Lasers are one of the top nonsurgical cosmetic procedures in the country, touted for their ability to remove dark spots, address blotchiness and rosacea, tighten skin, and smooth scars. Whether scars are pitted or raised, cosmetic surgeons have been able to use lasers to help even out the skin’s surface and tone—at least, as long as patients were light-skinned. In the past, we couldn’t often recommend these therapies for people of color because the risk of hyperpigmentation was higher. Recent advances, however, are making laser therapies a much more viable option for all people with scarring, and physicians should feel more comfortable exploring this option for their patients.

**THE PROBLEM WITH LASER THERAPIES OF THE PAST**

When scarring traumatizes the skin, dermatologists and aesthetic physicians assess which of the three main types of acne scars a patient may have—ice pick, rolling, and boxcar scars—to generate an effective treatment option that depends on the type of scarring, its depth and shape. Narrow and deep ice-pick scars, for example, respond to treatments like surgery or resurfacing procedures, which impact the dermis layers.

Not long ago, however, patients with darker skin tones were limited in the ways they could be treated for scarring. Available options included chemical peels, microdermabrasion, fillers, and surgical subcision techniques. Such treatments are helpful, yet the results are arguably not as attractive as those from lasers.

Unfortunately, laser treatments were basically off the table. After receiving such a treatment, patients with skin of color were at a greater risk for post-inflammatory hyperpigmentation, and/or loss of pigment due to laser effects on melanin production. Their skin cells were at risk of injury, either due to melanin heat absorption and overheating, or heat diffusion into the surrounding skin, or both.

The result was often uneven pigmentation or post-inflammatory hyperpigmentation, a consequence that could last for months or become permanent. Patients with darker skin tones in years past had to be willing to possibly trade scars for discoloration or, in some cases, blisters, burns, and additional scarring.

**LASER THERAPIES EVOLVE**

Thankfully, lasers (and the physicians wielding them) have come a long way. We’ve developed better technology and have also learned smarter ways to use existing lasers. While ablative and intense pulsed lasers (IPL) still carry increased risks for skin of color, their non-ablative counterparts, such as the 1064 Nd:YAG, fare much better for darker complexions. Of course, we will want to choose the non-ablative laser option that best addresses the scarring present, and so far we know that ice-pick scars respond better to pulse dye lasers (PDL), and boxcar scars do best with Nd:YAG lasers. Pico lasers—Rohrer PicoLaze,
PicoSure, PicoWay, and Pico Genesis—have also improved considerably in the last five years, proving a safe and effective option for most scarring in darker skin tones.

Whereas before, non-ablative lasers had difficulty targeting specific problems in darker skin, today’s long pulsed lasers produce less damaging heat and cool skin down more effectively thanks to efficient cooling systems (a sapphire cooled tip, cryogen spray, or cold air flow). The new generation of lasers employ longer wavelengths and cooling technology that enable dermatologists to confidently protect darker skin while effectively treating scars.

While patients may feel anxious to reduce their acne scarring as quickly and cost-effectively as possible, we believe in championing a less aggressive approach, at least to start. For that reason, we recommend that laser procedures be performed with conservative treatment settings, such as low treatment densities, which result in fewer cases of hyperpigmentation in skin of color. Non-ablative lasers may not achieve the same dramatic results as their ablative counterparts—improvements are accomplished more slowly over several sessions—but patients will nevertheless enjoy a higher degree of safety and less post-procedure downtime.

Providers must also stress that patients only receive therapy from skilled, licensed practitioners who specialize in treating patients of color, as there are subtle nuances in laser treatment modalities which can impact the treatment outcomes. An ideal treatment plan may combine lasers with peels or other procedures to ensure the best results. It’s also imperative to communicate the importance of avoiding sun exposure and wearing a broad-spectrum sunscreen before and after receiving laser treatments. This step is just as essential for darker complexions as it is for lighter ones.

When determining whether laser therapies are right for individual patients, physicians will want to weigh factors such as skin tone and condition, time, cost and potential risks prior to choosing the perfect laser therapy. Results are also largely dependent on the type of device used, the treatment settings, technique and the individual’s unique response to treatment. Given these nuances, it’s often helpful to test a laser on a small patch of skin first to ensure positive results.

If it’s determined that laser therapies should be avoided, chemical peels and microneedling are typically the most effective alternatives. Chemical peels work well for superficial scars, but may involve prolonged recovery times or the risk of complications. Microneedling, however, which encourages collagen production by making small punctures to the skin, is a relatively safe option with a shorter downtime and lower risk of pigment alteration. Patients should know, however, that both peels and microneedling should not be attempted at home. These treatments are best performed in a physician’s office.

**IN THE CLEAR: THE FUTURE OF LASER THERAPY**

Laser therapy options that address acne scarring on darker complexions are more popular and effective than ever before and, looking forward, we will certainly see improvements in ablative lasers, as well. These lasers provide deeper collagen induction for better results, and in the not-so-distant future the technology will accomplish this without the adverse effects of pigmented alteration or hypertrophic scarring.

The latest research has focused on the role of platelet-rich plasma in laser ablation. It’s been found that activated, leukocyte- and platelet-rich plasma used in combination with fractional ablative laser treatments improves the appearance of scars and results in higher patient satisfaction and decreased downtime.

Ultimately, physicians need to determine which treatments are best for each individual patient. Thankfully, the latest dermatological innovations have made laser therapy for darker skin tones a much more feasible option, one that should not be dismissed as readily as it had been in the past. The technology and results are only improving further over time, meaning that the most upsetting skin concerns are finally becoming readily fixable—for everyone.

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