

**The Etiology, Pattern and Treatment of “Recurrent” Varicose Veins:
Experience of The Wisconsin Vein Center, Manitowoc.**

**Terry L. Gueldner, MD, FACS, RPhS
Leanna L. Beaumont, MSN, APNP**

Background: Primary varicose vein intervention has been a major part of the general and vascular surgeon’s caseload. Historically, such surgical intervention has consisted of flush ligation of the Great Saphenous Vein (GSV) or Small Saphenous Vein (SSV) near the deep vein component (Common Femoral Vein (CFV) or Popliteal Vein (PV)), and stripping of the offending refluxing vein(s) and/or removal of the visible varicose tributary veins by limited phlebectomy. Patients frequently return with symptomatic venous insufficiency and “recurrent” varicose veins after prior treatments at variable post treatment time frames. The term “recurrent” has been used to describe any reason for which a patient seeks treatment for venous insufficiency after having undergone prior treatments. Frequently a vascular technologist in the hospital setting performs the venous duplex ultrasounds which are communicated via written report to the surgeon.

Method: The patient population and experience of a busy outpatient vein center was reviewed and summarized documenting the etiology and pathophysiology of “recurrent” varicose veins. Identification of the type of initial venous intervention was made through clinical examination, review of available prior op notes/records, and performance of current diagnostic imaging.

Results: Flush ligation of the GSV or SSV at the CFV or PV with or without stripping, venous tributary phlebectomy, endovenous ablation by radiofrequency ablation (RFA) or laser ablation (LA), and sclerotherapy were all methods seen as primary treatment modalities. Initial misdiagnosis or non treatment of the responsible refluxing vein(s), neovascularization near the site of flush ligation or along the course of the ablated vein, recanalization (reopening or failure to close) of a treated vein, and progression of the disease process affecting previously normal veins have all been observed in these patients.

Conclusion: Accurate diagnosis of the etiology, anatomy, and pathophysiology, of the source of “recurrent” venous disease is paramount to developing effective treatment protocols for patients who present with this disorder. It is not uncommon to find more than one source of reflux in these patients. It is imperative that the treating surgeon have an intimate understanding of venous duplex ultrasounds and it may be best for the treating surgeon to perform the DUS his/herself to promote more accurate identification of all refluxing pathways contributing to “recurrent” venous disease. The term “recurrent” should only refer to those who present with recanalization of an ablated or sclerosed vein, missed diagnosis of all initial refluxing sources or from neovascularization. We propose using a term like “progressive vein disease” (ProVeD) to encompass **new** sources of reflux in a previously documented normal vein or limb.

Primary Author: Dr. Terry L. Gueldner, Member, WI Surgical Society – A Chapter of the American College of Surgeons. Email address: dr@gueldnermd.com. Phone: 920-686-7900