Sponsored by Boston Scientific Corporation

How to Set Up a Venous Practice

Advice to successfully create a comprehensive venous center.

BY GERARD O'SULLIVAN, MD

Most vascular specialists initially train in arterial disease, whether it is coronary, peripheral, or carotid arteries. Others begin by performing arteriovenous interventions on patients undergoing dialysis. The common theme for entry into the endovascular specialty is an arterial-based training. It takes time to understand the processes that guide arterial intervention, leaving a dearth of education, training, and understanding when it comes to venous disease.

Deep vein thrombosis (DVT) affects approximately 1 in 1,000 patients in the Western world. Although the majority of these patients do not require endovascular intervention, it is important to have a local specialist available, and there is a substantial deficit in qualified venous specialists around the world. To become the go-to specialist in a hospital or region, physicians must invest time into understanding all aspects of venous diseases, including often-ignored areas. For instance, venous ulceration has, until recently, been relegated to the corner of the vascular world; however, it can be treated in a significant portion of patients through application of compression stockings as well as by ablation of reflux in varicose vein segments and by restoring flow in deep venous obstructive lesions.

In time, increased focus on venous disease from the medical community not only provides more endovascular intervention, but also profound professional and personal satisfaction for venous specialists who treat these patients.

TEAM RELATIONSHIPS

No single endovascular specialist can realistically take on all the tasks that providing a dedicated venous service entails. Therefore, it is essential that the lead team member forms close relationships with the following members of the care team:

- **Imaging expert:** specialized in imaging services including CT venography and MR venography.
- **Vascular ultrasound expert:** able to perform transvaginal ultrasound to identify pelvic vein congestion, which is considered a niche specialty skill and not easily acquired or readily available.
- **Hematology expert:** a resource to help select the best choice of drugs for specific situations and assist with patients who need further investigation.

Ideally, physicians should also form relationships with other doctors performing deep and superficial venous endovascular procedures. Physicians will need help from time to time, and two heads are better than one.

ESSENTIAL SKILLS

A thorough understanding of venous anatomy as well as familiarity with different anatomic variants is essential for physicians looking to provide this important service. Education can be acquired through attendance at workshops as well as virtual training.

The practitioner should be comfortable with vascular access through various routes, including jugular, brachial, basilica, and popliteal. Some access sites are very basic, such as the common femoral or greater saphenous; others are much more difficult to learn, including the posterior tibial vein in the ankle or tiny neck collaterals.

Imaging expertise takes time but can be learned; acquiring transvaginal ultrasound skills takes longer in my opinion; therefore, hiring an expert for this particular imaging type is crucial.

Prior arterial interventional experience can be a blessing and a curse. Those with experience will have little fear gaining access; however, not all learned arterial nuances translate to venous interventions. For example, there is often an assumed belief that pain upon balloon inflation in a vein signals impending rupture, but this is not true in venous interventions. Open surgical skills are an advantage and often help the advancement of a venous program and provide treatment expertise (eg, the ability to perform common femoral vein endophlebectomy and arteriovenous fistula creation).

REFERRAL OUTREACH

Vascular specialists should be available for consultations to explain their work and role to colleagues. This may be difficult if, as a cardiologist, you are expected to attend every cardiology clinic; or as a surgeon, you need to take endless trauma calls; or as a radiologist, you are expected to cover oncology during multidisciplinary team meetings. However, without detailed explanation, colleagues may expect venous disease cases to walk in the door in the same way that peripheral artery disease cases do. Venous disease is often much more dependent on referrals, so these specialists must be more assiduous.

Sponsored by Boston Scientific Corporation

CREATING A SUCCESSFUL VENOUS PRACTICE

- Attend dedicated venous meetings.
- Spend time in the vascular lab. Request that the lab notify you when a patient with DVT presents.
- Talk with the emergency department and explain what skills you can offer.
- Communicate. Open a discourse with internists and general practitioners to provide them with context about what treatments you can offer—many are unaware of what services you can provide. Keep in mind that the recent results of the ATTRACT trial won't help your cause without an ongoing dialogue.
- Talk within your hospital about referrals and creating a multidisciplinary team for venous disease cases.
- Give grand rounds to further educate other physicians about venous disease.
- Observe other experts in action, preferably close up when possible.
- Participate in mini fellowships at dedicated centers.
- Learn to walk before you run, and start with short stenoses before attempting long-segment occlusions. Remember, these procedures are not the same as doing arterial cases; in fact, they are often more difficult, certainly in the iliacs. More challenging cases will come gradually.
- Consider forming a pulmonary embolus response team.
- Get involved in trials.
- Publish data.

It is also crucial to visit with patients, regardless of whether you are there to offer an intervention. Be sure to write a note or letter to the primary care physician, the referring specialist, and the patient with detailed information about potential disease progression and treatment offerings. I try to include brochures about available options. Also, although I do not use social media for this, others have employed it with success.

REFLECTION

Setting up a venous practice is not hard—but it is hard work. I personally fell into deep venous work by accident. I originally attended Stanford to learn about aortic dissection from Michael Dake, MD, and Charlie Semba, MD, which was a great honor. But in my next job at Rush Presbyterian Chicago, I saw very few aortic dissections and many more DVTs. I fell in love with venous disease and now perform varicose vein therapy, deep venous reconstruction, and varicocele and pelvic vein embolization. I intervene on many acute iliofemoral DVTs and place a large number of venous stents. It is work I very much continue to enjoy. ■

Gerard O'Sullivan, MD
Department of Interventional Radiology
University College Hospital
Galway, Ireland
gerard.osullivan2@hse.ie
Disclosures: None.