

# New YAG Laser Design Promises Efficacy for Leg Veins

By Bob Kronemyer, Associate Editor

Palomar Medical Technologies, Inc. (Burlington, Mass.) is offering the next generation of Nd:YAG laser technology with an accessory handpiece for use with its StarLux Pulsed Light and Laser System. Maximum fluence for the 1064 nm StarLux handpiece is 700 J/cm<sup>2</sup> at 20 ms, along with a pulse duration ranging from 1 to 200 ms and a maximum speed of 1 Hz.

**“This handpiece is** ideal for the treatment of deep blue and purple leg veins,” said Michael DiToro, vice president of sales and marketing at Palomar. “Clinical trials have resulted in substantial clearance of vessels after only one treatment.”

The handpiece features multiple spot sizes which “allows the operator the flexibility to focus on individual vessels or larger clusters of vessels,” DiToro explained. The new handpiece is pending FDA clearance for such applications as leg veins, hypertrophic and keloid scars, and vascular lesions.

**When treating vascular** lesions with the Lux1064, the blood temperature at the target is elevated to a level that causes coagulation with preservation of the epidermis and surrounding tissue. “The 1064 nm wavelength is absorbed by hemoglobin as well as by melanin in the epidermis that requires epidermal cooling to reduce the temperature rise,” DiToro said.

The sapphire tip of the handpiece offers active contact cooling “for superior patient comfort during treatment,” DiToro noted. Likewise, the smooth pulse tech-

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nology provides light delivery over one smooth pulse duration, rather than the train of multiple power spikes employed by competing technologies. “Multiple power spikes increase the risk of skin damage,” DiToro said. “In contrast, smooth pulse technology keeps the epidermal temperature lower, for safer, more comfortable treatments. It also allows for the safe delivery of



Before Tx

After StarLux Tx

greater energy, which is more effectively absorbed by the target, thus producing greater efficacy.”

**The Lux1064 handpiece** attaches easily to the StarLux System, which also features multiple pulsed light handpieces. “The Lux handpieces are designed to filter light in the optimal bands of the spectrum for specific treatments,” DiToro said. “For example, the LuxG (green light) handpiece has a lower wavelength that targets epidermal pigment and blood vessels, while its higher wavelength is ideally suited to target deeper lying vessels and molecular water.” Similarly, the LuxR is a high-powered, red light filtered handpiece that concentrates on the pigment in hair follicles. Overall, “practitioners are able to choose the best handpiece for the treatments they seek to deliver,” DiToro said.

With the introduction of the Lux1064, “Palomar has added Nd:YAG laser technology to its already versatile pulsed light system,” DiToro said. “We have achieved a significant advance in developing pulsed light systems with the clinical efficacy to equal, and even surpass, conventional laser technologies. We now have a single system that can address the full spectrum of aesthetic concerns.” ■