AARS HOT TOPICS MEMBER NEWSLETTER

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Industry News

About 415 Million People May Have Rosacea Worldwide. Practical Dermatology, DermWire. Wednesday, July 11, 2018. http://practicaldermatology.com/dermwire/2018/07/11/about-415-million-people-may-have-rosacea-worldwide

As many as 415 million people worldwide may have rosacea, according to new research in the British Journal of Dermatology. Dr. Jacob Thyssen and colleagues at the University of Copenhagen, Denmark, conducted a systematic review of population-based studies that included information on the incidence and prevalence of rosacea. Data was collected from 32 studies around the world, comprising 26.5 million patients. The proportion with rosacea in the individual studies ranged from 0.09 percent to 22.41 percent, and when the studies were pooled together, the proportion was 5.46 percent, which translates to 414,960,000 rosacea sufferers worldwide. However, depending on how the researchers obtained the data, the proportion of rosacea sufferers varied significantly. The prevalence of rosacea was highest when self-reported, with a rate of 9.71 percent (737,960,000), while the rate of dermatologist-diagnosed rosacea was 5.53 percent (420,280,000). "Many factors may contribute to the difference in estimates," Dr. Thyssen says in a news release. "While many more people may self-diagnose rosacea than are actually suffering from the condition, correct diagnosis by a physician may depend on the physician's experience as well as the patient's appearance at the time of the exam." Dr. Thyssen and colleagues said further research will be needed to more precisely determine the number of rosacea patients worldwide. Although no epidemiological studies have been published in the United States, the National Rosacea Society has estimated the number of Americans with rosacea to be more than 16 million, based on a 5 percent prevalence rate determined by analysis of worldwide studies and the ethnic composition of the population nationwide. "Despite being a relatively common skin condition, only around 18 percent of Americans with rosacea are believed to be currently under medical treatment for their condition," says Dr. John Wolf, chairman of dermatology at Baylor College of Medicine in Waco, Texas, in a news release. "Many of those with milder rosacea may not even realize they have a disease that can be treated, instead using over-the-counter skin care products or covering their redness with makeup. However, there are now more medical therapies available for rosacea's signs and symptoms than ever before, even for mild cases."

Fourth Generation Retinoid Shows Promise in Acne Trials. Practical Dermatology, DermWire. Wednesday, July 11, 2018. http://practicaldermatology.com/dermwire/2018/07/11/fourth-generation-retinoid-shows-promise-in-acne-trials

New research reveals that trifarotene, a fourth-generation retinoid with potent and selective activity against only one particular retinoic acid receptor, may have an improved efficacy and safety profile compared with less selective retinoids. The findings appear in the British Journal of Dermatology. Trifarotene is expected to result in low systemic levels, while retaining strong activity at the skin. This is likely to lead to reduced side effects. "The pharmacological potency of trifarotene translates from in vitro models to topically treated human skin in vivo, resulting in the modulation of biological pathways that collectively are expected to translate into strong clinical efficacy in acne," says senior author Dr. Johannes Voegel, of Galderma R&D, in France, in a news release. "As trifarotene is expected to be rapidly eliminated in the blood stream, this drug should be particularly useful for the treatment of large skin surface areas, including the back and chest of acne patients."

New Medical News

The evaluation of psychiatric comorbidity, self-injurious behavior, suicide probability, and other associated psychiatric factors (lonileness, self-esteem, life satisfaction) in adolescents with acne: A clinical pilot study. Özyay Eroğlu F, Aktepe E, Erturan İ. J Cosmet Dermatol. 2018 Jul 11. doi: 10.1111/jocd.12708. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29992785

Background: Since adolescents are psychologically more unstable, the emergence of acne vulgaris during adolescence makes this disease a focal point of concern for many individuals. AIM: In this study, psychiatric comorbidity and levels of self-injurious behavior, suicide probability, life satisfaction, self-esteem and loneliness in adolescents with acne was assessed and compared with a control group. Methods: The study was conducted with 104 adolescents with acne and 102 age- and sex-matched healthy controls. The Rosenberg Self-Esteem Scale, Suicide Probability Scale (SPS), Life Satisfaction Inventory, Short form of the UCLA Loneliness Scale and Inventory of Statements About Self-Injury (ISAS) were administered to the case and control groups. Both groups were assessed according to the Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version-Turkish Version. Results: Adolescents with acne were found to have lower levels of self-esteem and life satisfaction and higher levels of loneliness compared to controls. The mean scores of SPS and its negative self-evaluation/hostility subscales were found to be significantly higher in adolescents with acne. The presence of self-injurious behavior and psychiatric comorbidity were shown to be significantly higher in adolescents with acne. Conclusions: The presence of high levels of psychiatric comorbidity, suicide probability, and self-injurious behavior in adolescents with acne in our study suggests that psychiatric evaluation should be included in acne treatment plans. Psychological assessment of adolescents with acne vulgaris is important for contributing to the detection of any potential covert sexual abuse. Our study demonstrates the importance of a multidisciplinary approach for acne treatment.

Comparison of efficacy of aminolaevulinic acid photodynamic therapy versus adapalene gel plus oral doxycycline for treatment of moderate acne vulgaris - a simple, blind, randomized, and controlled trial. Nicklas C, Rubio R, Cárdenas C, Hasson A. Photodermatol Photoimmunol Photomed. 2018 Jul 11. doi: 10.1111/phpp.12413. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29993146

Background: Although progress has been made in the study of photodynamic therapy for acne, studies using current recommended therapies as active comparators are lacking. Methods: Randomized, controlled trial involving 46 patients with moderate inflammatory facial acne, 23 patients received two sessions of PDT separated by 2 weeks (ALA20% incubated 1.5 hours before red light irradiation with 37J/cm2 fluence) and 23 patients received doxycycline 100mg/day plus adapalene gel 0.1%. In both groups, from the sixth week, we started adapalene gel 0.1% as maintenance therapy until 12 weeks of follow-up. Primary end point was the reduction of acne lesions at the 6-week follow-up, which was evaluated by 2 investigators blinded to the intervention. Results: The median percent reductions in non-inflammatory lesion count (p=0.013) and total lesions (p=0.038) at 6 weeks was found to be significantly higher in the group receiving PDT. At 12 weeks there was a greater reduction of inflammatory lesions in PDT group with 84% versus 74% for group who received doxycycline plus adapalene (p = 0.020) as well as in reducing total lesions with 79% versus 67% respectively (p = 0.026). No severe side-effects were observed for either therapy. Conclusions: ALA-PDT offers promise as an alternative treatment for moderately severe inflammatory acne that has a higher

effectiveness than the combination of doxycycline and adapalene gel in reducing noninflammatory and total lesions at 6 weeks. There were significantly superior reductions at 12 weeks in the combination of PDT group followed by adapalene gel in total, inflammatory, and noninflammatory lesions.

Acne prevalence in 9 to 14-year-old old patients attending pediatric ambulatory clinics in Italy. Napolitano M, Ruggiero G, Monfrecola G, Megna M. Int J Dermatol. 2018 Jul 5. doi: 10.1111/ijd.14138. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29974945

Background: Acne vulgaris is a chronic inflammatory skin disease of the pilosebaceous follicles that affects patients of all ages with a younger onset being more common than in the past. Objectives: To investigate on the prevalence, clinical features and treatments of acne in 9 to 14-year-old patients. Methods: A prospective observational study was conducted between April 2016 and May 2016. The study population consisted of patients attending 32 different pediatric ambulatory clinics located in Italy (North: 56.25%, Center: 18.75%, South: 25%). For each patient, a specific questionnaire was registered: i) demographic data; ii) past personal history of acne; iii) auxologic parameters. Further data were gathered for patients suffering from acne at study enrollment: i) body areas involved by the disease; ii) acne severity evaluated through a 0-5 scale (Global Evaluation Acne scale); iii) acne treatments. Results: A total of 683 children (49.2% male; mean age 11.05 ± 1.4 years) were enrolled. Acne was present in 234/683 (34.3%) of the patients, and its prevalence increased with age being higher after 13 years of age (85/234; 36.3%) and lowest at 9 years of age (14/234; 6%). The majority of the patients suffering from acne showed a mild or almost clear disease state severity (GEA scale 1 or 2) (207/234, 88.5%), whereas severe or very severe forms (GEA scale 4 or 5) represented only 4/234, 1.7% of the cases. Conclusions: Acne is not a rare disease in pre-adolescent age. Adequate and prompt treatment is also needed in this class of patient to minimize disease burden and potential future disease worsening.

Correlation of hormonal profile and lipid levels with female adult acne in a tertiary care center of Nepal. Shrestha S. J Nepal Health Res Counc. 2018 Jul 3;16(2):222-227. https://www.ncbi.nlm.nih.gov/pubmed/29983441

Background: Acne beyond 25 years of age is frequently associated with hormonal derangement in women. Hormonal association provides the impetus for hormonal therapy as well as underpins the need for blood investigations in this population. Hence, we aim to estimate the presence of hormonal derangement and lipid alteration in female adult acne. Methods: A prospective, observational study was conducted in Dhulikhel Hospital from July 2015 to February 2016. Females older than 25 years with acne were taken in the study after informed consent. Total 100 patients were enrolled after sample size estimation. Hormonal paneland lipid profile were measured. Hormones tested were androgens, C-peptide and thyroid stimulating hormone. Data analysis was done with SPSS-23. Bivariate analysis was done by chi-square test for categorical data. Results: In this study, majority of patients were younger than 30 years (70.5%) and perioral area most commonly involved. Hormonal alteration was seen in 37.2% patients, among which17.9% had hyperandrogenism, 15.4% had abnormal thyroid level and 10.3% had high C-peptides respectively. Lipid profile was altered in 15.4% patients. Hormonal alteration had significant association with irregular menstruation ($P<0.05$) but not acne severity. Conclusions: We observed hormonal alteration frequently in females with adult acne, which comprised of various hormonal parameters including hyperandrogenism. Hormonal alteration reflects deranged metabolic milieu and we suggest that wide hormonal panel should be done in female adult acne. Relationship of hormones with menstrual irregularity but not with acne severity, suggest that clinical symptoms should lead hormonal investigations in all grades of acne.

Antimicrobial susceptibility of cutibacterium acnes isolated from Ecuadorian patients with acne vulgaris. Solís MB, Zurita J, Velasco N, Dressendorfer LM. Skinmed. 2018 Jun 1;16(3):159-165. eCollection 2018. https://www.ncbi.nlm.nih.gov/pubmed/29989535

Antimicrobial resistance to Cutibacterium acnes has become a worldwide problem in the last century, but there are no previous studies on antibiotic susceptibility patterns of this bacterium in Ecuador. A total of 129 skin swabs were collected from patients with acne vulgaris (AV) attending the dermatology department of a hospital in Quito, Ecuador, from July to August 2015. The patients selected had received registered antimicrobial therapy on at least one occasion before sampling. Microbiological procedures were performed according to conventional methods. The species of isolates were identified using a mass spectrometer system (matrix-assisted laser desorption ionization time-offlight [MALDI-TOF]). Antibiotic susceptibility tests on isolated Cutibacterium were performed using an anaerobe-sensitive panel (ANO2; Thermo Fisher; TREK Diagnostic Systems Ltd., West Sussex, UK).

Codelivery of benzoyl peroxide & adapalene using modified liposomal gel for improved acne therapy. Jain S, Kale DP, Swami R, Katiyar SS. Nanomedicine (Lond). 2018 Jun;13(12):1481-1493. doi: 10.2217/nnm-2018-0002. Epub 2018 Jul 4. https://www.ncbi.nlm.nih.gov/pubmed/29972675

Aim: Current study investigates therapeutic efficacy and tolerability of benzoyl peroxide (BPO)- and adapalene (AD)-loaded modified liposomal gel (BPO-AD-mLipo gel) for improved acne therapy. Materials & method: BPO-AD-mLipo were optimized and loaded in Carbopol gel. Both BPO-AD-mLipo and BPO-AD-mLipo-gel were extensively characterized for different quality attributes. Ex vivo dermal bioavailability, dermal distribution, in vivo anti-acne efficacy and skin irritation studies were performed and compared with marketed formulation (Epiduo®, Galderma Laboratories LP, TX, USA). Results: BPO-AD-mLipo illustrated size 256.4 ± 9.3 nm with polydispersity index ~ 0.2. Significantly enhanced dermal bioavailability (AD-2.1, 5.4; BPO-3.0, 7.83-fold) and reduction in skin irritation and papule density in animal model were observed with BPO-AD-mLipo-gel as compared with free drugs and Epiduo, respectively. Conclusion: BPO-AD-mLipo gel provides effective and safer alternative approach for codelivery of anti-acne drugs.

Successful treatment of erythematotelangiectatic rosacea with intense pulsed light: Report of 13 cases. Tsunoda K, Akasaka K, Akasaka T, Amano H. J Dermatol. 2018 Jun 28. doi: 10.1111/1346-8138.14513. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29952023

Here, we describe the use of intense pulsed light (IPL) treatment for 13 cases of erythematotelangiectatic rosacea delivered in three sessions. For two-step irradiation, after the whole face had been irradiated using conventional IPL equipment covering a wide area, localized IPL spot irradiation was performed for visibly dilated capillaries. The therapeutic effect was evaluated by image analysis using Image J and scored by 10 dermatologists using two IPL instruments in combination. This therapeutic approach was found to be much more effective than irradiation using a single instrument. Our findings demonstrate that IPL irradiation using the present method can deliver a sufficient therapeutic effect even with a small number of treatment sessions. Although rosacea is difficult to treat, we believe that IPL can be therapeutically useful in such cases.

Long-term effects of intense pulsed light treatment on the ocular surface in patients with rosacea-associated meibomian gland dysfunction. Seo KY, Kang SM, Ha DY, et al. Cont Lens Anterior Eye. 2018 Jun 26. pii: S1367-0484(17)30444-7. doi: 10.1016/j.clae.2018.06.002. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29958778

Purpose: We aimed to determine the long-term effects of intense pulsed light (IPL) treatment in rosacea-associated meibomian gland dysfunction (MGD). Methods: We enrolled 17 rosacea subjects with moderate and severe MGD who underwent four IPL sessions at 3-week intervals and were followed up for 12 months. The subjects underwent clinical examinations at baseline (first IPL) and at 3 (second), 6 (third), 9 (fourth), and 12 weeks, as well as 6 and 12 months, after baseline. Ocular surface parameters, including the Ocular Surface Disease Index (OSDI), tear break-up time (TBUT), staining score, and noninvasive Keratograph tear break-up time (NIKBUT), as well as meibomian gland parameters, including the lid margin vascularity and meibum expressibility and quality, were evaluated. Results: All ocular surface and meibomian gland parameters for all subjects exhibited significant changes from baseline to the final examination (Friedman, $P < 0.050$ for all). In particular, improvements in the lower lid margin vascularity, meibum expressibility and quality, and ocular symptoms persisted up to the final examination (Wilcoxon, $P < 0.050$ for all). However, the improvements of TBUT, staining score, and NIKBUT after IPL were not maintained at 6 and 12 months after baseline. Conclusions: In rosacea-associated MGD, four IPL treatments at 3-week intervals can improve long-term lid parameters and ocular symptoms without adverse effects.

Short-term exposure of human sebocytes to 13-cis retinoic acid induces acnegenic changes. Burney W, Bosanac SS, Nguyen C, et al. Br J Dermatol. 2018 Jun 23. doi: 10.1111/bjd.16837. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29934942

Acne vulgaris is the most common skin disorder and contributes an estimated 0.29% of the global burden of disease. The pathophysiology of acne involves excess sebum production and altered lipid composition by the sebaceous glands, follicular hyperkeratinization, bacterial colonization by Cutibacterium acnes (C. acnes), and perifollicular inflammation. 13-cis Retinoic Acid (13-cis RA), also known as isotretinoin, is the only acne therapy that targets all four pathologic mechanisms and is often prescribed to patients with severe acne.

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Efficacy and tolerability of an acne treatment regimen with antiaging benefits in adult women: A pilot study. Jiang LI, Hino PD, Parker L, et al. J Clin Aesthet Dermatol. 2018 Jun;11(6):46-51. Epub 2018 Jun 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6011872/

Objective: The objective of this study was to assess clinical safety and efficacy of a novel acne treatment regimen in adult women. Methods: Participants in the study included an ethnically diverse group of adult women (n=24) with mild-to-moderate acne who were treated twice daily with a topical regimen (cleanser, acne cream, and rebalancing gel) for eight weeks. Following baseline assessments, subjects returned to clinic at Weeks 2, 4, and 8 for clinical assessments and self-assessment questionnaires. Results: Twenty-one of the 24 enrolled women completed the eight-week clinical trial. Statistically significant clinical improvements were seen in both acne and aging parameters over time. The product regimen was well tolerated without adverse reactions commonly seen with topical acne products. Conclusion: The regimen demonstrated efficacy and tolerability in adult women with acne and signs of skin aging.

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Tumor necrosis factor antagonists in the treatment of pyoderma gangrenosum, acne, and suppurative hidradenitis (PASH) syndrome. Saint-Georges V, Peternel S, Kaštelan M, Brajac I. Acta Dermatovenerol Croat. 2018 Jun;26(2):173-178. https://www.ncbi.nlm.nih.gov/pubmed/29989876

The clinical triad of pyoderma gangrenosum (PG), acne and suppurative hidradenitis (HS) has been described under the acronym PASH syndrome and is considered to represent a distinct entity in the group of autoinflammatory diseases. It is a fairly new, only recently recognized disorder with a limited number of reported cases and without defined treatment recommendations. We aimed to summarize currently available data on the use of tumor necrosis factor (TNF) antagonists in the management of PASH syndrome and report on our own experience with the use of adalimumab in a patient presenting with this specific constellation of clinical signs and symptoms. Among the 11 cases identified in the literature, infliximab and adalimumab were the most commonly used agents, both exhibiting favorable effects in the majority of, but not all, patients. This was particularly evident in terms of relatively rapid remission of PG whereas HS lesions seemed to be more resistant to treatment. In our patient, adalimumab monotherapy resulted in a remarkable and sustained remission, although significant improvement of HS lesions was observed only from week 16 of therapy onwards. In summary, TNF antagonists are a promising treatment for PASH; however, conclusions regarding the choice of a specific agent, optimal dosing or use in combination with other treatment modalities cannot yet be drawn.

Is oral omega-3 effective in reducing mucocutaneous side effects of isotretinoin in patients with acne vulgaris? Mirnezami M, Rahimi H. Dermatol Res Pract. 2018 May 29;2018:6974045. doi: 10.1155/2018/6974045. eCollection 2018. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5996413/

Background. Acne vulgaris is an inflammatory disease of pilosebaceous units which may cause permanent dyspigmentation and/or scars if not treated. Isotretinoin is recommended in the treatment of recalcitrant or severe acne, but it is associated with common adverse effects that frequently result in patients incompliance and discontinuation of the drug. The present study was designed to assess the efficacy of oral omega-3 in decreasing the adverse effects of isotretinoin. Materials and Methods. In this randomized double-blind clinical trial, a total of 118 patients with moderate or severe acne were randomly divided into two (case and control) groups. The control group was treated with isotretinoin 0.5 mg/kg, and the case group was treated with the same dose of isotretinoin combined with oral omega-3 (1 g/day). The treatment was lasted for 16 weeks and mucocutaneous side effects of isotretinoin were recorded and compared between the two groups in weeks 4, 8, 12, and 16. Results. Cheilitis (at weeks 4, 8, and 12), xerosis, dryness of nose at all weeks, and dryness of eyes (at week 4) were less frequent in the group that received isotretinoin combined with oral omega-3 compared to the group that received isotretinoin alone. Conclusion. Administration of oral omega-3 in acne patients who are receiving isotretinoin decreases the mucocutaneous side effects of isotretinoin. This trial is registered with IRCT201306238241N2.

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Clinical Reviews

Relationship between helicobacter pylori and rosacea: review and discussion. Yang X. BMC Infect Dis. 2018 Jul 11;18(1):318. doi: 10.1186/s12879-018-3232-4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6042414/

Background: Rosacea is an inflammatory disease affecting the central part of face characterized by persistent or recurrent episodes of erythema, papules, pustules and telangiectasias of unknown etiology. Helicobacter pylori (H. pylori) is a gram-negative bacillus, which is one of the main causes of chronic gastritis, gastric cancer and gastrointestinal ulcers. Recent evidences have suggested that H. pylori infection is closely related to the occurrence of diseases. In recent years, studies have found that Helicobacter pylori infection is associated with the occurrence of acne rosacea. So the treatment of Helicobacter pylori infection may be a therapeutic method of acne rosacea. But it continues to be controversial. In other studies, the treatment of Helicobacter pylori did not significantly reduce the severity of acne rosacea. To further explore the association between acne rosacea and Helicobacter pylori infection, a summarize method was used to study the relationship between acne rosacea and Helicobacter pylori, providing reference for clinical acne rosacea therapy. Methods: Systematic searches were conducted on Wanfang Data, CQVIP, Springer, Public Health Management Corporation (PHMC), CNKI, and Pubmed, from January 1, 2008 to Mar. 1, 2018, using Helicobacter pylori and rosacea to retrieve the literature. Depending on the inclusion and exclusion criteria, 27 articles considered or confirmed the correlation between H. pylori and rosacea. Results: Epidemiological investigations and experiments have confirmed that H. pylori infection is associated with the development of rosacea. The effect of anti-H. pylori therapy is better than the routine therapy for rosacea. H. pylori can stimulate the immune system to produce a large number of inflammatory mediators, leading to the occurrence and aggravation of rosacea inflammation. Conclusions: It is confirmed that H. pylori infection is involved in the development of rosacea. It is suggested that rosacea patients should be tested for H. pylori infection, the H. pylori-positive rosacea patients should be treated with eradication of H. pylori, so as to enhance the therapeutic effect of rosacea. This study adds that H. pylori infection is involved in the development of rosacea. Epidemiological investigations and experiments have confirmed the rationality. The effect of anti-H. pylori therapy is better than the routine therapy for rosacea. H. pylori-positive rosacea patients should be treated with the therapeutic method of eradication of H. pylori.

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Prescription to over-the-counter switch of metronidazole and azelaic acid for treatment of rosacea. McGee JS, Wilkin JK. JAMA Dermatol. 2018 Jul 3. doi: 10.1001/jamadermatol.2018.1667. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29971432

In 1951, the Durham-Humphrey Amendment to the US Federal Food, Drug, and Cosmetic Act of 1938 was enacted to label medications into 2 specific categories: prescription vs over the counter (OTC). This amendment required that any habit-forming or potentially harmful medications be dispensed under the direct guidance of a health care professional. “Rx to OTC switch” is defined as the transfer of prescription drugs to OTC status; it is a data-driven process, rigorously regulated by the US Food and Drug Administration (FDA). For the switch to occur, the candidate drug must demonstrate proven efficacy and a wide safety margin and bear understandable labeling for proper use. In recent decades, the increased demand by consumers to take charge of their own medical care has impelled the prescription to OTC switch of more than 100 medications that were previously available only by prescription. In this Viewpoint, we consider the possibility that the topical treatments for rosacea, specifically metronidazole and azelaic

acid, should undergo review for the prescription to OTC switch. We outline the potential advantages and disadvantages of such a switch.

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Topical ivermectin in the treatment of papulopustular rosacea: A systematic review of evidence and clinical guideline recommendations. Ebbelaar CCF, Venema AW, Van Dijk MR. Dermatol Ther (Heidelb). 2018 Jun 25. doi: 10.1007/s13555-018-0249-y. [Epub ahead of print] https://www.ncbi.nlm.nih.gov/pubmed/29943217

Introduction: Rosacea is a chronic inflammatory skin disease with different phenotypes. There is accumulating evidence that the commensal Demodex mite is linked to papulopustular rosacea. Established treatment options, including topical metronidazole, azelaic acid, and tetracyclines, are thought to work through their anti-inflammatory effects. However, none of these therapies have been shown to be curative and are associated with frequent relapses. Therefore, new and improved treatment options are needed. Topical ivermectin 1.0% cream is a new option having both anti-inflammatory and acaricidal activity against Demodex mites which might pave the way to a more etiologic approach. Its use has now been widely adopted by clinical guidelines. The objective was to review the evidence and clinical guideline recommendations concerning ivermectin 1.0% cream in the treatment of papulopustular rosacea. Methods: A systematic review of both medical literature and clinical guideline recommendations was conducted. Numbers needed to treat (NNT) were calculated for relevant dichotomous outcomes (e.g., relapse rate and achieving full lesion clearance) to compare ivermectin with other established treatment options for rosacea. Results: The search identified three randomized trials, three extension studies, and two meta-analyses. Ivermectin has only been tested in moderate-to-severe papulopustular rosacea. Ivermectin is an effective treatment option for papulopustular rosacea and seems to be more effective than metronidazole (NNT = 10.5) at 12 weeks of treatment. Although ivermectin was numerically more effective than metronidazole at week 36 in preventing relapse (NNT = 17.5), relapse after discontinuation of treatment in both groups was common with 62.7% and 68.4% of patients relapsing. Based on limited generalizability of available evidence, clinical guidelines have yielded different treatment algorithms and, in some areas, conflicting recommendations. Conclusion: Topical ivermectin is an effective option in the treatment of papulopustular rosacea. Although ivermectin seems to be more effective than topical metronidazole, with both treatment options about two-thirds of patient relapsed within 36 weeks after discontinuation of treatment. More research is needed to establish the clinical benefit of ivermectin's acaricidal action in preventing relapse compared to other non-etiologic treatment approaches.

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Patient Counseling/Communication

Patient preferences and therapeutic satisfaction with topical agents for rosacea: A survey-based study. Williamson T, Cheng WY, McCormick N, Vekeman F. Am Health Drug Benefits. 2018;11(2):97-106. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5973247/

Background: Rosacea is a chronic inflammatory skin disorder that primarily affects the convexities of the central face. Depending on the severity and type of rosacea, physicians may prescribe interventions such as behavioral changes, laser and intense pulsed light, as well as various pharmacologic therapies, including topical agents. The impact of side effects associated with topical treatments for rosacea on patient preferences and treatment satisfaction is not

well-documented. Objective: To assess patients' concerns, treatment satisfaction, and quality of life (QOL) associated with topical treatments for rosacea. Methods: Patients were identified for participation in a one-time survey from electronic medical records between 2010 and 2015 from the largest privately held and physician-run multispecialty group practice in Massachusetts. Patients were eligible to participate in the survey if they were aged ≥18 years and had ≥1 diagnoses of rosacea, ≥1 prescriptions for topical metronidazole gel/cream or azelaic acid gel, ≥6 months of follow-up, and an active treatment record in 2014. Treatment-related concerns and their importance were assessed using a questionnaire developed for this study. Treatment satisfaction and QOL were evaluated using the Treatment Satisfaction with Medicines Questionnaire (SATMED-Q) and the Dermatology Life Quality Index (DLQI), respectively. Results: Of the 900 eligible patients surveyed, 216 (24%) responded. Among the responders, 122 reported currently using a topical rosacea treatment. The most common treatment-related concerns were efficacy (64.8%), skin dryness (18.4%), unspecified side effects (9.6%), burning sensation (8.8%), and application technique (8.0%). The treatment-related concerns that were assessed as most important by responders included efficacy (mean score 9.1, on a 10-point scale), soreness (7.6), itching (7.5), burning (7.4), and dryness (7.3). Averaged across all the responders, treatment satisfaction was rated as neutral (mean SATMED-Q score, 56.5), whereas the impact of rosacea on QOL was minimal (mean DLQI score, 2.7). Increasing dryness was significantly associated with worsening QOL, and trends toward significance were observed for increasing soreness, itching, and burning sensations. Conclusions: The survey results suggest a need for novel topical therapies for patients with rosacea that have increased efficacy and tolerability, which may improve patient satisfaction and QOL.

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