

**Table X.**

Operative procedure	Reference <i>Abstracts corresponding to references can be found using the listing "RCTs by alphabetical order" or "RCTs by topic."</i>	Summary
<b>RFA versus EVLA</b>	Almeida JI, Kaufman J, Oliver Göckeritz O, Chopra P, Evans M T, Hoheim DF, Makhou RG, Richards T, Wenzel C, Raines JK. Radiofrequency Endovenous Closure FAST <i>versus</i> Laser Ablation for the Treatment of Great Saphenous Reflux: A Multicenter, Single-blinded, Randomized Study (RECOVERY Study). <i>J Vasc Interv. Radiol.</i> 2009;20:752–759.	69 patients and 87 incompetent GSV <b>Group I</b> <i>versus</i> <b>Group II</b> (N=41): EVLA Diode 980-nm bare fiber Local tumescent anesthesia in both procedures <b>Results at 2 weeks of follow-up:</b> <ul style="list-style-type: none"> <li>· All scores referable to pain, ecchymosis, and tenderness were statistically lower in the group I (ClosureFAST) at 48 hours, 1 week, and 2 weeks compared with group II.</li> <li>· Minor complications were more prevalent in the group II (P=0.021)</li> <li>· VCSS and HRQoL measures were statistically lower in the group I compared with group II</li> <li>· No difference between groups in terms of postoperative vein occlusion and truncal reflux elimination</li> </ul>
	Gale SS, Lee JN, Walsh ME, Wojnarowski DL, Comerota AJ. A randomized, controlled trial of endovenous thermal ablation using the 810-nm wavelength laser and the ClosurePLUS radiofrequency ablation methods for superficial venous insufficiency of the great saphenous vein. <i>J Vasc Surg.</i> 2010;52: 645-50.	118 patients, 141 lower extremities with incompetent GSV. <b>Group I</b> <i>versus</i> <b>Group II</b> (N=60): EVLA Diode 810-nm bare fiber 24 bilateral. 94 unilateral Local tumescent anesthesia for both procedures <b>Results at 1-4 weeks to 1 year of follow-up:</b> <ul style="list-style-type: none"> <li>· Less bruising and discomfort in group I compared with group II at 1 week</li> <li>· More frequent recanalization at 1 year pain in group I compared with group II (P=0.002)</li> </ul>
	Goode SD, Chowdurry A, Crockett M, Beech A, Simpson R, Richards, Braithwaite BD. Laser and Radiofrequency ablation Study: a randomized Study comparing Radiofrequency Ablation and Endovenous Laser Ablation ( 810 nm). <i>Eur J Vasc Endovasc Surg.</i> 2010;40:246-53.	87 lower extremities with incompetent GSV. <b>Group I</b> unilateral disease (N=45): CELON RFiTT RFA in 23 limbs, and EVLA Diode 810-nm barefiber in 22 limbs <i>versus</i> <b>Group II</b> bilateral disease (N=17) CELON RFiTT RFA in 17 limbs, and EVLA Diode 810-nm barefiber in 17 limbs Phlebectomy in both groups when needed General anesthesia for both procedures <b>Results at 2 to 11 days of follow-up:</b> <ul style="list-style-type: none"> <li>· Group I: no significant difference between procedures in terms of post-operative pain, bruising and activity scores</li> <li>· Group II: less postoperative pain and bruising in the RFA</li> </ul>
	Shepherd AC, Gohel MS, MD, Brown LC, Metcalf MJ, Hamish M, Davies AH.	131 patients with incompetent GVS <b>Group I</b> <span style="float: right;"><i>versus</i></span>

	<p>Randomized clinical trial of VNUS Closure FASTTM radiofrequency ablation <i>versus</i> laser for varicose veins. <i>Br J Surg.</i> 2010;97:810-18.</p>	<p><b>Group II</b> (N=61): EVLA Diode 980-nm, bare fiber General anesthesia for both procedures <b>Results at 6 weeks of follow-up:</b></p> <ul style="list-style-type: none"> <li>· Less postoperative pain in group I compared with group II (3-10 days. P= 0,012-P=0,001)</li> <li>· Less analgesic consumption in group I compared with group II (3-10 days .P= 0, 003-P=0.001)</li> <li>· HRQoL using AVVQ and SF-12: no difference between groups</li> </ul>
	<p>Nordon IM, Hinchliffe RJ, Brar R, et al. A prospective double-blind randomized controlled trial of radiofrequency versus laser treatment of the great saphenous vein in patients with varicose veins. <i>Ann Surg.</i> 2011;254:876-881.</p>	<p>Patients with incompetent GSV <b>Group I</b> (N=80): EVLA Vari-Lase Bright tip 810 nm laser fiber <i>versus</i> <b>Group II</b> (N=79): ClosureFast General anesthesia. <b>Results at 1 week of follow-up:</b></p> <ul style="list-style-type: none"> <li>· All GSV occluded.</li> <li>· Significantly less pain and bruising in group II compared with group I</li> </ul> <p><b>Results at 3 months of follow-up:</b></p> <ul style="list-style-type: none"> <li>· Three out of 68 GSV reopened in group I and 2 out of 70 in group II (P=NS)</li> </ul>
	<p>Shepherd AC, Ortega-Ortega M, Gohel MS, Epstein D, Brown LC, Davies AH. Cost-Effectiveness of Radiofrequency Ablation versus Laser for Varicose Veins. <i>International Journal of Technology Assessment in Health Care.</i> 2015;31:289-296.</p>	<p>110 patients with incompetent GSV Group I (N=56): RFA <i>versus</i> Group II (N=54): EVLA Diode 980-nm, bare fiber General anesthesia for both <b>Results at 6 months of follow-up:</b></p> <p>EVLA and RFA result in comparable and significant gains in quality of life and clinical improvements at 6 months, compared with baseline values.</p> <p>EVLA is more likely to be cost-effective than RFA but absolute differences in costs and HRQOL are small and so there is a strong case for leaving the choice to clinician and patient preference.</p>
	<p>Bozoglan H, Mese B, Eroglu E, Erdogan MB, Erdem K, Ekerbicer KC et al. Comparison of endovenous laser and radiofrequency ablation in treating varicose veins in the same patient. <i>Vasc &amp; Endovasc Surg.</i></p>	<p>60 patients with bilateral primary symptomatic GSV insufficiency with no difference between the 2 LL were treated either by EVLA on one leg and RFA in the other. <b>Group I</b> EVLA 1470nm radial fiber, continuous withdrawal (Nb =60) <b>Group II</b> RFA radiofrequency energy from 25 W</p>

	<p>2016;50(1):47-51. DOI 10.1177/1538574415625813</p>	<p>every 0.5cm distal aspect to 50 W/cm at the SFJ (Nb=60) under local anesthesia <b>Follow-UP duration:</b> postoperative period Intraoperative and post-operative pain, analgesic requirement, time to return to activity and work in favor of group I but not statistically significant Minor complications less frequent in group I but not statistically significant</p>
	<p>Sydnor M, Mavropoulos J, Slobodnik N, Wolfe L, Strife N, Komorowski D. A randomized prospective long-term clinical trial comparing efficacy and safety of radiofrequency ablation to 980 nm laser ablation of the great saphenous vein. <i>Phlebology</i> 2017;32:415-424.</p>	<p>200 patients with bilateral primary symptomatic GSV insufficiency were treated either by EVLA or RFA supplemented by varicose tributary phlebectomy when needed.</p> <p><b>Group I</b> (Nb=100) EVLA 980 nm radial fiber, continuous withdrawal, 50 at 10W to 80 J/cm.</p> <p><b>Group II</b> (Nb=100) RFA radiofrequency energy from 25 W every 0.5cm distal aspect to 50 W/cm at the SFJ under local anesthesia.</p> <p><b>Outcome was assessed at 1,6 weeks, 6 months, 1 year and then at yearly intervals</b> Post procedure pain, P &lt;0.0001 and objective post-procedure bruising, P=0.0114 were significantly lower in group II.</p>

**Abbreviations:**

AVVQ = Aberdeen varicose vein questionnaire ; EVLA = endovenous laser ablation ; GSV= great saphenous vein ;LL= lower limb; RFA =radiofrequency ablation ; HRQoL = Health-related quality of Life; SFJ= saphenofemoral junction; VCSS, venous clinical severity scores