

# Expert Opinions on Hot Topics in Endovenous Therapy

Following the recent 2017 American Venous Forum meeting, we asked key opinion leaders from the United States and abroad their thoughts on some of the most discussed issues that continue to be debated.



**SERGIO  
GIANESINI, MD**

University of Ferrara  
Ferrara, Italy  
Invited Professor, UCES University  
Buenos Aires, Argentina  
0039 3498012304;  
sergiogiancesini@gmail.com  
*Disclosures: None.*

## **With a variety of proven options now on the market, how do you currently match therapy to patient? Which factors lead you to select particular modalities?**

**Dr. Giancesini:** First of all, my strategy is determined by the patient's reflux pattern (ie, femoral and terminal valve competence, reentry perforator localizations, incompetent tributaries along the leg contributing to the pathological pressure gradient). When choosing an endovenous treatment option, considering the similar outcomes that can be achieved among the techniques, my choice is based only on the tools that are available at the institution.

## **What are your current protocols for compression therapy after saphenous ablation?**

**Dr. Giancesini:** I perform segmental ablation in a saphenous-sparing strategy. In this case, compression is

aimed to maximize the flow in the spared trunk toward its reentry perforator. For this reason, I prescribe compression for at least 3 weeks.

## **What do you see as the biggest challenge or unanswered question facing endovenous ablation right now?**

**Dr. Giancesini:** Considering the overlapping outcomes of the different techniques, I believe we should give more attention to accurate hemodynamic assessment of the reflux type, as well as the procedural strategy. We must improve not only the technique, but also the strategy in approaching the procedure. Of course we consider the minimal invasiveness, but the recurrence rate should also be kept in mind from the beginning. A distant second challenge is the understanding of the real mechanism of action of endovenous laser ablation and identifying the most effective combination of power and pullback rate. Too often, we speak about linear endovenous energy density without having sufficient information about the power and pullback rate.

## **One topic discussed in a dedicated session at AVF 2017 in New Orleans was the potential overapplication of endovenous procedures in the United States. What is your impression regarding such practices in your country?**

**Dr. Giancesini:** Reimbursement issues constitute too strong of a factor in the Italian therapeutic choice. There is a serious risk of biased nonconservative indications.

**What is one key insight you gained at AVF 2017, whether from the lecture hall or in meetings with colleagues?**

**Dr. Giancesini:** Creating a universally recognized document would avoid redundancy (ie, if one set of guidelines

is simply a copy of another region's) and also prevent confusion due to any discrepancies between different sets of guidelines. Moreover, the recurrence rate is the same no matter what technique we choose. This should lead to further investigation on the strategy and pathophysiology.



**IAN FRANKLIN, MBBS, MS, FRCS(GEN SURG)**

Consultant Vascular Surgeon  
London Vascular Clinic  
NHS Consultant  
Imperial College Healthcare NHS Trust  
London, United Kingdom  
ian.franklin@londonvascularclinic.com  
*Disclosures: None.*

**With a variety of proven options now on the market, how do you currently match therapy to patient? Which factors lead you to select particular modalities?**

**Mr. Franklin:** I examine the usual combination of symptoms, signs, and duplex scanning. Generally, I use endothermal ablation for primary reflux above the knee. For recurrent reflux in distal trunks, I employ nonthermal therapies (ie, glue/mechanochemical ablation or, most commonly, ultrasound-guided foam sclerotherapy); however, there is a lot of variation here, depending on patient expectations and goals. Large tributaries are usually phlebectomized followed by a good amount of finessing with sclerotherapy to fine-tune the final cosmetic result.

**What are your current protocols for compression therapy after saphenous ablation?**

**Mr. Franklin:** Depending on the extent of phlebectomy, I prescribe compression therapy for 48 hours to 1 week.

**What do you see as the biggest challenge or unanswered question facing endovenous ablation right now?**

**Mr. Franklin:** I think we need to figure out whether a patient with superficial truncal reflux also has a significant proximal obstructive component and which should be treated first.

**One topic discussed in a dedicated session at AVF 2017 in New Orleans was the potential overapplication of endovenous procedures in the United States. What is your impression regarding such practices in your country?**

**Mr. Franklin:** Overall, the population in London is undertreated, especially those with C5 to C6 disease.

**What is one key insight you gained at AVF 2017, whether from the lecture hall or in meetings with colleagues?**

**Mr. Franklin:** Johan Ragg's paper on high-resolution ultrasound for detecting microaggregates of thrombus in valves as a possible primary mechanism for valve damage and pathology of reflux was very compelling.



**EVGENY SHAYDAKOV, MD, PhD**

Professor of Cardiovascular Surgery  
Director, Federal Institute of Experimental Medicine  
Chief, Clinic of FANO  
St. Petersburg, Russia  
*Disclosures: None.*

**With a variety of proven options now on the market, how do you currently match therapy to patient? Which factors lead you to select particular modalities?**

**Prof. Shaydakov:** Selection of a particular treatment method for patients with venous disease is based on

published evidence on the safety and efficacy of different methods in selected subgroups, personal experience in applying these methods in different clinical scenarios, and the constant evolution of the endovascular technologies. It is important to be honest and professional in providing every patient with a full set of modern treatment modalities and clearly explain both the advantages and disadvantages of every method.

**What are your current protocols for compression therapy after saphenous ablation?**

**Prof. Shaydakov:** After thermal ablation of a saphenous vein, we usually apply a class 1 thigh-length graduated compression stocking (18–21 mm). This stocking remains on the leg until the next day, when we remove postoperative wound dressings and perform control duplex ultrasound. After that, we encourage patients to

wear compression garments for an additional 3 to 7 days, depending on the subjective symptoms.

### What do you see as the biggest challenge or unanswered question facing endovenous ablation right now?

**Prof. Shaydakov:** I don't believe that we have a "biggest challenge" in this field today. Endovenous ablation is a generally safe and effective procedure. There is an issue of not having ideal efficacy with endovenous laser treatment for large-diameter (> 10 mm) veins, which may be related to poor contact, adhesion, and carbonization of the laser fiber. However, improvement in laser technology and prospective studies to optimize the linear endovenous energy density, laser power, and fiber traction speed should resolve this issue. Unjustified over-treatment of asymptomatic patients in some clinics, or insufficient use of endovascular techniques in the others, may be another problem.

### One topic discussed in a dedicated session at AVF 2017 in New Orleans was the potential overapplication of endovenous procedures in the United States. What is your impression regarding such practices in your country?

**Prof. Shaydakov:** In Russia, we have the opposite situation. The amount of endovenous procedures performed every year is unjustifiably low. Insurance companies still generate more revenue from traditional stripping than modern endovenous procedures. However, this situation is gradually improving with the support of several federal government programs.

### What is one key insight you gained at AVF 2017, whether from the lecture hall or in meetings with colleagues?

**Prof. Shaydakov:** My opinion is very biased, as I would like to mention an elegant study performed by my son Maxim and his mentors, which they presented at the Day of Innovation and Science. The study demonstrated that plasminogen incorporation into venous thrombus is a flow-related and dynamic process. This novel finding may improve our understanding of endogenous fibrinolysis and change the principles of thrombolytic therapy.



**PATRICK E. MUCK, MD**

Chief of Vascular Surgery  
Program Director, Vascular  
Fellowship and Integrated  
Residency  
Good Samaritan Hospital  
Cincinnati, Ohio  
muckpatrick@gmail.com  
*Disclosures: None.*

### With a variety of proven options now on the market, how do you currently match therapy to patient? Which factors lead you to select particular modalities?

**Dr. Muck:** Thermal ablation has long been proven to be a safe, effective treatment with durable outcomes but nonetheless still subjects the patient to risk of thermal injury. The advent of nonthermal nontumescent techniques such as mechanochemical ablation (MOCA), as well as advances in foam sclerotherapy and medical adhesive, provide exciting new options that eliminate the aforementioned side effects of thermal injury. These options offer much-needed below-the-knee treatment options. Coverage for these treatments

continues to evolve with Centers for Medicare & Medicaid Services and commercial payers, and it should be noted as of January 2017, there is now an active Category I CPT code (36473) for the MOCA technique.

### What are your current protocols for compression therapy after saphenous ablation?

**Dr. Muck:** There was a study published in January in *Annals of Vascular Surgery* concluding that compression therapy does not significantly affect either patient-reported or clinical outcomes after great saphenous vein ablation. However, there was also a study published by the European Society of Vascular Surgery, which concludes that postoperative compression leads to reduced pain and improved physical functioning during the first week after treatment. I use postoperative compression for 48 hours and hose compression during the day and for the following 2 weeks.

### What do you see as the biggest challenge or unanswered question facing endovenous ablation right now?

**Dr. Muck:** I think we need to prove to the payers that treatment does have a financial impact on health care economics and specifically in the Medicare population. I believe that the disease is progressive and that treating advanced venous disease can be more complicated than if it was caught in an earlier stage. Perhaps more direct

## What is the most important paper you've read in the past year, and how do you think it can or should affect modern vein practices?

### DR. GIANESINI

*Lee BB, Nicolaidis AN, Myers K, et al. Venous hemodynamic changes in lower limb venous disease: the UIP consensus according to scientific evidence. Int Angiol. 2016;35:236–352.*

The article provides a deep insight in modern hemodynamic interpretation, pointing out how much we know, how much we don't know, and how much we don't even know we don't know, particularly considering that our blood is not a Newtonian fluid and our vessels are not ideal conduits. Furthermore, this article offers a useful basis to begin a true advancement in modern phlebology and investigating both the laws that rule the venous drainage system and the consequent optimal disease management.

### PROF. SHAYDAKOV

*Haig Y, Enden T, Grøtta O, et al; CaVenT Study Group. Post-thrombotic syndrome after catheter-directed thrombolysis for deep vein thrombosis (CaVenT): 5-year follow-up results of an open-label, randomised controlled trial. Lancet Haematol. 2016;3:e64–71.*

Many interesting papers have been published on various aspects of venous diseases, but the 5-year follow-up data from the CaVenT trial (also presented at the Best Paper Session at AVF) is very important. This large clinical experience demonstrates that early thrombus removal strategies are critical for the best outcomes in patients with acute iliofemoral deep vein thrombosis (DVT) and may be beneficial in some patients with

more distal DVT. I think the CaVenT report and the results of the ATTRACT trial together will help us to justify more active treatment strategy in these patients.

### MR. FRANKLIN

*Gagne PJ. Analysis of threshold stenosis by multiplanar venogram and intravascular ultrasound for predicting clinical improvement after iliofemoral vein stenting: results from the VIDIO study. J Vasc Surg Venous Lymphat Disord. 2017;5:157.*

This thoughtful and pragmatic work is exactly what we need to help us determine which venous stenoses are significant and which are not.

### DR. MUCK

*Haig Y, Enden T, Grøtta O, et al; CaVenT Study Group. Post-thrombotic syndrome after catheter-directed thrombolysis for deep vein thrombosis (CaVenT): 5-year follow-up results of an open-label, randomised controlled trial. Lancet Haematol. 2016;3:e64–71.*

Data showed that catheter-directed thrombolysis resulted in a persistent and increased clinical benefit during follow-up for up to 5 years, supporting the use of additional catheter-directed thrombolysis in patients with extensive proximal DVT. These data add to numerous publications from Dr. Comerota showing that acute DVT patients are better served with clot removal. The year 2017 will be an interesting one for DVT treatment, as Dr. Vedantham will be presenting the ATTRACT trial results in March.

wound care impact studies could further show the benefit of ablation.

### One topic discussed in a dedicated session at AVF 2017 in New Orleans was the potential overapplication of endovenous procedures in the United States. What is your impression regarding such practices in your country?

**Dr. Muck:** I find it frustrating that the overutilization in the United States by some is affecting us all. I see patients who come to me for a second opinion after another physician has told them that they need to have six ablation procedures. My experience abroad is skewed. As the Chairman of the AVF's International Committee, I was fortunate to travel to several "AVF@" meetings this year. I am certain that every country has its bad apples. However, I visited

Dr. Orrego in Chile, Dr. Ulloa in Colombia, and Dr. Ferreira in Brazil, and it was nice to see that they provide examples of ethical quality care and are clearly role models in their countries.

### What is one key insight you gained at AVF 2017, whether from the lecture hall or in meetings with colleagues?

**Dr. Muck:** The biggest thing I learned at this year's AVF meeting was about collaboration. Dr. Kabnick's presidential address highlighted the AVF's efforts to embrace all providers from all parts of the globe. I think this message is resonating given the fact that the AVF annual meeting attendance continues to increase. Dr. Vedantham's program this year attracted over 500 attendees from over 25 countries. ■