WHAT ARE KEY SKIN CHANGES THAT OCCUR FOLLOWING SKIN RESURFACING?

Dr. McDaniel: Two types of lasers are used for medical skin rejuvenation currently. Ablative lasers, which remove the outer layers of skin and upper dermis, typically requiring anesthesia. They are associated with a distinctive wound healing phase, with significant associated downtime and after care. As a result, their popularity has faded, though they are still used in certain specific settings.

Non-ablative resurfacing has far outpaced ablative approaches, as it requires no wound care or downtime. Non-ablative lasers are typically but not always fractionated; fractional non-ablative lasers are most popular today. Systems vary based on wavelength, depth of penetration, and target chromophore.

Among fractional non-ablative lasers are a number of erbium laser systems. Erbium lasers are color-blind—safe for use on all skin types—and have proven safe for home-use as well as in medical practice.

Non-ablative fractional erbium lasers create tiny zones of injury that activate the skin’s natural repair process. Dermal penetration initiates cell signaling to activate collagen repair. These lasers are useful for treating signs of chronic photoaging: fine lines, wrinkles, and prominent pores. Following treatment, patients see improvement in texture, tone, density, and overall radiance. Collagen and elastin fibers are activated, providing improvement in superficial depressed scars from acne.

Because skin injury is limited to tiny thermal zones, patients have no downtime and are generally able to apply non-reactive make-ups and physical sunscreens immediately following treatment. However, since there is cutaneous injury and the initiation of a wound healing response, patients will develop erythema. They must practice UV avoidance and limit exposure to potential environmental insults which might diminish optimal results.

It is also important to consider that these zones of injury can serve as channels for delivery of topically applied agents into the dermis. These channels can be used for therapeutic benefit, but it is important to avoid application of agents that could cause irritation or allergy.

WHAT ARE SOME KEY SKINCARE NEEDS FOLLOWING NON-ABLATIVE FRACTIONAL RESURFACING?

Dr. McDaniel: As noted, patients need to avoid UV exposure, so physical sunscreens are necessary. Additionally, non-reactive make-ups are commonly applied to mask erythema.

Application of topical antioxidants following fractional resurfacing has proven very effective at decreasing downtime and been implicated in wound healing following fractional ablative laser treatment. Antioxidants, as natural botanical anti-inflammatory agents, can help to calm post-procedure erythema and are an effective alternative to steroids post-procedure. In fact, patients using the Tria at-home diode laser are frequently advised to do the laser treatment at bedtime, followed by antioxidants, so that they are erythema-free in the morning; a potential problem with

Energy-based procedures continue to carve a niche in aesthetic practices. While treatments for fat reduction or removal of unwanted veins, tattoos, or hair are all popular, energy-based rejuvenation procedures are at the forefront of many cosmetic practices. Among these, non-ablative fractional procedures are well-established as safe and effective.

In recent years, the growth of the home device category has raised questions for patients and aesthetic doctors alike. While some less-reputable systems have caused concern, the fact is that a safe and effective home-use device can offer a tremendous benefit to patients, and—as leading practices are finding—they offer an opportunity for patient engagement and practice growth.

As Dr. McDaniel discusses in this edition of Skincare Success Strategies, practices implementing a trusted home laser can extend the type and extent of care they provide to patients. It can be used to meet unmet needs in the patient population and ultimately drive satisfaction.

As with in-office procedures, home-based interventions offer best results when coupled with good skincare. Antioxidants are essential to skin repair and protection, and that’s why SkinCeuticals has paired its Antioxidant System of C E Ferulic and Resveratrol B E products with the Tria Age-Defying Laser. As you’ve come to expect from SkinCeuticals, we conducted extensive evidenced-based research to demonstrate the clinical benefits and safety of this combination strategy for at-home skin rejuvenation.

The experiences of aesthetic physicians and their patients in practice show not only that the SkinCeuticals Antioxidant System and Tria Age-Defying Laser work together to provide outstanding aesthetic outcomes, but that they also enhance practice growth.
home use laser devices.

Because of the micro-channels in the skin, selection of an appropriate formulation is important. An appropriate formulation must be fragrance-, dye-, and preservative-free to avoid delivering these into the skin and causing irritation. The formulation should contain no alcohol.

In addition to helping diminish transient side effects of laser treatment, topical antioxidants support skin health and rejuvenation. Their benefits are dependent on the type of antioxidant and its concentration.

WHAT ANTIOXIDANTS DO YOU RECOMMEND POST-NON-ABLATIVE RESURFACING, PERFORMED IN-OFFICE OR AT HOME?

Dr. McDaniel: C E Ferulic from SkinCeuticals is what I call one of nature’s outstanding antioxidants. It is an established, well-tested and scientifically proven formulation that has proven effective over many years of professional use. It has been shown to support collagen synthesis, promote repair of photodamage, and minimize the appearance of discoloration to restore radiance. L-ascorbic acid is a highly-effective natural, form of vitamin C with significant antioxidant effects in the skin.

Studies show that uptake of C E Ferulic’s ingredients is improved up to 17-fold following fractional resurfacing. Additionally, split face studies show improvements in the appearance of aesthetic outcomes from the combination of ablative resurfacing and C E Ferulic compared to resurfacing alone.

Resveratrol is a powerful antioxidant that had proven difficult to formulate. However, Resveratrol B E from SkinCeuticals delivers a maximized concentration of Resveratrol to the skin. The antioxidants in C E Ferulic and Resveratrol B E provide the necessary support required by dermis undergoing healing and rejuvenation following fractional resurfacing.

HOW DOES AT-HOME FRACTIONAL RESURFACING FIT WITHIN A PRACTICE?

Dr. McDaniel: First, it is important to establish what system is being used. As we know across aesthetic medicine, there are some under-performing skincare products and devices. Our experience with the at-home diode, Tria non-ablative fractional laser has been extremely positive. It is FDA cleared for treatment of periorbital wrinkles and for smoothing skin texture, and it may be used on the full-face. Combined with the proven formulations from SkinCeuticals, our practice has seen good outcomes, good compliance, and we have had no patient complaints (which we have had with other systems we tried). Patients see results, which is key to successful practice adoption.

An at-home laser can appeal to a number of patients. For example, individuals who want to rejuvenate the skin but are not yet ready for an in-office procedure can achieve good results with Tria plus topical antioxidants. Similarly, patients looking to maintain the results of an in-office laser procedure or delay a follow-up in-office procedure may be candidates for at-home laser use. Once they have invested in an in-office procedure, patients are willing to invest in an at-home regimen to optimize those outcomes.

Some of my colleagues worry that home-use resurfacing will detract from the practice, but this is definitely not the case for me. A home-use laser is an opportunity to engage with a patient and develop practice loyalty. Many patients who started with an at-home laser have eventually gone on to have in-office procedures. Those who use the at-home laser for maintenance extend their results but will ultimately return for another in-office procedure. And they’ll come back to us because we provided an effective and worthwhile option for them and gained their trust.

As physicians, we know the science. We understand patient needs. We must establish ourselves and our staff members as educational resources for patients. When we do, we actually save them money by helping them avoid poor investments. By recommending only trusted brands and proven products, we build confidence in the practice. That can only enhance, not detract from our success. In fact, we see referrals from patients using a home-laser regimen that encourage others to see us.

David H. McDaniel, MD is a Co-Director of the Hampton University Skin of Color Research Institute and Adjunct Professor in the School of Science. He is Adjunct Assistant Professor, Department of Biological Sciences, Old Dominion University. His practice is in Virginia Beach, VA.

SKINCEUTICALS AOX SYSTEM

SKINCEUTICALS ANTI-OXIDANT SYSTEM

Paraben-, Silicone-, and Fragrance-free with no dyes or alcohol, C E Ferulic has been proven in multiple studies to be safe for topical use post-laser resurfacing. The addition of ferulic acid to 15% pure L-ascorbic acid (vitamin C) and 1% alpha tocopherol (vitamin E) stabilizes and enhances the protective power of the antioxidants to provide comprehensive protection against UV-, infrared-, and pollution-induced skin aging, and reduces the appearance of erythema and feel of discomfort post-laser. • Resveratrol B E is the first topical formulation shown to deliver high concentrations of resveratrol. The antioxidant concentrate has a maximized, stabilized concentration of 1% pure resveratrol, combined with 0.5% baicalin and 1% alpha tocopherol (vitamin E) to replenish skin’s internal antioxidant defense system to improve the appearance of radiance and elasticity. It helps to soothe the skin and promotes skin’s own natural repair, and alleviates post-laser tightness.

TRIA AGE-DEFYING LASER. Designed specifically for home use, the FDA-cleared 1440nm diode fractional non-ablative laser technology demonstrated significant improvement in periorbital wrinkles and tactile roughness.