

Not so VEIN

Many Irish women are bothered by spider veins - those small yet unsightly clusters of red, blue or purple veins that most commonly appear on the thighs, calves and ankles. In fact, it's estimated that at least half of the adult female population of Ireland is plagued with this common cosmetic problem. In this article Marie Loftus chats to Dr. Patrick Treacy, Medical Director of the Ailesbury Clinics about the treatments available.

ML: What are spider veins and why do we get them?

PJT: Spider veins can occur on any area of the body, but are most common on the legs and face. While spider veins can occur in both men and women, they are more common in females and it seems that the hormones oestrogen and progesterone play a role in their development. Women are particularly susceptible to varicose disease because vein walls and valves periodically become wider under the cyclical influence of progesterone.

ML: Does pregnancy play a role?

PJT: Pregnancy tends to worsen spider veins and smaller varicose veins because circulating hormones associated with pregnancy soften the vein walls and valves. During pregnancy veins have to carry a greater circulating blood volume. Sometimes the enlarged uterus compresses abdominal veins, causing further back pressure the leg veins. Changes in body chemistry due to birth control pills, and constrictive clothing, such as tight hosiery can also contribute to spider vein development.

ML: What is sclerotherapy and is it the only treatment present for this condition?

PJT: Sclerotherapy is a procedure that is slowly gaining more popularity in Ireland, especially with the advent of more aesthetic centres. The procedure is used to treat smaller varicose veins with a chemical sclerosing agent or type of foam in order to make these vessels necrose or shrink in size. In this rather simple procedure, veins collapse and fade from view. The procedure may also remedy the bothersome symptoms associated with spider veins, including aching, burning, swelling and night cramps. Spider veins (up to 3 mm) respond well to lasers and IPL devices, whereas sclerotherapy or foam sclerotherapy is more appropriate for treating some larger veins.

ML: What is foam sclerotherapy?

PJT: Foam sclerotherapy is a technique that involves injecting "foamed sclerosant drugs" within a blood vessel using a syringe. The sclerosant drugs (Sodium Tetradecyl Sulfate or polidocanol) are mixed with air or a physiological gas (carbon dioxide) in a syringe or by using mechanical pumps to increase the surface area of the drug. The foam sclerosant drug is better than the liquid one in causing sclerosis (thickening of the vessel wall and sealing off the blood flow), for it does not mix with the blood in the vessel and in fact displaces it, thus avoiding dilution of the drug and causing maximal sclerosant action. It is therefore useful for longer and larger veins. Experts of foam sclerotherapy can create "tooth paste" like thick foam for their injections. This has revolutionised the non-surgical treatment of varicose veins.

ML: Why do hospital doctors not seem to mention sclerotherapy?

PJT: Although this procedure has been used in Europe for more than 50 years, it has only become popular in Ireland, the UK and the United States during the past decade. The introduction of sclerosing agents that are mild enough to be used in small veins has made sclerotherapy predictable and relatively painless. Modern sclerosants first became widely available in the 1960s and have been used since that time to compete in a market that presently tends to confuse patients as well as doctors.

ML: What do you mean the available treatments also confuse doctors?

PJT: In general, patients complain to me that most referring GPs do not treat the cosmetic problems of leg veins with any importance and only seem to refer patients when they present with pain, burning, bleeding, dermatitis, cellulitis, thrombophlebitis or ulceration. Consequently, many doctors also find it difficult to know when a vessel is too small to send to a surgeon or too large to treat with other modalities including sclerotherapy or lasers. Consequently, many Irish patients get referred to the wrong clinics for the wrong treatments and return frustrated.

ML: What other spider-vein treatments are available?

PJT: This is really dependent on the size and depth of the vessel requiring treatment. For a start, sclerotherapy is really just one method of vein ablation. We can consider NdYAG laser, RF laser, IPL and even serum VitK creams for the treatment of spider veins. Then there is more invasive vascular surgery, clipping, and endovenous laser therapy (EVLT) for the bigger vessels, especially varicose veins.

ML: What are varicose veins and are they dangerous?

PJT: Varicose veins are really normal veins that have widened over time because of increased back pressure. In many ways, they are really the visible surface effect of an underlying problem of vein insufficiency, which allows blood to escape and flow backwards down into an already congested leg. Mild forms are merely uncomfortable or cosmetically disfiguring, but severe forms can have consequences and can lead to loss of life or limb.

ML: What are the symptoms of early vein insufficiency?

PJT: Most patients with venous insufficiency have symptoms that may include pain, soreness, burning, aching, throbbing, cramping, muscle fatigue, and "restless legs." Chronic disease eventually produces skin discolouration, leg ulcers and swelling. When this happens a doctor would consider a surgical approach, tying off some vessels followed either by stripping of the vein or by avulsion phlebectomy.

ML: What is avulsion phlebectomy?

PJT: Avulsion phlebectomy requires multiple 2- to 3-mm incisions along the course of the vein and it should be done by a skilled operator as it can cause damage to adjacent nerves and lymphatic vessels.

ML: OK, this is getting too medical. Let's get back to sclerotherapy. Who are the best candidates?

PJT: Women of any age may be good candidates for sclerotherapy, but most fall in the 30-to-60 category. In some women, spider veins may become noticeable very early on - in the teen years. For others, the veins may not become obvious until they reach their 40s. If you are pregnant or breastfeeding, you may be advised to postpone sclerotherapy treatment.

ML: Can spider veins disappear after pregnancy?

PJT: In most cases, spider veins that surface during pregnancy will disappear on their own within three months after the baby is born. Also, because it's not known how sclerosing solutions may affect breast milk, nursing mothers are usually advised to wait until after they have stopped breastfeeding.

ML: Are there any other risks with sclerotherapy?

PJT: Serious medical complications from sclerotherapy are extremely rare when the procedure is performed by a qualified practitioner. However, rare risks include the formation of blood clots in the veins, severe inflammation, adverse allergic reactions to the sclerosing solution and skin injury that could leave a small but permanent scar.

ML: I have heard you can get discolouration after sclerotherapy?

PJT: Yes, I have seen some brownish splotches on the affected skin that can take months to fade, sometimes up to a year. Another problem that can occur is "telangiectatic matting," in which fine reddish blood vessels appear around the treated area, requiring further injections.

ML: Do you think sclerotherapy is the best technique?

PJT: For me, sclerotherapy is the "gold standard" and I prefer it over laser for eliminating large spider veins (telangiectasiae) and smaller varicose leg veins. I love the way the sclerosing solution instantly closes the "feeder veins" under the skin that are causing the spider veins to form, thereby making a recurrence of the spider veins in the treated area less likely. Sometimes the doctor can get everything with one injection but it is not unusual to have multiple injections of sclerosant injected into the abnormal surface veins of the involved leg.

ML: Do you need to wear compression stockings?

PJT: I have no hard rules on this but current evidence points to the fact that the patient's leg should be compressed with either stockings or bandages for two weeks after treatment. I have done it many times without with similar effect. Patients are also encouraged to walk regularly during that time. It is common practice for the patient to require at least two treatment sessions separated by several weeks to significantly improve the appearance of their leg veins.

ML: You mentioned EVLT earlier, tell me a little more about that.

PJT: EVLT (endovenous laser therapy) is a newer procedure not used much in Ireland. I like it as it is much less invasive than surgery and has a lower complication rate. The procedure is well tolerated by patients and produces good cosmetic results. Excellent clinical results are observed at 2-4 years, but the long-term effectiveness of EVLT is not yet known. The varicose recurrence rate is less than 7% after two years, a rate comparable or superior to that reported for surgery, ultrasonically guided sclerotherapy, and radiofrequency ablation.

ML: How does EVLT work?

PJT: EVLT works by means of using a diode laser to thermally destroying the vein under a local anaesthetic and ultrasonic guidance. Laser energy is delivered to the desired location inside the vein through a bare laser fibre that has been passed through a sheath to reach the desired location. When the laser is fired, it releases thermal energy into the blood and venous tissues, causing irreversible localised venous tissue damage. The laser is repeatedly or

continuously fired as the laser fibre is gradually withdrawn along the course of the vein until the entire vessel is treated.

ML: What about other types lasers including IPL?

PJT: I like lasers and IPL light sources can often be effective in treating smaller red vessels resistant to sclerotherapy and telangiectatic matting. The choice of laser used is related to the type, size and depth of the target vessel. Deeper bluer vessels require the longer NdYAG wavelength to allow penetration to their depth. Lasers should be also considered in patients who are not willing to commit to the use of postsclerotherapy compression stockings. Because the heat damage to the vessel wall is normally immediate, post procedural compression has not been shown to enhance the efficacy of treatment, as has been shown with sclerotherapy.

ML: What lasers do you use for spider veins in the Ailesbury Clinic?

PJT: We tend to use IPL for superficial red vessels and long pulsed NdYAG lasers in an effort to target deep, relatively large-calibre cutaneous vessels. The primary benefit of this wavelength is its deep penetration and the ability to treat deeply pigmented individuals. However, high energies must be used for adequate penetration. In general, treatment with long pulsed NdYAG lasers is relatively painful and may require cooling and topical anaesthesia. Large-calibre vessels, more than 0.5 mm in diameter, respond best. Vessels up to 3 mm can be treated with long pulsed NdYAG lasers and above that we use the Polaris LV radiofrequency laser.

ML: What other lasers do you use for veins in the Ailesbury Clinic?

PJT: To be fair different clinics use different lasers and nobody could buy them all. The primary lasers used for leg veins in the UK are the pulsed lasers. These lasers include green (KTP 532 nm), yellow pulsed dye (585-605 nm), alexandrite (infrared, 755 nm) or the diode (infrared, 810 nm). We use NdYAG (infrared to 1064 nm) as it can fit on the same platform as the intense pulsed light (IPL) unit. IPL broadband light source (515-1200 nm) is widely used in Ireland, as it is considered safe for people with no laser experience.

ML: What about the unregulated use of lasers by many Irish clinics?

PJT: I think we will leave that issue to another article.

