

MEETING ABSTRACT

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# Radiofrequency obliteration to treat the great saphenous vein insufficiency, an option in geriatrics patients

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## Background

Radiofrequency (RF) ablation of Great Saphenous Vein (GSV) without high ligation, using controlled-heating to close vein. A minimally invasive treatment alternative to conventional surgery represents a valid option for geriatrics patients with venous insufficiency.

## Materials and methods

From 2001 to 2007, 123 patients 62-86 y.o. (average 74), with GSV insufficiency, selected through ultrasound examination according to the features of GSV: duration reflux longer 1"; diameter between 5 and 12 mm; distance to skin > 5mm [1]; preterminal valve incompetent, terminal valve competent, regular path and bore. Patients were not affected by severe leg arteriopathy (ABI  $\geq$  1). The operation was performed in day surgery and local anesthesia. For 42 (34%) saphenous diameter sized between 5-8 mm, used 6F catheters, other 81(66%) between 8-12 mm, used 8F catheters. Intraoperative ultrasound examination performed to control the catheter position (Figure 1), also after procedures to confirm vein occlusion and saphenous-femoral junction patency. Then compressive-elastic stocking was applied and they were discharged after 2 hours and returned to normal activity after 24-36 hours.

## Results

All patients had slight post-operative pain in the path of the treated saphenous segment, disappearing in 5-7 days. They have been clinically checked after 3 and 6 days and with duplex-scanned after 30 days, 6 months, 1 and 2 years. Elastic-compression stocking was

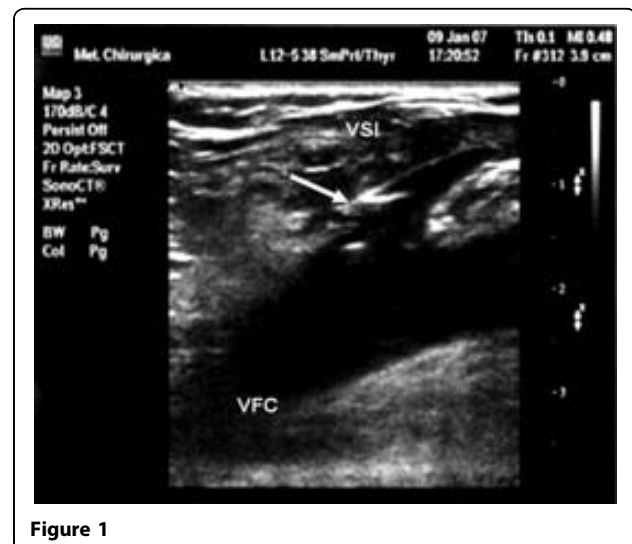


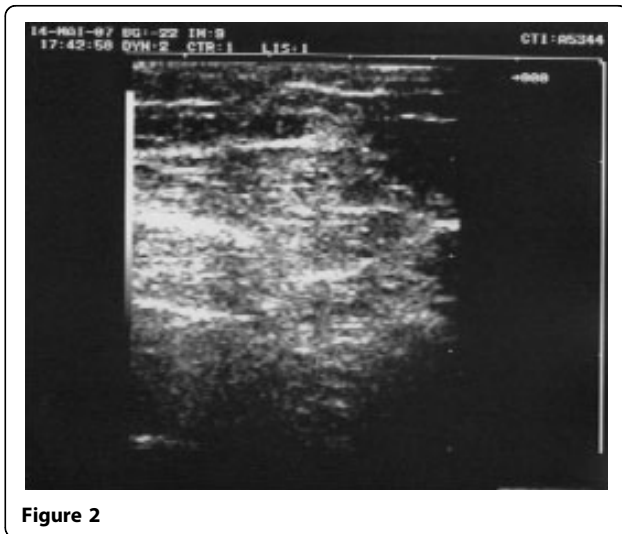
Figure 1

removed after 3 days. Only 5(4%) patients had little haematomas in the surgical incision site, disappeared in 7-10 days, 2 (2%) patients had paresthesia. Duplex scanning showed one recanalization (1%), other veins were fibrotic 1 month later and 6 months later they were completely sclerosed and barely visible as a weak hyper-ecogenic signal (Figure 2). GSV persistent occlusion and reflux-free was documented in 122/123 (98%) at 1 year, 113/123 (92%) at 2 years follow-up. Neither thrombosis nor thermal injury were observed, paresthesia persisting in 2 (2%) at 1 year and 1 (1%) at 2 year follow-up.

## Conclusions

RF treatment is more appreciated, especially by elderly, because it is minimally invasive allowing immediate discharge, rapid return to normal activity, mild pains.

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It represents a valid option in geriatrics patients with venous insufficiency. However, a correct selection of patients is necessary on accurate studying of features of GVS, excluding arteriopathy and pacemaker. RF treatment causes permanent closure of GSV, showing lasting over time efficacy, without the morbidity and longer convalescence associated with conventional surgical vein ligation and stripping [2] but results depend on careful execution of procedure.

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