

## 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-guided sclerotherapy to treat saphenous-derived varicose veins, physicians from several continents have made the trip to Irvine to observe his treatment protocol. Dr. Kanter has been 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 throughout North America, Europe 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 board certified by the American Board of Phlebology, and is also certified as a Registered Vascular Tech by the American Registry for Diagnostic Medical Sonography. Acquisition of these formal qualifications acknowledges his personal achievement of highly recognized professional standards of excellence, validating the distinguished reputation he has earned during the past twenty years in Orange County.

## 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 who participated in the original study leading to FDA approval of endovenous laser ablation. 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 all list of publications, brochure, or more information about our services, call 949-551-8855, or visit our [www.vcoc.com](http://www.vcoc.com) website.

As a member of the Orange County and American Medical Associations, Dr. Kanter strongly believes that his sole focus on treating venous disorders enables him to provide the highest quality service utilizing the latest technology. As the most experienced practitioner in Southern California using ultrasound-imaged guidance to selectively treat varicose veins and their sources, physician referrals are always welcome.

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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 2009

## A Message From the Founder



Welcome to the late Summer 2009 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 started posting *Veno-grams* online ([www.vcoc.com](http://www.vcoc.com)), facilitating access to back issues which are listed by topic in the annual cumulative index.

As President Obama's health care reform mandate violently lurches forward and backward based on the premise that doctors are motivated to choose treatments with outrageously high fees, the majority of us in the trenches continue to treat our patients ethically according to their best interest. While we all have much to say on this topic, I will add only one comment and stop there in order to fulfill the purpose of this newsletter - medical education (not political rhetoric). I think we could easily come to a consensus on health care reform - if Congress members received the same program as the rest of us.

By way of follow-up, the measures we instituted last Spring to assist patients in these trying economic times have been well received. Many patients who otherwise might not have been able to proceed with necessary treatment gratefully moved forward and received treatment due to lower fees, financing programs, and reimbursement of consult fees. With the current economy taking only

shaky steps toward recovery, VCOC will continue these supportive office policies for now.

This issue contains a look at travel as a risk factor for venous thromboembolism (VTE), but from two different viewpoints. Most discussions of this topic cover VTE risk after air travel. Today, we will first look at the effect of all types of travel (air and land) on VTE, showing VTE does not discriminate between travel type. Second, we will examine the effect of antecedent air travel just prior to surgical procedures, presenting data from the Mayo Clinic that show "long-haul" air travel predisposes to VTE in this setting.

In "Other News" we present our early experience using the Biolitec 1470 nm laser. We then look at two topics on ultrasound-guided foam sclerotherapy (UGFS) covered earlier this year in the *Venous Digest*. The first reveals a comparable two-year success rate using either 1% or 3% polidocanol foam. Can we extrapolate this data to Sotradecol available in the U.S., or to long-term results? Second, we examine factors from UGFS that predispose to DVT risk. As you will see, non-predisposing factors were just as interesting. As always, we compare these reports to our own experience for perspective.

Finally, we present data from Duke University showing a significant downside to endoscopic harvesting vs. "open" harvesting of saphenous veins for CABG.

As most of you know, our

[www.vcoc.com](http://www.vcoc.com) website helps educate patients on vein disorders and prepares your referrals prior to consultation at VCOC. We have recently completed an extensive update to modernize the site for easier navigation and hope you find it informative. Besides providing a link to the ACP website and our own *Veno-gram* archives, 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, M.D., R.V.T., F.A.C.Ph.  
Founder & Medical Director

## INSIDE

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# ADVANCES IN TREATING VARICOSE VEINS

## Travel as a Risk for Thromboembolism

By now everyone is familiar with the “economy class syndrome” – the increased likelihood of venous thrombosis associated with air travel.<sup>1</sup> Previous studies have determined 4-5 hours to be the magic time cut-off after which significant VTE risk ensues. Not so well known is whether something specific to air travel or a non-specific factor common to all “confined” travel is at work. The increased rate of pulmonary embolism observed in Britons confined to cramped bomb shelters during the World War II Blitz suggests a common denominator of stasis.

Regardless of mode of transport, all cardiology department admissions who had traveled > 4 hours within the past 4 weeks were screened for VTE risk factors and tested for common thrombophilias

compared to controls.<sup>2</sup> Although thrombophilia was associated with an increased risk of idiopathic VTE, the results showed different modes of travel had the same VTE occurrence with a mean duration of 5.4 hours.

Although the duration and frequency of ambulation during confined travel necessary to preclude VTE is not known, the following is good advice for travelers: stay well-hydrated (avoid alcohol, drink water), periodically perform ankle dorsiflexion exercises, and wear Class 1 (20-30 mm) compression hosiery.<sup>3</sup> Car travelers should walk briskly during regular stops every 2-3 hours, and high-risk patients should consider prophylactic anticoagulation with low molecular weight heparin. Since all uncomplicated varicose vein patients are at risk, this is how we counsel them at VCOC.

1. Cruickshank JM et al. Lancet 1988;2:497-8.

2. Ferrari et al. Travel as a risk factor for venous thromboembolic disease. Chest 1999;115:440-444

3. Eklof et al. Venous thromboembolism in association with prolonged air travel. Dermatol Surg 1996;22:637-41.

## Long-Haul Travel Before Major Surgery A Prescription for VTE

A retrospective case-control study was done to determine the incidence of post-operative VTE in patients who had flown > 3,000 miles to the Mayo Clinic for surgery.<sup>1</sup> “Non-traveler” controls had traveled < 3,000 miles. Compared to non-travelers, long-haul travelers had a much higher incidence of VTE (4.9% vs. 0.15%), were younger, developed post-op VTE earlier, had a higher prevalence of smoking, and a higher ASA (American Society of Anesthesiologists) physical status classification. The authors strongly suggested advising in-flight precautions (see above) for those traveling long distances before major surgery, a common situation at tertiary care centers.

While femoral vein catheterization is considered a risk factor for subsequent VTE, neither sclerotherapy nor

catheter-directed thermal ablation of the saphenous vein has been shown to carry significant VTE risk. When thermal ablation fibers are properly positioned 2-3 cm below the saphenofemoral junction just distal to the superficial epigastric vein anastomosis, there is little chance of femoral vein damage.

On the other hand, VCOC prohibits air travel for 2 days following any treatment because both sclerotherapy and endovenous thermal ablation induce intimal disruption and inflammation. Despite a lack of hard data proving that this translates to a higher incidence of post-treatment VTE, it seems a simple and prudent precaution for phlebologists to take until confirmatory studies better define the “at risk” period.

1. Gajic O et al. Long-haul air travel before major surgery: a prescription for thromboembolism? Mayo Clin Proc 2005;80(6):728-731.

# IN OTHER NEWS

## VCOC Experience with Biolitec’s 1470 nm Laser

It has been almost one year since we acquired Biolitec’s newest endovenous laser with the expectation of continued excellent efficacy but less post-procedure pain (using lower fluence) compared to our 980 nm laser. We have not been disappointed.

Technically, the smooth radial-firing rounded fiber tip is a pleasure to use. It advances effortlessly and navigates easily around most curves allowing us to treat greater vein lengths in under 25 minutes. Efficacy remains > 95%, with most patients reporting little if any post-procedure discomfort relating to the laser. Our target fluence has been 30 j/cm at 1470 nm vs. 75 j/cm at 980 nm. The most common complaint now relates to indurated surface varicosities injected concurrently, not the lasered saphenous vein.

Is it worth the extra investment to step up to a higher wavelength laser if you are happy with the outcomes from a lower wavelength laser? The answer depends on how much value you assign to post-treatment pain since efficacy is the same. Considering we hold ourselves out as the premiere devoted vein treatment referral center in Orange County, the decision was a “no-brainer.” We want our physician referral base to know their patients will receive only the best of the latest innovations in vein treatments aiming for the highest possible efficacy that provides both durability and patient convenience.

## 1% vs. 3% Polidocanol Foam for UGFS

148 patients received similar volumes of either 1% or 3% polidocanol foam to treat GSV reflux by single-session duplex guidance and then followed every six months for two years.<sup>1</sup> Although the 3% group had a slightly higher reflux abolition success rate than the 1% group at 3 weeks (96% vs. 88%), 2-year success rates were nearly identical (69% vs. 68%).

This is consistent with Italian data reported several years ago demonstrating comparable efficacy with various foam dilutions. It thus makes sense to use lower foam concentrations to achieve a good outcome with less chance of adverse reactions. Can we extrapolate this data from polidocanol, which is not currently FDA-approved, to Sotradecol? Our extensive experience at VCOC suggests that we can while awaiting published studies.

## Deep Vein Occlusion Risk after UGS

Australian phlebologist Dr. Ken Myers reported a low 1.45% DVO rate after over 1900 UGS treatments followed by duplex 3 and 7 days after UGS.<sup>2</sup> Factors associated with increased DVO risk included vein caliber > 5 mm, moderate dilutions of sclerosant foam, and foam sclerosant volumes > 10 ml/session. Factors with no effect on DVO rate included type of sclerosant, patient characteristics, and venous disease severity. “Occlusion” may not be synonymous with thrombosis and could also be interpreted as “spillover.”

This suggests that DVO rate can be reduced by treating veins < 5 mm in diameter using < 10 ml of undiluted sclerosant foam per session. By comparison, we have not observed DVO after using up to 15-20 ml foam sclerosant in one session when necessary to achieve vasospasm in larger veins up to 33 mm. By the same token, we have not found the occasional visual disturbance or headache after foam sclerotherapy to correlate with sclerosant volume, sometimes occurring after as little as 5 ml. Obviously, there are many unknown factors yet to be elucidated in this arena. For what it’s worth, truncal endovenous laser decreases the need for same-session supplemental sclerotherapy.

## Endoscopic vs. Open Vein Harvesting for CABG

Compared to open harvesting with a single long incision, endoscopic vein-graft harvesting via multiple small incisions is widely used to reduce post-op wound complications after CABG. A recent retrospective analysis of 3,000 CABG cases at Duke University showed that endoscopic harvesting was associated with higher rates of graft failure than open harvesting (47% vs. 38%) as well as higher rates of MI and death.<sup>3</sup> We will look for a randomized prospective study on this topic in the future to better determine if the short-term benefits from endoscopic harvesting are warranted in view of the long-term outcome of graft patency.

1. Hamel-Desnos C, Ouvry P, Benigni JP et al. Comparison of 1% and 3% Polidocanol foam in ultrasound-guided sclerotherapy of the great saphenous vein: a randomized, double-blind trial with 2-year follow-up. Eur J Endovasc Surg 2007;34:723-729.

2. Myers KA, Jolley D. Eur J Vasc Endovasc Surg 2008;36:602-605.

3. Lopez RD et al. Endoscopic vs. open vein-graft harvesting in coronary-artery bypass surgery. NEJM 2009;361:235-244.