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AARS News

AARS BoD Member Emmy Graber invites you to earn free CME! AARS Members are invited to attend two free CME virtual meetings on acne, rosacea and acne scarring. These will be held on Tuesday, October 5, 2021. For further details and to register online and view more information, proceed to this website today: <https://www.armmeeting.com/>.



ARM Yourself with Knowledge

May 11, 8:00 pm ET

- First-Line Topical Agents for Acne and Rosacea
- Considerations for Antibiotic Use In Acne And Rosacea Treatment
- Therapeutic Approach If First-Line Topical Agents or Antibiotics Fail
- Managing the Emotional Acne or Rosacea Patient
- Ask Us Anything (about acne and rosacea!)

October 5, 8:00 pm ET

- Debunking and Reaffirming Isotretinoin Myths
- Clearing the Color - Reducing the Erythema and Hyperpigmentation of Acne and Rosacea
- Lasers and Lights for Improving Atrophic Acne Scars
- Special Considerations for Treating Acne, Acne Scars and Rosacea in Skin of Color

Dr. Emmy Graber presents:

A series of two FREE virtual meetings on acne, rosacea and acne scarring including the world's leading experts!

Registration is FREE and you can access the meetings live and ask questions to the panel or you can view the content on demand at your leisure for 30 days after the event.

Directed by Dr. Emmy Graber, these virtual meetings conveniently bring the top experts on acne, rosacea and acne scarring right to you. Stay up-to-date on the most evidence based literature so that you can ARM yourself with knowledge!

Earn 6 CME credits from your home.

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Course Director

to register and for more info:
<https://www.mdmeetingdesigns.info/ARM>

Industry News

Sun Pharma, Cassiopea move ahead with Winlevi agreement. August 31, 2021. DermWire, Practical Dermatology. <https://practicaldermatology.com/news/sun-pharma-cassiopea-move-ahead-with-winlevi-agreement?c4src=news-landing:feed>

Winlevi is expected to be available in the U.S. in Q4 calendar 2021. Sun Pharma and Cassiopea SpA announced the expiration of the applicable waiting period under the US Hart-Scott-Rodino Antitrust Improvements Act of 1976 (HSR Act) in connection with the exclusive License and Supply Agreements signed by both companies for Winlevi (clascoterone cream 1%). Sun Pharma now has the exclusive right to commercialize Winlevi in the United States and Canada. Cassiopea will be the exclusive supplier of the product. Winlevi is expected to be available in the U.S. in Q4 calendar 2021. "The expiration of the applicable waiting period under the HSR Act clears the path for making Winlevi available to patients and healthcare providers in the US and Canada," says Abhay Gandhi, CEO, North America of Sun Pharma, in a news release. With Winlevi, a unique product with a new mechanism of action for the topical treatment of acne vulgaris, we have further expanded our basket of innovative products to serve patients better." Diana Harbort, CEO of Cassiopea SpA, adds: "We are very pleased that Winlevi will soon be widely available to dermatology healthcare providers and their patients in the US and Canada, benefiting from Sun Pharma's strong established dermatology presence. This transaction now allows Cassiopea to focus on its innovative dermatology pipeline." The FDA approved Winlevi (clascoterone cream 1%) in August 2020 for the topical treatment of acne vulgaris in patients 12 years and older.

New Medical Research

Differences in acne therapy prescribing patterns between dermatologists and pediatricians: A population-based study. Jones ME, Pourali SP, Kohn AH, et al. *Pediatr Dermatol.* 2021 Sep 13. doi: 10.1111/pde.14778. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34514637/>

Background/objectives: Acne is a common skin condition that may be treated by both dermatologists and pediatricians. However, the treatments provided by dermatologists and pediatricians may differ. We aimed to describe acne therapy prescribing patterns of dermatologists and pediatricians. Methods: We performed a population-based, cross-sectional analysis using data from the National Ambulatory Medical Care Survey from 2006 to 2016 for pediatric patients (age \leq 18 years). Results: There were approximately 30.5 million (weighted) outpatient acne visits between 2006 and 2016 for pediatric patients; 52% of visits were conducted by dermatologists, 29% by pediatricians, and 19% by other providers. Compared to pediatricians, dermatologists saw older patients (mean age 15.5 ± 0.12 vs 13.5 ± 0.35 ; $P < .001$), as well as a higher proportion of white patients (92.5% vs 76.3%; $P < .001$), non-Hispanic patients (89.5% vs 81.6%; $P < .001$), and patients with private insurance (84.6% vs 67.8%; $P < .001$). Compared to patients seen by dermatologists, patients seen by pediatricians were 68% less likely to receive topical retinoids (aOR 0.32, 95% CI 0.22-0.46), 38% less likely to receive topical antibiotics (aOR 0.62, 95% CI 0.41-0.95), and 48% less likely to receive oral antibiotics (adjusted aOR 0.52, 95% CI 0.36-0.75). Conclusions: Our findings demonstrate that pediatricians prescribe topical retinoids, topical antibiotics, and oral antibiotics less frequently compared to dermatologists. It is important to understand these differences in prescribing patterns for acne and to identify potential educational gaps.

Systemic comorbidities of rosacea: Practice gaps among dermatologists. Yi JZ, Chen SX, Lukac D, McGee JS. Arch Dermatol Res. 2021 Sep 12. doi: 10.1007/s00403-021-02279-y. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34510277/>

Rosacea is a chronic inflammatory skin condition that is associated with multiple systemic comorbidities, with the strongest evidence linking rosacea to hypertension, dyslipidemia, inflammatory bowel disease, and anxiety and depression. To assess dermatologists' awareness of and screening practices for rosacea comorbidities, we developed a survey that was distributed to attendings and residents across four academic dermatology departments in Massachusetts. A total of 73 dermatologists with varying experience participated in the study. Findings demonstrated significant knowledge and practice gaps among academic dermatologists in managing systemic comorbidities in rosacea. In addition, dermatologists' awareness of rosacea comorbidities was negatively correlated with number of years out of residency training, highlighting the need to address this knowledge gap through increased continuing medical education. Importantly, we observed a low screening frequency despite a high awareness of the association between rosacea and ocular comorbidities, suggesting that additional financial, institutional, or practice barriers likely contribute to the low screening rate.

577-nm high-power optically pumped semiconductor laser is safe and effective in the treatment of inflammatory acne: A prospective, single-center, split-face comparative study. Mohamed EM, Tawfik KM, Elsayed IB, et al. Eur J Med Res. 2021 Sep 9;26(1):103. doi: 10.1186/s40001-021-00573-z. <https://pubmed.ncbi.nlm.nih.gov/34503575/>

Objective: This study aimed to appraise the efficacy of a 577-nm high-power optically pumped semiconductor laser (HOPSL) for the treatment of inflammatory acne. Methods: The study included 50 patients with acne vulgaris (inflammatory type), 14 men, and 36 women; patient ages ranged from 16 to 35 years. The left side of the face was treated with a single pass of a 577-nm high-power optically pumped semiconductor laser (HOPSL) every 2 weeks for 3 sessions. The severity of acne examined prior to the first session and 4 weeks after the last session (Investigator's Global Assessment of acne severity, IGA; single lesion count). Results: At baseline, no statistically significant difference in the severity of inflammatory acne lesions between both sides was observed. One month after the final session, a significant improvement (IGA reduction of > 50%) of the overall severity of acne was observed in 49 patients (98%) on the laser-treated side versus 41 (82%) the control side of the face ($P < .05$). Hence, we found a significant reduction in the mean percentage of inflammatory papules, pustules, and nodules on the laser-treated versus the control side (79.33 vs 56.92, 78.04 vs 43.33, 64.85 vs 21.93%, respectively) ($P < 0.05$). Side effects in the form of erythema and irritation during sessions were transient and tolerated by the patients. Conclusion: The 577-nm high-power optically pumped semiconductor laser is effective and safe for the treatment of inflammatory lesions (papules, pustules, and nodules) in acne patients.

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Skin microbiota in non-inflammatory and inflammatory lesions of acne vulgaris: The underlying changes within the pilosebaceous unit. Xu X, Ran X, Tang J, et al. Mycopathologia. 2021 Sep 8. doi: 10.1007/s11046-021-00586-6. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34498139/>

Acne vulgaris is a common chronic inflammatory skin disease of the pilosebaceous unit. Clinical manifestations include seborrhea, non-inflammatory lesions, inflammatory lesions, or scar formation. Fourteen eligible participants of either sex, aged 18-28 years old, with mild to moderate acne lesions, were recruited in this observational study. The contents of 10 pilosebaceous units of non-inflammatory (comedones) and inflammatory lesions (papules and pustules) were collected from each participant's face and examined by amplicon metagenomics sequencing and real-time Polymerase Chain Reaction (PCR). Male participants, participants with a higher body mass index (BMI) than

normal, and participants younger than 20 years old, were revealed to have a higher proportion of *Malassezia* in their non-inflammatory lesions than that in inflammatory lesions. There was an increased abundance of *Malassezia restricta* (*M. restricta*) and *Cutibacterium acnes* (*C. acnes*) in the non-inflammatory group. Correlation analysis indicated that *Staphylococcus epidermidis* (*S. epidermidis*) and *M. restricta* have similar proliferation trends with *C. acnes* during the transformation from non-inflammatory to inflammatory lesions. *M. restricta* probably involve in the microecological balance within the pilosebaceous unit.

Does rosacea, a localized skin disease, affect the choroidal thickness? Şahin T, Öztekin A, Cevher S. et al. *J Cosmet Dermatol.* 2021 Sep 2. doi: 10.1111/jocd.14428. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34473882/>

Introduction: This study aims to compare the choroidal thickness (CT) of patients with rosacea with healthy individuals. **Methods:** This study was conducted with 42 patients with Papulopustular Rosacea (PPR), 38 patients with Erythematotelangiectatic Rosacea (ETR), and gender and age-matched 37 healthy individuals in the control group. CT measurements were done using the spectral-domain optical coherence tomography. **Results:** Choroidal thickness means were measured as $352 \pm 78 \mu\text{m}$, $331 \pm 67 \mu\text{m}$, and $346 \pm 83 \mu\text{m}$ at the subfoveal region; $323 \pm 72.3 \mu\text{m}$, $303.5 \pm 68.4 \mu\text{m}$, and $314 \pm 80.3 \mu\text{m}$ at 1000 μm nasal; and $325.2 \pm 71 \mu\text{m}$, $304.4 \pm 52.2 \mu\text{m}$, and $309 \pm 67 \mu\text{m}$ at 1000 μm temporal in the PPR, ETR, and control groups, respectively ($p > 0.05$). **Conclusion:** Although rosacea is a common chronic skin disease that could have systemic findings, CT is not affected by this disease.

The clinical and epidemiological profile of adult female acne vulgaris in Lagos, Nigeria. Anaba EL, Oaku IR. *West Afr J Med.* 2021 Aug 30;38(8):785-790. <https://pubmed.ncbi.nlm.nih.gov/34505184/>

Background and aims: Studies of adult female acne vulgaris are few despite its increasing presentation in dermatology clinics. Adult female acne is classified as either late onset, persistent acne or return acne with a mixed pattern of inflammation in most females. The aim of this study was to document the socio-demographic characteristics (late onset, persistent acne, age, pre-menstrual flare) and clinical profile (severity, pattern, type of lesions, scarring and type of scars) of adult female acne patients. **Methodology:** Cross sectional descriptive study of 56 adult female acne patients aged 25 years and above. Patients were clinically examined and severity of acne graded with the Comprehensive Acne Severity Scale. Socio-demographic data and clinical profile was documented using a questionnaire designed for the study. Data analysis was performed using the SPSS version 22. Level of significance of all tests was set at 5%. **Results:** Age range was 25-67 years with a mean age of 33.4 years. Prevalence of adult female acne was 19.3% amongst female patients seen in the clinic. Acne was persistent in 55.4%, late onset in 44.6%, only inflammatory in 5.4%, only non-inflammatory in 42.9%, and a mixed pattern of inflammation in 51.8%. Location of acne was facial only in 80.4% with extra facial involvement in 19.6%. Acne was severe, moderate and mild in 35.7%, 44.6%, and 19.6% respectively. Acne scar was present in 87.5%, post inflammatory hyperpigmentation in 65.3%. **Conclusion:** Adult female acne is increasing in prevalence. Acne in adult females is mostly persistent in nature with mixed inflammatory pattern. It affects the whole face and it is associated with scarring.

Dermal sensitization, safety, tolerability, and patient preference of tazarotene 0.045% lotion from five clinical trials. Kircik LH, Green L, Guenin E, et al. *J Dermatolog Treat.* 2021 Aug 30;1-9. doi: 10.1080/09546634.2021.1944969. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34459694/>

Background: Topical retinoids are recommended for acne treatment, but their use may be limited by irritation or dermatitis. Herein is an overview of the dermal sensitization, safety, tolerability, and participant satisfaction data from phase-1, -2, and -3 studies of lower-dose tazarotene 0.045% polymeric emulsion lotion. **Methods:** Two phase-1, single-blind, vehicle-controlled dermal safety studies were conducted in healthy participants aged ≥ 18 years. One

phase-2 (NCT02938494) and two phase-3 studies (NCT03168334; NCT03168321) were double-blind, randomized, and vehicle-controlled over 12 weeks in participants aged ≥ 9 years (≥ 12 years, phase-2) with moderate-to-severe acne. Results: A total of 2029 participants (tazarotene 0.045% lotion or vehicle) were included across the 5 studies (safety populations: $n = 1982$). In the phase-1 studies, tazarotene had a low potential for irritancy/contact dermatitis and did not induce sensitization. In all studies, tazarotene lotion was well tolerated and had a positive safety profile. In addition, tazarotene lotion reduced the severity of hyperpigmentation and erythema and participants preferred it more than previous acne treatments. Conclusions: The results from these five studies show that the tolerability, safety, and patient satisfaction of topical tazarotene 0.045% lotion, combined with its efficacy, make it an important option for the treatment of acne.

The anti-acne effect of near-infrared low-level laser therapy. Szymańska A, Budzisz E, Erkiert-Polguj A. Clin Cosmet Investig Dermatol. 2021 Aug 25;14:1045-1051. doi: 10.2147/CCID.S323132. eCollection 2021. <https://pubmed.ncbi.nlm.nih.gov/34471368/>

Background: Acne vulgaris is a skin problem affecting many people of different ages. Phototherapy is one of the acne treatment options. The aim of the study was to assess the effect of near-infrared low-level laser therapy on acne lesions. Materials and methods: The prospective study involved a total number of 27 women, aged 18 to 45 years, with mild to severe acne. All the participants underwent a series of six treatments with the use of a 785 nm low-level laser with the power density 80mW/cm², performed every two weeks. The analysis of the effectiveness of the performed procedures was based on sebumetric examination, photographic documentation and assessment of the change in the number of acne lesions. Results: Significant improvements in acne lesions (assessed as non-inflammatory and inflammatory lesion counts) and a significant decrease in skin sebum excretion were observed after the treatment. No adverse effects were reported. Conclusion: A series of six treatments using a near-infrared low-level laser represents a safe and effective non-invasive therapy option for acne vulgaris.

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Optimizing treatment of acne with photodynamic therapy (PDT) to achieve long-term remission and reduce side effects. A prospective randomized controlled trial. Wojewoda K, Gillstedt M, Tovi J, et al. J Photochem Photobiol B. 2021 Aug 25;223:112299. doi: 10.1016/j.jphotobiol.2021.112299. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34500216/>

Photodynamic therapy with methyl aminolevulinate (MAL-PDT) is an effective treatment of acne vulgaris, but is associated with side effects. We performed a prospective randomized split-face study aimed at optimizing MAL-PDT treatment. Patients ($n = 33$) were randomized to two or four treatments of PDT with MAL on one cheek and placebo vehicle on the other cheek, 1-2 weeks apart. A 1.5-h pre-treatment with the MAL cream was followed by illumination with red light (20 J/cm²). Assessments were performed before treatment and 4, 10, and 20 weeks after the last treatment. In comparison to baseline, the number of inflammatory lesions at 20 weeks on cheeks treated with MAL-PDT showed a relative decrease of 74% in the group with two treatments and 85% in the group with four treatments. This new treatment regimen for both MAL-PDT and red-light-only PDT, with shortened pre-treatment and reduced light dose, could be an effective modality.

Relationship between rosacea and chronic obstructive pulmonary disease: Rosacea and comorbidities. Demirbaş A, Yümer Y, Elmas ÖF, et al. J Cosmet Dermatol. 2021 Aug 19. doi: 10.1111/jocd.14389. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34411396/>

Background: Rosacea is a chronic inflammatory skin disease that has been reported to be associated with many systemic disorders including respiratory diseases. Aims: This study aims to investigate respiratory function in patients

with rosacea. Patients/methods: Patients with rosacea and age- and gender-matched healthy volunteers were included in this cross-sectional study. Spirometric pulmonary function tests including the percentage of forced vital capacity (FVC%), percentage of forced expiratory volume in one second (FEV 1%), forced expiratory flow at 25-75% of FVC (FEF 25-75%), and FEV 1/FVC ratio was assessed in both patient and controls. The potential relationship between rosacea severity and pulmonary functions was assessed. Results: A total of 120 patients with rosacea and 120 healthy controls were enrolled in the study. Compared to the controls, FEV 1%, FEV 1/FVC%, and FEF 25-75% values were significantly lower in patients with rosacea. Lower FEV 1/FVC% values were found to be associated with disease severity. FEV 1%, FEV 1/FVC%, and FEF 25-75% values were found to be more useful in differentiating the patients from healthy subjects. Conclusions: This study showed that patients with rosacea may have abnormal respiratory function compared to healthy subjects. Besides, disease severity was associated with worse respiratory functions. We believe that patients with rosacea, particularly those with additional risk factors, should be screened for respiratory disorders.

The efficacy of azithromycin plus levamisole vs azithromycin alone in the treatment of moderate to severe acne. Waqas M, Anwar A, Ejaz A, Malik A. J Ayub Med Coll Abbottabad. Jul-Sep 2021;33(3):408-411. <https://pubmed.ncbi.nlm.nih.gov/34487647/>

Background: Acne vulgaris (AV) is an inflammatory disorder of pilosebaceous unit and it affects over 85% of teenagers (peak age 17 years) during some point in their lives. Of these 30% have acne severe enough to require medical treatment. The overall incidence is comparable in both genders. Objective was to compare the efficacy of azithromycin plus levamisole with azithromycin alone in the treatment of moderate to severe acne. It was a single center randomized controlled trial, conducted at the Department of Dermatology at Military Hospital Rawalpindi. Methods: We selected 118 patients of acne who fulfilled the inclusion criteria from the dermatology outpatient department. Diagnosis was based on clinical features of acne and severity defined using Acne Global Severity Score. The patients were randomly assigned two treatment groups; Patients in group A received Azithromycin 500 mg per day given for 3 days a week plus oral levamisole 150 mg per day was given for 2 days a week for a total of 08 weeks. Group B patients (n= 59) received Azithromycin 500 mg per day given for 3 days a week for a total of 08 weeks. Patients were followed up fortnightly till they completed their treatment. Response to treatment was graded according to the Acne Global Severity Score. Scoring was done at first visit before therapy and after 08 weeks of therapy in both groups. Therapy was considered efficacious if the patients achieved post-therapy reduction of global score below 19 at the end of 8th week of initiation of therapy. Results: Among our 118 study cases, we had 38 male patients while 80 were female patients. The study cases had mean age of 20.10±2.65 years. Mean global severity was 31.25±3.41 while 56 (47.5%) had moderate acne and 62 (52.5%) had severe acne. Efficacy was found to be higher in patients receiving Azithromycin plus levamisole combination. Conclusions: Azithromycin plus levamisole was observed as a more effective therapy for the treatment of acne as compared to Azithromycin alone. The study supports the administration of combination therapy for the treatment of Acne to achieve desired outcomes in patients.

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Clinical Reviews

Mast cell stabilizers in the treatment of rosacea: A review of existing and emerging therapies. Marchitto MC, Chien AL. Dermatol Ther (Heidelb). 2021 Sep 2. doi: 10.1007/s13555-021-00597-7. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34476755/>

Rosacea is a chronic inflammatory skin disease characterized by centropacial erythema, papules, pustules, and telangiectasias. The onset of rosacea typically occurs after 30 years of age. It is estimated that approximately 2-5%

of adults worldwide are affected. While the exact etiology of rosacea remains unknown, its pathogenesis is thought to be multifactorial with both environmental and genetic factors implicated. Ultraviolet radiation, heat, steam, ingested agents, including spicy foods and alcohol, host vasculature, dermal matrix degeneration, genetic susceptibility, and microbial organisms, including Demodex mites and *Helicobacter pylori*, have been implicated in the development of rosacea. Recently, mast cells (MCs) have emerged as key players in the pathogenesis of rosacea through the release of pro-inflammatory cytokines, chemokines, proteases, and antimicrobial peptides leading to cutaneous vasodilation, angiogenesis, and tissue fibrosis. Several existing and emerging topical, oral, and injectable therapeutics have been associated with improvement of rosacea symptoms based on their ability to stabilize and downregulate activated MCs. Herein, we review the data implicating MCs in the pathogenesis of rosacea and discuss interventions that may stabilize this pathway.

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Immune signaling in rosacea. Wladis EJ, Adam AP. *Ocul Surf.* 2021 Sep 1;22:224-229. doi: 10.1016/j.jtos.2021.08.017. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34481075/>

Rosacea is a common chronic skin disease affecting mostly people aged 40 and above, with currently no cure. When it affects the eyelids and periocular skin, it leads to dry eye and potentially corneal damage. Research performed over the last decade shed light into the potential mechanisms leading to skin hypersensitivity and provided promising avenues for development of novel, rational therapeutics aimed at reducing the skin inflammatory state. In this review, we discuss the current knowledge on the mechanisms of rosacea in general and of periocular skin-affecting disease in particular, identify key questions that remain to be answered in future research, and offer a disease model that can explain the key characteristics of this disease, with particular emphasis on a potential positive feedback loop that could explain both the acute and chronic features of rosacea.

The pathogenesis and management of acne-induced post-inflammatory hyperpigmentation. Elbuluk N, Grimes P, Chien A, et al. *Am J Clin Dermatol.* 2021 Sep 1. doi: 10.1007/s40257-021-00633-4. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34468934/>

Acne vulgaris is a common inflammatory disease. Among patients with darker skin phototypes (Fitzpatrick III-VI), the inflammatory processes of acne stimulate excess melanogenesis and abnormal melanin deposition, leading to pigmentary sequelae known as post-inflammatory hyperpigmentation and post-inflammatory erythema in all skin tones, although post-inflammatory hyperpigmentation is more common in darker skin and post-inflammatory erythema in lighter skin. These pigmentary alterations can be long lasting and are often more distressing to patients than the active acne lesions. This article discusses what is known about acne-related pigmentation, much of which is extrapolated from general study of nonspecific pigment deposition. Because dyspigmentation poses both a significant clinical concern to patients and a therapeutic challenge to clinicians, we formed a working group consisting of pigmentary experts with the aim of increasing awareness and education of acne-related pigmentary sequelae.

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Exploring the costs associated with isotretinoin treatment. Shah N, Byrne M, Kirkorian AY. *Pediatr Dermatol.* 2021 Aug 31. doi: 10.1111/pde.14785. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34463375/>

The multistep process to obtain an isotretinoin prescription under the iPLEDGE program is challenging for patients, particularly female patients. This retrospective study evaluates the differences in treatment and costs between male and female patients. While male patients had a higher total cost of treatment than female patients, female patients had a higher treatment cost when medication costs were excluded. Female patients who missed prescription windows had a longer treatment course and incurred significantly higher treatment costs than female patients who did not miss

a prescription window. The iPLEDGE program places female patients at a disadvantage of incurring higher treatment costs as a consequence of the prescription window requirement.

Physical and psychosocial comorbidities of pediatric hidradenitis suppurativa: A retrospective analysis.

Seivright JR, Collier E, Grogan T, et al. *Pediatr Dermatol.* 2021 Aug 31. doi: 10.1111/pde.14765. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34463372/>

Background/objectives: Hidradenitis suppurativa (HS) is understudied in the pediatric population. Adult HS patients are known to have a high comorbidity burden. We aimed to describe physical and psychosocial comorbidities in a cohort of pediatric HS patients. Methods: A retrospective chart review of pediatric HS patients at a single academic institution was conducted. Data on patient demographics, disease characteristics, and physical and psychosocial comorbidities in pediatric patients with HS were collected and analyzed. Results: Seventy-three pediatric patients were included in this study, 81% female. Mean (SD) age of HS disease onset was 12.6 (2.9) years. Comorbid conditions were reported in 68 of 73 (93%) patients. Significantly increased rates of several comorbidities were seen in our cohort as compared to the general US pediatric population. Metabolic and endocrine abnormalities were prevalent, with 52% (22/42) patients with obesity and 10% (6/59) with polycystic ovary syndrome. The most common cutaneous comorbidity was acne vulgaris, seen in 37% (27/73) of patients. Over one quarter (21/73, 29%) of patients had either an anxiety or depression disorder. Almost one-fifth (14/73, 19%) of our cohort had a diagnosis of asthma and other reactive airway diseases. Only one-third (24/73, 33%) of patients had documentation regarding impact of HS on their daily life. Overall, comorbidities largely did not significantly differ based on race, gender, or disease severity. Conclusions: Pediatric patients with HS face a high-comorbidity burden, especially with psychiatric conditions. Early identification, including routine mental health screening, and management of comorbidities is warranted in the pediatric HS population.

Impact of pregnancy on hidradenitis suppurativa disease course: A systematic review and meta-analysis.

Seivright JR, Villa NM, Grogan T, et al. *Dermatology.* 2021 Aug 17;1-7. doi: 10.1159/000517283. Online ahead of print. <https://pubmed.ncbi.nlm.nih.gov/34515085/>

Background: Hormones are thought to play a role in hidradenitis suppurativa (HS). However, data on the HS disease course during pregnancy and the postpartum period has not been well established. The objective of this study is to analyze the available literature to determine HS disease activity during pregnancy and the postpartum period. Methods: The PubMed and Embase databases were systematically searched for relevant articles from database inception until November 22, 2020. The inclusion criteria were a study population with the diagnosis of HS and discussion of pregnancy impact on the HS disease course or postpartum flare. Study characteristics, patient demographics, HS severity, and HS disease course during pregnancy and the postpartum period were extracted by 2 independent reviewers. The quality of included studies was assessed using the Newcastle-Ottawa Scale for observational studies. Heterogeneity was assessed using Cochran's Q statistic and I² index. The random-effects meta-analytical model was used. The primary study outcome was the pooled odds ratio of improvement or of worsening of HS disease activity during pregnancy. Results: The systematic search identified 8 studies for analysis. There was a total of 672 cases for which data on the patient-reported HS disease course during pregnancy were available, and 164 cases for which data on patient-reported postpartum flare were available. In the meta-analyses, the rate of HS disease improvement was 24% (95% CI 0.13-0.40) and the rate of HS disease worsening was 20% (95% CI 0.11-0.34). Sixty percent (99/164) of patients experienced a postpartum flare. Conclusion: While about a quarter of women will experience an improvement in HS during pregnancy, the majority will have a stable or worsened disease course, and over half of patients will experience a postpartum flare. Close monitoring of HS patients is needed during pregnancy and postpartum periods, as patients may need continued, or even escalated, disease management.

Is isotretinoin in acne patients a psychological boon or a bane: A systematic review. Chandrasekaran S, De Sousa JFM, Paghdar S, et al. *Cureus*. 2021 Aug 2;13(8):e16834. doi: 10.7759/cureus.16834. eCollection 2021 Aug. <https://pubmed.ncbi.nlm.nih.gov/34513424/>

Acne vulgaris is a frequently encountered dermatological condition in clinical practice. Isotretinoin is one of the drugs prescribed for this condition. However, it is unclear whether the use of this drug worsens or improves the psychological effects in an acne patient and whether it is advisable to use this drug commonly. This systematic review aims to assess the relationship between Isotretinoin and psychiatric side effects in acne patients. A literature search was conducted using PubMed, Cochrane, and Google Scholar databases in accordance with Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines. Articles published within the last 10 years were taken into account and a review was conducted on the relevant articles after critical appraisal. Nine studies were finalized for discussion and out of the nine studies, two studies concluded that Isotretinoin could cause psychiatric effects. Five studies showed no association between them. Two studies unexpectedly found that psychiatric symptoms improved because of Isotretinoin use. Lack of adequate sample size and absence of randomized controlled trials are the limitations of this study. To conclude, Isotretinoin can be prescribed as a treatment option for severe acne despite some evidence of link with psychiatric effects. However, bearing the side effects in mind, a detailed evaluation before initiating the drug and a thorough monitoring while using the drug should be done as a standard practice in order to be on the safer side.

Update on facial erythema in rosacea. Gallo RL, Baldwin H, Gold LS, Harper J. *J Drugs Dermatol*. 2021 Aug 1;20(8):861-864. doi: 10.36849/JDD.6062. <https://pubmed.ncbi.nlm.nih.gov/34397189/>

Dermatologists are cognizant of the multiple clinical manifestations of rosacea, particularly persistent facial erythema, which has been deemed to be the most prevalent diagnostic feature and often poses a significant negative impact on quality of life. To address the need to recognize rosacea as a single disease with multiple potential phenotypes, a new classification system has been developed by 28 clinical and scientific experts worldwide.

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Isotretinoin-induced thrombocytosis in a patient with acne vulgaris: A case report. Alyasi A, Al Hawsawi K, Malebari BA, et al. *Cureus*. 2021 Jul 29;13(7):e16716. doi: 10.7759/cureus.16716. eCollection 2021 Jul. <https://pubmed.ncbi.nlm.nih.gov/34471574/>

Isotretinoin is one of the first-line medications for the treatment of acne. One of the reported side effects of isotretinoin is thrombocytopenia, in addition to other abnormalities such as incomplete blood count. However, reports on thrombocytosis associated with isotretinoin are controversial. The present report discusses the case of a patient with acne vulgaris who was treated with isotretinoin and consequently suffered from isotretinoin-induced thrombocytosis. A 20-year-old female patient was diagnosed with acne vulgaris and started treatment with systemic isotretinoin (20 mg once daily) for one month. A baseline complete blood count was performed, as well as another blood count after one month of medication administration. Platelet count was recorded at each visit. The baseline platelet count was within the normal range; however, it was found to be elevated after one month of treatment. Accordingly, the medication was discontinued, and the platelet count returned to normal levels after one month, as measured during the monthly visit. The patient also experienced seizure episodes during treatment, which did not cease with the treatment discontinuation. Although isotretinoin-induced thrombocytosis is considered a rare side-effect for isotretinoin, it should be routinely monitored in high-risk patients and those undergoing surgeries. Further prospective studies on isotretinoin-induced thrombocytosis need to be conducted to gain a deeper insight into the various aspects related to the condition.