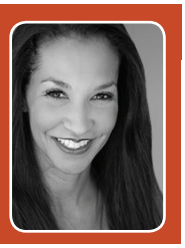
DEVICE-BASED INTERVENTIONS FOR SKIN OF COLOR: NEW FRONTIERS IN SAFETY AND EFFICACY

After years of avoiding most lasers, patients of color can explore new options for device-based treatment.

BY CANDACE THORNTON SPANN, MD



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The number of non-white patients undergoing cosmetic procedures has grown consistently over the past several years, with 2012 data from the American Society for Aesthetic Plastic Surgery showing that 21 percent of all cosmetic procedures are performed on non-white patients. This growth in demand parallels an overall growth in cosmetic procedures, and it may also reflect the expansion of non- and minimally-invasive cosmetic treatment options for patients of color. In the last few years, new fillers have come to market with data specific to the treatment of skin of color. Within the last decade, the realm of energy-based devices has grown considerably, leading to a number of interventions that are appropriate for use on darker skin. Radiofrequency (RF) treatments, in particular, are a suitable option for patients of color and are popular in my practice. Ahead, I'll review the safety and applications of RF devices in my aesthetics practice.

SAFETY IN CONTEXT

Historically, light-based devices have been inappropriate for use in skin of color. There is a high risk of post-procedure scarring and pigmentary irregularities with ablative lasers like CO_2 or Erbium. Additionally, melanin in the skin competes with a laser's target chromophore (such as hair, blood vessels, etc.), rendering treatment ineffective and allowing damaging heat to pool in the skin, causing burns. In recent years, a few laser systems have come to market that are safe for use in darker skin tones, such as some diode lasers for hair removal and Nd:YAG systems. These have been met with enthusiasm by clinicians and patients alike. However, device-based resurfacing had remained inaccessible to most patients with darker skin tones.

The emergence of radiofrequency devices offers a new option for facial and body treatments for patients of color. Newer RF technologies exert their effects through the targeted delivery of heat through the dermis and into the subcutis. The heat is delivered below the epidermis, usually with no ablation, thus obviating any concerns about scarring or hyperpigmented healing. And since RF energy acts differently than light, there is no interference by melanin.

RF EFFECTS

Studies demonstrate the safety and efficacy of RF technologies for face and body treatments. RF induced heating of the mid- to deep-dermis results in increased blood circulation and collagen remodeling.[1-3] There are published reports of RF treatments used for scars, hypertrophic scars and keloids, and inflammatory acne.[3]

It is important that both clinicians and patients recognize the potential and the limitations of RF interventions. As a minimally-invasive procedure, RF treatment will not approximate the results of surgery.[4] However, based on the skill of the clinician and the number of treatments provided, a substantial proportion of patients can achieve notable results and a high degree of satisfaction with RF treatment. Additionally, RF treatment can be easily combined with topical skincare or other non-invasive procedures for optimal outcomes.

A number of RF devices are available on the market. In my practice, I use the vShape (Alma), which offers four different handpieces: UniLarge handpiece for deep dermal and subdermal heating; BiPolar handpiece for local, superficial dermal heating; UniBody handpiece, which is essentially the UniLarge handpiece with mechanical rollers; and the PixelRF for resurfacing by both heating and fractionally ablating the skin. With

each of these handpieces, I have the ability to select the depth of penetration in order to produce optimal outcomes.

RF IN PRACTICE

Fractional CO_2 is very popular among the general public, and many of my patients ask about it. Until I had vShape in my practice, I would have to tell patients of color that they were not candidates for fractional resurfacing and there were no comparable alternatives. RF treatment is now an energy-based facial treatment option for resurfacing in all skin types.

Perhaps one of the most popular applications of RF technology in my practice for patients of any skin type is for treatment of acne scarring using the PixelRF with fractional ablation. Note that this is not an approved indication for the PixelRF, and this discussion is based on my experience. Typically, patients require four to six total treatments provided at four to six week intervals. There could be some discomfort associated with treatment, so topical numbing creams can be applied to the skin before treatment. Treatment is rapid, requiring just five minutes for a full face. As an added benefit, in our practice we have been pleased to note an improvement in acne as well as acne scarring with each successive treatment (see figures).

Importantly, patients should not have used isotretinoin in the 12 months prior to RF treatment. Since the Pixel RF is fractionally ablating the skin, it is wise to prophylax with antivirals.

RF-based treatment of the thighs and stretch marks has also become a significant component of my practice. I had been reluctant to incorporate treatments for the thighs, due to mixed results achieved with some systems. However, I have found that when targeting the appropriate depth, I see significant improvements with these treatments.

ACHIEVING PATIENT SATISFACTION

Aesthetic patients tend to be well-informed about available treatments and are generally savvy about their options. Patients of color, specifically, have learned to be wary of laser-based procedures. The growth of the device market has provided new options for these patients, and there is a noticeable level of grassroots interest. With some targeted marketing and patient education, the aesthetic practice can cultivate a strong base among patients of color. Once patients understand the differences between radiofrequency and light-based procedures, they are receptive to treatment.

Word of mouth has been a powerful factor for my practice, as well. Patients have typically been pleased with their results and spread the word to friends and acquaintances. ■

BOTTOM LINE

Once patients understand the differences between radiofrequency and light-based procedures, they are receptive to treatment.

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