

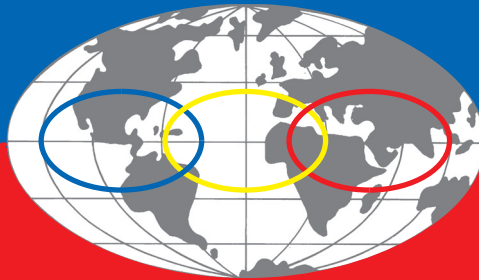
# International Angiology

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Controlling the Assault of Non-Solicited Pornography and Marketing Act (CAN-SPAM), and the Telephone Consumer Protection Act (TCPA) will be covered.

## Start to Finish: How to Create a Successful Marketing Campaign in 3 Steps

S. Peek

*Incredible Marketing, Irvine, CA, USA*

**Aim.** A successful marketing campaign has the power to transform today's medical practice from relatively successful into a pervasive, dominating force. Planning and implementing a campaign can effectively position the phlebologist and his or her practice in the overall marketplace, promote brand image, instill patient confidence, expand the patient base, and boost the bottom line. While many will invest in marketing efforts, however, few will achieve measured success without strategic planning and implementation.

**Methods.** This presentation will describe in 3 steps-planning, content development, and execution-what the practicing phlebologist needs to know to build a successful marketing campaign from start to finish.

**Results.** Key points will include: understanding audience, goal setting, brainstorming, messaging strategy and development, marketing mix selection, return on investment (metrics and analysis), and when to seek out professional marketing assistance.

**Conclusions.** A case study will be presented.

## Evaluation of Sheathless Laser Fiber for EVLA

K. Goudarzi

*Kamran Goudarzi, Wilmington, NC, USA*

**Aim.** 1. Perform laser ablation of long saphenous vein utilizing sheathless 1470 laser fiber to see if this causes less pain and bruising than the currently available lasers. 2. Compare the results with other laser fibers to see if the gold casing improves performance. 3. Provide short term data for this newest of the 1470 fibers.

**Methods.** From September 2012 to February 2013 100 patients scheduled for EVLA were treated with the AngioDynamics NeverTouch Direct laser fiber in an office setting. Patients were selected based on the size and tortuosity of the vein for treatment of the GSV. Outcomes were defined by ability to navigate targeted vein, closure of treatment segment, pain as reported by the patient post-procedure and no adverse events.

**Results.** Average patient age was 52, 84 Female 16 Male. 52% Left GSV and 48% Right GSV were treated. Access sites varied from (60%) lower calf, (37%) mid-calf, and (2%) the knee area. All procedures started approximately 2.5cm from the SFJ. A 1470 laser was set at 6 watts. Average Joules delivered was 1131.80. Average pull back time was 184.897s. Average amount of tumescent anesthesia utilized was 321 ccs. All fibers tracked up the targeted treatment area without the need of a sheath introducer. Four required secondary entry points due to tortuosity. Post-operative pain as reported by patients at one week visit rated less than one on an analog pain scale of 0 - 10. No adverse events were observed including: perforation, DVT, PE, paresthesia, bruising, skin burns or infections. At three months the occlusion rate is 100%.

**Conclusions.** The NeverTouch Direct laser fiber for the treatment of EVLA has proved to be safe and effective. It has excellent closure rates at three months and minimum post op pain. The elimination of the long wire and sheath saves time and steps during the procedure. The fiber tracts with almost zero risk of perforation.

## Protecting Your Online Reputation: 3 Things Every Phlebologist Needs to Know

S. Peek

*Incredible Marketing, Irvine, CA, USA*

**Aim.** What is an e-reputation? Why does your online reputation matter? What can you expect if find yourself with a bad reputation? The Internet is a mirror of your professional success-a vast collection of details that has the power to affect how you look and how both you and your practice are perceived. Search engines catalog everything, from blog posts and social media updates to press releases. Doctor review sites exist by the dozens and it takes only one negative review to potentially damage an otherwise stellar reputation.

**Methods.** The purpose of this presentation is to show you how to manage your "e-reputation" by avoiding the most common pitfalls that can negatively impact your professional presence.

**Results.** Learn how to set your own reputation, monitor your presence, manage negative reviews, and secure your accounts. Are you virtually nonexistent? That can be detrimental too.

**Conclusions.** Common reputation issues faced online as well as what you can do about it will be reviewed.

## Treatment of Endothermal-Heat-Induced-Thrombus Using a Class-Specific Treatment Algorithm

K. Harper, M. Kinney, E. Milligan

*Vein Specialists of the South, LLC, Macon, GA, USA*

**Aim.** 1. Implement class specific treatment algorithm (CSTA) for Endothermal-Heat-Induced-Thrombus (EHIT). 2. Report the overall and class specific incidence of EHIT in a series of endovenous procedures. 3. Determine EHIT progression to higher classification using CSTA. 4. Establish time to resolution in patients with EHIT using CSTA.

**Methods.** Conduct a retrospective chart review identifying patients with EHIT using the classification established by Kabnick et. al. Analyze the overall and class specific incidence of EHIT and the incidence of progression and time to resolution with implementation of the CSTA.

**Results.** 31 EHIT were identified in 414 endovenous procedures (7.4%). EHIT by class is I- 26, II- 5, III and IV- 0. Progression occurred in 2 cases Class I to II (6.4%). Average time to resolution was (24.6 days) for all classes was comparable to prior to CSTA (26). Before implementing CSTA there was no standard protocol-all had compression and ambulation either alone (10%), or with low-dose ASA (60%), or with anticoagulants (30%). After implementing CSTA all were treated with compression and ambulation, either alone (20%), or with low dose ASA (68%), or with anticoagulants (12%).

**Conclusions.** The incidence of EHIT is not associated with a significant risk of progression to VTE (no patients with Class III or IV). CSTA proved safe and with a trend toward more conservative treatment. A larger multi-center trial would help establish CSTA as a 'best practice' for EHIT. Kabnick, L., et.al. (2011). Thrombus extensions at the SFJ after endovenous thermal ablation: should we worry?

lar malformations. (GRADE 1B). We recommend against routine investigation for right-to-left shunts or for the presence of thrombophilia factors in the coagulation system. (GRADE 1C). To assess the outcome after sclerotherapy we recommend clinical outcome evaluation in telangiectasias and reticular varicose veins (C1) and clinical and ultrasound outcome assessment in varicose veins (C2) and venous malformations. (GRADE 1C).

## Venous Ulcer Treated by Laser Ablation Only

K. Goudarzi

Kamran Goudarzi MD, PA, Wilmington, NC, USA

**Aim.** There is no literature of venous ulcers healing utilizing laser ablation.

**Methods.** The patient came in with a venous ulcer. She was treated with laser ablation. The wound was kept clean. 20/30 mm/hG of Compression Stocking was utilized. The patient had multiple ultrasound guided sclerotherapy, in addition. Both the long and short saphenous veins were laser ablated. The ulcer itself was not treated by any topical medication. It was kept clean by regular washing only. No Phlebectomy was utilized. The ulcer healed on its own.

**Results.** The ulcer healed on its own following laser ablation procedure.

**Conclusions.** This is proof that laser ablation can heal venous ulcers.

## Venous Aneurysms of the Lower Limbs Personal Experience

J. Pereira Albino, J. Vieira, P. Amorim, L. Castro e Sousa, G. Sousa, G. Sobrinho, N. Meireles

Vascular S. II H Pulido Valente - CHLN, Lisbon, Lisbon

**Aim.** Venous aneurysms of the lower limbs are a rare clinical entity sometimes associated with congenital venous malformation. The diagnosis may be associated with symptoms like profound venous thrombosis and/or pulmonary thromboembolism or it may just be accidentally found out within the scope of hemodynamyc studies to assess chronic venous disease.

**Methods.** The authors present 7 clinical cases of venous aneurysm of the lower limbs, in a 13-year retrospective study. In six cases there was popliteal vein aneurysm, whose diagnosis happened by accident in the progress of an ultrason study of the inferior limbs for chronic venous disease. In one of the cases, the manifestation was pulmonary thromboembolism and the study of the lower limbs revealed aneurysms of the femoral and popliteal veins. 5 patients were submitted to surgical correction, through exclusion and direct closure, or bypass techniques. In 4 cases the existing superficial insufficiency was also cared for. Two patients refused surgery.

**Results.** All the operated patients were followed during one year after the surgery. Their profound venous system was found permeable and non-dilated in 4 cases. The case in which a PTFE interposition was done it was thrombosed after two years of the surgery and the patient revealed post-thrombotic symptoms. In one of the patients who refused surgery the aneurysm was asymptomatic 5 years after the diagnosis and other was lost for follow-up.

**Conclusions.** Venous aneurysms, particularly when they are saccular, may be a source of venous thromboembolism and should be corrected. The classical surgical repair with recession of the aneurysm area and direct closure produces rather satisfactory results and should be the preferential technique to use.

## Foam Sclerotherapy with Enoxaparin Prophylaxis in Patients at High Risk for Thromboembolic Events

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<sup>2</sup>Department of Dermatology, Venerology and Allergology, Ruhr-University Bochum, Bochum, Germany

**Aim.** Hypercoagulability and thrombophilia with or without deep venous thrombosis are relative contraindications for sclerotherapy according to the current German guidelines. However, patients suffering from these conditions are often in need of sclerotherapy. Recommendations for prophylactic anticoagulation under sclerotherapy are missing.

**Methods.** In this retrospective analysis (2009-2010) we included 54 patients who had foam sclerotherapy of truncal or tributary veins with a deep venous thrombosis and/ or pulmonary embolism in medical history and no permanent anticoagulation. Additionally to the compression treatment with 23-32mmHg for 3 weeks patients received Enoxaparin 40mg once a day for 3 days after sclerotherapy. Clinical and duplex-sonographic controls were conducted before every treatment and 2-3 weeks after the last injection.

**Results.** Sclerotherapy was either performed on one (30/54) or on both (24/54) legs. A truncal vein was treated in 2/54 patients. All patients received foam sclerotherapy of tributaries. The volume per treatment session was 3.3ml foam on average (2-6ml). The patients had an average of 4.9 treatments (1-11). Altogether 262 treatments were performed. No deep venous thrombosis or symptomatic pulmonary embolism occurred. In 7/262 treatments (2.7%) there was a symptomatic phlebitis in the treated area, in 2/262 treatments (0.8%) patients developed an ascending phlebitis beyond the sclerotherapy region.

**Conclusions.** According to the current data, foam sclerotherapy with a co-treatment of compression (23-32mmHg) and Enoxaparin 40mg once per day for 3 days after sclerotherapy can be regarded as safe in patients with thromboembolic events in medical history. The current study is the first with a standardized regimen. Further prospective and randomized controlled studies are necessary to verify the tolerability and safety of sclerotherapy in patients with a high risk for thromboembolic events.

## A New Method for the Production of Foam Sclerotherapy

F. Casals-Sole

Hospital Clinic, Barcelona, Spain

**Aim.** Foams are produced by supersaturating the liquid with gas or by mechanical means. In phlebology, several mechanical methods are employed to produce a foam sclerosant drug, essentially by beating or using high pressure hydrodynamic forces. The foam thus obtained is heterogeneous and unstable. We propose a new mechanical method to produce more homogenous and stable foam and able to be employed as a "point-of-care".

**Methods.** Different concentrations of a non-ionic surfactant (polidocanol) in 5% glucose or physiological serum were prepared. Branson 450W Sonicator®, operating a 20 kHz frequency ultrasound, delivering 23-25 watts over 2 ml samples of these solutions of Polidocanol, across a tapered microtip of 3 mm, placed at liquid/gas interface, was used. Foam obtained is transferred to a 3 ml plastic syringe (Terumo®), and maintained plate, at room temperature. One drop is placed between a slide and a cover-slide, and microscopically observed.

**Results.** In less than four seconds, with amplitude of 60 %, is it possible to induce a transient cavitation, with apparition of white foam at concentrations as low as 0.10 % of Polido-

diofrequency ablation was performed in patients 65 limbss in the elderly group (over 65-year-old) and in patients 181 limbs with ages under 65-year-old. We retrospectively compare the both group with CEAP classification, Occlusion rate, reflux free rate, co-morbidities and complications after the procedure.

**Results.** All patients had symptomatic varicose vein and underwent level 2 clinical classification with color duplex scan. There was no significant difference in 5-year occlusion rate between them. Pre-op and follow up VCSS did not show any difference between groups. Minor complications such as skin burn, ecchymosis, and tenderness had no significant difference between groups.

**Conclusions.** Endovenous radiofrequency ablation is safe and effective methods in the elderly group.

### **Klippel Trenaunay Syndrome (KTS). Global Treatment**

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<sup>2</sup>University of Buenos Aires (UBA), Clinica Simkin, Buenos Aires, Argentina

**Aim.** 1-Integrate the management in the treatment and in the follow up of the KTS patients. 2-Understand that KTS has multiple clinical presentation with different treatment.

**Methods.** From year 2001 to 2012. Our experience in the treatment of angiomas, troncular varicose veins, and a recurrence of a diffuse micro-arteriovenous fistulae pattern in the infrapopliteal distal branches in the internal thigh of the leg is presented. The cases were classified according Simkin's KTS classification in pure KTS. Diffuse and Mixed KTS (arterial, lymphatic and vein component). U.S pre, intra and postoperative was performed. Microsurgery. 4 cases endolaser 980nm, 3 cases endolaser radial fiber 1470nm. Arteriography and venography was also done in the cases that we performed regional segmentary skelitisation in the deep venous system years before. 1 Case GSV +surgical treatment in pelvic veins (15 years after we did the regional segmentary skelitisation technique). 1 case 1470 nm endolaser SSV in perforators, epifascial veins of the thigh. Transdermal P.O laser in the diffuse angiomas, pigmentary nevus and Polidocanol 2% UFGS was performed. U.S Follow up at 1 week, 1, 3, 6 months and yearly.

**Results.** 5 cases closed. 2 cases UFGS as secondary procedure was done. MicroAVF was closed, compression stocking was indicated With excellent tolerability.

**Conclusions.** Long term follow up (15-24 years) of the "Regional segmentary skelitisation" technique presents good results, the different measure and length of the legs doesn't exist any more. Diffuse microAVF pattern can also be closed with Endolaser.

### **Treatment of a Large Incompetent Perforator Vein with a Three Centimeter Radiofrequency Catheter; Case Report**

M. Isaacs, M. Gardner

*Vein Specialists of Northern California, Walnut Creek, CA, USA*

**Aim.** Endovenous ablation techniques have proven to be enormously successful in treating reflux in the superficial venous system. Incompetent perforator veins, particular those in the distal leg, remain a challenging problem. Endovenous laser ablation has been used successfully, but in the case being presented endovenous laser ablation failed. Repeat treatment with a small, 3 cm radiofrequency catheter was successfully accomplished.

**Methods.** This 43 year old security guard has a 26 year history of varicose veins and stasis skin changes, including ulcers, in his left leg. Associated symptoms have gradually increased over time despite daily use of high grade graduated compression hose. Duplex ultrasound revealed the presence of saphenopopliteal insufficiency and a large incompetent perforator vein in the medial ankle area. The refluxing small saphenous vein was successfully treated with radiofrequency ablation, but an attempt to ablate the incompetent perforator with laser ablation was unsuccessful. A second attempt of ablation with a 3 cm radiofrequency catheter is described. The catheter was introduced into the perforator under ultrasound guidance, then advanced to the level of the fascia. Because of its unusual length superficial to the fascia, 8 cm of the vein could be treated with a total of five 20 second cycles. Follow-up duplex at five weeks showed complete closure of the perforator associated with excellent symptom resolution.

**Results.** Follow-up duplex at five weeks showed complete closure of the perforator associated with excellent symptom resolution.

**Conclusions.** In this patient radiofrequency ablation was shown to be a viable alternative to endovenous laser ablation as a method of incompetent perforator treatment.

### **Significance of Epigastric Vein in Laser Ablation of Great Saphenous**

K. Goudarzi

*Kamran Goudarzi MD, PA, Wilmington, NC, USA*

**Aim.** To point out importance of saving Epigastric Vein during Laser Ablation of Great Saphenous Vein. Epigastric Vein is commonly sacrificed during vein stripping or laser ablation. I believe this is a mistake, since in the majority of cases, this vein is competent, hence preventing recurrent disease in future.

**Methods.** During several thousand laser ablations over the past twelve years, we have had the opportunity to observe competent valves inside epigastric.

**Results.** The poster submitted shows a competent valve in Epigastric Vein just proximal to the incompetent preterminal valve.

**Conclusions.** During vein stripping or laser ablation of the Great Saphenous Vein, every attempt should be made to save the competent epigastric vein.

### **Current and Future Approaches to Neutralize the Bleeding Effects of Dabigatran, Rivaroxaban and Apixaban**

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**Aim.** Currently there are three newer anticoagulants approved globally for various indications, including post surgical management of DVT, atrial fibrillation and acute coronary syndrome. The approved indications for each of these agents are product specific and each agent exhibits a distinct pharmacologic profile. At this time there are no antidotes available to reverse the bleeding effects of these agents. Prothrombin complex concentrates (PCCs), activated prothrombin complex concentrates (APCCs), Factor VIIa and modified Xa and IIa are evaluated in various systems.

**Methods.** Commercially available PCCs and APCCs were tested in the whole blood and plasma systems to determine the neutralization profile of these agents. The bleeding pro-