

ABOUT DR. KANTER

A native of Boston, Alan Kanter received his M.D. degree from the University of Vermont in 1975. After his residency at Memorial Hospital in Long Beach, he practiced internal medicine in Torrance until 1990. At that time, he decided to devote his full-time to the emerging specialty of phlebology (the field of venous disorders), and took a fellowship based on European techniques recognized worldwide.

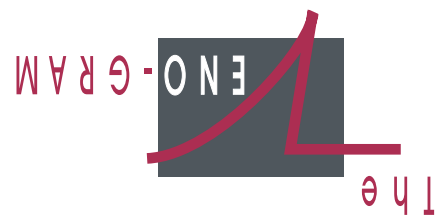
Since opening the Vein Center of Orange County, his expertise and clinical research have earned him several grants in collaboration with UCI, and a reputation as the local vein expert other doctors turn to. As a result of his published studies on the use of duplex ultrasound for real-time guidance of sclerotherapy to treat varicose veins, physicians from several continents have made the trip to Irvine to observe his treatment protocol. Dr. Kanter is a frequent speaker at the American College of Phlebology's (ACP) Annual Congress, and has served on their Program Committee as well as committees of Public Education and Ethics & Professional Standards of Care. He has also been a guest speaker at numerous hospital and university CME courses, as well as phlebology meetings in Canada, England, Italy, and Australia. In recognition of these academic and clinical contributions, Dr. Kanter was granted "Fellow" ACP membership status in 2004, and "Honorary Fellow" membership status in the Australasian College of Phlebology in 2005.

Dr. Kanter is a member of the Orange County Medical Association, American Medical Association, and strongly believes that his sole focus on treating venous disorders enables him to provide the highest quality service utilizing the latest technology.

ABOUT OUR OFFICE

The Vein Center of Orange County (VCOC) is conveniently located in Irvine between the 5 & 405 Freeways. Dr. Kanter performs all consultations and treatments at VCOC, including a duplex examination at the time of consultation when indicated. Included on his team is a highly specialized vascular ultrasound technician, using the latest on-site dedicated color-flow duplex ultrasound. All referring doctors are sent timely consultation summaries and follow-up notes on their patients. Specializing primarily in the medical treatment of varicose and spider leg veins, advanced out-patient treatment for venous leg ulcers is also available. Treatment of cosmetically undesirable face, chest, and hand veins is also offered. When medical necessity exists, our friendly staff will assist patients in obtaining insurance reimbursement; however, we have opted out of Medicare, which means Medicare patients can be treated at VCOC only if they agree to forego Medicare reimbursement. VCOC is a private fee-for-service practice, with self-supported clinical research activities since 1993. For a list of publications, brochures, or more information about our services, call 949-551-8855, or visit our www.vcoc.com web site.

Venous Disorders Update
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Summer 2006

A Message From the Founder



Welcome to the "Sizzling" Summer 2006 issue of *Veno-gram*, an educational newsletter for the practicing physician which focuses on clinical applications of current research in venous disease. It certainly has been a hot summer so far!

Our "Advances" column highlights important venous disease nomenclature changes made within the past three years. Although most were announced back in 2003, widespread acceptance and usage has not been forthcoming despite publication in specialty journals and promotion at professional society meetings. This will undoubtedly improve over time. Meanwhile, this issue's review should make our VCOC consultation summaries more understandable to referring physicians and further the cause. If you still use the term "superficial femoral vein" and think it is part of the superficial venous system, PLEASE read this segment.

"In Other News" deals with two complications associated with modern vein treatment methods: TIA phenomenon after foam sclerotherapy (FS) and DVT after endovenous ablation (EVA). Because visual disturbance and headache have been observed after FS, it has been proposed that air bubbles from FS travel up the leg through a patent foramen ovale (PFO) and into the cerebrovascular circulation to cause an ischemic cerebrovascular event. Contrary to prior published data, a

recent study in the Mayo Clinic Proceedings found no association between PFO or shunt volume and cryptogenic cerebrovascular events in the general population. This may help explain why TIA symptoms are so rare after literally millions of FS treatments despite the high prevalence of PFO.

Although clinically insignificant, DVT has recently been reported after EVA. All cases were located proximally just beyond the junction of the treated saphenous vein in either the femoral vein or popliteal vein. Once again, these published reports must be viewed from the perspective of a very low incidence of clinical DVT following thousands of EVA procedures during the past seven years. Precise catheter placement within the saphenous vein below the junction under expert ultrasonic imaging is thought to reduce if not eliminate this complication altogether.

The next ACP Annual Congress will be held November 9-12, 2006 at the Sawgrass Marriott Resort in Florida. For more information on this and additional regional symposia opportunities, visit the ACP web site www.phlebology.org.

As most of you know, our own www.vcoc.com web site helps educate patients on vein disorders and prepares your referrals prior to consultation at VCOC. Besides providing a link to the ACP web site, it covers VCOC office policy, phlebology FAQs, professional background and qualifications, publications, before/after pictures, and a video of duplex ultrasound-guided injection.

The goal of this quarterly update is to disseminate the latest advances in

the diagnosis and treatment of varicose veins and related disorders to primary care physicians and interested specialists. As a practicing internist from 1976-1990 and phlebologist since then, I appreciate the increasing time constraints that require us to maximize our CME time investment. I therefore pledge to provide you with concise summaries containing usable information that can make a difference in how you will treat your patients today.

You are encouraged to contact me with feedback and questions about the contents of our newsletter and website, suggestions for future issues, or reference requests. With your continued input, I hope to achieve the above-stated goal and look forward to hearing from you.

Sincerely,

Alan Kanter, M.D., F.A.C.P.
Founder & Medical Director

INSIDE

New Nomenclature - Use It!

TIA After Foam

DVT After Endovenous
Ablation

About Dr. Kanter

About Our Office

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ADVANCES IN TREATING VARICOSE VEINS

Our 2003 Fall/Winter *Veno-gram* contained the revised venous disease CEAP nomenclature derived from a worldwide consensus (J Vasc Surg. Aug, 2002). Three years later, it is sadly evident these changes have been slow to catch on. Only last month I received a copy of a duplex study from a local imaging center citing the “superficial femoral vein,” a dangerous term revised with good reason - to avoid the mistaken implication it is part of the superficial venous system (see below table).

Although deficiencies in the new nomenclature have since been identified and modifications for improvement suggested, the imperfect CEAP venous classification remains very useful as the accepted current phlebology standard. Accordingly, the below table lists significant changes for your review.

As part of the deep venous system, the old “superficial femoral vein” is now called the “deep femoral vein,” and the old “deep femoral vein” is now simply the “femoral vein.” The idea is to prevent the primary care physician from treating “superficial femoral vein” thrombosis like superficial vein thrombosis; i.e., superficial vein thrombosis rarely requires anticoagulation while femoral (deep) vein thrombosis always requires anti-coagulation.

Superficial veins are now divided into interfascial and epifascial compartments. Interfascial veins include all four saphenous veins and some intersaphenous veins; all others are epifascial. The old

system of specifying perforator vein location by naming them after esteemed pioneer clinicians (Hunter, Dodd, Cockett) has been replaced with the simple anatomical descriptor; e.g., distal thigh or proximal calf perforator vein.

“Greater” saphenous vein (GSV) is now “great” saphenous vein, and “short” or “lesser” is now “small” saphenous vein. “Giacomini” or “femoropopliteal” veins are now called the “cranial extension of the small saphenous vein.” A GSV which becomes inapparent distally is termed “aplastic” and is often continuous with its distal epifascial accessory vein. A duplicated GSV may either remain separate from the main trunk in which case it is called a “collateral GSV,” or it may re-anastomose with the main GSV distally in which case it is called an “accessory GSV.”

Finally, CEAP clinical class 4 has been divided into two common categories of skin changes: 4_a designates pigmentation and/or dermatitis, while 4_b designates lipodermatosclerosis (thickened orange-peel consistency) and/or atrophie blanche (depigmented white areas thought to represent old infarcts).

Venous nomenclature will continue to evolve along with our better understanding of underlying pathology. Meanwhile, it is important we all speak the same language to facilitate accurate communication, and in turn, appropriate patient care.

CEAP Nomenclature Update

Old	New
superficial femoral vein	deep femoral vein
deep femoral vein	femoral vein
superficial veins	divided into interfascial and epifascial
perforator veins	location specific
greater saphenous vein	great saphenous vein (GSV)
short saphenous vein	small saphenous vein (SSV)
Giacomini or femoropopliteal vein	cranial extension of the SSV
inapparent GSV segment	GSV aplasia
Collateral saphenous vein	Runs parallel to/separate from GSV
Accessory saphenous vein	Runs parallel/re-anastomoses w/ GSV
Class C ₄	Divided into: 4 _a - pigmentation/dermatitis 4 _b - LDS/atrophie blanche

IN OTHER NEWS - COMPLICATIONS OF TREATMENT

Cerebrovascular Events After Foam Sclerotherapy

As reported in our last *Veno-gram* issue, a large European study documented the high safety profile of foam sclerotherapy (FS). However, a small (< 0.5 %) but definite incidence of visual disturbance and headache was found primarily after FS of reticular (not varicose) veins. While worrisome, all cases resolved quickly without sequela. We also reported how a FS bolus was followed by duplex ultrasound from the leg vein to the heart to the middle cerebral artery in a patient with patent foramen ovale (PFO). The logical assumption is that FS may be associated with transient ischemic attack (TIA), in turn leading to concerns about possible completed stroke. With an estimated 20% incidence of PFO in the general population, this is a real concern.

Petty et al prospectively compared four groups of patients referred for transesophageal echocardiography: one group each with cerebrovascular ischemic events of either cryptogenic or non-cryptogenic causes, one group with cardiac disease, and one normal control group from the general population.¹ After adjustment for numerous factors, PFO was not found to be an independent risk factor for cryptogenic stroke or TIA in the general population regardless of PFO shunt volume. The discrepancy between this finding and previous studies was attributed to selective referral bias in previous studies. Furthermore, no association was found between PFO and DVT, pulmonary embolism, or COPD.

Obviously, these results cannot be extrapolated from patients with spontaneous pathology to patients undergoing FS medical intervention. However, these results are certainly thought-provoking and perhaps somewhat comforting given the frequency of PFO in patients walking through our doors every day. From a personal standpoint I have yet to witness a single cerebrovascular event after treating thousands of varicose veins with FS during the past seven years. Also consistent with the European study findings, I have witnessed occasional self-limited episodes of visual disturbance or headache after reticular vein FS, prompting me to reserve FS for only large veins > 3 mm.

1. Petty et al. Population-based study of the relationship between patent foramen ovale and cerebrovascular ischemic events. Mayo Clin Proc 2006;8 (5):602-608.

DVT After Endovenous Vein Ablation

Also reported in our last issue were two studies demonstrating self-limited, asymptomatic, clinically insignificant saphenofemoral (SF) junctional DVT one week after endovenous ablation. To these we can add another series published by Mozes et al with similar findings.¹

It is thought that high catheter/laser fiber placement at (rather than below) the SF-junction by those less experienced in endovenous ablation might account for this anomaly. Precise proper placement of the laser fiber below the SF-junction requires coordinated expertise in both ultrasonographic imaging and catheter positioning. This explains why DVT after endovenous ablation by experienced practitioners has been quite rare during the past six years.

Given its cost-effective superior efficacy,² endovenous ablation is being performed by a rapidly increasing number of physicians. As with any procedure, proper training is very important to obtain the desired outcome without complications.

1. Mozes G et al. Extension of saphenous thrombus into the femoral vein: a potential complication of new endovenous ablation techniques. J Vasc Surg 2005;4:130-135.
2. Merchant RF Pichot O, Closure Study Group. Long-term outcomes of endovenous radio frequency obliteration of saphenous reflux as a treatment for superficial venous insufficiency. J Vasc Surg 2005;42:502-509.