Match Vein Tx to Patient's Preference, Tolerance

BY JEFF EVANS
Senior Writer

BALTIMORE — Patients seeking leg vein treatment have the best outcome when clinicians selectively choose to treat varicosities and telangiectasias with sclerosants or lasers, Margaret A. Weiss, M.D., said at a meeting sponsored by the Skin Disease Education Foundation.

Learning the proper sclerotherapy technique is necessary for physicians who are going to offer laser treatment for leg veins because the leg vein treatment typically involves a combination approach, advised Dr. Weiss, of the department of dermatology at Johns Hopkins University, Baltimore.

"Offering a combination of treatments is helpful because treating reticular veins with lasers tends to be very painful," she said. Laser treatments usually are more expensive and painful than sclerotherapy, and as a result, the overwhelming majority of her patients—about 95%—opt for sclerotherapy.

If a patient is interested in getting laser treatment for leg veins, Dr. Weiss said she often will give a laser treatment to a test area on the patient's leg and ask for the patient's feedback.

Giving options is helpful because treating reticular veins with lasers tends to be very painful.

DR. M. WEISS

But before treating reticular veins and telangiectasias associated with incompetent great or short saphenous veins, endovenous techniques—which have replaced surgical stripping—must be used to cut off reflux from the saphenofemoral and saphenopopliteal junctions.

Ambulatory phlebectomy still is used for tributary veins about 4 mm or greater in size off the great saphenous vein, but it is gradually being replaced by foam sclerotherapy.

At the group practice she runs with her husband, Robert A. Weiss, M.D., in Hunt Valley, Md., Dr. Weiss usually treats reticular veins with about three to five treatments of foam sclerotherapy injections per area rather than treating them with lasers or intense pulsed light. Each treatment session is spaced in 3-week intervals.

The foam technique is inexpensive and increases the potency of any detergent solution such as Sotradecol (sodium tetradecyl sulfate injection), approved by the Food and Drug Administration, or polidocanol.

"I don't use polidocanol because it's not FDA approved," she said.

Dr. Weiss uses the Tessari technique for making foamed sclerosant by connecting color-coded syringes—one with 0.1% or 0.2% Sotradecol and one with air—via a simple, latex-free, intravenous stopcock to agitate the solution. The mixture becomes a 3:1 or 4:1 ratio of air to solution. Dr. Weiss massages veins after each injection to increase the spread of the foamed sclerosant.

The foam acts on the principle that "by holding the solution in and dispersing it in theses bubbles, it adheres better to the vein wall," she said. The bluish-green reticular vein will get lighter in color as the foam flows through it; the foam acts as a great visualization technique when using duplex ultrasound, she noted.

"We're really at the frontier of the expansion of this technique," she said.

In many cases where Dr. Weiss now uses foamed Sotradecol at 0.1%, she said she used a 0.2% solution of Sotradecol in the past before the introduction of foam techniques. But because the foam technique doubles the potency of the sclerosant, the risk of hyperpigmentation increases.

Injection of foam Sotradecol into a telangiectasia results in a characteristic inflamed, elevated appearance.

Glycerine, a complex sugar classified as a toxic or corrosive agent, "is a great injectable for small telangiectasia as well as telangiectatic matting," she said. Some pharmacies will compound a solution of glycerine at 72% in water. Dr. Weiss routinely uses glycerine to treat vessels less than 0.4 mm in diameter.

Treatment of leg veins with a laser is typically not as messy as it is with sclerosants since the appearance of veins becomes blurred and redder, without bleeding, whereas sclerotherapy injections may cause urticarial wheals, itching, and more postprocedure bruising and bleeding or oozing, Dr. Weiss said at the meeting.

Dr. Weiss said she would consider using lasers for leg veins for patients who have contraindications or a poor response to sclerotherapy, telangiectatic matting, or isolated, fine telangiectasia, which are often difficult to treat with sclerotherapy.

Overall, the best lasers for leg veins have a wavelength that is selectively absorbed by deoxyhemoglobin. Lasers with longer wavelengths penetrate deeper, and "that's important on the legs, since some of the inherent difficulties in treating leg veins as opposed to facial veins are that there is a much broader range of size and [the leg veins are] deeper under the skin," she noted. This makes it harder to treat them without damaging the surrounding tissue.

High-fluence, long-pulse 1,064-nm lasers work well on leg veins because they target water and deoxyhemoglobin preferentially over melanin.

Smaller vessels need a shorter pulse duration, while larger vessels need a longer pulse duration of about 30-100 milliseconds, which "can get very painful even with the use of topical anesthetic creams," she noted. Lasers used in treating leg veins have fluences in J/cm^2 that may vary by a factor of 10. Infrared lasers with smaller spot sizes are better suited for smaller vessels and are more easily tolerated than lasers with larger spot sizes, which cause greater pain, she said.

To avoid damage to the epidermis, some lasers use cold gel, contact cooling, dynamic cooling spray, or cold blown air. Longer wavelength lasers, especially infrared, will cause less epidermal damage.

Intense pulsed light is most effective against superficial telangiectasias 0.2-0.3 mm in size in patients with Fitzpatrick skin types I to III, but the procedure is very technique sensitive and is dependent on the thickness and temperature of the gel, Dr. Weiss said.

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Dr. Marcus Conant, on the dermatologic link between meth abuse and HIV infection, p. 42