

Long-Term Results of Endovenous Laser Treatment of Varicose Veins

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SUMMARY

Endovenous Laser Ablation (EVLA) with 1064 nm VSP Nd:YAG laser is a well-established method for ablation of the great and/or short saphenous vein since it shows minimal side effects in comparison with other surgical procedures; patients can walk immediately after surgery and recovery times are short [1].

Since 2005 we treated in our clinic varicose veins in more than 3700 patients using minimally invasive techniques (mostly laser, but also some with RF). To show the long term results – 5 years after the endovenous laser treatment, the patients treated with EVLA for primary varicose vein from 1st Nov 2007 to 16th Feb 2008 were invited to attend a follow-up exam with Doppler ultra sound (DUS). The absence or presence of the treated vein was recorded and recurrent reflux in the treated vein (anatomic recurrence) or other veins (non-anatomic) recurrence was notified.

Among 144 patients treated with EVLA at the Avelana Vein Center in this period, 16.6% were male and 83.4% were female patients. The average age of the patients was 50.7 years. Contact was lost with four of the patients for follow up.

The primary end point of this long-term EVLA efficacy study was the complete occlusion and resorption of the vein without any additional treatments in between EVLA and 5-year follow-up. We found this criteria fulfilled in 138 of 144 patients, which represents an excellent 5-year occlusion rate of 95.8%.

Among 6 patients in which we found recanalization, the causes were due to: the anterior accessory saphenous vein (AASV) in 3 cases, the thigh perforator in 2 cases and the pelvic vein in one case.

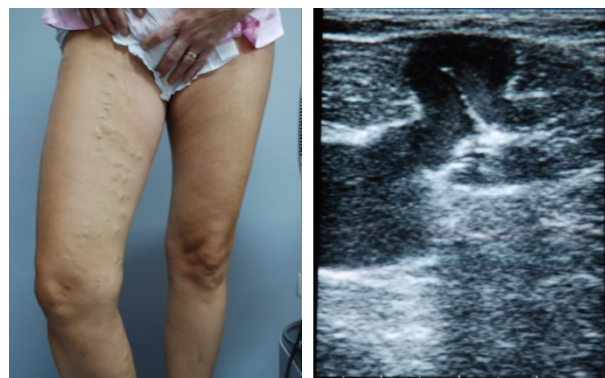


Fig. 1: Non-anatomic failure – a case of anterior accessory saphenous vein recanalization.

Since chronic venous insufficiency (CVI) is a chronic progressive disease, it cannot be expected that any method will permanently cure the disease. Approximately 50% of patients will need some additional interventions for small veins (mainly foam sclerotherapy) over a longer period.

However, true recurrence 5 years after 1064 Nd:YAG EVLA seems to be less frequent then after high ligation and stripping.

REFERENCES:

1. Sikovec A (2010) Saphenous Vein Occlusion by Endovenous Laser Ablation (EVLA) with a 1064 nm VSP Nd:YAG Laser. LA&HA - Journal of the Laser and Health Academy 1: 19–23.

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