

Healthy Legs – The Future of Venous Therapy

By SAMUEL P. MARTIN, MD

In November of 2009 exhaustive meetings were held by national leaders in the vascular community and a call to action was put forth. The proceedings of these meetings were recently published in the prestigious *Journal of Vascular Surgery*. The challenge was issued to reduce venous ulcers by fifty percent in 10 years. This is an ambitious goal, but possible.

Studies have shown that the average venous ulcer requires 6 to 12 months to heal completely, and as many as 70 percent will recur within 5 years of closure. Venous ulcers are painful and cause an estimated loss of 2 million workdays for disability at a cost to the U.S. economy of more than \$3 billion dollars per year.

Most physicians and the lay public recognize the risks of heart-attack, stroke, abdominal aortic aneurysms, and potential limb loss from arterial atherosclerosis. We have been slow, however, to recognize the significance and seriousness of venous disease. This is in part due to the fact that it is rarely life or limb threatening. In the case of physicians, there is little time spent in medical school or residency studying venous disease.

Veins are not just a cosmetic issue! Aside from the obvious advanced skin changes and ulcer, we must be attuned to early symptoms such as, heaviness, ach-

ing, pressure, cramps, burning and signs of lower leg dryness. Chronic edema at the end of the day cannot be accepted! Skin dryness as well as thickening of the skin and swelling are important signs of ongoing tissue destruction and inflammation. The process is insidious and occurs from the inside out with fluid passing out of capillaries in the ankle and lower leg, which contain inflammatory proteins, red cells and white cells, which lead to inflammation and progressive tissue destruction over years.

The inflammatory process often manifests itself as pinkish discoloration at the ankle, usually after several years of swelling. This stasis dermatitis is precipitated by long periods of standing. The pink discoloration is often mistaken by the medical profession as cellulitis, an infectious process instead of stasis dermatitis, an inflammatory process. The diagnosis often results in a prescription for antibiotics. The antibiotic does not affect the process and can lead to problems with resistant organism's possibly *C. difficile* colitis, MRSA, or fungal infections.

While spider veins and varicose veins don't necessarily portend future skin changes they may be the tip of the iceberg especially in the overweight or obese patient, with ankle swelling, skin discoloration progressing from pink to brown at the ankle. Venous Doppler tests

performed at a hospital or outpatient lab usually only look for clot. When patients complain of leg pain and have chronic swelling, they should be evaluated by someone with experience treating venous disease who possesses the capability of not only diagnosing venous insufficiency but can decipher whether it involves the deep, the superficial and/or the perforator veins.

Longstanding swelling and inflammation can result in the destruction of the subdermal and dermal lymphatics with resultant lymphedema. This phenomenon is referred to as phlebolyphedema and results in edema which extends into the dorsum of the foot, not just the ankle and lower leg. Lymphedema swelling cannot be controlled by eliminating the venous hypertension. It is still helpful to control superficial venous insufficiency to help avoid future skin changes and possible ulceration. There will always be some edema which is controlled with graduated compression not diuretics. We, as physicians, need to be more cognizant of the etiology of swelling. Edema from venous insufficiency and lymphedema is generally resistant to the chronic use of diuretics. Compression and elevation are the mainstays of therapy. TED stockings will not suffice because of inadequate compression. The minimal level of compression is 20-30mm hg progressing if possible to

30-40 mm hg when tolerated. There are several devices and tricks to assist getting the stockings on and off. Knee length stockings are generally all that is required unless the patient requests thigh high or panty hose.

Varicose veins, skin dryness and thickening and discoloration in the lower leg and edema require further evaluation and treatment and deserve to be recognized as a medical condition prior to advanced changes such as lymphedema and ulceration.

In order to fulfill the ambitious goal of decreasing the incidence of ulceration by 50 percent in 10 years we must recognize venous disease in its early stages and initiate aggressive therapy.



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