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Clinical Pearls

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Laser considerations

Arisa Ortiz, MD

It's not about the settings, it's about the endpoint

It's important to not use a cookbook approach to laser medicine. Familiarize yourself with the endpoint and look at the tissue interaction. Settings will vary among different laser companies, or even in your own device after maintenance servicing, so it's important not to memorize settings. When treating blood vessels with a vascular laser, you want to see vessel darkening or clearance. When performing laser hair removal, you want to see perifollicular erythema and edema, or hair singeing. Sometimes, this can take a few minutes to develop so do not increase settings right away if you don't see this endpoint. When using a picosecond or nanosecond laser for pigment/tattoos, you want to see whitening, but not tissue splatter. By following tissue endpoints, you will provide safe and effective laser treatments. (1, 2)

We can't erase scars, but we can make them better

When counseling patients, they need to understand that scarred skin will never look like "normal" skin. Sometimes we get close, but I prefer to under-promise and over-deliver when it comes to scars. Erythematous scars will fade with time, but using a vascular laser can speed up the fading. For textural irregularity, stretch the skin. If the scar improves with stretching, then it is amenable to laser therapy. If the scar does not improve with stretching, then it is likely tethered by scar tissue and may require subcision. When using resurfacing lasers, use conservative settings because scars respond best to lower densities. (3)

Laser procedures can be combined on the same day to improve results

In daily practice, we often combine multiple lasers on the same day. As a general rule, I perform vascular lasers first so that you do not exacerbate nonspecific erythema. I follow this by targeting pigment with intense pulsed light, Q-switched, or picosecond lasers. Then I perform laser resurfacing. Finally, I treat any raised seborrheic keratoses with liquid nitrogen.

Using a neuromodulator prior to resurfacing can augment results

Relaxing muscles with a neuromodulator prior to

resurfacing the area can augment laser results. I generally perform the neuromodulator 1-2 weeks prior to resurfacing. Do not administer botulinum toxin on the same day as the laser procedure because swelling can make the toxin migrate and potentially cause a ptosis. (4)

Make sure to lower your settings when you treat off the face

The neck and other areas off the face have fewer adnexal structures and are more likely to scar. Healing time is also prolonged. With resurfacing, use lower fluences on thinner skin, and lower densities for less aggressive settings to avoid complications. (5)

References:

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