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Venous insufficiency for practical purposes can be divided into primary venous insufficiency and chronic venous insufficiency. The latter is characterized by advanced skin changes of hyperpigmentation, edema, ulceration, and scarring from healed ulcers or open ulcerations. These are the subject of this presentation and are summarized in the CEAP classification as Classes 4, 5, and 6.

Pretreatment evaluation is done with a standing ultrasound reflux examination. Thorough mapping of the extremity reflux is desirable. Physiologic tests of venous function such as plethysmography are unnecessary.

Treatment is directed at closing refluxing axial veins as well as controlling exit but not re-entry perforating veins. Varicose veins must be obliterated. Initial treatment of severe chronic venous insufficiency is carried out by controlling the edema with elastic bandaging or nonelastic support such as the Unna boot or the CircAid dressing.

Treatment of severe venous problems with foam sclerotherapy has been rewarding. We have now treated 66 patients, 91 limbs that included 34 limbs with venous ulcers and 57 with painfully disabling lipodermatosclerosis or unstable healed ulcers. The foam, just as in treating varicose veins has been delivered under ultrasound guidance by butterfly needle into varices proximal to the severely affected area. Then by raising the distal limb 45°, the foam has been guided into the tangle of veins, venules and damaged microcirculation under the most profoundly damaged tissue. Favorable results have been seen regularly within 10 to 14 days.

Now, we see no reason to delay treatment if active, invasive infection is absent. The treatment algorithm for CVI has changed because the simplicity of the treatment, its evident success and the relative freedom from serious complications makes this the first line treatment for venous ulcer and for painful lipodermatosclerosis as well. Ulcer healing is not required before definitive treatment is begun because the effect of foam is to obliterate the vessels in the ulcer bed and in the area of lipodermatosclerosis. These vessels are seen to fill during treatment and to be occluded by ultrasonographic examination after treatment.

Advent of foam sclerotherapy has proven to be an attractive alternative to surgery and has added a new tool for the treatment of severe chronic venous insufficiency. In this preliminary experience, the results are quite satisfactory and the technique has been shown to be effective, pain free, inexpensive, with very little morbidity.

References

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