# Superficial Venous Disease: Is There Room for Improvement?

Spurring the next wave of superficial venous disease therapies.

**BY STEVE ELIAS, MD, FACS**

*"And now the only piece of advice that continues to help is anyone that's making anything new only breaks something else."*

**—Dawes, "When My Time Comes"**

There is always room for improvement—medicine should never be about complacency. The "promise of the new" should always be a driving force in any discipline. This is how we progress. However, most of us are complacent and are happy to do what we do as long as it is working. Vein specialists need to admit that although we are doing quite well in the treatment of superficial venous disease (axial disease, branch varicosities, and spider veins/telangiectasias), there is work yet to be done. Albert Einstein said, "I do my best thinking when I'm bored." We may feel bored with our current treatment options because they more or less enable us to achieve good results and satisfied patients. Also, we have been using them for more than 10 years. Perhaps now is the time to do our best thinking. I believe that in each area of superficial venous disease, there is room for improvement.

## AXIAL DISEASE

Currently, most endovenous treatments provide very good results, yielding significant improvement in our patients' quality of life. However, recent studies[1,2] show that a year after any procedure, including modern-day inversion stripping, a patient's quality of life is about the same no matter what we've done. Minimally invasive procedures are definitely helpful in the immediate short term with regard to postoperative pain and a return to normal activities. Where I believe there is room for improvement is in developing new technologies, medicines, etc., that can extend this advantage over a longer period of time. In other words, we need to provide better long-term quality of life outcomes compared to surgical options (the specifics of how we attain this goal is a topic for another article).

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With some new options, the next wave of tumescentless endovenous ablation has arrived and is the next logical step. It is clear that tumescentless and thermal technologies have the potential to improve quality of life, as we already have some data showing durability at various time intervals (6 months to > 2 years).[3-5] Our ultimate goal is to manage axial incom-

petence without any access points and to do it completely exogenously.

## BRANCH VARICOSITIES/VARICOSE VEINS

In general, patients are happy with the results they receive from our current varicose vein treatment options: ambulatory phlebectomy, powered phlebectomy, or sclerotherapy. That said, we all know that we can do better. Ambulatory phlebectomy or powered phlebectomy requires some type of anesthesia, whether it is tumescence, local, spinal, or general. Ambulatory phlebectomy can also be time consuming and tedious for the patient and physician. Maybe during an ambulatory phlebectomy procedure, we should take Einstein's advice and do some thinking. If we are soon able to treat saphenous incompetence without anesthesia (tumescentless), we should also be working to develop methods to treat branch varicosities without anesthesia. In addition, because we have shortened the procedure time needed to treat axial disease, we must also look into methods to shorten varicose vein treatment times.

The other option, sclerotherapy, does not require anesthesia, but most vein specialists concede that the efficacy of sclerotherapy for large varicose veins is not as good as phlebectomy. Skin staining and pigmentation are other issues that need to be addressed. In summary, the areas for improvement in varicose vein treatment are shortened procedure times, improved sclerotherapy results, and eliminating the need for anesthesia.

## SUPERFICIAL VEINS/TELANGIECTASIAS

Although it is counterintuitive, vein specialists know that the smaller the vein, the harder it is to achieve good results. Spider veins remain a significant challenge, and we have been searching for better solutions by changing our technique and trying different sclerosants, transcutaneous lasers, and ohmic devices. Yet, we as vein specialists know that the currently available options do not produce the type of results that we or our patients desire (ie, for the veins to "disappear"). As a result, we spend more time setting realistic expectations for these cosmetic patients than actually performing the procedures. This is not acceptable, as we are procedure-oriented specialists. Complications such as staining and matting need to be minimized.

## THE TIME IS NOW

Venous treatments should be moving further along the minimally invasive path. We ultimately need to evolve so that superficial venous disease treatment is noninvasive. We should be developing technologies that "seed" an abnormal vein with some substance that is administered orally. Once the diseased vein is "primed," an exogenous energy source (light, ultrasound, mild heat, etc.) "excites" or stimulates that substance, ultimately causing vein sclerosis and disappearance. This is the future of venous treatment: the ability to manage superficial venous disease in a noninvasive manner.

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I am sure that someone out there is already working on this concept—the Newton, DaVinci, Einstein, or Hawking of the vein world. It's not that I have any inside information, I merely have faith in man's ingenuity when he is bored. Someone is always looking to make improvements; it is our nature. Einstein understood this when he said, "Any intelligent fool can make things bigger and more complex, it takes a touch of genius and a lot of courage to move in the opposite direction." We need to get moving. ■

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