

Table II .Open surgery including CHIVA+ compression versus isolated compression in C5-C6 patient.

8 articles. 6 RCTs

Reference underlined in the same color means same RCT

Operative procedure	Reference	Summary
<p>Open surgery +/- SEPS and compression therapy <i>versus</i></p>	<p>Barwell JR, Davies CE, Deacon J, Harvey K, Minor M, Sassano A, Taylor M et al. Comparison of surgery and compression with compression alone in chronic venous ulceration (ESCHAR study): randomised controlled trial). <i>Lancet</i>. 2005;363:1854-9</p>	<p>Multi- center study 500 lower limbs classified C6 with reflux in GSV or/and SSV or/and dep veins. no deep vein obstruction. CEAP clinical classification C5 healed in the last 6 months or C6 Group I (n= 242) OS + compression therapy <i>versus</i> Group II (n =258): isolated compression therapy Results at 24 weeks of follow-up: 40 patients lost to follow-up . <i>Venous ulcer healing:</i> healing rates similar in both groups Results at 1 year of follow-up: . <i>Venous ulcer recurrences:</i> recurrence rate reduced by 28% in Group I <i>versus</i> 12% in Group II; hazard ratio, -2.7; 65% CI-1.78 to 4.27. P <0.0001</p>

<p>isolated compression therapy in C5-C6 or C6 patients</p>	<p>Guest M, Smith JJ, Tripuraneni G, Howard A, Madden P, Greenhalgh RM, Davies AH. Randomized clinical trial of varicose vein surgery with compression <i>versus</i> compression alone for the treatment of venous ulceration. <i>Phlebology</i>. 2003;18:130-36.</p>	<p>Monocenter study 76 patients assigned C6 of the CEAP with reflux in GSV or/and SSV and in +/- deep vein CEAP clinical classification C6 Group I (n=39): Four-layer bandaging <i>versus</i> Group II (n=37): OS + Four-layer bandaging Results at 24 weeks of follow-up: <i>Venous ulcer healing:</i> no difference between the two groups in terms of - healing rate (adjusted hazard ratio-0.69, P=0.41); - HRQoL (adjusted hazard ratio-0.79, 95% CI 0.45-1.39 using generic (SF 36) and specific (CXVUQ) tools</p>
	<p>Gohel MS, Barwell JR, Earnshaw JJ, Heather BP, Mitchell DC, Whyman MR, Poskitt KR. Randomized clinical trial of compression plus surgery <i>versus</i> compression alone in chronic venous ulceration (ESCHAR study)- haemodynamic and anatomical changes. <i>Br J Surg</i>. 2005;92:291-297.</p>	<p>Multi- center study 214 lower legs with saphenous reflux in GSV or /and SSV and +/- deep venous reflux CEAP clinical classification C5 healed in the last 6 months or C6 Group I (n=112): compression therapy <i>versus</i> Group II (n=102): OS + compression therapy Results at 1 year of follow-up: <i>Hemodynamics</i> . Venous refill time better improved in Group II compared with Group I; P <0.001 . Deep venous reflux abolition - 10/22 when segmental - 3/17 when axial</p>
	<p>van Gent WB, Hop WC, Van Prag MC, Mackaay AJ, de Boer EM, Wittens CH. Conservative <i>versus</i> surgical treatment of venous leg ulcers : a prospective, randomized, multicenter trial. <i>J Vasc Surg</i>. 2006;44:563-71.</p>	<p>Multi- center study 170 patients, and 200 venous ulcers (C6) with GSV or/and SSV, +/- perforator incompetence, +/--deep reflux. CEAP clinical classification C6 Group I (n=97): open surgery +/- SEPS</p>

		<p>(50%) + compression therapy <i>versus</i> Group II (n=103): compression therapy Results at 29 months (mean 27) of follow-up: . Venous ulcer healing Group I, 72% <i>versus</i> group II, 53%; P=0.11 . Venous ulcer recurrences or medial ulcers: better results in group I compared with group II; P=0.02</p>
	<p>Gohel MS, Barwell JR, Taylor M, Chant T, Foy C, Earnshaw JJ Heather BP, Mitchell DC, Whyman MR, Poskitt KR. Long term results of compression therapy <i>versus</i> compression plus surgery in chronic venous ulceration (ESCHAR). Randomized controlled trial. <i>Br Med J</i> . 2007;335:83-89.</p>	<p>Multi- center study 500 patients, 500 lower limbs with saphenous reflux in GSV or and SSV and +/- deep venous reflux CEAP clinical classification C5 healed in the last 6 months or C6 Group I (n 242) OS+ compression therapy <i>Versus</i> Group II (n 258) compression therapy. Results - At 3 years Venous ulcer healing in C6 patients. Non-significant difference between the 2 groups.P=0,73 Ulcer free time longer in group I vs group II. P=0.007 - At 4 years . Ulcer recurrence. Group I 31%. Group II 56%. P<0.01 . Venous ulcer recurrence in patients with isolated superficial reflux: -Recurrence rates lower in group I vs group II. P<0.001 . Venous ulcer recurrence in patients with combined deep segmental reflux: -Recurrence rates lower in group I vs group II. P=0.04 . Venous ulcer recurrence in patients with combined deep axial reflux -No significant difference between groups in terms of recurrent rates. P =0.33</p>
<p>CHIVA + compression therapy <i>versus</i></p>	<p>Zamboni P, Cisno C, Marchetti F, Mazza L, Fogato L, Carandina S, De</p>	<p>Monocenter study 45 patient and 47 venous ulcers with reflux in GSV or/and SSV.</p>

<p>compression therapy in C6 patients</p>	<p>Palma M, Liboni A. Minimally invasive surgical management of primary venous ulcers vs. compression treatment: a randomized clinical trial. <i>Eur J Vasc Endovasc Surg.</i> 2003;25:313-318.</p>	<p>No deep vein anomaly. CEAP clinical classification C6 Group I (n patients= 21; n ulcers=23): CHIVA + compression therapy <i>versus</i> Group II (n patients=24; n ulcers=24.): compression therapy Results at 3 years of follow-up: -<i>Venous ulcer healing:</i> Group I, 100% at 31 days (mean) <i>versus</i> Group II 96% at 63 days (mean); P<0.02 -<i>Venous ulcer recurrences:</i> Group I, 9% <i>versus</i> Group II 36%; P<0.05</p>
	<p>Zamboni P, Cisno C, Marchetti P, Fogato L, Carandina S, De Palma M et Liboni A. Hemodynamic CHIVA correction <i>versus</i> compression for primary venous ulcers: first year results. <i>Phlebology</i> 2004;19:28</p>	<p>Monocenter study 45 patients and 47 lower limbs with primary VV with reflux in GSV or/and SSV CEAP clinical classification C6 Group I (n=23): CHIVA + compression therapy <i>versus</i> Group II (n=24): compression therapy) Results at 1 year of follow-up: <i>Venous ulcer healing:</i> Group I, 100% at 29 days (mean) <i>versus</i> Group II 96% at 61 days (mean); P<0.02 <i>HRQoL(SF 36):</i> Group I with better QoL > Group II (P<0.05)</p>
<p>Ulcer healing and recurrence according to presence or absence of incompetent perforator after SEPS procedure</p>	<p>van Gent WB, Wittens CHA. Influence of perforating vein surgery in patients with venous ulceration. <i>Phlebology</i> 2015. 30 ;127-132. PMID: 24357450</p>	<p>Multi-center study 94 lower limbs with venous ulcer treated by open surgery for GSV or/and SSV incompetence +SEPS (100%) + medical compression Deep reflux as well previous DVT were not a contra-indication CEAP clinical classification C6 Outcome measurement</p>

		<p>DS performed at 1 year to assess the presence or the absence of incompetent Pe (missed Pe at SEPS or new incompetent Pe): Group I = presence of incompetent Pe Group II= absence of incompetent Pe Follow-up at 1 year: . Ulcer healing: 70% in group I vs 70% in group II (P=NS). . Recurrence rate: 30% in group I vs 8% in group II Follow-up at 27 months: Recurrence rate: 50% in group I vs 16%, in group II (P=0.007). Conclusion: Ulcer healing was not significantly influenced by the number of remaining incompetent perforators, but ulcer recurrence rate was higher in the group I</p>
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Abbreviations: CHIVA= Ambulatory Conservative Haemodynamic Management of Varicose Vein; CXVUQ= Charing Cross Venous Ulcer Questionnaire; DS= duplex scanning ; DVT=deep venous thrombosis; EVLA=endovenous laser ablation; GSV = great saphenous vein ; HRQoL= Health related quality of life; OS= Open surgery: High ligation + Saphenous stripping+/- Perforator ligation +/- tributary phlebectomy; Pe= perforator; SEPS= subfascial endoscopic perforating vein surgery; SF-36= Short form 36 items; SSV= small saphenous vein.