

Aerolase's Neo Elite 650-Microsecond 1064nm Laser: A Safe, Effective Go-to Option to Treat Skin of Color

BY WENDY ROBERTS, MD

Individuals with skin of color are the majority in California, New Mexico, and Texas and will soon will be the majority in Arizona, Nevada, Georgia, New York, and Florida. By 2050, more than 50 percent of the US population will have skin of color, according to the Skin of Color Society.¹

Traditionally these patients have benefited less from medical and aesthetic treatments, compared with their lighter-skinned counterparts. With light-based therapy, in particular, there were significant risks associated with treating skin of color, namely burning and/or hypo- or hyperpigmentation. As such, many physicians remained reticent to suggest laser treatments for rejuvenation, melasma, acne, post-inflammatory hyperpigmentation (PIH), and other skin concerns in skin of color patients.

Those days are over. The advent of devices like the Aerolase Neo Elite 1064nm laser has opened up the playing field for these patients and the doctors who treat them. Thanks to its long wavelength and short pulse duration, the Neo Elite offers increased treatment efficacy, a broader range of treatment options, and a gold-standard margin of safety for skin of color patients.

A BRIEF HISTORY OF LASER SURGERY IN SKIN OF COLOR

When lasers were first introduced in medical and aesthetic dermatology, they targeted chromophores—whether melanin, water, or hemoglobin. It was early and they did a great job. The issue with treating skin of color patients was that there was no way to bypass the melanin at the bottom of the epidermis. As a result, melanocytes could be damaged, resulting in white spots or hyperpigmented patches. Skin could also be burned and damaged, leading to redness, post-inflammatory hyperpigmentation, and even scar formation.

The prevailing attitude at the time was, “if you have brown skin, you can't do laser.” This was a huge barrier to access for patients with Fitzpatrick skin types IV through VI. Individuals with these skin types could not take advantage of the technology to treat skin conditions that have dramatic effects on their quality of life, such as melasma.

This is why Aerolase Neo Elite is a truly disruptive technol-



Patient with acne and PIH before (left) and after (right) three treatments with Neo Elite.

Courtesy of Michelle Henry, MD



Patient with pseudofolliculitis barbae before (left) and after (right) four treatments with Neo Elite.

Courtesy of Wendy Roberts, MD

ogy. The laser energy passes through the epidermis so quickly that it does not have time to overheat the epidermal melanocytes, thus avoiding the pigmentary risks associated with most laser systems in skin of color patients. The long 1064nm wavelength penetrates deep to target epidermal and dermal and vascular structures, and the quick 650microsecond pulse duration enters the skin so rapidly that there is no pain or bulk heating. The Neo Elite's collimated beam enhances precision. There is no cooling required with this device. The distance from the handpiece does not matter, and fluence remains fixed regardless of handpiece distance.

The Neo Elite user manual is fail-safe. Following the settings

APPLICATIONS FOR NEO ELITE

Cosmetic	Medical
Acne	Pseudofolliculitis barbae
Melasma	Acne keloidalis*
PIH	Onychomycosis*
Hair Removal	Hidradenitis suppurativa*
Skin Rejuvenation**	Psoriasis
Scar Revision	Keratinosis pilaris*

*These indications fall under the FDA clearance of benign cutaneous lesions or coagulation of soft tissue
 **This indication falls under the FDA clearance of wrinkle reduction

in the manual virtually eliminates mistakes. The user manual is one of the best I have seen with any laser. You open the book, put those settings in, and do your case.

TREATING MELASMA IN SKIN OF COLOR

The Neo Elite can be used alone or in combination with other therapies to treat melasma, PIH, pseudofolliculitis barbae, acne keloidalis nuchae, and aging skin with unprecedented efficacy and safety in human skin of color.²

It is a common myth that melasma is just a minor concern for skin of color patients and that limited treatments exist. Melasma has dramatic effects on quality of life, and the Neo Elite is a highly effective treatment option.

When treating melasma, several treatments are usually required. There is no one-size-fits-all melasma protocol. I tell patients, "Let's do one and see how much you clear." If they clear 25 percent after

one treatment, they will likely need a total of four treatments. If they have little or no change, we will try stronger settings.

Fitzpatrick skin types IV through VI now have the same access to laser technology as their lighter-skinned counterparts, and it's time the word got out.

A WORKHORSE

Neo Elite is a great laser for physicians who need a workhorse to treat core medical applications. It allows them to have just one laser for a multitude of conditions; and it is safe and effective in all skin types, from lightest to darkest. The Neo Elite clinical indications for patients with all skin types include acne, rosacea, melasma, PIH, psoriasis, photorejuvenation, skin rejuvenation and tightening, solar lentigines and/or redness.

If I were starting a new practice out of residency and wanted to build a diverse practice, the Neo Elite is the laser I would pick. Skin of color patients will increasingly become the majority, and having one laser to address all aesthetic and medical concerns in this population will provide a dramatic and rapid return on your investment. In our practice, I earned \$178,000 with the Neo Elite last year, and I do not delegate these procedures. ■



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1. Skin of Color Society. Statistics. <https://skinfofcolorociety.org>

2. Roberts WE, Henry M, Burgess C, et al. Laser treatment of skin of color for medical and aesthetic uses with a new 650-microsecond ND:YAG 1064nm Laser. *J Drugs Dermatol.* 2019; 18(4):s135-s137

Eliminating the Fear Factor



By Michelle F. Henry, MD

Physicians who treat skin of color patients are understandably concerned about the risk for complications when using lasers to address melasma, acne, and

other skin concerns. Skin of color patients may be reticent to receive laser therapy. In the past, the risks of epidermal burns, scarring and/or hypo- or hyperpigmentation, were thought to outweigh the benefits of laser treatment—but that was then.

Aerolase's Neo Elite, a 1064nm Nd:YAG laser with a 650-microsecond pulse, is changing all these preconceptions. Patient education is the key to increased access, as many of your patients may not know about this laser and its capabilities. Laser companies have not traditionally targeted skin of color patients with their marketing efforts. The Neo Elite is my go-to for treating skin of color. It has an unmatched safety profile for brown skin.

It's important to note that a consultation with a skin type VI patient isn't the same as a consultation with a skin type I. Patients may need some hand-holding so that they are comfortable and confident that today's technologies are not only highly effective, but also extremely safe. I start by telling my skin of color patients that the Neo Elite was made with skin of color in mind. Neo Elite's 1064nm wavelength is

long enough and smart enough to bypass the dense melanin so it can target melanin in the hair follicle, but bypass it in epidermis. The 650-microsecond pulse is rapid and precise so it gets to its target, hits it, and moves out quickly with no bulk heating or burning.

SEEING IS BELIEVING

With Neo Elite, I can do multiple pulses in a series without concern of burns or collateral damage. Most skin of color acne patients will see an improvement after the first treatment, but we typically recommend an average of two to four treatments for most indications. Once patients are happy with the results, I transition them to monthly treatment sessions.

The Neo Elite is safe and effective for skin of color. Many of my skin of color patients now ask for this laser by name because they have read about it online and in patient reviews. Once your skin of color patients are aware of this laser, its multitude of benefits, and its safety profile, they will become vocal ambassadors for your practice. Encourage them to tell their friends and to post reviews if they are happy with the results. ■

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