combined with carbon dioxide laser (mean difference, 0.55; 95 percent CI, 0.40 to 0.70) or erbium:YAG laser (mean difference, 0.63; 95 percent CI, 0.31 to 0.96). Notably, the use of carbon dioxide laser combined with platelet-rich plasma was more effective in both greater than 50 percent improvement of acne scars (OR, 1.63; 95 percent CI, 1.10 to 2.42) and greater than 75 percent improvement of acne scars (OR, 2.78; 95 percent CI, 1.75 to 4.42), compared with laser alone. Erbium:YAG laser combined with platelet-rich plasma was more effective in greater than 75 percent improvement of acne scars compared with laser alone (OR, 3.45; 95 percent CI, 1.31 to 9.05). Moreover, patient satisfaction was significantly higher with platelet-rich plasma combined with carbon dioxide laser (OR, 2.98; 95 percent CI, 1.72 to 5.16) or erbium:YAG laser (OR, 2.88; 95 percent CI, 1.33 to 6.21) compared to laser alone. Conclusion: This meta-analysis provides reliable evidence that fractional carbon dioxide or erbium:YAG laser combined with platelet-rich plasma is an effective and safe combination therapy for postacne scars.

Azelaic acid and melaleuca alternifolia essential oil co-loaded vesicular carrier for combinational therapy of acne. Bisht A, Hemrajani C, Upadhyay N, et al. *Ther Deliv.* 2021 Nov 29. doi: 10.4155/tde-2021-0059. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34842461/>

Aim: Azelaic acid (AzA), a comedolytic, antibacterial, anti-inflammatory anti-melanogenic agent, prescribed against acne vulgaris is safe on skin. Its combination with another widely used anti-acne agent, tea tree oil (EO) whose delivery is limited by volatility, instability and lipophilicity constraints was attempted. Method: Solvent injection was used to prepare AzA-EO integrated ethosomes. Result: Ethosomes were transformed into carbopol hydrogel, which exhibited pseudo-plastic properties with appreciable firmness, work of shear, stickiness and work of adhesion. The hydrogel showed better permeation and retention characteristics vis-a-vis commercial formulation (Aziderm™), when evaluated in Wistar rat skin. Further, ethosome hydrogel composite was better tolerated with no side effects. Conclusion: The findings suggests that the aforementioned strategy could be a potential treatment used for acne management.

Efficacy and safety comparison between 1927 nm thulium laser and 2940 nm Er:YAG laser in the treatment of facial atrophic acne scarring: A prospective, simultaneous split-face clinical trial. Lu K, Cai S. *Lasers Med Sci.* 2021 Nov 26. doi: 10.1007/s10103-021-03465-0. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34826022/>

Acne scarring is a common disfiguring complication of acne, and fractional lasers are widely applied in improving it. This study is to compare the efficacy and safety of fractional non-ablative 1927 nm thulium laser (FTL) and fractional ablative 2940 nm Er:YAG laser (FEL) in the treatment of acne scarring. Subjects with moderate or severe atrophic

facial acne scarring received 3 sessions of FTL on the left side of face and FEL on the right side of face at an average interval of 4-6 weeks. Major assessments included Goodman & Baron quantitative global scarring grading system (GBS), self-rated improvement and satisfaction score. Twenty-seven subjects completed the study; for FTL side, average GBS decreased from 11.15 ± 5.04 at baseline to 7.07 ± 4.87 with an improvement percent of 36.54%; for FEL side, average GBS decreased from 10.81 ± 4.46 to 7.00 ± 4.07 with an improvement percent of 35.27%. Adverse effects include transient pain, erythema, edema, and increase of acne. No significant difference was found between two lasers. Both FTL and FEL improved atrophic acne scarring and were well-tolerated. Increase of acne during laser treatment may have a negative impact on efficacy. Trial registration number was NCT04813419 and date of registration was 19th, March, 2021, retrospectively registered.

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The impact of isotretinoin therapy on the nasal skin thickness and elasticity: An ultrasonography and elastography based assessment in relation to dose and duration of therapy. Yigit E, Rakici IT, Seden N, et al. *Aesthetic Plast Surg.* 2021 Nov 24. doi: 10.1007/s00266-021-02663-z. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34820691/>

Background: This study aimed to evaluate the impact of isotretinoin therapy on the nasal skin thickness and elasticity with regard to implications for rhinoplasty **METHODS:** A total of 40 acne vulgaris patients (mean \pm SD age: 20.9 ± 3.0 years, 65.0% were females) initiating oral isotretinoin treatment (0.25 mg/kg/day, n = 16 or 0.5 mg/kg/day, n = 24) were included in this prospective 4-month isotretinoin follow-up study. Ultrasonography assessments regarding nasal skin thickness (dermis and soft tissue) and elastography were repeated at second and fourth months of treatment. **Results:** No significant difference was noted between isotretinoin dose groups in terms of second month and fourth month nasal skin thickness (dermis and soft tissue) values measured at any region. Each dose revealed significant decrease in dermis and soft tissue thickness from baseline at any region (p ranged < 0.001 to < 0.001), while only fourth month values at nasal tip and second month values at rhinion for dermis and only fourth month values at rhinion and glabella for subcutaneous tissue significantly differed from baseline (p < 0.01 for each) in the 0.25 mg and 0.50 mg dose groups, respectively. Elastography values at fourth month of isotretinoin treatment were significantly higher than pre-treatment and second month values in both 0.25 mg (90.4 ± 20.6 vs. 59.5 ± 21.8 and 76.4 ± 22.9 , p < 0.01 for each) and 0.5 mg (86.7 ± 20.6 vs. 61.8 ± 23.2 and 76.9 ± 24 , p < 0.01 for each) dose groups. **Conclusions:** In conclusion, our findings revealed the association of isotretinoin treatment with a significant decrease in dermis and subcutaneous soft tissue thickness measured at each anatomical landmark, regardless of the treatment dose.

Clinical and histopathological evaluation of different tools for the subcision of atrophic acne scars. Ebrahim HM, Artima AY, Elardi A, Mohamed Morsi H. *J Cosmet Dermatol.* 2021 Nov 21. doi: 10.1111/jocd.14562. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34806274/>

Background: Acne scarring can lead to social and psychological distress. **Objective:** To compare the safety, efficacy, and long-term improvement of subcision using tri-beveled hypodermic (Th) needle versus cannula for the treatment of atrophic post-acne scars. **Methods:** Forty-six patients with atrophic post-acne scars were treated with subcision using (Th) needle on one side of the face and a blunt cannula on the other side of the face for 6 sessions one month apart. The primary outcome was based on the clinical improvement and patient satisfaction score. Skin biopsies were taken at baseline and 3months after the final session. Follow-up was 9 months. **Results:** Three months after the final session, a statistically highly significant difference was detected in both sides from the baseline (p < 0.001). The overall improvement was 73.9% on the (Th) needle side versus 65.2% on the cannula side (p = 0.68). There was no significant difference in acne severity scarring grade between both sides (p = 0.86). The mean number of sessions was significantly less in the (Th) needle side (p < 0.001). Collagen deposition and reorganization were achieved with

both modalities. Patient satisfaction showed no significant difference between both sides. The side effects were mild and significantly higher in the (Th) needle side ($p = 0.001$). Conclusion: Both modalities are effective and economic techniques. However, using a cannula is associated with much fewer side effects, more convenient for the patients and physicians compared to the (Th) needle.

Crystal structure of the Propionibacterium acnes surface sialidase, a drug target for P. acnes-associated diseases. Yu ACY, Volkers G, Jongkees SAK, et al. Glycobiology. 2021 Nov 17;cwab094. doi: 10.1093/glycob/cwab094. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34792586/>
Propionibacterium acnes, though generally considered part of the normal flora of human skin, is an opportunistic pathogen associated with acne vulgaris as well as other diseases, including endocarditis, endophthalmitis and prosthetic joint infections. Its virulence potential is also supported by knowledge gained from its sequenced genome. Indeed, a vaccine targeting a putative cell wall-anchored P. acnes sialidase has been shown to suppress cytotoxicity and pro-inflammatory cytokine release induced by the organism, and is proposed as an alternative treatment for P. acnes-associated diseases. Here, we report the crystal structures of the surface sialidase and its complex with the transition-state mimic Neu5Ac2en. Our structural and kinetic analyses, together with insight from a glycan array screen, which probes subtle specificities of the sialidase for α -2,3-sialosides, provide a basis for the structure-based design of novel small-molecule therapeutics against P. acnes infections.

Increased frequency of circulating classical monocytes in patients with rosacea. Gao C, Ge L, Chen D, et al. Clin Cosmet Investig Dermatol. 2021 Nov 9;14:1629-1636. doi: 10.2147/CCID.S336194. eCollection 2021. <https://pubmed.ncbi.nlm.nih.gov/34803388/>

Purpose: Monocyte subsets, including classical, intermediate and non-classical monocytes, are involved in the pathogenesis of inflammatory or autoimmune diseases. The pathogenic role of monocytes in the peripheral blood mononuclear cells (PBMCs) of patients with rosacea remains unclear. This study aimed to assess frequencies of monocyte subsets in PBMCs from rosacea patients before and after clinical treatment. Patients and methods: We applied flow cytometry to examine frequencies of monocyte subsets in 116 patients with rosacea, while patients with 26 systemic lupus erythematosus (SLE), 28 acne and 42 normal healthy subjects without skin problems (HC) were recruited as controls. Expression of C-C chemokine receptor 2 (CCR2) on monocytes and plasma levels of CC-chemokine ligand 2 (CCL2), high mobility group box-1 (HMGB-1), interleukin-1 beta (IL-1 β) and tumor necrosis factor alpha (TNF- α) were measured in HC and rosacea patients before and after treatment. Results: The frequency of classical monocytes, but not intermediate or non-classical monocytes, was higher in rosacea as compared with HC, which decreased after treatment. Frequencies of monocyte subsets showed no gender difference, while increased with age in patients but not in HC. Frequencies of classical monocytes in patients with erythematotelangiectatic rosacea (ETR) and ETR-papulopustular rosacea (PPR) overlap were significantly higher than HC or patients with only PPR or phymatous rosacea (PhR). There was a significant higher expression of CCR2 in classical monocytes, with higher plasma levels of CCL2, HMGB-1, IL-1 β and TNF- α in patients than in HC, which all significantly decreased after treatment. Conclusion: Our data indicated a possible association between abnormal classical monocytes frequencies and rosacea.

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Optimizing outcomes with the 1550/1927 nm dual wavelength non-ablative fractional laser: Experienced user recommendations. Friedman P, Chapas A, Kilmer S, et al. J Drugs Dermatol. 2021 Nov 1;20(11):1150-1157. doi: 10.36849/jdd.6181. <https://pubmed.ncbi.nlm.nih.gov/34784135/>

Background: Fractional laser treatment was introduced in 2004 as a non-invasive technique to treat sun-damaged

and aging skin. Since then, numerous ablative and non-ablative photothermolysis technologies and devices have been introduced, increasing the options for clinicians and patients but also increasing the complexity regarding which system to use and the techniques to optimize outcomes. No two devices are the same and the user-manuals preset dosimetry does not address many clinical situations, which can create confusion for new and inexperienced users. Methods: An online survey addressing use of a 1550 nm /1927 nm dual wavelength, non-ablative, fractional laser was sent to eight (8) US board certified dermatologists with extensive experience in the use of the device. The survey included 39 questions, addressing experience, best practices and recommendations for use. Results: The survey data suggests that the device can be used to treat patients of all ages and skin types for indications including photoaging and photodamage, periorbital wrinkles, freckles, (ephelides), solar lentigines, poikiloderma, scarring due to acne or surgery. It can be used on both facial and non-facial areas, including neck, chest, hands, arms, abdomen, legs, and buttocks. Unexpected and adverse effects were rarely reported and those that did were mild and transient. Conclusions: This position paper provides practical real-world guidelines resulting from a small survey of experienced users, for new and early uses of the novel 1550 nm /1927 nm dual wavelength, non-ablative, fractional laser.

Association of TNF- α polymorphisms (-857, -863 and -1031), TNF- α serum level and lipid profile with acne vulgaris. Younis S, Shamim S, Nisar K, et al. Saudi J Biol Sci. 2021 Nov;28(11):6615-6620. doi: 10.1016/j.sjbs.2021.07.042. <https://pubmed.ncbi.nlm.nih.gov/34764777/>

Background: Acne is an inflammatory condition principally affected by genetic and dietary factors. Investigation into functional polymorphisms of TNF- α gene and their association with acne vulgaris will be helpful in exploring genetic influence on skin immune mediated inflammatory events. In the present study, we analyzed association of TNF- α gene polymorphisms, its expression levels and lipid profiles in a large cohort of acne patients and controls. Methods: We used PCR-RFLP to study association of TNF- α polymorphisms at -857C/T, -863C/A and -1031 T/C sites with acne vulgaris. Lipid profiles were measured using enzymatic end-point method. The serum levels of TNF- α and apolipoprotein a were measured using ELISA. NIH, LDlink was used to investigate patterns of linkage disequilibrium across south Asian reference genome (Punjabi from Lahore Pakistan). Results: We found that TNF- α -863 polymorphism is strongly associated with acne in overall population as well as in gender and severity based groups of acne patients. Polymorphisms at -863 and -1031 position were in linkage disequilibrium. Importantly, TNF- α serum level was significantly increased in acne patients with severe disease symptoms. Furthermore, levels of total cholesterol (TC) and triglycerides (TG) were significantly increased, whereas high density lipoprotein cholesterol (HDL-C) level was significantly decreased in acne patients. The levels of apolipoprotein a varied widely in studied populations and no significant difference was found in the analyzed groups. Conclusion: In conclusion, we found that TNF- α expression increases in acne patients affected by TNF- α polymorphisms, and that the lipid profile is specifically disrupted in acne patients.

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Rosacea pathogenesis, common triggers, and dietary role: The cause, the trigger, and the positive effects of different foods. Alia E, Feng H. Clin Dermatol. 2021 Oct 27;S0738-081X(21)00216-9. doi: 10.1016/j.clindermatol.2021.10.004. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34819228/>

Rosacea is a common chronic inflammatory cutaneous disorder, primarily manifesting on the cheeks, nose, chin, and forehead with a classic relapsing-remitting course that affects mostly fair skin types (Fitzpatrick I and II). The pathogenesis remains unclear, but the complex interplay between environmental and genetic factors may augment the innate immune response and neurovascular dysregulation. Different nutrients may play a role in the pathogenesis of rosacea. Many dietary triggers, including hot beverages, alcohol, spicy foods, caffeine, vanilla, cinnamon, niacin, marinated meats, and dairy products, have been postulated for this disease; however, there is a lack of well-designed

and controlled studies evaluating the causal relationship between rosacea and dietary factors. We have explored the available evidence and hypotheses based on trigger-food categories of rosacea, the role of the skin-gut microbiome axis, and potentially benefiting dietary factors such as probiotics, prebiotics, and high-fiber diets.

The Personalised Acne Care Pathway-recommendations to guide longitudinal management from the Personalising Acne: Consensus of Experts. Tan J, Alexis A, Baldwin H, et al. *JAAD Int.* 2021 Oct 18;5:101-111.

doi: 10.1016/j.jdin.2021.09.006. eCollection 2021 Dec. <https://pubmed.ncbi.nlm.nih.gov/34816135/>

Background: Acne is a chronic disease with a varying presentation that requires long-term management. Despite this, the clinical guidelines for acne offer limited guidance to facilitate personalized or longitudinal management of patients. **Objectives:** To generate recommendations to support comprehensive, personalized, long-term patient management that address all presentations of acne and its current and potential future burden. **Methods:** The Personalising Acne: Consensus of Experts panel consisted of 13 dermatologists who used a modified Delphi approach to reach consensus on statements related to longitudinal acne management. The consensus was defined as $\geq 75\%$ voting "agree" or "strongly agree." All voting was electronic and blinded. **Results:** Key management domains, consisting of distinct considerations, points to discuss with patients, and "pivot points" were identified and incorporated into the Personalised Acne Care Pathway. Long-term treatment goals and expectations and risk of (or fears about) sequelae are highlighted as particularly important to discuss frequently with patients. **Limitations:** Recommendations are based on expert opinion, which could potentially differ from patients' perspectives. Regional variations in health care systems may not have been captured. **Conclusions:** The Personalised Acne Care Pathway provides practical recommendations to facilitate the longitudinal management of acne, which can be used by health care professionals to optimize and personalize care throughout the patient journey.

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Clinical Reviews

New perspectives on the treatment of hidradenitis suppurativa. Amat-Samaranch V, Agut-Busquet E, Vilarrasa E, Puig L. *Ther Adv Chronic Dis.* 2021 Nov 23;12:20406223211055920. doi: 10.1177/20406223211055920. eCollection 2021. <https://pubmed.ncbi.nlm.nih.gov/34840709/>

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterized by the presence of painful nodules, abscesses, chronically draining fistulas, and scarring in apocrine gland-bearing areas of the body. The exact pathogenesis of HS is not yet well understood, but there is a consensus in considering HS a multifactorial disease with a genetic predisposition, an inflammatory dysregulation, and an influence of environmental modifying factors. Therapeutic approach of HS is challenging due to the wide clinical manifestations of the disease and the complex pathogenesis. This review describes evidence for effectiveness of current and emerging HS therapies. Topical therapy, systemic treatments, biological agents, surgery, and light therapy have been used for HS with variable results. Adalimumab is the only US Food and Drug Administration (FDA) approved biologic agent for moderate-to-severe HS, but new therapeutic options are being studied, targeting different specific cytokines involved in HS pathogenesis. Comparing treatment outcomes between therapies is difficult due to the lack of randomized controlled trials. Treatment strategy should be selected in concordance to disease severity and requires combination of treatments in most cases.

Management of acne vulgaris: A review. Eichenfield DZ, Sprague J, Eichenfield LF. JAMA. 2021 Nov 23;326(20):2055-2067. doi: 10.1001/jama.2021.17633. <https://pubmed.ncbi.nlm.nih.gov/34812859/>

Importance: Acne vulgaris is an inflammatory disease of the pilosebaceous unit of the skin that primarily involves the face and trunk and affects approximately 9% of the population worldwide (approximately 85% of individuals aged 12-24 years, and approximately 50% of patients aged 20-29 years). Acne vulgaris can cause permanent physical scarring, negatively affect quality of life and self-image, and has been associated with increased rates of anxiety, depression, and suicidal ideation. Observations: Acne vulgaris is classified based on patient age, lesion morphology (comedonal, inflammatory, mixed, nodulocystic), distribution (location on face, trunk, or both), and severity (extent, presence or absence of scarring, postinflammatory erythema, or hyperpigmentation). Although most acne does not require specific medical evaluation, medical workup is sometimes warranted. Topical therapies such as retinoids (eg, tretinoin, adapalene), benzoyl peroxide, azelaic acid, and/or combinations of topical agents are first-line treatments. When prescribed as a single therapy in a randomized trial of 207 patients, treatment with tretinoin 0.025% gel reduced acne lesion counts at 12 weeks by 63% compared with baseline. Combinations of topical agents with systemic agents (oral antibiotics such as doxycycline and minocycline, hormonal therapies such as combination oral contraception [COC] or spironolactone, or isotretinoin) are recommended for more severe disease. In a meta-analysis of 32 randomized clinical trials, COC was associated with reductions in inflammatory lesions by 62%, placebo was associated with a 26% reduction, and oral antibiotics were associated with a 58% reduction at 6-month follow-up. Isotretinoin is approved by the US Food and Drug Administration for treating severe recalcitrant nodular acne but is often used to treat resistant or persistent moderate to severe acne, as well as acne that produces scarring or significant psychosocial distress. Conclusions and relevance: Acne vulgaris affects approximately 9% of the population worldwide and approximately 85% of those aged 12 to 24 years. First-line therapies are topical retinoids, benzoyl peroxide, azelaic acid, or combinations of topicals. For more severe disease, oral antibiotics such as doxycycline or minocycline, hormonal therapies such as combination oral contraceptive agents or spironolactone, or isotretinoin are most effective.

Botulinum neurotoxin type A in the treatment of facial seborrhea and acne: Evidence and a proposed mechanism. Rho NK, Gil YC. Toxins (Basel). 2021 Nov 19;13(11):817. doi: 10.3390/toxins13110817. <https://pubmed.ncbi.nlm.nih.gov/34822601/>

Intradermal injection of botulinum neurotoxin is a frequently performed procedure in aesthetic dermatology to improve facial skin tone, texture, fine wrinkles, and enlarged pores. In practice, botulinum neurotoxin type A is also used to reduce skin oiliness of the face. There is increasing evidence that acetylcholine plays specific roles in sebum production, suggesting that botulinum neurotoxin type A may reduce sebum production by interfering with cholinergic transmission between sebaceous glands and autonomic nerve terminals. Botulinum neurotoxins can also inhibit several pathogenetic components of acne development, suggesting that botulinum neurotoxins can be used as a safe and effective treatment modality for acne and other skin disorders related to overactivity of sebaceous glands. This review aims to explore the current evidence behind the treatment of facial seborrhea and acne with botulinum neurotoxin type A.

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Skin disease in children: Effects on quality of life, stigmatization, bullying, and suicide risk in pediatric acne, atopic dermatitis, and psoriasis patients. Kelly KA, Balogh EA, Kaplan SG, et al. Children (Basel). 2021 Nov 16;8(11):1057. doi: 10.3390/children8111057. <https://pubmed.ncbi.nlm.nih.gov/34828770/>

Acne, atopic dermatitis (AD), and psoriasis are all chronic dermatologic conditions that greatly impact the lives of pediatric patients and their caregivers. The visible nature of these diseases negatively affects the self-image of

children early in life as well as their relationships with their families and peers. Physicians recognize the importance of addressing both the physical and mental symptoms of their patients but are currently not equipped with clear guidelines to manage long-term psychosocial comorbidities in pediatric dermatologic patients. A PubMed and Google Scholar search of key words was conducted to explore self-image in pediatric patients with acne, AD, and psoriasis. Chronic skin diseases put pediatric patients at risk for strained family relationships, poor self-image, psychiatric comorbidities, stigmatization, and eventual suicidal behavior. A limitation of this study is a lack of a validated measure of quality of life in the pediatric population that fulfills enough criteria to evaluate long term quality of life in children and adults. Possible management options, including connecting patients with the same diagnosis and allocating resources to parents and teachers to better understand these chronic skin conditions, may provide pediatric patients with the support they need to develop resilience in the face of these challenges.

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Red seaweed-derived compounds as a potential new approach for acne vulgaris care. Januário AP, Félix R, Félix C, et al. *Pharmaceutics*. 2021 Nov 15;13(11):1930. doi: 10.3390/pharmaceutics13111930.

<https://pubmed.ncbi.nlm.nih.gov/34834345/>

Acne vulgaris (AV) is a chronic skin disease of the pilosebaceous unit affecting both adolescents and adults. Its pathophysiology includes processes of inflammation, increased keratinization, sebum production, hormonal dysregulation, and bacterial *Cutibacterium acnes* proliferation. Common AV has been treated with antibiotics since the 1960s, but strain resistance has emerged and is of paramount concern. Macroalgae are known producers of substances with bioactive properties, including anti-viral, antibacterial, antioxidant, and anti-inflammatory properties, among several others. In particular, red algae are rich in bioactive compounds such as polysaccharides, phenolic compounds, lipids, sterols, alkaloids, and terpenoids, conferring them antioxidant, antimicrobial, and anti-inflammatory activities, among others. Thus, the exploration of compounds from marine resources can be an appealing approach to discover new treatment options against AV. The aim of this work is to provide an overview of the current knowledge of the potentialities of red macroalgae in the treatment of AV by reviewing the main therapeutic targets of this disease, and then the existence of compounds or extracts with bioactive properties against them.

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Neoplastic implications in patients suffering from hidradenitis suppurativa under systemic treatments. Li Pomi F, Macca L, Motolese A, et al. *Biomedicines*. 2021 Nov 1;9(11):1594. doi: 10.3390/biomedicines9111594.

<https://pubmed.ncbi.nlm.nih.gov/34829823/>

Hidradenitis suppurativa (HS) is a chronic, recurrent, inflammatory skin disease of the apocrine glands. It typically involves the axillary, submammary, genital, inguinal, perineal, and perianal regions. The development of abscesses, sinus tracts, and scars can lead to pain, scarring, disfigurement and decreased quality of life. HS is associated with a wide range of comorbidities. Several studies of co-occurrence of HS and nonmelanoma skin cancer suggest a causal relationship. In an attempt to assess the link between HS and cancer, we performed a systematic review of the current scientific knowledge through a PubMed-based literature search. Results show that HS could be associated with an overall risk of cancer and numerous specific cancers such as: nonmelanoma skin cancer (NMSC), hematologic malignancies, and metastatic cancer. Among NMSC, squamous cell carcinoma (SCC) is considered the most common complication arising in long-standing HS. Based on our review, we suggest that cautious surveillance and active intervention may be warranted in patients with HS. Moreover, an age-appropriate cancer screening should be offered to all patients, especially those who developed HS later in their life or in long-standing moderate to severe HS with multiple comorbidities.

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Recommendations for using over-the-counter products as adjunctive acne care in Asian phototypes: Improving treatment outcomes and managing side effects. Andriessen A, Jiang X, Kulthanan K, et al. *J Drugs Dermatol.* 2021 Nov 1;20(11):1213-1221. doi: 10.36849/jdd.6259. <https://pubmed.ncbi.nlm.nih.gov/34784121/>

Background: Acne vulgaris (acne) is a common inflammatory skin disorder prevalent among all ethnic groups. This review aimed to investigate the current literature regarding the potential benefit of over-the-counter (OTC) adjuncts (eg, moisturizers, cleansers) for acne patients focusing on Asian phenotypes. Methods: An online procedure was employed to review the role of adjunctive OTC acne treatment. A panel consisting of dermatologists with expertise in treating Asian acne patients participated in a pre-meeting survey that collected information regarding their recommendation habits for OTC products in acne patients. Recommendations on using OTC products as an adjunct for treating acne in Asians are based on the pre-meeting survey results, evidence from literature presented during a series of plenary lectures, and discussions conducted during a stepwise program of sessions. Results: Many topical treatments have been associated with adverse events (AEs) (eg, skin dryness, erythema, scaling, stinging, burning, pruritus). Multiple studies on topical acne treatments have found that Asians display greater sensitivity and less tolerability than Caucasians to acne treatment. Skincare as an adjunct to acne treatment may reduce dryness or irritation, particularly important in Asians with acne. Conclusions: Advisors agreed that cleansers and moisturizers should be considered for their beneficial adjunctive role in the armamentarium of acne treatment and maintenance strategies.

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Hidradenitis suppurativa at an uncommon site: A review of its clinical features, diagnostic difficulties, and management. Harvey LM, Fortson JK. *Cureus.* 2021 Oct 12;13(10):e18704. doi: 10.7759/cureus.18704. eCollection 2021 Oct. <https://pubmed.ncbi.nlm.nih.gov/34790460/>

Hidradenitis suppurativa (HS) is a non-contagious chronic inflammatory and often debilitating skin disease that is characterized by recurrent painful nodules, draining sinus tracts, and abscesses. The disease primarily affects the axillary, perineal, inguinal, intermammary, and inframammary regions with an estimated global prevalence rate of up to 4%. The etiology of HS is still unknown, but our understanding of its pathogenic process has evolved. Once thought to be an infectious process of the apocrine gland, HS is now considered a disease of follicular occlusion. This study aimed to discuss hidradenitis suppurativa in an uncommon site and review the clinical features, diagnostic difficulties, and management of the condition. A PubMed literature search for case reports was done using the medical subject heading (MeSH) term hidradenitis suppurative. Only reports in the last five years that were published in English were considered. The patient underwent a surgical incision and drainage of the deep neck abscesses. The patient continued to be monitored by ENT and was compared to other cases reported in this study. HS mostly presents in the axillary, perineal, inguinal, and gluteal regions. This is a case report of HS in the neck region which is a rare location. After surgical intervention, the patient required prolonged antibiotic therapy for the resolution of symptoms. The diagnosis of HS is made clinically and is based on typical lesions, location, and chronicity. However, phenotypic variation makes diagnosis and severity assessment difficult. Furthermore, a diagnostic delay is evident partly due to early lesions of HS mimicking other skin conditions. CT scans and ultrasounds are emerging as important diagnostic tools, especially in the case of deep-seated lesions. Multiple comorbidities are associated with HS and persistent hidradenitis suppurativa often results in complications. The recurrent nature of HS as well as the lack of curative therapies makes the treatment of the disease challenging.

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