Therapeutic Approach to Acne and Rosacea

GUEST EDITOR
Emmy M Graber, MD, MBA

Topical retinoids for acne
Lindsey Yeh, MD; Lauren Meshkov Bonati, MD; and Nanette B Silverberg, MD

Topical and oral antibiotics for acne vulgaris
James Q Del Rosso, DO

Antibiotic-resistant acne: getting under the skin
Mau Sinha, PhD; Suresh Sadhasivam, MS; Anamika Bhattacharyya, PhD; Shilpi Jain, MD; Shamik Ghosh, PhD; Kenneth A Arndt, MD; Jeffrey S Dover, MD; and Shiladitya Sengupta, PhD

See table of contents for a complete listing of articles
Acne has been written about since ancient Greek times and was a recognized entity even during Cleopatra’s reign. Today, acne is pervasive in most cultures and is the number two reason why patients visit a dermatologist in the United States. It is the eighth most common disease worldwide. Despite the long-standing awareness of acne and its prevalence, no perfect treatment yet exists.

Acne is a very common condition affecting millions of adolescents and adults. Up to 80% of teenage girls and 90% of teenage boys are afflicted with acne. Adult acne, although less common than adolescent acne, is a significant problem for 3%-6% of adult men and 5%-12% of adult women.

While the presence of acne does not physically impair patients, it can have a remarkable psychological effect. In fact, 30%-50% of adolescents experience psychiatric disturbances due to acne. Studies have shown that acne causes similar levels of social, psychological, and emotional impairment as asthma and epilepsy. Studies have also shown that unemployment is higher among adults with acne than among adults without acne.

We as physicians must recognize the significant impact that acne can have on a patient’s psyche and treat it seriously. In order to implement effective treatment strategies for patients with acne, a solid understanding of the physiology of the pilosebaceous unit and the pathological events that lead to acne are critical. The pathogenesis of acne is very complex but consists of 4 main factors: 1) follicular epidermal hyperplasia, 2) excess sebum production, 3) inflammation, and 4) the activity of Propionibacterium acnes.

Some acne treatments address one of the four factors of acne formation while other treatments address multiple components.

A myriad of treatment options ranges from washes, to leave of products, to oral agents, to lasers and light sources exist. It is important that the physician understand the gamut of treatment options so that they can be successfully utilized. A thorough knowledge of potential side effects and efficacy of each treatment is necessary so that physicians can appropriately educate their patients. This issue will aid the physicians by presenting an up-to-date compendium of therapeutic approaches to treat acne vulgaris.

A discussion on topical retinoids by Yeh et al is the opening manuscript in this edition. Although first introduced over 30 years ago, topical retinoids are now available as combination products and in different formulations and strengths. The nuances of the different topical retinoids must be thoroughly grasped by the physician to ensure optimal efficacy.

A review of topical and oral antibiotic use will be presented in the second article. Prescribing habits amongst physicians vary greatly in terms of dosages and duration of antibiotic use. This article should remind us of the best available evidence for antibiotic use. Although an important tool for managing acne, we should not rely solely on antibiotics given the increasing concerns regarding antibiotic resistance as Sinha et al describe in their review.

Adult females comprise a sizeable portion of the acne population. These patients are best served with different treatment modalities than the typical teenage male with acne. Hassoun et al explore spironolactone and oral contraceptive use.

While some of the therapeutic approaches to acne are similar to those used for rosacea, there are many treatments that are better suited for rosacea. Helfrich and Maier present a review of both topical and oral agents for rosacea.

Although available to treat acne since the early 1980s, isotretinoin is still mired in controversy. Separating fact from fiction is important so that the prescriber can educate and treat those suffering from acne that would respond to isotretinoin. It behooves every isotretinoin prescriber to understand the latest scientific literature surrounding this medication so as to best guide patients. Watson et al present the evidence surrounding isotretinoin that can help dissect fact from fiction.

Over-the-counter treatment options may be perceived as inferior to their prescription counterparts. On the contrary, some of the pervasive over-the-counter ingredients can be instrumental in obtaining optimal results as explained by Rosamilla. It is critical that physicians understand what over-the-counter ingredients exist for treating acne and how they can aid their patients.

Jalian et al explore physical modalities for treating acne and rosacea. Like many other treatments, it is best utilized not alone but in concert with other therapeutic means. Laser and light devices have been employed for treating acne and rosacea and are a hotbed for innovative treatments. Along with physical modalities, new topical agents are on the horizon that brings excitement into the acne and rosacea arena.

It is my hope that this edition unfolds and explains both the main points and subtleties for treating acne and rosacea. Although common, acne and rosacea are complex conditions that are exceedingly consequential to those afflicted with them. Therefore, it is critical that we as physicians understand the complexities of these widespread conditions to help our patients in their battles against acne and rosacea.

Emmy M Graber, MD, MBA
President
The Dermatology Institute of Boston, PC
Massachusetts
egraber@dermboston.com