

Can We Successfully Adapt to Changes in Direction and Support for Acne?

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How did I develop a strong interest in acne and rosacea? Interest on a personal level was with me throughout my adolescence and postteen years as I suffered with very severe facial acne from ages 13 through 23 (1967-1977). I was sometimes called “pizza face” in high school, and biweekly trips to a dermatology office that always had a packed waiting room were of little help that I could appreciate visibly. Six straight years of extractions, intralesional injections, draining of fluctuant cysts, UVC light treatments, oral tetracycline, irritating topical formulations of benzoyl peroxide and tretinoin, and topical sulfacetamide-sulfur products resulted in minimal improvement. However, maybe all of this did something to what was happening underneath the skin surface, as I have no residual acne scars. I do recall vividly that I walked the halls in high school and college consistently affected by a very red face from the topical agents and smelling like rotten eggs from the topical sulfur application. I fortunately handled it well emotionally and socially, for which I am very thankful. Many people affected with acne do not.

In dermatology, I have always had a strong interest in pathophysiology and therapeutics, rooted I am sure in my background as a pharmacist. Although I was always interested in acne therapy, I was fully captivated by a presentation given by Dr. Jim Leyden many years ago at a small meeting in Myrtle Beach, South Carolina. He brought the subject of acne to life in a way that more than grabbed my complete attention and ignited an interest

in learning everything I could about it. Over time, I was fortunate enough to work alongside Dr. Leyden and many other household names in acne at meetings and publications to further education on one of the most common disease states seen in ambulatory dermatology practices worldwide. The rest is history, leading to almost 4 decades of work in acne on many levels in dermatology, all being efforts that I am grateful for.

What I have observed to date is that we have had few revolutionary advances in acne therapy, the major one being oral isotretinoin, which was first brought to market in 1982. We are still utilizing many of the same therapeutic agents that I used back when I was treated for acne. A few new topical compounds have emerged, such as dapsone and clascoterone, and a narrow-spectrum tetracycline agent, sarecycline, also was developed. These agents do represent important advances with some specific benefits. There have been many major improvements in drug delivery formulations, including several vehicle technologies that allow augmented skin tolerability, increased efficacy, and improved stability, allowing for combination therapy products containing 2 or 3 active ingredients. A recent example is the first triple-combination topical acne therapy with excellent supporting data on speed of onset, efficacy, and safety.¹

Technological advances also have aided in the development of modified- or extended-release formulations of oral antibiotics, such as doxycycline and minocycline,

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which allow for reduced adverse effects and lower daily dosages. Lidose formulations of isotretinoin have circumvented the need for concurrent ingestion of a high-fat meal to facilitate its absorption in the gastrointestinal tract (as required with conventional formulations). Many hours also have been spent on delivery devices and vehicles such as pumps, foams, and aqueous-based gels. Let us not forget the efforts and myriad products directed at skin care, cosmeceuticals, and physical devices (lasers and lights) for acne. Regardless of the above, we have not seen the monumental therapeutic and research revolution for acne that we have experienced more recently with biologic agents, Janus kinase inhibitors, and other modes of action for many common disease states such as atopic dermatitis, psoriasis, alopecia areata, vitiligo, hidradenitis suppurativa, prurigo nodularis, and chronic spontaneous urticaria.

Unfortunately, the slow development of advances in treatments for acne has been compounded further by the widespread availability of generic equivalents of most topical and oral therapies along with several over-the-counter topical medications. The expanded skin care and cosmeceutical product world has further diluted the perceived value of topical prescription therapies for acne. The marked difficulty in achieving and sustaining total clearance of acne, with the exception of many individuals treated with oral isotretinoin, results in many patients searching for other options, often through sources beyond dermatology practices (eg, the internet). While some of these sources may provide valid suggestions,

they often are not truly substantiated by valid clinical research and are not formally regulated by the US Food and Drug Administration.

All of the above, in addition to the barriers to medication coverage put in place by third-party organizations such as pharmacy benefit managers, have contributed to the extreme slowdown in the development of new prescription therapies for acne. What this leads me to believe is that until there is a true meeting of the minds of all stakeholders on policies that facilitate access to both established and newly available acne therapies, there will be an enduring diminished incentive to support the development of newer acne treatments that will continue to spiral progressively downward. Some research on acne will always continue, such as the search for an acne vaccine and cutaneous microbiome alterations that are in progress.^{2,3} However, I do not see much happening in the foreseeable future. I am not inherently a pessimist or a “prophet of doom,” so I sincerely hope I am wrong.

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