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## **§ Venous Hemodynamic Changes after External Banding Valvuloplasty with Varicosectomy in the Treatment of Primary Varicose Veins.**

Lane, RL

*J Cardiovasc Surg (Torino)* 1999 Aug;40(4):567-70.

Additional Commentary by: John Bergan, MD, La Jolla, CA

There was once a time in phlebologic history when the venocuff technique of varicose vein treatment with Saphenous preservation seemed important. At that time, the external wrap at the site of the terminal Saphenous valve was an ingenious approach that corrected venous

insufficiency and maintained the integrity of the vein so that it could be used for coronary bypass.

Time has passed both of those ideas by and has also dealt with the varicose recurrences caused by neovascularization.

It is apparent that a groin incision leads to neovascularization and this, in turn is responsible for some recurrent varicose veins. If there is no groin incision, there is no neovascularization.

Coronary bypass no longer needs a strong Saphenous vein; or any vein for that matter. And now there are several ways to correct Saphenous reflux that do not require the technical surgery of days past. So this presentation is of historic interest and stands as a tribute to its inventor. But time passes many good ideas by and this is one that remains only of historic interest. ♦

## **§ Randomised Trial of Polytetrafluoroethylene Patch Insertion for Recurrent Great Saphenous Varicose Veins**

Winterborn RJ, Earnshaw JJ.

*Eur J Vasc Endovasc Surg.* 2007 ;34:367-73

Abstract and Commentary by: Denis Creton, MD, Nancy, France

### **Abstract**

The aim of this study was to assess the possible value of a polytetrafluoroethylene (PTFE) patch in the prevention of neovascularization and recurrent varicose veins. Thirty-one patients (40 legs) with recurrent saphenofemoral junction incompetence were randomised to redo saphenofemoral ligation with, or without the insertion of a PTFE patch over the ligated junction. Patients underwent assessment two years postoperatively with clinical examination and duplex imaging. A total of 32 legs attended for assessment at two years. Four legs developed a groin infection, which required antibiotics, two had a groin haematoma and four had a seroma. The overall complication rate was 35%, with no statistically significant difference between the groups. Four of 16 legs without a patch and five of 16 legs with a patch developed neovascularization at the



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saphenofemoral junction on duplex imaging by two years postoperatively. In this study, insertion of a PTFE patch did not affect the rate of perioperative complications and it did not appear to contain neovascularization.

### Commentary

Although this study did not prove the patch insertion can contain neovascularization the results coming from a very good surgical team interested in the treatment of REVAS for a long time are of great interest. Paradoxically it brings another conclusion I usually agree with.

I think the re-neovascularization does not depend on the type of the patch whether made of synthetic mesh, silicone or PTFE, or a small or large size or sutured over the re-ligated junction or simply glued to the femoral vein. The re-neovascularization depends:

First, on the remove all the superficial incompetent thigh veins at the time of surgery. In this study the author could not be sure all the incompetent thigh veins had been removed.

Second, on intra-operative aggressiveness which induces a large amount of cicatrisation.

I am always surprised to compare my personal results using a very small patch (1/1.5 cm) (5% of re-neovascularization at 5 year follow-up)<sup>1</sup> with those of other good surgical teams. I know of their comprehensive large experience in re-do surgery, (31% at 2 year follow-up).

I am convinced that my good results were obtained because I carry out re-do surgery through a very small oblique lateral approach without non-necessary dissection, without any exposure of the femoral vein. Consequently I have never had the numerous postoperative complications such as haematomas, seromas or groin infection. This is probably the reason why the new development of vessels in my experience was low. Possibly revascularisation of haematomas may lead to neovascularization.<sup>2</sup>

Furthermore I have still reduced the aggressiveness of re-do operations by doing only a ligature of the stump with non absorbable suture through the same small lateral approach. Finally, intraoperatively, I securely inject foam in the distal part of the ligated stump or by the way of a thigh vein. "Doing less in the groin to do better for the re-recurrence." ♦

### References

1. Creton D. Surgery for recurrent saphenofemoral incompetence using expanded polytetrafluoroethylene patch interposition in front of the femoral vein: long-term outcome in 119 extremities. *Phlebology*. 2002 16:37-41.

2. Munasinghe A et al. Strip-track revascularization after stripping of the great saphenous vein. *Br J Surg*. 2007;94:840-3.