Short Communication

Interventional Cardiology

Ablation of the saphenous vein to treat varicose veins should be abandoned

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Description

Bypass surgery is of great value for arterial and venous reconstructions for cardiovascular diseases of different etiologies like atherosclerosis, neck and extremities trauma, iatrogenic injuries or oncologic vascular resections. The best conduit to replace a vessel is one of the patient's arteries or veins. Autologous arterial bypass is possible for coronary artery bypass grafting (Internal thoracic, radial artery and gastroepiploic arteries) but for peripheral bypass it is not an option because of the length and diameters required. Synthetic prosthetic grafts are an alternative, with good results for large vessels, but poor for small vessels reconstructions. The autograft's endothelium avoids surface thrombogenicity, suppresses vascular smooth muscle cell proliferation, has mechanical properties similar to the recipient vessel reducing intimal hyperplasia, resists infection and grows with the host, being the gold standard for arterial bypass [1].

Ablation of the Greater Saphenous Vein (GSV) for Varicose Vein (VV) treatment makes it unavailable. Is this therapeutic approach in the patient's best interest? Chronic venous insufficiency (CVI) of the legs occurs commonly in the general population [2]. Estimates of the prevalence of VV vary widely from 2%-56% in men and 1%-60% in women [3]. As population age increases, the number of patients who suffer CVI requiring arterial reconstruction will increase as well. A study by Prochaska et al. demonstrated that CVI is related to cardiovascular disease and is predictive of all-cause death, calling for increased awareness of the prevalence and clinical implications of the disease beyond cosmetic issues [4]. During the past century, CVI treatment consisted mainly of surgical ablation. In the new millennium, thermal and non-thermal ablations are the most common procedures. An alarming increment of 4,529% in saphenous vein ablations between 2006 and 2016 was observed in the United States of America, and although not well documented this is true around the world [5]. Russel Samson has proposed a new society named S.O.S. (Save Our Saphenous), worried by the great amount of GSV that is ablated without need [6]. Claude Franceschi, based on duplex scanning described the "Ambulatory Conservative Hemodynamic Correction of Venous Insufficiency" (CHIVA) cure to treat venous hypertension, preserving the saphenous veins [7]. A Meta-Analysis by Guo et al., concluded CHIVA seems to have superior clinical benefits on long-term efficacy for treating VV [8]. The SAPTAP, a recently published randomized clinical trial that compared GSV preserving treatment by Single Ambulatory Phlebectomy (SAP) against thermal ablation, showed that there was no difference from a disease specific health related quality of life perspective. Isolated ambulatory phlebectomy treatment is less costly, and in three quarters of patients an ablation of the saphenous trunk could be avoided [9,10].

Conclusion

In conclusion there are methods available to treat CVI that preserve the GSV. Moreover,

the literature suggests that a dilated GSV may be a good conduit for bypass. Studies performing external reinforcement with a prosthesis of dilatations of the GSV trunk, on patients with VV, obtain similar results as with normal veins. Preserving the SV as a potential graft should be considered by every physician treating patients with CVI and explained to the patient, in his best interest.

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