



## Synopsis

By Susanne S. Warfield

# Abstracts of Pertinent Medical Aesthetic Research

Recent journal articles explore the effect of microdermabrasion on the ceramide level in the stratum corneum, the usefulness of cosmeceuticals in treating aging and photodamage, alternative therapies for treating acne and psoriasis, and a reevaluation of comedogenicity.

### **E**ffect of Serial Microdermabrasion on the Ceramide Level in the Stratum Corneum *Dermatol Surg* 2006, 32:376-379

Microdermabrasion, a procedure for superficial skin resurfacing, is used for the treatment of acne, acne scarring, hyperpigmentation, textural changes and striae. This study was done by Bark-Lynn Lew, MD, Yunhi Cho, MD, and Mu-Hyoung Lee, MD, to investigate changes in the ceramide level in the stratum corneum following a microdermabrasion series.

Eleven volunteers, five Korean females and six Korean males, were instructed to use the same facial cleanser and to cleanse their faces 30 minutes prior to the microdermabrasion treatment and to utilize the same moisturizer. Weekly microdermabrasion sessions were performed using the same device at the same time of day for five successive weeks.

The authors' results showed:

- An increase in the ceramide level in the epidermis following microdermabrasion after the first and second sessions.
- A decrease in the ceramide level following the third and fourth sessions.

This study is the first evidence that microdermabrasion alters the lipid barrier. The authors speculate that an increased ceramide level may be responsible for the improved texture and overall appearance of the skin, but they caution that in addition to ceramide, many other factors like cytokines and other lipids are involved in the

recovery process after microdermabrasion. They suggest that further investigation of these factors is needed.

*Reprint requests: Bark-Lynn Lew, MD, Department of Dermatology, College of Medicine, Kyunghee University, #1, Hoeki-Dong, Dongdaemun-Ku, Seoul 130-702, Korea.*

### **Cosmeceuticals: A Review of Their Use for Aging and Photoaged Skin** *Cosmet Dermatol* 2006, 19:7:479-484

Cosmeceuticals provide beneficial physiologic effects but are not considered pharmaceuticals. Cosmeceuticals represent the biggest growth segment in the skincare market, and many dermatologists dispense cosmeceuticals from their practices. As the search for an antiaging cure intensifies, cosmeceuticals are becoming increasingly popular. Authors Anjali Dahiya, MD, PhD, and John F. Romano, MD, state that for the treatment of aging and photodamaged skin, cosmeceuticals have shown promise. Naturally aged skin is characterized by fine wrinkles, whereas photoaged skin is yellowish in hue and develops coarse wrinkles and uneven pigmentation. These two skin types are both characteristic of decreased collagen production.

Cosmeceuticals include preparations containing alpha and beta hydroxy acids, retinoids, retinol, vitamins, antioxidants, growth factors, peptides and lightening agents.

While the authors concluded that in the treatment of both aging and photoaged skin, cosmetics have been proven effective, they caution that many of the available clinical trials are not controlled and have been conducted by manufacturers of the products containing these agents. They suggest that combining cosmetic agents with prescription drugs and/or laser treatments to enhance the efficacy in the treatment of aging skin can be very effective and will likely increase in the future.

*Reprint requests: Cosmetic Dermatology, Quadrant Communications, 26 Main Street, Chatham, NJ 07928.*

### **Complementary and Alternative Medicine Therapies in Acne, Psoriasis, and Atopic Eczema: Results of a Qualitative Study of Patients' Experiences and Perceptions**

*J Altern Complement Med 2006, 12;5:451-457*

Evidence of the use of complementary and alternative medicine (CAM) in dermatologic conditions is sparse; however, CAM therapies are often used in chronic medical conditions including acne, psoriasis and atopic eczema.

The reasons or motivations for patients with skin disorders choosing to use CAM therapies have been identified as cultural, dissatisfaction with conventional medicine, a desire for natural therapies, skepticism regarding the efficacy of conventional medicine, a perception that conventional medicine is unsafe (or that CAM is less toxic), and a desire to try any possible therapy.

For this study the authors—Parker J. Magin, FRACGP, Jon Adams, PhD, Gaynor S. Heading, PhD, Dimity C. Pond, PhD, and Wayne Smith, PhD—conducted interviews with 26 patients suffering from acne, 29 patients with psoriasis and 7 with atopic eczema.

A majority of the **acne patients** had used CAM therapies and were generally well-disposed toward them. Many perceived them to be more efficacious than “mainstream” topical therapies but less efficacious than oral isotretinoin or oral antibiotics. CAM therapies used by acne patients included witch hazel, tea tree oil, citrus washes, aloe vera, zinc tablets, herbal tablets, tissue salt tablets, natural oils and evening primrose oil. CAM therapies provided patients with a sense of control over their acne, and patients reported fewer adverse side effects with CAM therapies compared to mainstream medications.

Respondents suffering from **psoriasis** and **atopic eczema** had visited naturopaths, herbal-

ists, iridologists, biochemists and pharmacists specializing in herbal medicine for numerous therapies including cod liver oil, antioxidants, folic acid, vitamins A, B, C and D, apple cider vinegar, calendula cream, emu oil, lavender oil, milk, oatmeal, olive oil, plantain, sea salts and tomato. Like the acne respondents, they felt the primary advantage of CAM therapies was fewer adverse reactions, but unlike those in the acne group, many participants conceded that this safety involved a trade-off with lesser efficacy. Also unlike acne respondents, this group was more specific about the CAM therapies they used. The result for many respondents with psoriasis or atopic eczema was not skepticism towards CAM per se, but rather a pessimism regarding CAM's efficacy in psoriasis or atopic eczema, a pessimism that extended to orthodox therapies as well.

**A majority of the acne patients had used CAM therapies and were generally well-disposed toward them.**

This study, while exploratory, demonstrates that CAM therapies may be in common use by acne, psoriasis, and atopic eczema sufferers. A primary theme in this study that links and provides context for the study findings is the way respondents viewed their maladies. Those with acne, no matter how distressing, viewed the affliction as temporary and a variant of normal skin maturation, while those with psoriasis and atopic eczema saw them as relentless, incurable, major diseases. The use of CAM therapies is an important issue in acne, psoriasis, and atopic eczema. The authors urged practitioners to be aware of the possible use of these therapies by their patients.

*Reprint requests: Parker J. Magin, FRACGP, Discipline of General Practice, Newbolds Building, University of Newcastle University Drive, Callaghan, New South Wales 2308, Australia.*

### **A Reevaluation of the Comedogenicity Concept**

*J Am Acad Dermatol 2006, 54:507-512*

The first concept of acne cosmetica was introduced

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by Kligman and Mills in the mid-'70s and referred to comedonal activity caused by clogging cosmetic formulations. Comedogenicity testing was then generated and used on various animal models, with the rabbit ear model deemed most effective. It wasn't until 10 years later that the same authors found a way to test comedogenicity on humans—with dissimilar results.

Authors Zoe Diana Draelos, MD, and Joseph C. DiNardo, MS, set out to modify the above methodology by studying substances on human models using finished cosmetic products.

Six patients with prominent follicular orifices on the upper back were enrolled in the study. Products were applied in patches for a period of 48 or 72 hours. After removal, a visual inspection of the area was done, and then this process was repeated for four weeks.

Comedogenicity testing was then generated and used on various animal models, with the rabbit ear model deemed most effective.

Products tested included face powder, day and night creams and bronzing powders. While the results at first glance were a bit confusing, the authors noted that differing results regarding comedogenicity testing are not new to the literature. They noted that data from past studies performed on an animal model couldn't be compared with this study done on human models and conceded that both models have strengths and weaknesses. The authors concluded that finished products using comedogenic ingredients are not necessarily comedogenic.

*Reprint requests: Zoe Diana Draelos, MD, 2444 N. Main Street, High Point, NC 27262. ♣*

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You can also find some ingenious ways to use everyday search engines to find “passive” candidates in Weddle's book, *Being the Best in Online Recruitment & HR Management*. For example, if you're convinced the person you want is most likely working for a specific company, you can often uncover leaders working there by doing a Google search with the following search string: *RE: @companyname.com*. “This search will uncover postings to forums, discussion boards, newsgroups and other sites by the employees of the target company,” Weddle adds.

### **Getting Help**

Some organizations outsource the operation of their Web career centers to some of the bigger job boards. Monster.com ([www.monster.com](http://www.monster.com)), for example, sometimes handles the online processing of applicants for firms. Essentially, when job seekers visit an organization's careers site, they click a link that ultimately takes them to Monster.com's online applicant processing center. Monster.com processes the information and then sends it to the applicant's desired employer.

Reveal MedSpa ([www.reveal.com](http://www.reveal.com)), based in the mid-Atlantic states, uses CareerBuilder.com, a service similar to Monster.com, to process its online applications and Scottsdale, Arizona-based Radiance Medspa ([www.radiancemedspas.com](http://www.radiancemedspas.com)) uses Yahoo! HotJobs (<http://hotjobs.yahoo.com>). Other application service providers that can be used to outsource your Internet recruitment needs include Taleo, from Taleo (<http://www.taleo.com/solutions/business-edition-solutions.php>), and ApplicantTracker from ContacTracker ([www.contactracker.com](http://www.contactracker.com)). These software packages offer turnkey career centers on the Web for a monthly fee, which enable a business to offer state-of-the-art Internet recruiting without being forced to buy and install the software in-house.

Jobs boards sometimes offer extensive training in online recruiting techniques as an enticement for organizations to use their services. JobsInTheUS.com ([www.jobsintheus.com](http://www.jobsintheus.com)), for example, recently opened JiUS University, which features a series of courses to help recruiters get up to speed on the latest online recruiting has to offer. Its Internet Recruiting 101 offers the Top 10 tips for using online job boards. IR 201 focuses on writing and formatting eye-catching job postings, including the most effective usage of HTML, graphics and photos. IR 301 zeros in on industry-specific recruiting tips. ♣

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