AARS HOT TOPICS MEMBER NEWSLETTER

American Acne and Rosacea Society
201 Claremont Avenue • Montclair, NJ 07042
(888) 744-DERM (3376) • info@aarsmember.org
www.acneandrosacea.org

Like Our YouTube Page

hottopics
American Acne & Rosacea Society Member Newsletter | www.acneandrosacea.org

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

TABLE OF CONTENTS

Industry News

Former pharma exec nominated for top HHS post. By: Gregory Twachtman. November 13, 2017. Dermatology News. http://www.mdedge.com/hematologynews/article/151883/business-medicine/former-pharma-exec-nominated-top-hhs-post

Alex M. Azar II, a former pharmaceutical executive and member of the George W. Bush administration, has been selected by President Donald Trump to lead the Department of Health & Human Services. Mr. Azar served as president of Eli Lilly in the United States for 5 years from 2012 to 2017, after joining the company in 2007. Prior to that, he served President Bush at HHS from 2001 to 2007, serving first as general counsel and later as deputy secretary under Secretary Michael O. Leavitt. President Trump announced the appointment via Twitter on Nov. 13. "Happy to announce, I am nominating Alex Azar to be the next HHS Secretary. He will be a star for better healthcare and lower drug prices!" "The challenges plaguing the American health care system are serious. For too long, hardworking, middle-class families have been forced to bear the brunt of Obamacare's failures in the form of higher premiums and fewer choices," Senate Finance Committee Chairman Orrin Hatch (R-Utah) said in a statement. "The leader of HHS will be at the tip of the spear, working to not only right the wrongs of this deeply flawed law but also ensure the long-term sustainability of both Medicare and Medicaid." The Senate Finance Committee must first approve the nomination before it is considered by the full chamber. "We commend President Trump for nominating Alex Azar for secretary of Health & Human Services," House Energy & Commerce Committee Chairman Greg Walden (R-Ore.) and Health Subcommittee Chairman Michael Burgess, MD, (R-Texas) said in a joint statement. "He is a veteran of HHS, bringing with him a wealth of institutional knowledge that will be instrumental in delivering patient-centered health care and combating the opioid crisis. We look forward to working with Mr. Azar on these critical issues and many others in the future." The Campaign for Sustainable Rx Pricing, a coalition of physicians and other stakeholders across the health care industry, was more measured in its reaction to the news. "We sincerely hope that Secretary-nominee Azar will follow through on the President's commitment to achieve lower drug prices for all Americans," according to a statement from CSRxP. "We look forward to working with him, once confirmed, to end anticompetitive practices that artificially inflate drug prices, restore a functioning prescription drug market, and rein in the exorbitant price hikes that harm patients, job creators, and taxpayers alike." The nomination process could be bumpy, as Mr. Azar has made statements in the news in the past that were in support the dismantling of the Affordable Care Act. But keeping him from the post will be difficult, as he would only need a simple majority vote in the Senate to gain approval. With Republicans holding 52 seats, it would only require three dissenting GOP senators, assuming the Democrats vote against the appointment. If two crossed the aisle, Vice President Mike Pence would cast the deciding vote. Finance Committee Democrats boycotted the committee vote on Mr. Azar's predecessor, Secretary Tom Price, MD, forcing committee Chairman Hatch to suspend rules in order to move the appointment to the full chamber for consideration.

Download Reference Document

BioPharmX receives concurrence from FDA on phase 3 acne study plans. Press Release by BioPharmX, Nov 8, 2017. http://biopharmx.investorroom.com/2017-11-08-BioPharmX-Receives-Concurrence-from-FDA-on-Phase-3-Acne-Study-Plans

MENLO PARK, Calif., Nov. 8, 2017 /PRNewswire/ -- BioPharmX Corporation (NYSE MKT: BPMX), a specialty

pharmaceutical company developing products for the dermatology market, today announces it has received positive feedback from the U.S. Food and Drug Administration (FDA) regarding design of its planned phase 3 clinical trial for BPX-01[1], the company's topical minocycline gel for the treatment of inflammatory lesions of acne vulgaris. The company has incorporated feedback from the FDA on key elements of its phase 3 acne program and received clear guidance regarding expectations and requirements for clinical, non-clinical, and chemistry, manufacturing and controls (CMC) needed to support a post phase 3 NDA submission. Consistent with oral minocycline products, BPX-01 is intended for the targeted treatment of non-nodular inflammatory acne vulgaris. Therefore, BioPharmX believes that an Investigator's Global Assessment (IGA) scale specific to inflammatory lesions is the most appropriate IGA scale to measure treatment success in the co-primary efficacy endpoint as described in the 2005 guidance document for acne product development. The FDA concurred with the company's proposal to use an inflammatory lesion IGA as a co-primary endpoint along with inflammatory lesion reduction. Topical drug makers typically have not used IGA scales specific to inflammatory or non-inflammatory lesions in their studies. BioPharmX believes that it would be the first company to model its IGA scale for a topical acne product similar to those used by orally administered counterparts. The company further believes use of this modified scale may yield a higher probability for a positive outcome on this critical endpoint.

Download Reference Document

New Medical Research

MABp1 targeting interleukin-1alpha for moderate to severe hidradenitis suppurativa not eligible for adalimumab: A randomized study. Kanni T, Argyropoulou M, Spyridopoulos T, et al. J Invest Dermatol. 2017 Nov 9. pii: S0022-202X(17)33147-0. doi: 10.1016/j.jid.2017.10.030. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29129600

BACKGROUND: Patients with moderate to severe hidradenitis suppurativa (HS) failing adalimumab therapy, or those ineligible to receive it, remain a population with an unmet need. METHODS: 20 patients not eligible for adalimumab were randomized to receive 12 weeks blind treatment with placebo or MABp1, a true human antibody targeting interleukin (IL)-1alpha. HS clinical response score at week 12 was the primary endpoint. RESULTS: The primary endpoint was met in 10% and 60% of placebo- and MABp1-treated patients respectively (odds ratio 13.50, 95% confidence intervals 1.19-152.51). Clinical efficacy was maintained at 24 weeks in nil and 40%. Improvement in the visual analogue scale was reported by 20% and 85.7% of patients failing previous anti-TNF treatment. Ultrasound showed decreased neovascularization and lesion skin depth in the MABp1 group. MABp1 treatment was associated with decrease of circulating IL-8 and of stimulated production of IL-8 by whole blood. Whole blood production for human β-defensin (hBD)-2 was negatively associated with ultrasound changes in the placebo group but not in the MABp1 group. CONCLUSIONS: MABp1 is a promising treatment for HS not eligible for adalimumab. Inhibition of neovascularization and modulation of the production of IL-8 and hBD-2 are suggested mechanisms of action.

Heritability and GWAS analyses of acne in australian adolescent twins. Mina-Vargas A, Colodro-Conde L, Grasby K, et al. Twin Res Hum Genet. 2017 Nov 7:1-9. doi: 10.1017/thg.2017.58. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29110752

Acne vulgaris is a skin disease with a multifactorial and complex pathology. While several twin studies have estimated that acne has a heritability of up to 80%, the genomic elements responsible for the origin and pathology of acne are still undiscovered. Here we performed a twin-based structural equation model, using available data on acne severity for an Australian sample of 4,491 twins and their siblings aged from 10 to 24. This study extends by a factor of 3 an earlier analysis of the genetic factors of acne. Acne severity was rated by nurses on a 4-point scale (1 = absent to 4 = severe) on up to three body sites (face, back, chest) and on up to three occasions (age 12, 14, and 16). The phenotype that we analyzed was the most severe rating at any site or age. The polychoric correlation for monozygotic twins was higher (r MZ = 0.86, 95% CI [0.81, 0.90]) than for dizygotic twins (r DZ = 0.42, 95% CI [0.35, 0.47]). A model that includes additive genetic effects and unique environmental effects was the most parsimonious model to explain the genetic variance of acne severity, and the estimated heritability was 0.85 (95% CI [0.82, 0.87]). We then conducted a genome-wide analysis including an additional 271 siblings - for a total of 4,762 individuals. A genome-wide association study (GWAS) scan did not detect loci associated with the severity of acne at the threshold of 5E-08 but suggestive association was found for three SNPs: rs10515088 locus 5q13.1 (p = 3.9E-07), rs12738078 locus 1p35.5 (p = 6.7E-07), and rs117943429 locus 18q21.2 (p = 9.1E-07). The 5q13.1 locus is close to PIK3R1, a gene that has a potential regulatory effect on sebocyte differentiation.

PPARγ Pro12Ala and C161T polymorphisms in patients with acne vulgaris: Contribution to lipid and lipoprotein profile. Saeidi S, Chamaie-Nejad F, Ebrahimi A, et al. Adv Med Sci. 2017 Nov 6;63(1):147-151. doi: 10.1016/j.advms.2017.09.003. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29120856

PURPOSE: The aim of present study was to clarify the role of peroxisome proliferator-activated receptor γ (PPARγ) Pro12Ala and C161T variants in the pathogenesis of acne vulgaris (AV) and their influence on lipid and lipoprotein profile. METHODS: The present case-control study consisted of 393 individuals including 198 patients with AV (mild-, moderate-, and severe-AV) and 195 unrelated age-matched healthy individuals from Western Iran. The PPARγ Pro12Ala and C161T polymorphisms were identified using polymerase chain reaction-restriction length polymorphism method. Also, serum lipid and lipoprotein profile and fasting blood sugar (FBS) were detected in studied individuals. RESULTS: In women patients with AV significantly higher serum levels of FBS, total cholesterol, low density lipoprotein-cholesterol (LDL-C) and high density lipoprotein-cholesterol compared to healthy women were detected. Neither PPARγ Pro12Ala nor C161T polymorphism was associated with the risk of AV but the Pro allele was a risk factor for AV among all men and women patients ≥20years. The variant genotype of PPARγ CG (Pro/Ala) was associated with significantly higher levels of total cholesterol and triglycerides compared to CC (Pro/Pro) genotype. We detected a significantly lower level of FBS in the presence of CT+TT genotype of PPARγ C161T compared to CC genotype. Also, carriers of PPARγ TT genotype had significantly lower serum level of total cholesterol and LDL-C compared to CC genotype. CONCLUSIONS: Our results demonstrated the association of PPARγ Pro allele with susceptibility to AV in patients ≥20years and the influence of PPARγ Pro12Ala and C161T polymorphisms on the lipid and lipoprotein profile.

The antimicrobial effect of CEN1HC-Br against propionibacterium acnes and its therapeutic and anti-inflammatory effects on acne vulgaris. Han R, Blencke HM, Cheng H, Li C. Peptides. 2017 Nov 3. pii: S0196-9781(17)30332-7. doi: 10.1016/j.peptides.2017.11.001. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29108811

Propionibacterium acnes is a commensal bacterium, which is involved in acne inflammation. An antimicrobial peptide named CEN1HC-Br, which was isolated and characterized form the green sea urchin, has been shown to possess broad-spectrum antibacterial activity. Little is known concerning the potential effects of its antibacterial and anti-inflammatory properties against P. acnes. To examine the potency of CEN1HC-Br in acne treatment, we conducted experiments to analyze the antibacterial and anti-inflammatory activities of CEN1HC-Br both in vitro and in vivo. The antimicrobial activity of CEN1HC-Br was evaluated by minimal inhibitory concentration (MIC) assays using the broth dilution method. To elucidate the in vitro anti-inflammatory effect, HaCaT cells and human monocytes were treated with different concentration of CEN1HC-Br after stimulation by P. acnes. The expression of TLR2 and the secretion of the pro-inflammatory cytokines IL-6, IL-8, IL-1β, TNF-α, IL-12, respectively, were measured by enzyme immunoassays. An evaluation of P. acnes-induced ear edema in rat ear was conducted to compare the in vivo antibacterial and anti-inflammatory effect of CEN1HC-Br, the expression of IL-8, TNF-α, MMP-2 and TLR2 was evaluated by immunohistochemistry and real time-PCR. CEN1HC-Br showed stronger antimicrobial activity against P. acnes than clindamycin. CEN1HC-Br significantly reduced the expression of interleukin IL-12p40, IL-6, IL-1β, TNF-α and TLR2 in monocytes, but they were not influenced by clindamycin. Both CEN1HC-Br and Clindamycin attenuated P. acnes-induced ear swelling in rat along with pro-inflammatory cytokines IL-8, TNF-α, MMP-2 and TLR2. Our data demonstrates that CEN1HC-Br is bactericidal against P. acnes and that it has an anti-inflammatory effect on monocytes. The anti-inflammatory effect may partially occur through TLR2 down-regulation, triggering an innate immune response and the inhibition of pro-inflammatory cytokines.

Real-world efficacy of azelaic acid 15% gel for the reduction of inflammatory lesions of rosacea. Wirth PJ, Henderson Berg MH, Sadick N. Skin Therapy Lett. 2017 Nov;22(6):5-7. https://www.ncbi.nlm.nih.gov/pubmed/29091380

Approximately 16 million Americans have rosacea, an inflammatory cutaneous disorder with central facial erythema, papules, pustules, telangiectasia, flushing, and swelling being among the more commonly recognized features. Overexpression of cathelicidin peptide LL-37 has been implicated in the pathophysiology of rosacea. Azelaic acid has been found to inhibit the pathologic expression of cathelicidin, as well as the hyperactive protease activity that cleaves cathelicidin into LL-37. Given these findings, a small prospective, open-label, interventional trial was undertaken to assess the effects of azelaic acid 15% gel on inflammatory lesions of papulopustular rosacea in a real-world setting. Use of azelaic acid was associated with a significant reduction in inflammatory lesions, which persisted beyond the active treatment phase. Overall, azelaic acid 15% gel is an appropriate initial topical therapy for the treatment of moderate facial rosacea.

Standard classification and pathophysiology of rosacea: The 2017 update by the National Rosacea Society Expert Committee. Gallo RL, Granstein RD, Kang S, et al. J Am Acad Dermatol. 2017 Oct 28. pii: S0190-9622(17)32297-1. doi: 10.1016/j.jaad.2017.08.037. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29089180

In 2002, the National Rosacea Society assembled an expert committee to develop the first standard classification of rosacea. This original classification was intended to be updated as scientific knowledge and clinical experience increased. Over the last 15 years, significant new insights into rosacea's pathogenesis and pathophysiology have emerged, and the disorder is now widely addressed in clinical practice. Growing knowledge of rosacea's pathophysiology has established that a consistent multivariate disease process underlies the various clinical manifestations of this disorder, and the clinical significance of each of these elements is increasing as more is understood. This review proposes an updated standard classification of rosacea that is based on phenotypes linked to our increased understanding of disease pathophysiology. This updated classification is intended to provide clearer parameters to conduct investigations, guide diagnosis, and improve treatment.

Download Reference Document

Towards global consensus on core outcomes for hidradenitis suppurativa research: An update from the HISTORIC consensus meetings I and II. Thorlacius L, Garg A, Ingram JR, et al. Br J Dermatol. 2017 Oct 28. doi: 10.1111/bjd.16093. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29080368

BACKGROUND: A Core Outcomes Set (COS) is an agreed minimum set of outcomes that should be measured and reported in all clinical trials for a specific condition. Hidradenitis suppurativa (HS) has no agreed upon COS. A central aspect in the COS development process is to identify a set of candidate outcome domains from a long list of items. Our long list had been developed from patient interviews, a systematic review of literature and a health care professionals (HCPs) survey and initial votes had been cast in two e-Delphi surveys. In this manuscript, we describe two in-person consensus meetings of Delphi participants designed to ensure an inclusive approach to generation of domains from related items. OBJECTIVES: The main objectives were to consider which items from a long list of candidate items to exclude and which to cluster into outcome domains. METHODS: The study used an international and multi-stakeholder approach, involving patients, dermatologist, surgeons, the pharmaceutical industry and medical regulators. The study format was a combination of formal presentations, small group work based on nominal group theory and a subsequent online confirmation survey. RESULTS: 41 individuals from 13 countries and four continents participated. Nine items were excluded and there was consensus to propose seven domains: disease course, physical signs, HS-specific quality of life, satisfaction, symptoms, pain, and global assessment. CONCLUSIONS: The HISTORIC consensus meetings I and II will be followed by further e-Delphi rounds to finalize the core domain set, building on the work of the in-person consensus meetings.

Download Reference Document

Efficacy of microneedling with 70% glycolic acid peel vs microneedling alone in treatment of atrophic acne scars-A randomized controlled trial. Rana S, Mendiratta V, Chander R. J Cosmet Dermatol. 2017 Oct 26. doi: 10.1111/jocd.12377. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29072375

BACKGROUND: Microneedling with dermaroller and glycolic acid peels is commonly used for treatment of acne scars. OBJECTIVE: To compare efficacy of microneedling alone versus combination of microneedling with serial 70% glycolic acid peel in management of atrophic acne scars. METHODS & MATERIALS: Sixty patients with atrophic acne scars were randomized into group 1 receiving microneedling at 0, 6, and 12 weeks and group 2 receiving microneedling at 0, 6, and 12 weeks along with 70% glycolic acid peel at 3, 9, and 15 weeks. Acne scar scoring was performed by a blinded observer using ECCA (Echelle d'evaluation clinique des cicatrices d'acne)

scoring at baseline and after 22 weeks. Additionally, patients were asked to grade the improvement in acne scars and skin texture on visual analogue scale (VAS). RESULTS: Of 60 patients, 52 completed the 22-week study period. The decrement from baseline in mean ECCA score was more in group 2 as compared to group 1 (39.65±2.50 vs 29.58±0.18; P<.001). Group 2 also showed more improvement in skin texture as compared to group 1 on VAS. CONCLUSION: Addition of sequential 70% glycolic acid peel to microneedling gives better scar improvement as compared to microneedling alone. In addition to this, it also improves skin texture.

Antibacterial activity of gold nanorods against staphylococcus aureus and propionibacterium acnes: misinterpretations and artifacts. Mahmoud NN, Alkilany AM, Khalil EA, Al-Bakri AG. Int J Nanomedicine. 2017 Oct 9;12:7311-7322. doi: 10.2147/IJN.S145531. eCollection 2017. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5640409/

The antibacterial activity of gold nanorod (GNR) suspensions of different surface functionalities was investigated against standard strains of Staphylococcus aureus and Propionibacterium acnes, taking into consideration two commonly "overlooked" factors: the colloidal stability of GNR suspensions upon mixing with bacterial growth media and the possible contribution of "impurities/molecules" in GNR suspensions to the observed antibacterial activity. The results demonstrated that cationic polyallylamine hydrochloride (PAH)-GNR were severely aggregated when exposed to bacterial growth media compared to other GNR suspensions. In addition, the free cetyltrimethylammonium bromide (CTAB) present in GNR suspensions is most likely the origin of the observed antibacterial activity. However, the antibacterial activity of GNR themselves could not be excluded. Probing these two critical control studies prevents misinterpretations and artifacts of the antibacterial activity of nanoparticles. Unfortunately, these practices are usually ignored in the published studies and may explain the significant conflicting results. In addition, this study indicates that GNR could be a promising candidate for the treatment of skin follicular diseases such as acne vulgaris.

Download Reference Document

IL-36 in hidradenitis suppurativa: Evidence for a distinctive pro-inflammatory role and a key factor in the development of an inflammatory loop. Hessam S1, Sand M1, Gambichler T1, Skrygan M1, Rüddel I1, Bechara FG1. Br J Dermatol. 2017 Oct 4. doi: 10.1111/bjd.16019. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/28975626

BACKGROUND: A possible regulatory involvement of the interleukin (IL)-36 family in inflammatory diseases has been suggested. OBJECTIVES: To analyze the expression of IL-36α, β, γ, and the antagonistic cytokines IL-36Ra, IL-37, and IL38 in the skin of hidradenitis suppurativa (HS) patients. METHODS: Skin samples from lesional and corresponding perilesional HS skin and from healthy controls were included in this study and analyzed by quantitative real-time RT-PCR. To evaluate the PCR results of IL-36α, β, and γ, a subset of skin samples was studied by immunohistochemistry. RESULTS: Expression levels of IL-36α, β, γ, and IL-36Ra were all significantly higher in lesional HS skin compared to healthy controls. IL-37 and IL-38 were significantly higher in perilesional HS skin compared to healthy controls and decreased in lesional HS skin. LIMITATIONS: Descriptive study and small sample size. CONCLUSIONS: Our results showed a possible involvement of IL-36 cytokines in the inflammatory network of HS and a dysbalance between the agonistic and antagonistic cytokines in HS skin.

Download Reference Document

Clinical Reviews

Targeted treatments for hidradenitis suppurativa: A review of the current literature and ongoing clinical trials. Maarouf M, Clark AK, Lee DE, Shi VY. J Dermatolog Treat. 2017 Nov 3:1-31. doi: 10.1080/09546634.2017.1395806. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29098911

PURPOSE: Targeted, immune-modulating drugs are at the forefront of therapy for HS, and a comprehensive clinical trial registry is needed to facilitate data pooling and clinical efficacy comparison. MATERIALS AND METHODS: A systematic review of the ClinicalTrials.gov database was searched for planned, in-progress, completed, or terminated trials investigating the effect of targeted biologic therapies for hidradenitis suppurativa (HS). When results of RCTs were not available, case reports or series were included. RESULTS: Inflammatory mediators that are targeted by biologic agents include tumor necrosis factor-alpha (TNF-α), interleukin-1 (IL-1), IL-17, IL-12, IL-23, phosphodiesterase 4 (PDE4), lymphocyte function-associated antigen 1 (LFA-1), and complement component 5a (C5a). Clinical efficacy was measured by reduction in Sartorius score, Hidradenitis Suppurativa Clinical Response (HiSCR), Dermatology Life Quality Index (DLQI), or pain Visual Analog Scale (VAS). TNF inhibitors (Adalimumab, Etanercept, Infliximab), IL-1 receptor antagonist (Anakinra), IL-17A inhibitor (Secukinumab), IL-12/23 inhibitor (Ustekinumab), and PDE4 inhibitor (Apremilast) show promise due to statistically significant improvements in disease severity. CONCLUSIONS: Currently, adalimumab is the only FDA-approved biologic available for the treatment of HS. However, results from trials of other biologic agents targeting downstream mediators are promising. Large-scale, randomized, placebo-controlled trials in patients with skin of color, as well as weight-based dosing trials, are needed.

Role of topical oxymetazoline for management of erythematotelangiectatic rosacea. Hoover RM, Erramouspe J. Ann Pharmacother. 2017 Nov 1:1060028017740139. doi: 10.1177/1060028017740139. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29094614

OBJECTIVE: To review and summarize topical oxymetazoline's pharmacology, pharmacokinetics, efficacy, safety, cost, and place in therapy for persistent redness associated with erythematotelangiectatic rosacea. DATA SOURCES: Literature searches of MEDLINE (1975 to September 2017), International Pharmaceutical Abstracts (1975 to September 2017), and Cochrane Database (publications through September 2017) using the terms rosacea, persistent redness, α -agonist, and oxymetazoline. STUDY SELECTION AND DATA EXTRACTION: Results were limited to studies of human subjects, English-language publications, and topical use of oxymetazoline. Relevant materials from government sources, industry, and reviews were also included. DATA SYNTHESIS: Data support the efficacy of oxymetazoline for persistent facial redness. Little study beyond clinical trials cited in the drug approval process has been conducted. Current data suggest that oxymetazoline is similar in safety and efficacy to brimonidine. Head-to-head comparisons of topical α-agonists for erythema caused by rosacea are needed. CONCLUSION: The topical α-agonist, oxymetazoline, is safe and effective for reducing persistent facial redness associated with erythematotelangiectatic subtype of rosacea. Health care practitioners selecting among treatments should consider not only the subtype of rosacea but also individual patient response, preference, and cost.

Assessing the need for a comprehensive acne quality-of-life scale for face and torso acne. McLellan C, Frey MP, Tan J. J Cutan Med Surg. 2017 Nov 1:1203475417743232. doi: 10.1177/1203475417743232. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29134825

PURPOSE: While acne, a common condition, largely involves the face, chest, and back, current acne quality-of-life measures focus primarily on facial acne. The purpose of this study was to assess the need for a comprehensive quality-of-life measure intended for use with patients who have facial and/or torso acne. METHODS: We evaluated the need for a comprehensive quality-of-life scale for facial and torso acne based on data from an epidemiological survey (N = 690) in which participants were grouped according to the location of their acne (face, torso, or both) and where quality of life was assessed. RESULTS: Analysis of variance results revealed that participants with acne on their torso reported the highest levels of quality of life while participants with acne on their face reported the lowest levels. CONCLUSIONS: There is a need for a quality-of-life instrument that assesses the impact of acne on the face and torso separately. This unmet need can be addressed with a comprehensive acne quality-of-life measure that is inclusive of torso acne.

Visually augmented targeted combination light therapy for acne vulgaris: a case report. Yazdi A, Lyons CW, Roberts N. J Med Case Rep. 2017 Oct 31;11(1):316. doi: 10.1186/s13256-017-1469-y. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5663079/

BACKGROUND: Acne vulgaris is a common skin disease. Pharmacological modalities for treatment are proven to be efficacious but have limitations. Light therapy for acne vulgaris has shown promise in previous studies. This case report and its accompanying images show how a novel approach of visually augmented high fluence light therapy has been used to good effect. CASE PRESENTATION: A 26-year-old Caucasian woman with acne vulgaris resistant to treatment with topical therapy underwent three sessions of combination potassium titanyl phosphate laser (532 nm)/neodymium-doped: yttrium aluminum garnet laser (1064 nm) light therapy with visually augmented narrow spot size and high fluence. A 73% reduction in total inflammatory lesions was evident 6 months after the initial treatment. CONCLUSIONS: This case report illustrates that there may be utility in this novel approach of narrow spot size, magnification-assisted, high fluence targeted combination laser therapy for inflammatory acne.

Download Reference Document

Evidence-based update on rosacea comorbidities and their common physiologic pathways. Holmes AD, Spoendlin J, Chien AL, et al. J Am Acad Dermatol. 2017 Oct 28. pii: S0190-9622(17)32203-X. doi: 10.1016/j.jaad.2017.07.055. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29089181

Rosacea is a common chronic inflammatory disease affecting the facial skin whose etiology and pathophysiology are the subject of much investigation. Risk factors include genetic and environmental elements that may predispose individuals to localized inflammation and abnormal neurovascular responses to stimuli. Recent studies have introduced an array of systemic rosacea comorbidities, such as inflammatory bowel disease and neurologic conditions, that can be challenging to synthesize. We critically review the current data behind reported rosacea comorbidities and identify and highlight underrecognized physiologic mediators shared among rosacea and associated comorbidities. This information may be helpful in addressing patient questions about potential systemic implications of rosacea and can serve as a candidate platform for future research to understand rosacea and improve treatments.

Download Reference Document

Hidradenitis suppurativa and diabetes mellitus: A systematic review and meta-analysis. Bui TL, Silva-Hirschberg C, Torres J, Armstrong AW. J Am Acad Dermatol. 2017 Oct 19. pii: S0190-9622(17)32305-8. doi: 10.1016/j.jaad.2017.08.042. [Epub ahead of print] http://www.jaad.org/article/S0190-9622(17)32305-8/fulltext

BACKGROUND: The relationship between hidradenitis suppurativa and diabetes mellitus is not well understood. OBJECTIVE: To compare the prevalence of diabetes mellitus between patients with and without hidradenitis suppurativa. METHODS: We conducted a systematic review and meta-analysis, which included primary observational studies that reported the prevalence of diabetes mellitus among patients with hidradenitis suppurativa in the PubMed, Embase, Cochrane Library, LILACS, and Scielo databases from 1947 to June 13, 2017. A random effects model for pooled odds ratio was used for data analysis. Publication bias was assessed by funnel plot and the Egger test. RESULTS: The systematic review included 107,050 patients from 14 studies; the meta-analysis included 104,373 patients from 7 studies. On the basis of meta-analysis, the prevalence of diabetes mellitus was 10.6% in patients with hidradenitis suppurativa and 3.8% in patients without hidradenitis suppurativa. Compared with the general population, patients with hidradenitis suppurativa were nearly 3 times more likely to have diabetes mellitus (pooled odds ratio, 2.78; 95% confidence interval, 1.79-4.31). LIMITATIONS: We were restricted by the quantity and quality of available data. CONCLUSION: Hidradenitis suppurativa is significantly associated with an increased prevalence of diabetes mellitus.

Download Reference Document

Obesity and risk for incident rosacea in US women. Li S1, Cho E2, Drucker AM3, Qureshi AA2, Li WQ4. J Am Acad Dermatol. 2017 Oct 12. pii: S0190-9622(17)32265-X. doi: 10.1016/j.jaad.2017.08.032. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29033249

BACKGROUND: The relationship between obesity and rosacea is poorly understood. OBJECTIVE: To conduct the first cohort study to determine the association between obesity and risk for incident rosacea. METHODS: A total of 89,886 participants were included from the Nurses' Health Study II (1991-2005). Information on history of clinician-diagnosed rosacea and year of diagnosis was collected in 2005. Information on obesity was collected biennially during follow-up. RESULTS: Over 14 years of follow-up, we identified 5249 incident cases of rosacea. The risk for rosacea was elevated for those with increased body mass index (BMI, Ptrend < .0001). Compared with a BMI of 21.0-22.9 kg/m2, the hazard ratio of rosacea was 1.48 (95% confidence interval 1.33-1.64) for BMI ≥ 35.0. There was a trend toward an increased risk for rosacea among participants who had gained weight after age 18 years (Ptrend < .0001), with a hazard ratio of 1.04 (95% confidence interval 1.03-1.05) per 10-lb weight gain. We also observed significantly increased risk for rosacea associated with higher waist circumference and hip circumference (Ptrend < .0001), and the associations appeared to be independent of BMI. LIMITATIONS: This epidemiologic study did not explore underlying mechanisms of the association. CONCLUSIONS: Measures of obesity were significantly associated with an increased risk for incident rosacea.

Download Reference Document

Severe rosacea: A case report. Shirzadeh E, Bagheri A, Abdizadeh MF, Kanavi MR. J Ophthalmic Vis Res. 2017 Oct-Dec;12(4):429-433. doi: 10.4103/jovr.jovr_46_16. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5644412/

PURPOSE: To describe a case of severe rosacea with ocular involvement. CASE REPORT: A 28-year-old female patient presented with extensive facial and ocular eruptions. She had a history of treatment with oral prednisolone

due to the clinical diagnosis of lupus erythematosus (LE), which had resulted in transient improvement of the lesions, but was followed by exacerbation of the lesions. With the clinical diagnosis of severe oculofacial rosacea, she was successfully treated with oral doxycycline, steroid eye drops, and ocular lubricants. Histopathological features of skin biopsy were consistent with rosacea in the context of infection with Demodexfolliculorum. After four years, a relapse of the oculofacial lesions occurred, for which retreatment with oral tetracycline, steroid eye drops, and ocular lubricants was administered. CONCLUSION: Rosacea can be extremely severe and disfiguring, and it can be misdiagnosed as the pathognomonic butterfly rash of LE. Demodex carriage in rosacea is consistent and may play a significant role in the severe forms.

Download Reference Document

Review of current immunologic therapies for hidradenitis suppurativa. Shanmugam VK, Zaman NM, McNish S, Hant FN. Int J Rheumatol. 2017;2017:8018192. doi: 10.1155/2017/8018192. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5585618/

Hidradenitis suppurativa (HS) is a chronic, recurrent, inflammatory disease of apocrine gland-bearing skin which affects approximately 1-4% of the population. The disease is more common in women and patients of African American descent and approximately one-third of patients report a family history. Obesity and smoking are known risk factors, but associations with other immune disorders, especially inflammatory bowel disease, are also recognized. The pathogenesis of HS is poorly understood and host innate or adaptive immune response, defective keratinocyte function, and the microbial environment in the hair follicle and apocrine gland have all been postulated to play a role in disease activity. While surgical interventions can be helpful to reduce disease burden, there is a high recurrence rate. Increasingly, data supports targeted immune therapy for HS, and longitudinal studies suggest benefit from these agents, both when used alone and as an adjunct to surgical treatments. The purpose of this review is to outline the current data supporting use of targeted immune therapy in HS management.

Download Reference Document

Patient Counseling/Communication

Association of resilience with depression and health-related quality of life for patients with hidradenitis suppurativa. Kirby JS, Butt M, Esmann S, Jemec GBE. JAMA Dermatol. 2017 Nov 8. doi: 10.1001/jamadermatol.2017.3596. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29117300 IMPORTANCE: Hidradenitis suppurativa (HS) places a significant burden on the health-related quality of life (HRQOL) of patients, many of whom have depression. Resilience can play a role in mitigating the negative stressors, such as the symptoms of HS, on patients' mental health. OBJECTIVE: To investigate the correlation among resilience, depression, and HRQOL for patients with HS. DESIGN, SETTING, AND PARTICIPANTS: This cross-sectional survey study of 154 patients from 2 referral centers in the United States and in Denmark was conducted from June 1, 2016, to March 31, 2017. Patients were considered eligible if they were 18 years or older and had a visit for HS at 1 of the 2 referral centers in the past 2 years (from January 1, 2014, through December 31, 2016). Patients were excluded if they declined to participate, could not read or write in English or Danish, or had a cognitive disability that would preclude their understanding of the survey questions. MAIN OUTCOMES AND

MEASURES: The survey instrument included 4 questionnaires: (1) a sociodemographic and clinical characteristics questionnaire, (2) the Brief Resilient Coping Scale, (3) the Hospital Anxiety and Depression Scale, and (4) the Dermatology Life Quality Index. The main outcome of interest was the HRQOL as measured by the Dermatology Life Quality Index. RESULTS: All 154 patients submitted a completed survey. The mean (SD) age of the participants was 40.93 (13.5) years; most participants were women (130 [84.4%]), and most participants self-identified as white (139 [90.2%]). The rate of depression among the patients in this study was comparable to those reported in previous studies; 55 patients (35.7%) were classified as having depression, and 32 patients (20.8%) had borderline depressive symptoms. Patient-rated HS severity and the depression score each independently estimated 27% and 10% of variation in HRQOL, respectively. The interaction term for resilience and depression was significant, indicating that resilience moderates depression. Analysis of the mediation effects of resilience was not significant, indicating that resilience did not mediate the association between depressive symptoms and HRQOL. The resilience score was significantly associated with depressive symptoms (regression coefficient $a = -0.21$; $P < .001$), and the depressive symptoms score ($c = 0.637$; $P < .001$) was significantly associated with lower HRQOL ($c' = 0.644$; $P < .001$). However, both the direct association ($b = 0.033$; $P = .86$) and the indirect association ($a \times b = 0.007$; $P = .87$) of resilience with HRQOL were not significant. CONCLUSIONS AND RELEVANCE: Patients with higher resilience levels experienced a smaller decrease in HRQOL as depressive symptoms increased. Because the findings suggest that resilience can be taught, there is an opportunity to develop a resiliency training program and investigate its role in stress levels and depressive symptoms, as well as in HRQOL and disease activity.

Download Reference Document

Pain, psychological comorbidities, disability, and impaired qualify of life in hidradenitis suppurativa. Patel ZS, Hoffman LK, Buse DC, et al. Curr Pain Headache Rep. 2017 Nov 1;21(12):49. doi: 10.1007/s11916-017-0647-3. https://www.ncbi.nlm.nih.gov/pubmed/29094219

PURPOSE OF REVIEW: Hidradenitis suppurativa (HS) is a chronic, painful dermatologic disease characterized by recurrent inflammatory nodules and abscesses of intertriginous areas such as the axilla and groin. People with HS suffer from greater pain and associated psychological comorbidities, including depression, anxiety, disability, and impairments in quality of life (QoL), compared to those with other dermatologic conditions. Our review focuses on the occurrence of pain and these relationships. RECENT FINDINGS: The existing literature indicates that acute and chronic pain, depression, anxiety, and disability all contribute to poor quality of life in individuals with HS. Despite the central role of pain and distress in the presentation of HS, few studies have empirically evaluated the impact of pain and gaps remain in the existing psychosocial literature. There are no formal guidelines for treating HS-specific pain or psychological comorbidities. The results of this review show a clear and pressing need to develop treatment recommendations and effective interventions for addressing acute and chronic pain, psychological comorbidities, disability, and impaired quality of life among people with HS. This review outlines a multidisciplinary approach to treating and managing pain and psychological comorbidities.