

excel V+ Green Genesis Laser Treatment of Hyperpigmentation and Erythema

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Introduction

The excel V+ device provides treatments for over 30 different indications on all skin types, from superficial and deep vascular conditions to benign pigmented lesions. The indications include rosacea, angiomas, port wine stains, poikiloderma, venous lakes, facial veins, leg veins, telangiectasia, freckles, DPNs, age/brown spots, skin tags, acne scars, scar reduction, wrinkles, and warts. The excel V+ offers Cutera's signature Laser Genesis procedure, which uses a 1064 nm wavelength Nd:YAG laser to improve skin quality, build collagen, and treat vascular lesions and erythema. Additionally, this procedure improves pore size, skin texture, and color of skin with minimal side effects for patients with vascular lesions.¹

Green Genesis

A large portion of patients seek treatment for vascular and pigmented lesions with little to no downtime.^{2,3} Green Genesis is a new variation of the traditional Laser Genesis procedure using a micro-pulsed 532 nm wavelength on the excel V+ laser system. It is designed to address diffuse redness and superficial brown pigmentation with one handpiece and one wavelength. excel V+ provides the flexibility to offer the Green Genesis procedure alone or in combination with the Laser Genesis procedure using the 1064 nm laser to target vascular lesions, deeper brown pigmentation, and skin revitalization. These procedures, independently or in combination, are fast, comfortable, and have no downtime.

Clinical Cases

The first case (Patient 1), a 79-year-old woman with sunspots and photodamage on her chest. Green Genesis was used to treat her décolletage. The area was treated twice, 2 weeks apart, with fluence of 1 J/cm², pulse width of 1 ms, spot size of 8 mm, repetition rate of 10 Hz, shot count of 1200-1300 pulses. She was treated to an endpoint of mild erythema.

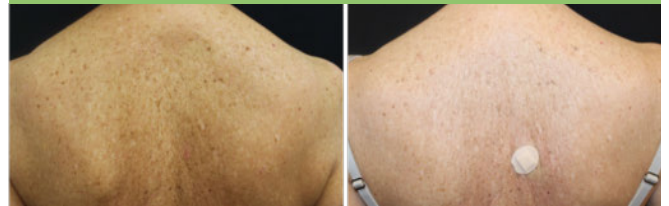
Patient 1



The pictures demonstrate significant improvement in the superficial pigment as well as improvements in skin quality after only two treatments.

The second patient (Patient 2), a 73-year-old Caucasian female, was treated on her upper back twice, two weeks apart, with fluence of 1.3-2 J/cm², pulse width of 0.5-1 ms, spot size of 8 mm, repetition rate of 3-4 Hz, shot count of 1700-2000 pulses, and an endpoint of mild erythema.

Patient 2



The clinical results from Patient 1 and Patient 2 demonstrate significant improvement in dark individual pigmented lesions, diffused lighter background pigmentation as well as improvements in skin texture after only two treatments.

The third case (Patient 3), a Caucasian female in her 30's, with diffuse redness. She was treated 4 times, at 2-week intervals with fluence of 1-1.1 J/cm², pulse width of 0.5 ms, spot size of 8 mm, repetition rate of 10 Hz, shot count of 6000 pulses, and an endpoint of mild erythema.

Patient 3



The photos shown are baseline (left) and 12 weeks after the last treatment (right). Significant improvement in redness and skin texture is observed following four Green Genesis procedures.

Discussion

The Green Genesis procedure provides a high repetition rate, low fluence, multi-pass treatment with pulse durations of 0.5, and 1 ms using the 532 nm mode. The wavelength targets the hemoglobin in the vasculature while the pulse duration targets superficial fine vessels in the papillary dermis. Secondly, the temporal energy profile of this laser facilitates diffusion of heat from the dermal microvasculature into the surrounding papillary and reticular dermis. This mechanism of action is accomplished without inducing purpura or epidermal injury, causing remodeling and, in turn, rejuvenating the skin. The combination of the wavelength and short pulse width lends itself to targeting epidermal melanosomal clusters, which results in marked improvement of pigmentary disorders such as solar lentigos and diffused background pigment.

The excel V+ system incorporates the versatile Green Genesis modality that provides practitioners an alternative procedure for the treatment of diffused facial redness, superficial photodamage, and benign pigmented lesions. This procedure series offers a high return on investment, can safely be delegated, requires no anesthesia or gel treatment preparation, and does not require post-care follow up. In turn, Green Genesis provides the ideal patient experience with a series of fast, comfortable treatments that progressively provide improvements with no downtime allowing patients to return to their regular routine immediately post-treatment.

Conclusion

The Green Genesis procedure utilizes a micro-pulsed 532 nm wavelength on the excel V+ laser system to safely and effectively reduce diffuse redness and hyperpigmentation in these three patients with minimal side effects and downtime, creating high patient satisfaction.

References

¹ Groot D and Smith KS. Nonablative Skin Therapy with Cool Glide Vantage Sub-Millisecond 1064 nm Laser Treatments. Published by Cutera, Inc. 3240 Bayshore Blvd., Brisbane, CA 94005. October 2002.

² <http://www.rosacea.org/patients/all-about-rosacea>

³ [Shttps://www.everydayhealth.com/skin-and-beauty/what-causes-spider-veins.aspx](https://www.everydayhealth.com/skin-and-beauty/what-causes-spider-veins.aspx)