ASK THE EXPERTS

Saphenous Trunk and Tributary Incompetence: What Is Your Approach?

Weighing available data and preferences for concomitant versus staged treatment.

With Thomas Aherne, MD; Dejah R. Judelson, MD; and Renate R. van den Bos, MD, PhD

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Given the range of surgical modalities available to the modern phlebologist, a considered approach to treatment has become an essential component of patient-centered venous care. Debate continues regarding the merits of a staged or concomitant approach to truncal disease with associated tributary incompetence. Many authors advocate a staged approach characterized by an initial truncal ablation and interval phlebectomies, as required, at follow-up. This strategy is based on the hypothesis that saphenous intervention alone may induce tributary regression and hence reduce the need for subsequent tributary interventions. A number of contemporary meta-analyses have suggested that both strategies offer similar morbidity profiles, while staged interventions obviate the need for secondary tributary intervention in just under two-thirds of patients.[1] In contrast, concomitant intervention may offer marginal improvements in disease severity and quality-of-life scores; however, the clinical relevance of these subjective outcomes remains uncertain. There is no reliable evidence to guide the cosmetic or ulcer response to treatment.

In this context, the merits of each strategy should be discussed with all patients, highlighting that a staged approach is likely to be associated with a reduction in the requirement for phlebectomy given the potential for tributary regression after an initial truncal ablation. Nonetheless, it is likely that a majority of patients would still favor a single, comprehensive treatment strategy.[2] In more advanced disease, a singular concomitant strategy should be used in most cases to optimize outcomes, particularly in those with ulceration.

An index truncal intervention has long formed the basis of staged superficial venous intervention. This is founded on Trendelenburg's widely accepted descending theory of venous incompetence. The latterly described ascending theory of incompetence, characterized by an enlarging venous reservoir and valve failure in a cephalad direction, has resulted in novel treatment strategies such as the ASVAL (ambulatory selective varices ablation under local anesthesia) technique. This technique involves initial phlebectomies and aims to reverse truncal incompetence and preserve the saphenous trunk.[3,4] Recurrence rates at 4 years are reported to be 11.5%[3]; however, it has been suggested that those with more advanced disease are less likely to respond to this strategy.[4] In contrast to these early observational studies, a large body of evidence supports a truncal first strategy. As such, an initial truncal intervention should be considered where a staged strategy is favored.

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One reason I enjoy performing varicose vein interventions is that it allows us to practice the art of medicine. For patients with CEAP (clinical, etiology, anatomy, and pathophysiology) C2 disease presenting with symptomatic varicose veins, my goal is to get the patient to feel better and improve their symptomatic varices. There are many ways to get to the same outcome, and focusing on the patient's goals is key to decision-making and procedural planning. The literature supports that it is safe to perform concomitant treatment of the saphenous trunk and tributaries[1,2]; however, my personal preference is to stage the intervention.

Staged treatments of the saphenous trunk and the associated tributaries allow for a quicker procedure and easier recovery. I prefer either a thermal tumescence or a nonthermal nontumescence ablation technique to treat the saphenous trunk first. Patients are placed in compression postprocedure and return immediately to normal activity. There is minimal postprocedure discomfort, and this provides significant symptom relief. After standard postprocedure surveillance (1-week follow-up with duplex), I have my patients return at 3 months for a symptom check. With persistent symptomatology, I then will proceed with tributary treatment. Typically, these patients require phlebectomies, and with this delayed treatment I can proceed with fewer phlebectomies, with reduced bruising and better cosmetic outcomes. I find that if I perform concomitant treatment there is increased pain and delayed return to activity due to the more extensive nature of the intervention.

The key to proceeding with either staged or concomitant treatment is to include your patient as part of the clinical decision-making and understand their goals of treatment. Most patients just want to feel better, and staging the intervention can often allow them to avoid treatment of the tributaries as they will often be adequately decompressed with axial ablation alone. At the end of the day, it is important to manage expectations and include your patient in their treatment algorithm.

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When treating patients with varicose veins, it's important to always keep in mind that the development of varicose veins can also be based on an ascending or multifactorial evolution of reflux. In our SAPTAP randomized controlled trial of almost 500 patients with great saphenous vein/anterior accessory saphenous vein reflux plus an incompetent tributary, we showed that isolated phlebectomy of the tributary led to a noninferior health-related quality of life at 1-year follow-up compared to those who had endovenous laser ablation (EVLA) plus phlebectomy. In addition, only 26% of the patients treated with isolated phlebectomies needed an additional EVLA of remaining truncal reflux at 1-year follow-up.[1] These results underline that a large group of patients can be adequately treated with removing the tributaries only; however, one can imagine that this approach works better in an ascending origin of reflux. When you suspect that the truncal reflux is probably a descending problem (ie, saphenofemoral junction reflux, with a large diameter of the trunk and a small diameter and length of the side branch), then it is prudent to perform an endovenous ablation of the trunk with concomitant phlebectomy of the tributary. Performing only endovenous ablation and leaving the tributary is never a good idea, as patients have a high chance of symptomatic splanchnic venous thrombosis in the tributary posttreatment, and the tributary usually remains visible. However, if the tributary is large and lengthy and the saphenous trunk is not severely diseased, then isolated phlebectomy suffices. ■

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