Laser Treatment an Option for Some Leg Veins

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MONT-TREMBLANT, QUE. — Although sclerotherapy remains the standard for the treatment of leg veins, it is rivaled by laser therapy in a few select cases, according to several experts.

Superficial, small vessels (less than 1.5 mm) in skin types I, II, and III can respond well to laser treatment, Jeffrey Hsu, M.D., said at a symposium on cutaneous laser surgery sponsored by SkinCare Physicians of Chestnut Hill.

"I have been criticized for saying this, but I also believe that in some cases it is important to provide what the patient wants. Many patients come in determined to have laser therapy either because they are 'needle phobics' or because they are 'high techers,' and even when you explain that this may not be the best choice, they still want it. We are helping people feel better about how they look, so if they insist on lasers, I will try it," said Dr. Hsu of SkinCare Physicians of Chestnut Hill (Mass.).

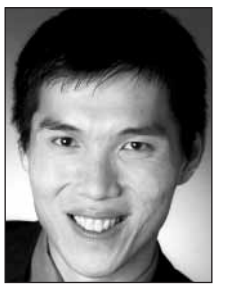
For very small vessels (less than 0.3 mm), Dr. Hsu recommends either pulsed dye laser (PDL): 595 nm, for 1.5-20 milliseconds; potassium titanyl phosphate (KTP): 532 nm, for 10-20 milliseconds; or intense pulsed light (IPL): 512-1,200 nm, for up to 25 milliseconds.

Small vessels (between 0.3 mm and 1.5 mm) respond well to either KTP: 532 nm, for 10-50 milliseconds; long pulsed dye: 595 nm, for 1.5-40 milliseconds; Alexandrite: 755 nm, for 3-40 milliseconds; diode: 810 nm, for 50-100 milliseconds; neodymium:YAG: 1,064 nm for 20-100 milliseconds; or IPL: 515-1,200 nm, for 25 milliseconds., he said.

Dr. Hsu said patients with medium to large vessels (more than 1.5 mm) and darker skin types (IV, V, and VI), who have a moderate response to laser and higher risk of dyspigmentation, should be triaged to sclerotherapy as a first choice.

The strikes against sclerotherapy are that it requires skill; has side effects, such as matting, ulceration, and postinflammatory hyperpigmentation; and requires multiple treatments, said Arielle Kauvar, M.D., director of New York Laser and Skin Care, New York.

Speaking at the same symposium, she said one of the potential advantages of laser therapy for leg veins is that, when performed properly, it is relatively operator independent. There are no needles, no potential for allergies to the sclerosant solutions, no skin necrosis from sclerosant extravasation, and matting is rare.



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DR. HSU

She also said that an increasing number of studies have demonstrated a relatively similar efficacy and side-effect profile for lasers when compared with sclerotherapy for the treatment of telangiectasia and venulectasia.

Dr. Kauvar recommended PDL and IPL as the most useful therapies for matting (either after laser treatment or after sclerotherapy), and said near-infrared lasers provide deeper penetration, full-thickness pulses, and low melanin absorption.

"The long-pulsed 1,064-nanometer Nd:YAG lasers are the newest and most interesting because they are versatile and can deliver high fluences and deep penetration with minimal melanin interference. This enables effective treatment of telangiectasia, venulectasia, and larger leg veins. But these lasers can be painful and require cooling," she said, adding that most of these lasers are equipped with skin-cooling devices both for pain control and epidermal protection.

While acknowledging that sclerotherapy costs considerably less than laser therapy, Dr. Kauvar recommended lasers as first-line therapy for patients with a predisposition to deep vein thrombosis or pulmonary embolism, blood clotting disorders, hypersensitivity to sclerosant, severe allergies or asthma, or pregnancy.

Laser therapy would also be indicated for patients responding poorly to sclerotherapy, those with matted telangiectasia who are generally unresponsive to subsequent sclerotherapy injections, and those with isolated telangiectasia of the leg, which is difficult to treat with sclerotherapy. ■