

## 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 coincident with the introduction of ultrasound-guided sclerotherapy.

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 saphenous-derived 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, "Fellow Emeritus" membership status in the Australasian College of Phlebology in 2005, and full membership in the American Venous Forum in 2007.

Dr. Kanter is a member of the Orange County Medical Association and 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 followup notes on their patients. Specializing primarily in the medical treatment of varicose and spider leg veins, advanced outpatient 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, brochure, or more information about our services, call 949-551-8855, or visit our [www.vcoc.com](http://www.vcoc.com) web site.

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## Venous Disorders Update

An Educational Service from the Vein Center of Orange County

[www.vcoc.com](http://www.vcoc.com)

Summer 2007



Welcome to the Summer 2007 issue of *Veno-gram*, an educational newsletter for the practicing physician which focuses on clinical applications of current research in venous disease. For your convenience we have recently starting posting *Veno-grams* on our web site [www.vcoc.com](http://www.vcoc.com), facilitating access to back issues thereby making the annual cumulative index more relevant.

Last month's *Veno-gram* reported the proceedings of the 20th Annual ACP Congress held last November in Florida, also available as a CD-ROM ([www.sales@digitellinc.com](mailto:www.sales@digitellinc.com)). This issue will be devoted to summarizing the highlights from the 19th Annual meeting of the American Venous Forum in San Diego.

I was very impressed with the AVF meeting from several standpoints. First, an excellent postgrad course kicked off the meeting which included new guidelines on how to interpret data from evidence-based medicine, acute DVT objective outcome measures, intensity and duration of longterm anti-coagulation, thrombolytic therapy, compression, and superficial vein ablation. Second, the presentations were consistently outstanding and clinically relevant. Third, both surgical and nonsurgical treatment modalities were well covered this year. And fourth, new members were inducted from non-surgical specialties for the first time, myself included.

For me, a good way to gauge a CME conference's value is to develop a "Do Different" list. This is a list of things I will do differently in my practice as a result of having attended the conference. I consider a conference worthwhile if I come away with one or two significant changes. This year's

## A Message From the Founder

AVF meeting left me with eight! Granted, I had previously been exposed to some on the list, but this meeting stimulated a "call to action" by providing further convincing exposure.

As an example, I have for years categorically dismissed patients' complaints of sciatica as non-venous, and recommended they return to their physician for neuropathy work-up. An eye-opening poster documented sciatica due to reflux of veins intimately associated with the sciatic nerve which resolved upon treatment of the offending veins. Symptoms were precipitated by sitting, relieved by walking or standing, and accompanied by "sentinel" posterolateral thigh surface varicosities. What I will now do differently is to look for sciatic nerve venopathy on ultrasound before declaring sciatica a non-venous entity. Perhaps I can make room to share my complete list in our next issue.

Our Summer 2005 issue explained why I perform my own ultrasound mapping for patients who had recent studies elsewhere. As more practitioners begin to add duplex-guided sclerotherapy and endovenous thermal ablation to their repertoire, we have experienced a dramatic increase in this situation along with requests for second opinions. Unfortunately, reports from prior exams usually indicate they were performed with the patient supine and do not provide sufficient detail to qualify or accurately plan endovenous thermal ablation. Worse than that, treatment based on these inaccurate studies is often unnecessary if not misguided.

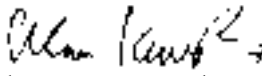
Together we should educate our sonographer colleagues to perform standing duplex exams when testing for reflux and provide the necessary details listed in our 2005 article to enable the treating physician to formulate an appropriate plan of action. Of course, the ideal situation is

for the treating physician to perform his/her own duplex studies so that nothing is lost in the translation. This has always been the case at our center.

As most of you know, our own [www.vcoc.com](http://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.

You are encouraged to contact me with feedback and questions about the contents of our newsletter and website, suggestions for future issues, and reference requests.

Sincerely,

  
Alan Kanter, MD, FACPh  
Founder & Medical Director

## INSIDE

Founder's Message

19th AVF Annual Meeting

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# 2007 AVF Meeting

## POSTGRAD COURSE

The first day was devoted to a postgraduate phlebology course according to **evidence-based medicine (EBM)**. EBM was described as the integration of individual clinical expertise & best available hard evidence. A new grading system was reviewed which assigns a rating to each of **two parameters**: numerical for "recommendation strength" reflecting practical issues, and alphabetical for methodological quality reflecting benefits vs harm confidence level.

Grade 1 has a highly favorable benefit:risk ratio which an informed patient would always choose, while Grade 2 has a less clear benefit:risk ratio which would lead patients to choose different options according to personal preference. Methodology grade A is the highest quality study, either a homogeneous randomized controlled trial (RCT) without limits or an overwhelming observational study. Grade B is of moderate quality such as a limited RCT or very strong observational study. Grade C is of lower quality including seriously limited RCT, observational or case report, or expert opinion.

Not all evidence must be iron-clad Grade 1A before one begins to accept individual study data as applicable to one's practice. In fact, much data on new treatment is first presented in Grade 2 studies, while some treatments do not easily lend themselves to RCT design. The below chart summarizes this new grading system which was used extensively throughout the meeting.

Grade	Benefit/risk	Methodology	Recommendation Strength & Implications
1A	Clear	High quality	Strong, generalizable
1B	Clear	Moderate	Strong, applies to most patients
1C	Clear	Low	Strong, may change w/ better evidence
2A	Balanced	High quality	Weak, differs w/ patient values
2B	Balanced	Moderate	Weak, differs w/ patient values
2C	Uncertain	Low	Very weak, alternatives equally reasonable

### Objective Outcome Measures in Acute DVT

The risk of recurrent VTE after the initial episode is 3%/yr after a transient risk factor, 10%/yr after an idiopathic or continuing risk factor. PE risk was 60-80% after initial PE vs only 20% after an initial DVT. Secondary measures include PTS (post-thrombotic syndrome), fatal hemorrhage, mortality, QoL, and cost of care.

PTS criteria (Ginsberg vs Villalta) have not yet been validated nor standardized. Recurrent VTE during oral anticoagulation was 7% for non-cancer patients vs 21% for cancer patients. Major bleeding rate during oral anticoagulation was 5% for non-cancer patients vs 12% for cancer patients. Grade 1A evidence dictates LMWH be continued for the first 3-6 months for cancer patients due to lower mortality and fewer recurrent VTE compared to Coumadin.

### Long-term Anticoagulation for DVT: Intensity & Duration

**Standard intensity warfarin** (INR=2.0-3.0) offers **better protection** with same bleeding risk vs low intensity. Standard intensity warfarin offers same protection as high intensity **without increased bleed**. The below table represents EBM grades for specific indications.

.Patients	Modifier	Recommendations	Grade
1st episode DVT	Transient	3 mos VKA (VitK antag)	1A
1st episode DVT	Idiopathic	6-12+ mos/consider lifetime	1A/2A
1st episode DVT	Cancer	LMWH x 3-6 mos/consider lifetime	1A/1C
1st episode DVT	APLAS or 2 phleb factors	12 mos VKA/lifetime	1C/2C
Recurrent DVT		Lifetime	2A
VTE	Rx'd w/ VKA	INR 2.0-3.0 (NOT hi or low intensity)	1A
VTE	Lifetime	Reassess risks/benefits	1C

### Thrombolytic Therapy for Acute DVT

Several key **misconceptions** regarding PTS/DVT were listed. While prior studies overestimated PTS incidence at 60-90%; the actual incidence is much less. PTS does not cause ulcers as often as thought. Anticoagulation does in fact help prevent PTS. The extent of thrombosis is not predictive for PTS. Catheter-directed thrombolysis has the same bleeding risk as the systemic approach. Except for iliofemoral DVT, EBM cannot yet recommend thrombolysis (systemic or catheter-directed) for DVT despite its potential benefits.

### Varicose Vein Etiology

Vein WALL changes (collagen:elastin matrix & MMP content/activity) probably precedes valve changes. Reflux can occur in tributaries without associated truncal, deep, or perforator vein reflux; **reflux can also be local/segmental**. The distribution of varicose veins in young vs old patients supports the **ascending theory** of reflux from tributaries to the saphenous vein.

Outcomes Measurement discusses various scales for class, severity, disability, QoL, and hemodynamic changes.

### Compression

In the upright position >40 mm Hg is needed to narrow, and > 70 mm to occlude leg veins. EBM Grade 1A recommendation for compression for venous ulcer healing and prevention of PTS after DVT. Grade 1B recommendations for: improved Class C3-5 venous insufficiency, VTE prevention, improved edema/pain from DVT, & lymphedema. Weak recommendations for improved sclerotherapy outcome, slowing varicose vein progression, decreased edema, for superficial vein thrombosis - need more trials.

### Superficial Vein Ablation Options (Marston)

	CEAP 2-3	CEAP 4-6
Stripping	2B	2B
RF-Ablation	2B	2C
Laser Ablation	2C	2C
Foam ST	2C	2C

### Endovenous Ablation (Kabnick)

**Wavelength is irrelevant** for outcome; less power needed for higher wavelengths. Overall, **more power is better**. As a stripping alternative, EVLA recommendation is Grade 2B, RFA is Grade 1B. Current evidence for superiority of laser over RFA is Grade 2C.

### CVI

Good results 2-5 yrs after **stenting for non-malignant obstructive lesion**; success unrelated to severity of occlusion. Stenosis measured by IVUS. Female/male=2.5/1. Left/right=2.4/1. Five factors predict **re-stenosis after stent/angioplasty** May-Thurner Syndrome: 1) Any hypercoagulable state, 2) Trauma, 3) Stent length > 20 cm, 4) Male gender, 5) Young age. >90% patency at 4 years lacking these 5 factors. Not predictive were thrombolytics, DVT risk, thrombus extent. **Refractory ulcers** more likely to heal after fasciotomy lowers both IM and SQ tissue pressures in addition to eradication of SVI which lowers only SQ pressure. Conflicting studies regarding **obesity as risk factor for CVI**; no change observed after bariatric surgery. **Blood type A+ correlated to PTS** (70% incidence in PTS vs 40% in general population); consider type screening to determine whether to continue indefinite anticoagulation. (Recurrent ipsilateral DVT only known PTS risk factor) National Venous Screening Update - Gaining momentum, endorsements, and number of sites.

### SVI

In vitro lasered GSVs harvested from stripping showed better closure after lower power (8-12W) w/ slower pullback (less carbonization). **"Closure Fast" RFA** uses external compression over 7 cm GSV segments - 100% closed @ 6 months; average length treated - 37 cm; adjunctive phlebectomy/ST used; 80% had no post-tx pain or tenderness; no guidewire needed; used 116 j/cm proximally and 67 j/cm distally. **Low SFJ ligation** to preserve SFJ (like EVLA) + aggressive stripping eliminated reflux in 98.2% @ 24 mos. without varicose vein recurrence or neovascularization.

### ACUTE DVT

Labropoulos described a **new U/S sign of acute DVT** < 21 days: a smooth bright (hyper-echoic) thin double-line at the interface of the thrombus and vein wall. Also superimposed on chronic DVT when new acute DVT occurs. 21% of untreated distal DVT will develop proximal DVT with its attendant PE/death risks.