

LETTERS TO THE EDITOR

Regarding "Early and late complications of silicone patch saphenoplasty at the saphenofemoral junction"

The authors are to be commended for their detailed study on complications that can occur after silicone patch saphenoplasty in order to decrease neovascularization after groin dissection for saphenous ligation.¹ There is a varying incidence of this phenomenon after standard surgical intervention.² Even with their efforts of patch interposition, neovascularization was evident at one year. Given more follow-up, the rate will grow since this phenomenon may increase with time.

In my experience, neovascularization is an important cause of recurrent varices after surgery. I have two points regarding minimizing the incidence of neovascularization. First utilize the technique of endovenous ablation (laser). In our series of over 3000 patients covering a span of 5 years, we have seen only one case of neovascularization at the groin level with follow-up ultrasounds. I believe this occurs for two reasons. (1) There is no groin dissection with resultant inflammatory response. (2) Flow continues at the saphenofemoral junction, negating the natural response to form collateral pathways.

Next, for neovascularization that occurs after a primary procedure, utilize the technique of ultrasound guided injection of 1.5% Sotradecol foam.³ This technique is safe and effective in obliterating these small vessels. The typical vessels of neovascularization are valveless and communicate freely. Only 2 to 3 cc of foam is needed to effectively fill the vessels. Injection can safely be done since most of these collateral vessels are easily accessed 2 to 3 cm above the femoral vein. After injection, the femoral vein is partially compressed to keep the foam in place for 3 minutes. The patient dorsiflexes the foot at the same time to clear any foam from the femoral vein. In over 120 patients treated in the last 3 years for neovascularization at the saphenofemoral junction, there have been no incidences of deep venous thrombosis (DVT). Repeat groin dissections should be avoided since this only eventually aggravates the problem.

The techniques briefly described in this response are effective, minimally invasive, and associated with no incidence of DVT and few significant complications. Surgeons not doing these procedures should learn them.

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Reply

I thank Dr Bush for his interest in our study. It is indeed correct that after properly performed surgery at the saphenofemoral junction (SFJ), neovascularization remains a problem. Patch saphenoplasty can never completely eliminate this postoperative

phenomenon, but it can at least mitigate the effects of neovascularization, which may result in a better clinical outcome at long-term follow-up.¹

I fully agree that alternative techniques with the aim of obliterating the great saphenous vein (GSV) have shown promising results, with a very low incidence of neovascularization. The 5-year results of endovenous procedures with radiofrequency obliteration have already been published.² I look forward to the publication of the 5-year results of a "properly done" study on endovenous laser treatment, as well as more randomized controlled trials comparing different techniques for treating primary varicose veins.

However, regarding the application of these newer techniques, some points should be kept in mind. First, there is the need for a meticulous preoperative and intraoperative duplex scanning requiring sufficient knowledge and experience in this field.

Second, endovenous procedures are not always feasible in all patients with primary varicose veins in the GSV territory because of anatomical variations, tortuosity, or even aneurysmal dilations of the veins. In such patients, well-performed surgery might still offer a valuable alternative and construction of a prosthetic or anatomical barrier at the SFJ ligation site might be useful.

Finally, technical equipment for endovenous procedures is not yet available in all surgical centers because these devices and the catheters used are quite expensive.

Foam sclerotherapy may be an adequate tool, in particular to treat patients with small saphenous vein (SSV) insufficiency and also those with recurrent varicose veins due to neovascular veins in the groin.

Of course, there is no indication for surgical re-exploration of the groin if only small vessels are visualized on duplex scan. However in selected cases, for instance in young patients presenting with very extensive symptomatic recurrent varicose veins and large refluxing veins at the SFJ on duplex ultrasound imaging (often after too superficial previous surgery), repeat surgery, in experienced hands, may still have a place. Five years after repeat surgery with patch saphenoplasty, 85% of limbs had a venous clinical severity score ≤ 3 , and only 26% had recurrent thigh varicosities.¹

Until further evidence, surgical trainees should learn all of the above-mentioned surgical and endovenous techniques to be able to offer the best solution to each patient presenting with varicose veins.

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