Techniques to treat varicose veins appear comparable in effectiveness

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Endovenous laser treatment (EVLT) and high ligation and stripping (HLS) are both associated with effectiveness and safety in treatment of insufficiency of the great saphenous vein (GSV), but EVLT is more frequently associated with recurrences, according to a report published Online First by *Archives of Dermatology*.

Prevalence rates of chronic venous insufficiency caused by varicose veins may be as high as 28 percent to 35 percent in adults, according to background information in the article. Treatments for the condition may help reduce symptoms, avoid long-term complications and improve disease-related quality of life (QOL). For insufficiency of the GSV (which begins on the inner aspect of the foot and extends up the inner leg into the thigh), the standard treatment is HLS, removal of the vein. However, recurrence rates may be 30 percent to 40 percent at five years, often because of neovascularization (growth of new blood vessels). A commonly used alternative treatment, EVLT involves inserting a catheter into the vein, and using laser energy to ablate the varicose vein. Since the number of published randomized, controlled trials (RCTs) comparing these techniques is small, "there is still a medical need for further RCTs comparing endovenous techniques with standard surgical treatment of saphenous vein incompetence to drive reliable conclusions, particularly concerning clinical efficacy," write the authors.

Knuth Rass, M.D., from Saarland University Hospital, Homburg, Germany, and colleagues conducted a randomized, controlled trial with a follow-up of two years. Between September 2004 and March 2007,

ambulatory and hospitalized patients with GSV insufficiency who participated were assigned to two vein centers in Germany: a university dermatology department performed the EVLT (185 patients' limbs) and a specialized vein clinic performed the HLS (161 patients' limbs). Outcomes included clinical recurrence, especially of the saphenofemoral vein; severity of the condition; hemodynamics (blood flow in the vein), QOL, adverse effects and evaluation of patients' and surgeons' satisfaction.

After treatment, both groups experienced similar rates of clinically recurrent varicose veins: 16.2 percent among patients treated with EVLT and 23.1 percent among patients treated with HLS. Duplex ultrasonography detected significantly more frequent saphenofemoral refluxes among the EVLT group versus the HLS group. Scores on disease severity and disease-related QOL measures improved equally in both groups. Endovenous laser treatment was associated with more adverse effects as well as greater improvements in hemodynamics, recovery and cosmetic outcome.

The study appeared to demonstrate equivalence between EVLT and HLS for the primary objective of clinical recurrence and most of the secondary objectives at the two-year follow-up. In addition, note the authors, "the patients were remarkably satisfied with the treatment results of both procedures. Ninety-eight percent of the study population would undergo each treatment once again." The researchers point out the different rates of saphenofemoral vein recurrence and call for more studies: "The significantly higher rate and the course of duplex-detected saphenofemoral recurrences after EVLT will remain a matter of further investigations."

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