ABOUT DR. KANTER

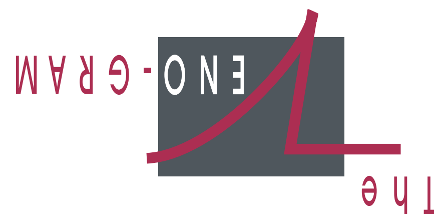
A native of Boston, Alan Kanter received his M.D. degree from the University of Vermont in 1975. After his residency at Memorial Hospital in Long Beach, he practiced internal medicine in Torrance until 1990. At that time, he decided to devote his full-time to the emerging specialty of phlebology (the 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.

Dr. Kanter is a member of the Orange County 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
Vein Center of Orange County
250 East Yale Loop, Suite D
Irvine, California 92604-4697
(949) 551-8855
www.vcoc.com

Venous Disorders Update

An Educational Service from the Vein Center of Orange County **www.vcoc.com** **Summer 2005**

A Message From the Founder

Welcome to the Summer issue of *Veno-gram,* an educational newsletter for the practicing physician which focuses on clinical applications of current research in venous disease.

Our "Advances" column deals with a misunderstanding commonly encountered in a phlebology practice - the frequent need to repeat a recently performed lower extremity duplex study. Given the pervasive cost-conscious climate we all practice within, physicians and patients alike understandably question the necessity of this recommendation. I am therefore very happy to explain the rationale for this practice which derives from the differences between a non-treating diagnostic lab accustomed to ruling out DVT, and a treatment-oriented vein center familiar with the newest mapping standards and treatment parameters. With the addition of endovenous laser ablation to our therapeutic armamentarium, these differences are even more critical as explained on the next page.

"In Other News" covers an article documenting the increasingly widespread problem of inadequate anti-thrombotic treatment practices. Despite accepted treatment guidelines, even academic centers scored poorly in this area suggesting the need for better CME or specialist referral. The highest compliance rates were shown for AMI and orthopedic procedures, and the lowest for atrial fibrillation and DVT/PE.

Next comes an important related prospective article which shows that the risks of both thromboembolism and major hemorrhage from anticoagulation rise significantly with age, underscoring the dilemma of treating older patients with thrombosis. Although this particular study followed only arterial thrombosis and excluded venous thrombosis, it is certainly noteworthy to all.

Our "Mythology" section highlights the differences between ischemic and venous leg ulcers, and offers an optimistic outlook for most venous ulcer patients.

If you received two issues of our Spring issue this year (April and June) please let us know. When we could not confirm receipt of the first by our readers, we reprinted and sent out the second.

As most of you know, our **www.vcoc.com** web site already 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 FAQ's, 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 since 1976, 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.H.
Founder & Medical Director

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Advances in Treating Varicose Veins
Pre-Treatment Duplex Mapping

The past ten years has yielded an abundance of studies documenting the necessity of pretreatment duplex mapping of varicose veins and their subfascial sources. Accordingly, duplex mapping is the gold standard applied by knowledgeable physicians treating venous disorders, having proven its worth in guiding both surgical and non-surgical approaches for better outcomes.

However, when the treating clinician is not the one performing the examination, one must exercise caution in interpreting reports from outside sources and subcontractors due to several pitfalls which obscure, confuse, or miss the mark. The following discussion covers these potential problems and explains why we must often perform our own duplex study here at VCOC before recommending treatment for varicose veins and symptoms of venous insufficiency.

First, most lower extremity duplex studies are performed in the supine position. This is appropriate for assessing deep vein thrombosis but not superficial venous reflux mapping. For valid reflux mapping the **patient must be standing during the exam** to enlist the force of gravity. This is the accepted convention for phlebologists, with superficial reflux generally defined as flow reversal lasting > 0.5 second (with the patient) in the standing positlon.

Second, most duplex studies do not **provide sufficient detail to guide effective treatment.** The observation of "saphenous vein reflux" alone without supporting data can lead to inappropriate decisions about treatment. Factors such as variation in vein caliber, presence and location of venous aneurysmal dilatations, specific tributary origins and their anastomoses with other veins, incompetent perforator veins, and duplicate trunks can play a major role in how one approaches each individual case. While some anatomy is relatively constant, there is much individual variation, especially in the popliteal fossa and posterior thigh.

As explained in recent *Veno-gram* issues, **additional criteria** are needed to evaluate candidates **for endovenous laser** who must have saphenous veins sufficiently straight, deep, and uniformly large enough to accept the introducer catheter. Thus, if a saphenous vein has a tortuous course or narrows to < 3 mm in diameter along its treatable course, laser is not an option until smaller more flexible catheters become available. Neither is laser advisable if the target vein lies too close to the surface (< 2 mm) because of unavoidable skin necrosis.

The pre-treatment duplex map **must also be current.** Should a patient postpone treatment past one year after duplex exam, it is advisable to re-study the patient to confirm the previous findings have not changed. Vein disease is progressive with new reflux channels developing over time; the decision to spare or ablate individual veins must be based on accurate up-to-date information. A patient with simple single-axis saphenous vein disease in 2003 may have multi-axis reflux sources in 2005. Since endovenous laser was not widely available until recently, previous duplex studies did not evaluate the parameters necessary to determine suitability for this procedure.

Thus, in order to provide a cost-effective treatment which targets all reflux sources for an individual patient, the pre-treatment duplex mapping study must be all of the following:

1) Current,
2) Performed by an experienced ultrasonographer (preferably the treating clinician),
3) Sufficiently detailed including endovenous laser quaiiifications, and
4) Performed with the patient standing

If a study lacks any one of these prerequisites, it is inadequate and should be repeated. While patients often question the recommendation to repeat a test recently done elsewhere, a brief explanation of the above rationale is usually met with an appreciative nod.

We hope this clarifies a common question and invite any further inquiries.

IN OTHER NEWS

Underutilization of Anti-Thrombotic Treatment

A new multi-center hospital study found significant omissions in both primary and secondary thrombosis prevention. What's worse, the results are probably an underestimation of the problem since the data was skewed by the fact academic centers represented the majority of study centers.

Data was collected from 3778 patients treated at 38 U.S. hospitals. Only 55% with atrial fibrillation received warfarin, 75% with AMI received ASA, 86% received warfarin after hip or knee surgery, and 49% with DVT/PE had their warfarin discontinued before achieving a minimum INR of 2.0 and were often discharged home without adequate "bridge" therapy.

The authors felt part of the problem was poor understanding of the risk-benefit ratio for warfarin despite widely accepted treatment guidelines, suggesting the need for better practitioner education. We congratulate one of our current ACP board of directors, Dr. Joseph Caprini of Illinois, as a contributing author. (Tapson VF et al. Antithrombotic therapy practices in US hospitals in an era of practice guidelines.Arch Intern Med 2005; 165: 1458-64.)

Coincidentally we reviewed a different article in the Spring 2003 *Veno-gram* issue which suggested most physicians lack experience in this area because they individually see only occasional DVT cases. (Zierler BK, Meissner MH, Cain K, Strandness Jr E.A survey of physicians' knowledge and management of venous thromboembolism. Vasc Endo Surg 2002;36(5):367-75.) These studies would suggest that physicians who treat DVT either obtain current thrombosis CME or refer to a more experienced colleague.

Anticoagulation Risk Increases With Age

4202 patients treated for atrial fibrillation, prosthetic heart valves, and MI at the Leiden Anticoagulation Clinic in The Netherlands from 1994-1998 were followed prospectively for three years. Major hemorrhage incidence rose gradually from 1.5 per 100 patient-years for patients younger than 60 years to 4.2 for patients older than 80 years. This was paralleled by an increasing incidence of major thromboembolism from 1.0 to 2.4 in the corresponding age groups.

Because most clinical studies in this area exclude very old patients with co-morbidity factors and this Dutch study did not, the latter provides more accurate if not disturbing data. It underscores the dilemma that both risks of thromboembolism and bleeding increase sharply with age. Future studies will be needed to guide treatment based on risk stratification. It is important to consider this study used target INRs higher than most centers (3.0-3.5), and collected data only for arterial and not venous thromboembolism. (Torn M. Risks of oral anticoagulant therapy with increasing age. Arch Intern Med 2005;165:1527-32)

VARICOSE VEIN MYTHOLOGY SERIES
Myth #4: Leg Ulcers Are Usually Caused by Diabetes Mellitus

☐ True ☐ False

Published studies show that over 50% of leg uicers above the malleoli have underlying venous disease as a contributing, if not major etiologic component.[1-3] Furthermore, much of this underlying venous insufficiency is superficial,[4-6] which means it is easily treatable. This is why the use of Unna boots and skin grafting[7] so often fail; recidivity will remain high until the underlying venous hypertension is controlled.

Ischemic and neuropathic leg ulcers usually appear punched-out, contain black eschar, involve deeper tissue, and are found below the malleoli; venous leg ulcers usually have raised, irregular wound margins, appear granular without eschar, are superficial, and are found at or above the malleoli.

At VCOC, we have found that most venous leg ulcers can be healed within two months by using compression hosiery and selective ultrasound-guided ablation oi correctable superficial venous reflux.

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3. Callam MJ, Prevalence of chronic leg ulceration and severe chronic venous disease in western countries. Phlebology 1992; 7:6-12.
4. Labropoulos N. et al. Distribution of valvular reflux in patients with venous ulceration. Phlebology 1994; 9:129. (Abstractj
5. Neizen O et al. Leg ulcer etiology - a cross sectional population srudy. J Vasc Surg 1991; 14:557-564.
6. van Rij~ AM, Solomon C, Christie R. Anatomic and physiologic characteristics of venous ulceration. J Vasc Surg 1994; 20:759-64.
7. Wood MK, Davies DM. Use of split-skin grafting in the treatment of chronic leg ulcers. Ann R Coll Surg Engl 1995; 77:222-3.