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| Gmail | **claude franceschi <claude.franceschi@gmail.com>** |

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| **Results from Scopus** |

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| **noreply@scopus.com**<noreply@scopus.com> | 27 septembre 2012 00:54 |
| À : afunzionale@tiscalinet.it  Cc : claude.franceschi@gmail.com | |
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saphenous vein-sparing surgery for treatment of varicose veins](http://www.scopus.com/record/display.url?eid=2-s2.0-80051515766&origin=resultslist) (2011) *World Journal of Surgery*, 35 (7), pp. 1679-1686.  a Department of Surgery, National Taiwan University Hospital, Taipei, Taiwan b Division of Cardiovascular Surgery, Min-Sheng General Hospital, Tao-Yuan, Taiwan c Division of Cardiovascular Surgery, Far Eastern Memorial Hospital, Nanya S. Rd, Banqiao City, Taipei County 22060, Taiwan  Abstract Background: The purpose of the present study was to compare management of varicose veins by endovenous laser ablation (EVL) and a vein-sparing procedure (CHIVA: Conservatrice et Hémodynamique de l'Insuffisance Veineuse en Ambulatoire) for management of varicose veins. Methods: Data from 82 consecutive patients with great saphenous vein (GSV) reflux and primary varicose veins presenting to the vascular clinic at the Far Eastern Memorial Hospital between June and December 2005 were reviewed. Of these, 74 who met the inclusion criteria were included in this study. CHIVA was performed by a double division of the refluxing saphenous vein (i.e., proximal and distal ligation), and EVL was performed using 10-14 W beginning approximately 4 cm below the saphenofemoral junction to the level of the knee. Phlebectomy for significant branch varicose veins on the leg was routinely performed in all patients. Outcome measures included postoperative thrombophlebitis, bruising, pain, assessment of ultrasonographic and clinical symptoms (measured by the Venous Clinical Severity Score [VCSS]) and comparison of quality of life survey scores obtained preoperatively and postoperatively (measured by the Aberdeen Varicose Veins Score [AVVQ] and RAND-36). Patients were examined one week post-procedurally and again at 1, 3, 6, and 12 months. Results: Endovenous laser ablation and CHIVA were performed on 54 and 20 patients, respectively. The EVL patients had significantly higher pain scores and bruising than the CHIVA group (p < 0.001). The VCSS of varicose, edema, pigmentation, and inflammation were significantly reduced after both EVL and CHIVA; however, patients treated by EVL had significantly more pain postoperatively than those treated by CHIVA (p = 0.003). Twenty-two of 54 (40.7%) and 3 of 17 (17.6%) patients in the EVL and CHIVA groups, respectively, required sclerotherapy for residual varicosities (p = 0.026). Both groups benefited significantly from surgery in disease-specific perceptions. Conclusions: The CHIVA patients had less pain postoperatively and a significantly higher sclerotherapy-free period compared to patients in the EVL group. Further follow-up studies to compare long-term results of various approaches to surgically managing varicose veins are needed. © 2011 Société Internationale de Chirurgie.  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Michaels, J.A., Brazier, J.E., Campbell, W.B., MacIntyre, J.B., Palfreyman, S.J., Ratcliffe, J. Randomized clinical trial comparing surgery with conservative treatment for uncomplicated varicose veins (2006) *British Journal of Surgery*, 93 (2), pp. 175-181.  DOI 10.1002/bjs.5264 | |  |  | | |  | | --- | |  | | Almeida, J.I., Raines, J.K. 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Consensus between stripping, sonoguided foam sclerotherapy, endoluminal procedures and CHIVA as therapeutic options [Therapie der stammvarikose der V. saphena magna. Konsens unter einbeziehung von stripping, verödung, endoluminalen verfahren und CHIVA als therapie optionen]](http://www.scopus.com/record/display.url?eid=2-s2.0-79959307330&origin=resultslist) (2011) *Phlebologie*, 40 (3), pp. 159-164.  Praxis, Wunstorf, Germany  Abstract Introduction: Since 20 years the treatment options in case of varicose veins have widened from stripping to new options as foam sclerotherapy, CHIVA and endoluminal procedures. These methods are validated in randomized trials compared to stripping. Until now, no guidelines to find the optimal method for each case of reflux are elaborated. So the German Society of CHVIA used its annual meeting to find a consensus for treatment of refluxive great saphenous vein (GSV) depending on type and length of reflux. Method: 19 participants (14 surgeons, 4 of them vascular surgeons, 4 internists, 1 dermatologist and 1 general practitioner, the latter 6 cooperating in their office with surgeons) were presented different forms of reflux in GSV and different patient situations (age, obesity, multimorbidity). They gave their votes to "therapy is possible", "is useful" or "is optimum". In the first options more than one could be mentioned, optimum could only be given to one treatment option. All participants know all methods, all apply nearly every method, but only 13 participants use foam regularly. Results: All methods are considered possible in all situations of refluxive GSV. Stripping, endovasal procedures and CHIVA had mentions as useful in more than 50% of all cases, foam slightly less. Stripping is more often mentioned in longer refluxes (groin to ankle), foam in shorter refluxes (only thigh) and thinner veins. Stripping, CHIVA and endoluminal procedures were mentioned in 30% of cases, foam in 10%. In the category "optimum" foam had 5% of mentions, especially in cases of short reflux, thin veins and obese patients. Stripping was found optimum in 6% of cases: postphlebitic GSV, thicker GSV refluxing from Groin or Dodd down to the leg (long refluxes). Endoluminal techniques had 33% of mentions as optimum, especially in case of thick veins and in all cases of obese patients. CHIVA was mentioned in 56% of cases. A special indication is the reflux only at the thigh with no reentry to deep vein from GSV and generally in case of short refluxes independently of diameter, and in long refluxes in a thin GSV: Conclusion: We present the expertise of phlebologic surgeons and hemodynamists, who know all procedures and mostly apply all of them. It seems clear, that the only procedure reimbursed by health insurances (stripping) is no longer seen as optimal treatment option. Further discussions and trials have to be completed to find the optimal treatment option for each reflux situation. © Schattauer 2011.  Author Keywords CHIVA;  Endoluminal procedures;  Foam sclerotherapy;  Stripping;  Varicose veins  Index Keywords article, clinical research, consensus development, foam, human, intermethod comparison, obesity, refluxive great saphenous vein, sclerotherapy, therapy effect, validation study, vein diameter, vein stripping, venous reflux  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Alm, J., Böhme, J., Kensy, M. VNUS Closure radiofrequency ablation of varicose veins from Closure PLUS to Closure FAST (2010) *Phlebologie*, 39, pp. 61-68. | |  |  | | |  | | --- | |  | | Almeida, J.I. 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Endovenous therapies of lower extremity varicosities: A meta-analysis *JVS*, 49 (1), pp. 230-239. |   Correspondence Address  Mendoza E.Speckenstr. 10, 31515 Wunstorf, Germany; email: [info@venenpraxis-wunsdorf.de](mailto:info@venenpraxis-wunsdorf.de)  ISSN: 0939978X CODEN: PHLBE Language of Original Document: German Abbreviated Source Title: Phlebologie Document Type: Article Source: Scopus  Mendoza, E.a , Berger, V.b , Zollmann, C.c , Bomhoff, M.d , Amsler, F.e  [Diameter-reduction of the great saphenous vein and common femoral vein after CHIVA [Kaliberreduktion der V. saphena magna und der V. femoralis communis nach CHIVA]](http://www.scopus.com/record/display.url?eid=2-s2.0-79955149249&origin=resultslist) (2011) *Phlebologie*, 40 (2), pp. 73-78. Cited 1 time.  a Praxis, Wunstorf, Germany b Praxis, Hamburg, Germany c Praxis, Jena, Germany d Praxis, Bremen, Germany  Abstract Background: CHIVA (Cure Conservatrice et Hémodynamique de l'Insuffisance Veineuse en Ambulatoire) has been introduced to practice in 1988 in France, 1997 in Germany. The method corrects the haemodynamics in a varicose vein recirculation so that the blood flow is obligatory from superficial to deep veins. The aim of CHIVA is sparing saphenous vein trunks and perforators to allow drainage from superficial to deep veins. Hach criticized that the deep veins, especially at the thigh, could be overloaded by this procedure, so the aim of the study is to determine, whether the diameter of deep veins increase or decrease after the procedure. Materials and Methods: Prospective multicenter study: 557 legs of 458 patients were scanned with ultrasound preoperatively measuring the diameter of common femoral vein distal to the sapheno-femoral junction, as well as the diameter of the great saphenous vein 10-15 cm distal to the groin. 383 patients with 470 treated legs (84.4 %) returned to follow up between 8 and 25 weeks after surgery for a duplex examination. Diameters of great saphenous vein and common femoral vein were compared pre- and postoperatively. Results: The diameters of great saphenous vein and common femoral vein are statistically different between male and female legs. The diameter of the great saphenous vein changed from 6.1 mm preoperatively to 4.5 mm postoperatively in the female group and from 6.8 mm to 5.1 mm in the male group. The diameter of the common femoral vein changed from 14.0 mm preoperatively to 13.7 mm postoperatively in the female group and from 16.5 mm to 16.1 mm postoperatively in the male group, all these results being statistically highly significant. Conclusion: A significant reduction in the diameter of the common femoral vein was shown two months after the procedure, allowing the conclusion that CHIVA is not overloading the deep venous system, but relieving it. © Schattauer 2011.  Author Keywords Caliber reduction;  CHIVA;  Great saphenous vein;  V. femoralis communis  Index Keywords article, chronic vein insufficiency, conservative treatment, female, femoral vein, hemodynamics, human, major clinical study, male, peripheral vein, postoperative period, preoperative evaluation, saphenous vein, sex difference, surgical technique, varicosis, vein diameter, vein surgery, venous circulation  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Cappelli, M. Ambulatory conservative hemodynamic management of varicose veins (2000) *Ann Vasc Surg*, 14, pp. 376-384. | |  |  | | |  | | --- | |  | | Carandina, S. Varicose vein stripping vs haemodynamic correction (CHIVA) (2008) *Eur J Vasc Endovasc Surg*, 35 (2), pp. 230-237. | |  |  | | |  | | --- | |  | | Franceschi, C. 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Diameter of Great Saphenous Vein as Indicator of Varicose Disease *Eur J Vasc Endovasc Dis*,  submitted |   Correspondence Address  Mendoza E.; Venenpraxis, Speckenstr. 10, 31515 Wunstorf, Germany; email: [erika.mendoza@t-online.de](mailto:erika.mendoza@t-online.de)  ISSN: 0939978X CODEN: PHLBE Language of Original Document: German Abbreviated Source Title: Phlebologie Document Type: Article Source: Scopus  Maldonado-Fernández, N.a , López-Espada, C.b , Martínez-Gámez, F.J.a , Mata-Campos, J.E.a , Galán-Zafra, M.a , Sánchez-Maestre, M.a  [Postoperative complications of CHIVA technique for the treatment of chronic venous failure [Complicaciones postoperatorias de la estrategia CHIVA para el tratamiento de la insuficiencia venosa crónica]](http://www.scopus.com/record/display.url?eid=2-s2.0-79952790674&origin=resultslist) (2010) *Angiologia*, 62 (3), pp. 91-96.  a Servicio de Angiología Y Cirugía Vascular, Complejo Hospitalario de Jaén, Jaén, Spain b Servicio de Angiología Y Cirugía Vascular, Hospital Virgen de Las Nieves, Granada, Spain  Abstract Introduction. The most commonly used technique for varicose vein surgery is saphenectomy, although haemodynamic surgery (CHIVA) has been becoming increasing popular in the last decade in our country, probably, due to its good postoperative recovery and fewer complications. Objective. To describe and quantify postoperative complications of CHIVA technique in our experience as well as that reported in the literature. Methods. Retrospective descriptive study of 269 limbs operated on by our group and analysis of 2,793 audited limbs described in the literature. Results. The main complications in our patients were: 17 cases in 269 limbs (6.33 %), distributed as follows: 11 symptomatic saphenous vein thrombosis, two temporary paresthesias, two groin haematomas, one wound infection, and one headache after spinal anaesthesia. Complications reported in the literature: 208 cases in 2,793 limbs (7.44 %), distributed as follows: 82 symptomatic saphenous vein thrombosis, 70 neuritis and paresthesias, 25 minor skin infections, 9 haematomas, 7 groin infections, 6 lymphatic groin leakages, 4 deep vein thrombosis, and one groin haemorrhage. There is no mortality or major complications associated with this procedure. Conclusions. CHIVA surgical approach to chronic venous insufficiency is accompanied by a rapid recovery and active life with a 7 % complication rate, which are mostly benign and do not hinder recovery. Symptomatic saphenous vein thrombosis is the most common complication after surgery for varicose veins using this technique. © 2010 SEACV. Published by Elsevier España, S.L. All rights reserved.  Author Keywords CHIVA technique;  Chronic venous insufficiency;  Complications;  Haemodynamic venous surgery;  Varicose veins surgery  Index Keywords bleeding, chiva technique, chronic vein insufficiency, conference paper, deep vein thrombosis, headache, hematoma, human, infection, inguinal region, neuritis, paresthesia, postoperative complication, retrospective study, saphenous vein, skin infection, spinal anesthesia, surgical technique, vein thrombosis, wound infection  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Álvarez-Fernádez, L.J., Lozano, F., Marinello-Roura, J., Masegosa-Medina, J.A. Encuesta epidemiológica sobre la insuficiencia venosa crónica en España: Estudio DETECT-IVC 2006 (2008) *Angiología*, 60, pp. 27-36. | |  |  | | |  | | --- | |  | | (2004) *Insuficiencia Venosa Crónica: Su Impacto en la Sanidad Española. Horizonte del Año 2010. Relación Coste-beneficio. Macro-estudio Prospectivo Basado en El Método Delphi*,  Capítulo español de Flebología. 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Mid-term results of applying the CHIVA strategy to the external saphenous vein (2004) *Angiologia*, 56 (5), pp. 481-490. |   Correspondence Address  Maldonado-Fernandez N.; Servicio de Angiología Y Cirugía Vascular, Complejo Hospitalario de Jaén, Jaén, Spain; email: [nicovasc@hotmail.com](mailto:nicovasc@hotmail.com)  ISSN: 00033170 CODEN: ANGOA DOI: 10.1016/S0003-3170(10)70025-0 Language of Original Document: Spanish Abbreviated Source Title: Angiologia Document Type: Conference Paper Source: Scopus  Parés, J.O.a , Juan, J.b , Tellez, R.a , Mata, A.a , Moreno, C.c , Quer, F.X.d , Suarez, D.e , Codony, I.d , Roca, J.d  [Varicose vein surgery: Stripping versus the chiva method: A randomized controlled trial](http://www.scopus.com/record/display.url?eid=2-s2.0-77950860139&origin=resultslist) (2010) *Annals of Surgery*, 251 (4), pp. 624-631. Cited 14 times.  a Department of Angiology and Vascular Surgery, Hospital General de Vic, VIC, Spain b Department of Angiology, Vascular and Endovascular Surgery, Hospital Universitari Vall d'Hebron, Universitat Autònoma de Barcelona, Barcelona, Spain c Epidemiology and Assessment Unit, Hospital General de Vic., Universitat Autònoma de Barcelona, Sabadell, Spain d Department of General Surgery, Hospital General de Vic, VIC, Spain e Epidemiology and Assessment Unit, Institut Universitari Parc Taulí, Universitat Autònoma de Barcelona, Sabadell, Spain  Abstract Objective: The Objective of this randomized study was to compare the efficacy of the CHIVA method for the treatment of varicose veins with respect to the standard treatment of stripping. CONTEXT Varicose veins are a sign of chronic venous disorder. For over a century, varicose veins have been treated with surgical ablative techniques, with stripping being the standard treatment. Currently, postsurgical varicose veins recurrence (20%-80%) is a common, complex, and costly problem. Ambulatory Conservative Hemodynamic Management of Varicose Veins (CHIVA) is a new option for treating chronic venous disorder. Methods: In this open-label, randomized controlled trial, 501 adult patients with primary varicose veins were treated in a single center. They were assigned to an experimental group, the CHIVA method (n = 167) and 2 control groups: stripping with clinic marking (n = 167) and stripping with duplex marking (n = 167). The outcome measure was clinical recurrence within 5 years, assessed clinically by previously trained independent observers. Duplex ultrasonography was also used to assess recurrences and causes. Results: In an intention-to-treat analysis, clinical outcomes in the CHIVA group were better (44.3% cure, 24.6% improvement, 31.1% failure) than in both the stripping with clinic marking (21.0% cure, 26.3% improvement, 52.7% failure) and stripping with duplex marking (29.3% cure, 22.8% improvement, 47.9% failure) groups. The ordinal odds ratio between the stripping with clinic marking and CHIVA groups, of recurrence at 5 years of follow-up, was 2.64, (95% confidence interval[CI]: 1.76-3.97, P < 0.001). The ordinal odds ratio of recurrence at 5-years of follow-up, between the stripping with duplex marking and CHIVA group, was 2.01 (95% CI: 1.34-3.00, P < 0.001). This trial is registered at ISRCTN and carries the following ID number: ISRCTN52861672, available at: [http://isrctn.org](http://isrctn.org/). Conclusion:S The present Results: indicate that, thanks to specific venous hemodynamic evaluation, the CHIVA method is more effective than stripping with clinical marking or stripping with duplex marking to treat varicose veins. When carrying out a stripping intervention, Duplex marking does not improve the clinical Results: of this ablative technique. Copyright © 2010 by Lippincott Williams & Wilkins.  Index Keywords adult, ambulatory surgery, article, clinical trial, compression bandage, conservative treatment, controlled clinical trial, controlled study, echography, female, follow up, hemodynamics, human, major clinical study, male, neuralgia, open study, outcome assessment, phlebectomy, phlebitis, priority journal, randomized controlled trial, recurrent disease, saphenous nerve, subcutaneous hemorrhage, surgical technique, therapy effect, treatment failure, varicosis, vein ligation, vein stripping, vein surgery; Female, Humans, Male, Middle Aged, Varicose Veins, Vascular Surgical Procedures  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Evans, C.J., Allan, P.L., Lee, A.J. Prevalence of venous reflux in the general population on duplex scanning: The Edinburgh vein study (1998) *J Vasc Surg*, 28, pp. 767-776. | |  |  | | |  | | --- | |  | | Bergan, J.J., Schmid-Schönbein, G.W., Coleridge Smith, P.D. 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Alternative saphenous vein sparing surgery for future grafting (1995) *Panminerva Med*, 37, pp. 190-197. |   Correspondence Address  Pares J. O.; Department of Angiology and Vascular Surgery, Hospital General de Vic, VIC, Spain; email: [23017jop@comb.cat](mailto:23017jop@comb.cat)  ISSN: 00034932 CODEN: ANSUA DOI: 10.1097/SLA.0b013e3181d0d0a3 PubMed ID: 20224376 Language of Original Document: English Abbreviated Source Title: Ann. Surg. Document Type: Article Source: Scopus  Nüllen, H.a c , Noppeney, T.b  [Surgical treatment of varicosis : A concept without a future? [Chirurgische therapie der varikose : Ein konzept ohne zukunft?]](http://www.scopus.com/record/display.url?eid=2-s2.0-68149132780&origin=resultslist) (2009) *Gefasschirurgie*, 14 (3), pp. 230-234. Cited 2 times.  a Gemeinschaftspraxis für Gefäßmedizin, Abteilung fur Gefachirurgie und endovaskulare Chirurgie der Stadtischen Kliniken Monchengladbach, Mönchengladbach, Germany b Praxis für Gefäßmedizin and Gefäßchirurgie Nürnberg, Nürnberg c Gemeinschaftspraxis für Gefäßmedizin, Abteilung fur Gefachirurgie und endovaskulare Chirurgie der Stadtischen Kliniken Monchengladbach, Rheydterstr. 276, Mönchengladbach 41065, Germany  Abstract Is complete crossectomy, the dogma of classical varicose vein surgery necessary or not? The endovenous-thermic procedure and sclerotherapy both have in common that the interruption of the saphenous veins near to the femoral vein with parallel ligaturing and severing of the side branches can no longer be considered suitable. The data on classical varicose vein surgery is unsatisfactory to poor and also inferior to the data on the endovenous procedure. This lies partly in the fact that results from the older literature can barely be considered valid for the state of development for classical varicose vein surgery because the technique has developed further in recent years. Furthermore, data from studies on long-term outcome of the surgical treatment of varicosis are limited. Large multicenter register studies which could determine the state-of-the-art are lacking. Independent of the outcome of the argument over methods, the classical varicose vein surgery will endure because even in the future a possibility must exist for therapy resistant and recurrent cases, which are not accessible for new techniques, to be treated. The question of primary treatment remains, however, contentious. In order to clarify this question a fundamental stock taking will be necessary. © 2009 Springer Medizin Verlag.  Author Keywords CHIVA;  Classical varicose vein surgery;  Endovenous-thermic procedure;  Sclerotherapy  Index Keywords clinical trial, femoral vein, human, outcome assessment, postoperative complication, review, saphenous vein, sclerotherapy, surgical technique, varicosis, vein surgery  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Balzer K (1983) Venen In: Carstensen G (Hrsg) Intraund postoperative Komplikationen. Springer, Berlin Heidelberg New York Tokio | |  |  | | |  | | --- | |  | | Balzer, K., Bernert, J., Carstensen, G. Die Beurteilung der venösen Hämodynamik als entscheidendes diagnostisches Kriterium vor venenchirurgischen Eingriffen. (1978) *Chirurg*, 49, pp. 290-295. | |  |  | | |  | | --- | |  | | Belcaro, G., Nicolaides, A.N., Ricci, A. 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[Stripping saphenectomy, CHIVA and laser ablation for the treatment of the saphenous vein insufficiency](http://www.scopus.com/record/display.url?eid=2-s2.0-76649089659&origin=resultslist) (2009) *Ambulatory Surgery*, 15 (1), .  Departamento de Angiología y Cirugía Vascular, Hospital General Universitario Gregorio Marañón, C/ Doctor Esquerdo num. 46, 28007, Madrid, Spain  Abstract Aim: To analyze the results of three different techniques for the treatment of the great saphenous vein insufficiency as the main cause of varicose veins. Methods: We analyze three groups (Stripping, CHIVA 1 and Endovenous Laser ablation) with 40 patients each. Follow up was done at 1, 3, 9 and 12 months. Results: The CHIVA and laser ablation had the best aesthetic result and fewer discomfort, but laser ablation had higher economic cost. There was no recurrence after 1 year in any of the groups. Conclusions: The three techniques proved very good results for the saphenous insufficiency treatment. © 2009, International Association for Ambulatory Surgery.  Author Keywords Ambulatory surgery;  CHIVA (cure haemodynamic insufficiency venous ambulatory);  Endovenous laser ablation;  Saphenectomy;  Varicose veins  Index Keywords adult, clinical trial, conference paper, controlled clinical trial, controlled study, female, follow up, health care cost, human, intermethod comparison, laser surgery, major clinical study, male, saphenous vein, surgical technique, varicosis, vein insufficiency, vein stripping  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Babcock, W.W. A new operation for the extirpation of varicose veins of the leg (1907) *N Y Med J*, 86, pp. 153-156. | |  |  | | |  | | --- | |  | | Müller, R. Traitement des varices par la phlebéctomie ambulatoire. (1966) *Bull Soc Fr Phléb*, 19, pp. 277-279. | |  |  | | |  | | --- | |  | | Francheschi, C. 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(2003) *Angiología*, 55, pp. 460-475. | |  |  | | |  | | --- | |  | | Escribano, J.M., Juan, J., Bofill, R., Maeso, J., Rodríguez-Mori, A., Matas, M. Durability of refluxelimination by a minimal invasive CHIVA procedure on patients with varicose veins. A 3-year prospective case study (2003) *Eur J Vasc Endovasc Surg*, 25, pp. 159-163. |   Correspondence Address  Solis J. V.; Departamento de Angiología y Cirugía Vascular, Hospital General Universitario Gregorio Marañón, C/ Doctor Esquerdo num. 46, 28007, Madrid, Spain; email: [juanv.solis@gmail.com](mailto:juanv.solis@gmail.com)  ISSN: 09666532 CODEN: AMSUF Language of Original Document: English Abbreviated Source Title: Ambul. Surg. Document Type: Conference Paper Source: Scopus  Maria, S.a c , Stissi, R.a , Bonaccorso, A.M.a , Scapellato, S.a , Leanza, S.a , Tomasello, A.V.b  [Varicose disease of lower limbs: What kind of treatment? Personal experience [La malattia varicosa degli arti inferiori: Quale trattamento? Esperienza personale]](http://www.scopus.com/record/display.url?eid=2-s2.0-49249139898&origin=resultslist) (2008) *Chirurgia*, 21 (4), pp. 195-198.  a Dipartimento di Chirurgia, Sezione di Chirurgia d'Urgenza e Generale, Azienda Ospedaliera Vittorio Emanuele II, Catania, Italy b U.O. di Chirurgia Plastica, Azienda Ospedaliera Cannizzaro, Catania, Italy c Via Antonino di San Giuliano n 269, Catania, Italy  Abstract Aim. We report the experience over 422 patients admitted and treated for varicose disease on lower limbs, in the U.O. Clinicizzata di Chirurgia D'urgenza of Vittorio Emanuele Hospital of Catania from 01/01/2001 to 12/31/2005. The surgical treatment was modulated by the intensity of the disease. Methods. The 422 patients were treated according to the following surgical techniques: 14 (3,3%) patients with CHIVA method; 4 (0,9%) patients with reconstruction of saphenofemoral valve (as described by Belcaro); 10 (2,3%) patients with multiple phlebectomies (as described by Muller); 8 (1,9%) patients with crossectomy and multiple phlebectomies; 252 (59,7%) patients with stripping of the great saphenous vein from the groin to the knee (short stripping); 134 (31,7%) patients with stripping of the great saphenous vein from the groin to the ankle (long stripping). Results. On the 14 (3,3%) patients treated with CHIVA method were noticed the following complications: 6 (42,9%) cases of saphenous vein thrombosis; 8 (57,1%) cases of varicose recurrences during the follow-up (15 months - 3 years). On all 4 cases (0,9%) treated with reconstruction of saphenofemoral valve (as described by Belcaro) were noticed saphenous vein thrombosis before the 48-hours following the procedure. On 252 (59,7%) patients treated with the short stripping were noticed: 8 (3,17%) cases of postoperative complications; 3 (1,2%) cases of varicose recurrences. On 134 (31,7%) patients treated with the long stripping were noticed: 9 (6,7%) cases of postoperative complications; no case of varicose recurrences. Conclusion. Finally, according to obtained results, we agree that the gold standard of surgical treatment of the varicose disease of the lower limbs, is represented by the stripping of the saphenous vein, with a low percent of postoperative complicances and/or varicose recurrences.  Author Keywords Stripping CHIVA;  Surgical treatment;  Varicose disease  Index Keywords adult, aged, article, female, follow up, gold standard, human, leg, major clinical study, male, phlebectomy, postoperative complication, recurrent disease, saphenous vein, surgical approach, surgical technique, treatment indication, treatment outcome, varicosis, vein thrombosis  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Mayo, C. Treatment of varicose veins (1906) *Surg Gynecol Ostet*, 2, p. 385. | |  |  | | |  | | --- | |  | | Babcock, W. A new operation for the extirpation of varicose veins in the legs (1907) *NY J Med*, 86, p. 153. | |  |  | | |  | | --- | |  | | Muller, R. Traitment des varices par phlébectomies ambulatoires. (1966) *Phlébologie*, 19, pp. 227-229. | |  |  | | |  | | --- | |  | | Franceschì, C. (1988) *Theorie et pratique de la Cure Conservatrice et Hemodynamique de l'Insuffisance Veineuse en Ambulatoire*,  Ed. 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Arie Bass, the comtemporary treatment of varicose veins (strangle, strip, grill or poison) (2006) *IMAJ*, 8, pp. 411-415. |   Correspondence Address  Maria S.Via Antonino di San Giuliano n 269, Catania, Italy; email: [stefaniamaria80@hotmail.com](mailto:stefaniamaria80@hotmail.com)  ISSN: 03949508 CODEN: CHRRE Language of Original Document: Italian Abbreviated Source Title: Chirurgia Document Type: Article Source: Scopus  Mendoza, E.a b  [CHIVA 1988-2008: Review of studies on the CHIVA method and its development in different countries [CHIVA 1988-2008: Überblick der studien zur CHIVA-methode und der entwicklung in den verschiedenen ländern]](http://www.scopus.com/record/display.url?eid=2-s2.0-49649110316&origin=resultslist) (2008) *Gefasschirurgie*, 13 (4), pp. 249-256. Cited 1 time.  a Vorsitzende der Gesellschaft für CHIVA, Wunstorf, Germany b Vorsitzende der Gesellschaft für CHIVA, Speckenstraße 10, 31515 Wunstorf, Germany  Abstract CHIVA was introduced by Claude Franceschi in 1988. This technique is based on analysis of the venous circulation; a small number of ligatures follow, which cause a volume discharge of the superficial (and deep) veins. The aim is to reduce the circulating volume in these veins, sparing the saphenous trunks and their drainage through perforators. Prospective studies that include 695 patients with 3-year follow-up have been published. In the past 2 years, three prospective randomized studies of CHIVA versus stripping, with follow-ups of 5-10 years, have been done (750 legs) and have been partially published (250 legs). They are summarized and discussed in this article. Treatment costs were lower for CHIVA. Subjective and objective results were either significantly better or equal to stripping, and a lower rate of recurrence was found. In the 10-year follow-up, the recurrence rate was double in the stripping group. CHIVA has become widespread particularly in Spain, where half of the interventions on veins are done using this technique. In France and Italy, CHIVA is covered by health insurance. © 2008 Springer Medizin Verlag.  Author Keywords CHIVA;  Comparative study;  Recirculation;  Stripping;  Varicose veins  Index Keywords chiva method, clinical trial, drain, follow up, France, geographic distribution, health care cost, health insurance, human, intermethod comparison, Italy, recurrent disease, review, saphenous vein, Spain, varicosis, vein blood flow, vein stripping, vein surgery  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Caggiati (1998) *Phlebology*, 13, p. 156. | |  |  | | |  | | --- | |  | | Cappelli (2000) *Ann Vasc Surg*, 14, p. 376. | |  |  | | |  | | --- | |  | | Carandina, S., Mari, C., De Palma, M. 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[Varicose Vein Stripping vs Haemodynamic Correction (CHIVA): a Long Term Randomised Trial](http://www.scopus.com/record/display.url?eid=2-s2.0-38549125604&origin=resultslist) (2008) *European Journal of Vascular and Endovascular Surgery*, 35 (2), pp. 230-237. Cited 24 times.  Department of Surgical, Anaesthesiological, and Radiological Sciences, Day-Surgery Unit, Vascular Diseases Center, Italy  Abstract Objectives: To compare the long-term results of stripping vs. haemodynamic correction (Ambulatory Conservative Haemodynamic Management of Varicose Veins, CHIVA) in the treatment of superficial venous incompetence resulting in chronic venous disease (CVD). Design: Randomised comparative trial. Patients: 150 patients affected by CVD, CEAP clinical class 2-6, were randomised to saphenous stripping or to CHIVA. Methods: The clinical outcome was assessed by an independent observer who recorded the Hobbs clinical score for treated limbs. A subjective report of the outcome was provided by the patients. Recurrence of varices was assessed by both clinical examination and duplex ultrasonography. Results: The mean follow-up was 10 years, 26 patients were lost to follow-up. The Hobbs score similar in the stripping and CHIVA groups. However recurrence of varicose veins was significantly higher in the stripping group (CHIVA 18%; stripping 35%, P < 0.04 Fisher's exact test), without significant differences in the rate of recurrences from the sapheno-femoral junction. The associated risk of recurrence at ten years was doubled in the stripping group (OR 2.2, 95% CI 1-5, P = 0.04). Conclusions: Recurrent varices occurred more frequently following saphenous stripping than after CHIVA treatment. The deliberate preservation of the saphenous trunk as a route of venous drainage in the CHIVA group may have been a factor reducing the recurrence rate. © 2007 European Society for Vascular Surgery.  Author Keywords CHIVA;  Chronic venous disease;  Duplex scanning;  Recurrence;  Saphenous stripping;  Varicose veins surgery  Index Keywords ambulatory conservative hemodynamic management of varicose vein, article, chronic vein insufficiency, clinical examination, clinical trial, conservative treatment, controlled clinical trial, controlled study, echography, female, femoral vein, Fisher exact test, follow up, hemodynamics, human, intermethod comparison, major clinical study, male, outcome assessment, priority journal, randomized controlled trial, recurrence risk, recurrent disease, saphenous vein, scoring system, varicosis, vein surgery; Chronic Disease, Female, Hemodynamics, Humans, Length of Stay, Male, Middle Aged, Odds Ratio, Patient Satisfaction, Questionnaires, Recurrence, Risk Assessment, Severity of Illness Index, Time Factors, Treatment Outcome, Ultrasonography, Doppler, Duplex, Varicose Veins, Vascular Surgical Procedures, Venous Insufficiency  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Bergan, J.J., Schmid-Schonbein, G.W., Smith, P.D., Nicolaides, A.N., Boisseau, M.R., Eklof, B. 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Surgical techniques used for the treatment of varicose veins: survey of practice in France (2003) *J Mal Vasc*, 28, pp. 277-286. |   Correspondence Address  Zamboni P.; Department of Surgical, Anaesthesiological, and Radiological Sciences, Day-Surgery Unit, Vascular Diseases CenterItaly; email: [zmp@unife.it](mailto:zmp@unife.it)  ISSN: 10785884 CODEN: EJVSF DOI: 10.1016/j.ejvs.2007.09.011 PubMed ID: 17964822 Language of Original Document: English Abbreviated Source Title: Eur. J. Vasc. Endovasc. Surg. Document Type: Article Source: Scopus  Iborra-Ortega, E.a b , Barjau-Urrea, E.a , Vila-Coll, R.a , Ballón-Carazas, H.a , Cairols-Castellote, M.A.a  [Comparative study of two surgical techniques in the treatment of varicose veins in the lower extremities: Results from a five-year follow-up [Estudio comparativo de dos técnicas quirúrgicas en el tratamiento de las varices de las extremidades inferiores: Resultados tras cinco años de seguimiento]](http://www.scopus.com/record/display.url?eid=2-s2.0-44349123305&origin=resultslist) (2006) *Angiologia*, 58 (6), pp. 459-468. Cited 5 times.  a Servicio de Angiología Y Cirugía Vascular Y Endovascular, Hospital General Universitari de Bellvitge, L'Hospitalet de Llobregat, Barcelona, Spain b Servicio de Angiología Y Cirugía Vascular Y Endovascular, Hospital General Universitari de Bellvitge, Feixa Llarga, s/n, E-08907 L'Hospitalet de Llobregat (Barcelona), Spain  Abstract Aim. To compare late outcomes of conventional vein stripping with the CHIVA strategy in the treatment of varicose veins in the lower extremities. Patients and methods. A clinical trial on 100 patients with varicose veins: 62 females and 38 males with a mean age of 49 years (standard deviation, SD: 9.24). Eligibility criteria were those recommended by the SEACV (varicose veins that were apparent to a greater or lesser extent with different degrees of chronic venous insufficiency). Exclusion criteria were the past history of previous treatments (sclerosis or surgery), disorders affecting the deep vein system, morbid obesity and/or the patient's being over 70 years old. A blood map was performed using a Doppler ultrasound equipment. Patients were divided into group I (vein stripping; n = 49), and group II (CHIVA; n = 51). Both groups were demographically and clinically homogenous (CEAP classification). Haemodynamic and clinical controls were performed during the first week and at the first, third and sixth month after surgery and then every year until five years' follow-up. The clinical features and the (objective and subjective) aesthetic outcomes were analysed, together with the numbers of reinterventions and recurrences. Chi squared and Student's t tests were applied for the statistical analysis. Results. The whole (five-year) follow-up was completed by 96% of the patients. The clinical and aesthetic outcomes five years after the operation do not display any significant differences between the two techniques. The number of reinterventions was similar in the two groups. No statistically significant differences were detected as far as recurrence of the varicose syndrome was concerned (p > 0.05). Conclusions. In our series, both surgical techniques offered similar clinical and aesthetic outcomes after five years' follow-up. © 2006, Angiología.  Author Keywords CHIVA technique;  Conservative surgery;  Duplex;  Varicose recurrence;  Varicose veins;  Vein stripping  Index Keywords adult, aging, anamnesis, article, clinical feature, comparative study, controlled study, esthetic surgery, female, follow up, human, leg varicosis, major clinical study, male, morbidity, obesity, sclerosis, surgical technique, treatment outcome, vascular surgery  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Gesto-Castromil R, Grupo DETECT-IVC, García JJ. Encuesta epidemiológica realizada en España sobre la prevalencia asistencial de la insuficiencia venosa crónica en atención primaria. Estudio DETECT-IVC. In Cairols MA, ed. Insuficiencia venosa crónica. Barcelona:Viguera Editores; 2002. | |  |  | | |  | | --- | |  | | Ramelet, A.A., Monti, M. Epidemiology, cost and quality of life (1999) *Phlebology. The guide*,  De Ramelet AA, Monti M, eds, Paris: Elsevier; | |  |  | | |  | | --- | |  | | Moreno-Carriles, R.M. 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Obere Turnstraße 8-10, 90429 Nürnberg, Germany  Abstract The classical varicose vein operation represents the "gold standard" in the operative approach to this condition. The results of the standard procedure are very good especially with regard to complications. The recurrence rate is estimated between 6% and 60%, but the true rate is unknown, since there is no generally accepted definition of recurrent varicosities. Endovascular procedures for the elimination of the superficial venous system - radiofrequency obliteration and laser therapy - have established themselves as alternative, minimal invasive procedures. Good results up to 2 years post operatively have been documented; for radiofrequency obliteration, very good results 5 years after surgery are available. Less well-known procedures are available, such as the CHIVA method, which represents a totally different pathophysiological concept. Data on the efficacy of this method are limited, making an evaluation difficult. The spectrum of operative treatment methods of the superficial venous system and its side branches has increased tremendously because of new technical developments. The surgeon must inform the patient about the pros and cons of each procedure and the anticipated results, as well as making an accurate decision as to which methods are best suited for the patient. © Springer Medizin Verlag 2006.  Author Keywords CHIVA;  Endovascular laser;  Radiofrequency obliteration;  Varicose veins;  Varicosity surgery  Index Keywords article, endovascular surgery, hemodynamics, human, laser surgery, low level laser therapy, medical decision making, minimally invasive surgery, outpatient care, peripheral vein, postoperative complication, postoperative period, radiofrequency ablation, recurrent disease, standard, treatment outcome, varicosis; Angioplasty, Catheter Ablation, Equipment Design, Humans, Laser Surgery, Physician's Practice Patterns, Practice Guidelines, Surgical Procedures, Minimally Invasive, Varicose Veins  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Abu-Own, A., Scurr, J.H., Coleridge-Smith, P.D. Saphenous vein reflux without incompetence at the saphenofemoral junction (1994) *Br J Surg*, 81, pp. 1452-1454. | |  |  | | |  | | --- | |  | | Anastasie, B., Celerier, A., Cohen-Solal, G. 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A haemodynamic model for venous surgery (2001) *Eur J Vasc Endovasc Surg*, 21 (4), pp. 361-369. |   Correspondence Address  Noppeney T.Obere Turnstraße 8-10, 90429 Nürnberg, Germany; email: [TNoppeney.Nbg@t-online.de](mailto:TNoppeney.Nbg@t-online.de)  ISSN: 00178470 CODEN: HAUTA DOI: 10.1007/s00105-005-1083-6 PubMed ID: 16391941 Language of Original Document: German Abbreviated Source Title: Hautarzt Document Type: Article Source: Scopus  Linares-Ruiz, P.a b , Bonell-Pascual, A.a , Llort-Pont, C.a , Romera, A.a , Lapiedra-Mur, O.a  [Mid-term results of applying the CHIVA strategy to the external saphenous vein [Resultados a medio plazo de la estrategia CHIVA en la safena externa]](http://www.scopus.com/record/display.url?eid=2-s2.0-10344262927&origin=resultslist) (2004) *Angiologia*, 56 (5), pp. 481-490. Cited 1 time.  a Serv. de Angiol. y Cirugia Vascular, Hospital General de la Cruz Roja, L'Hospitalet de Ll., Barcelona, Spain b Servei d'Angiol. i Cirurgia Vascular, Consorci Sanitari Integral, Hospital General de la Creu Roja, Avda. Josep Molins, 29-41, E-08906 Hospitalet de Ll., Barcelona, Spain  Abstract Introduction. The anatomical complexity and widely varying distribution of the external saphenous vein (ESV) means that surgical treatment is associated to high rates of relapse and residual varicose veins. Aim. To evaluate the mid-term results of using the CHIVA cure strategy on ESV varicose veins. Patients and methods. Between February 1996 and December 2002 we performed 142 CHIVA interventions to treat ESV. A random sample of 80 interventions was taken and data collected about their factors related to chronic venous insufficiency, pre-operative clinical features (CEAP), primary shunt and the surgical strategy applied. Doppler ultrasound was used to assess competence, patency, flow direction, diameter and neoaortic arch of the ESV in the post-operative period, visible relapses and symptoms. In addition, the relationships between the following parameters were also analysed: Doppler ultrasound recordings, surgical strategy, relapses and symptoms. Results. Competence of the deep vein system (DVS) and ESV patency were found to be > 95% (four ESV thromboses). Haemodynamically favourable situations: 66%. Mean diameter of the ESV: 3.5 cm; neoaortic arch: six patients (7.5%). Clinical features of the post-operative period: 59 asymptomatic patients (73.8%), 16 with a clinical improvement (20%) and five patients with no improvement in their symptoms (6%). Visible relapses: 15 cases, 12 of which were not important enough to require reintervention. There were no cases of DVS thromboses or peripheral neuropathy. There was a statistically significant correlation between the presence of anterograde flow and the absence of relapses and symptoms in the post-operative period, as well as between symptoms and relapses with higher absolute ESV diameters and neoaortic arch. There was a correlation, although statistically non-significant, between relapses and symptoms in the postoperative period and surgical strategy. Conclusion. The best results (i.e. less thromboses and relapses): CHIVA 1 + 2 in the case of ESV.  Author Keywords CHIVA;  External saphenous vein;  Outcomes;  Venous insufficiency  Index Keywords article, chronic vein insufficiency, Doppler echography, female, hemodynamics, human, major clinical study, peripheral neuropathy, postoperative period, relapse, saphenous vein, surgical technique, thrombosis, varicosis, vein blood flow, vein diameter  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Capelli, M., Molino Lova, R., Ermini, S., Turchi, A., Bono, G., Franceschi, C. Comparaison entre cure CHIVA et stripping dans le traitement des veines variqueuses des membres inférieurs: Suivi de 3 ans (1996) *J Mal Vasc*, 21, pp. 40-46. | |  |  | | |  | | --- | |  | | Franceschi, C. 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A 3 year prospective case study (2003) *Eur J Vasc Endovasc Surg*, 25, pp. 159-163. | |  |  | | |  | | --- | |  | | Franceschi, C. Physiopathologie hémodynamique de l'insuffisance veineuse des membres inférieurs (1997) *Actualités Vasculaires Internationales*, 22, pp. 17-27. |   Correspondence Address  Linares-Ruiz P.; Servei d'Angiol. i Cirurgia Vascular, Consorci Sanitari Integral, Hospital General de la Creu Roja, Avda. Josep Molins, 29-41, E-08906 Hospitalet de Ll., Barcelona, Spain; email: [plinares@mailpersonal.com](mailto:plinares@mailpersonal.com)  ISSN: 00033170 CODEN: ANGOA Language of Original Document: Spanish Abbreviated Source Title: Angiologia Document Type: Article Source: Scopus  Esteban-Gracia, C.a c , Roche-Rebollo, E.a , Mejía-Restrepo, S.a , Andrés-Navarro, O.a , Cabot-Duran, X.a , Juan-Samsó, J.b , Escribano-Ferrer, J.M.b , Rodríguez, J.a , Puig-Doménech, A.a  [Application of the CHIVA strategy. A prospective study at one year [Aplicación de la estrategia CHIVA. Estudio prospectivo a un año]](http://www.scopus.com/record/display.url?eid=2-s2.0-3242742069&origin=resultslist) (2004) *Angiologia*, 56 (3), pp. 227-235. Cited 4 times.  a Serv. de Angiologia y Cirugia Vasc., Clínica Platón, Barcelona, Spain b UDP, Clínica Platón, Barcelona, Spain c Plató, 21, E-08006 Barcelona, Spain  Abstract Introduction. There is a tendency for surgery to become less and less invasive. The CHIVA strategy could be included within the concept of minimally invasive surgery. Aims. Our aim was to perform a prospective evaluation of the clinical results at one year after applying the CHIVA strategy in the treatment of primary varicose veins. Patients and methods. A one-year follow-up of 225 patients (147 females, 78 males). Clinically, 195 of them were in stage 2 (CEAP). A Doppler ultrasound recording was conducted before surgery. Later, at one month and one year, patients were evaluated clinically and the results were classified in four categories. Patients were again submitted to a new Doppler ultrasound recording at one year. The type of strategy employed was in a single intervention in 97.8% of the cases. Results. At one year, the objective and subjective clinical assessment were good in 87.6 and 90.7% of cases, respectively. The mean diameter of the internal saphenous vein changed from 6.4 to 4.0 mm (t test; p = 0.001). Significant differences were observed between the objective assessment at one month and at one year (p = 0.001), as well as in the subjective assessment (p = 0.001), since a third of the patients with a poor evaluation at one month presented a good one at one year. Conclusions. The CHIVA strategy shows good results at one year in our series. The significant reduction of the diameter of the saphenous vein indicates that the haemodynamic component is important in the pathophysiology of varicose veins.  Author Keywords CHIVA;  Haemodynamic varicose vein surgery;  Primary varicose veins;  Venous Doppler ultrasound;  Venous insufficiency;  Venous reflux  Index Keywords adult, aged, article, CHIVA strategy, clinical feature, disease classification, Doppler echography, female, hemodynamics, human, major clinical study, male, minimally invasive surgery, pathophysiology, prospective study, saphenous vein, surgical technique, treatment outcome, varicosis, vein diameter  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Francesci, C. (1988) *Théorie et Pratique de la Cure Conservatrice et Hémodynamique de l'Insuffisance Veineuse Ambulatoire*,  Précy-sous-Thil: L'Armançon | |  |  | | |  | | --- | |  | | Jakobsen, B.H. The value of different forms of treatment for varicose veins (1979) *Br J Surg*, 66, pp. 182-184. | |  |  | | |  | | --- | |  | | Capelli, M., Molino-Lova, R., Ermini, S., Turchi, A., Bono, G., Bahnini, A. 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Speckenstraße 10, 31515 Wunstorf, Germany  Abstract During the last years a lot of new techniques to treat varicose Veins were introduced in Germany. They question established concepts, specially the treatment of refluxive great saphenous vein with safeno-femoral incompetence. CHIVA treats the groin-region in a different way than the classical accepted crossectomy and stripping of saphenous vein. The saphenous vein and healthy side branches of the crosse are left in situ, just double ligation of the safeno-femoral junction is performed. This technique is explained with fotos and pictures: Disection of safeno-femoral junction, double ligation of safeno-femoral junction, once just at the level of femoral vein and twice just below the side branches.  Author Keywords CHIVA;  Crossectomy;  Neovasculo-genesis;  Varicose recidives  Index Keywords angiogenesis, article, CHIVA method, femoral vein, Germany, saphenous vein, surgical technique, varicosis, vascular surgery, vein crossectomy, vein insufficiency, vein ligation, vein stripping  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Cappelli, M., Molino Lova, R., Ermini, S., Turchi, A., Bono, G., Bahnini, A., Franceschi, C. Ambulatory Conservative Hemodynamic Management of Varicose Veins: Critical Analysis of Results at 3 Years (2000) *Ann Vasc Surg*, 14, pp. 376-384. | |  |  | | |  | | --- | |  | | Cappelli, M., Molino Lova, R., Ermini, S., Turchi, A., Bono, G., Franceschi, C. Comparaison entre Cure C.H.I.V.A. et stripping dans le traitment des veines variqueuses des membres inférieurs: Suivi de 3 ans (1996) *J Mal Vasc*, 21 (1), pp. 40-46. | |  |  | | |  | | --- | |  | | Cisno, C. 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Krossenrezidiv der Vena saphena magna trotz korrekter Krossektomie: Neoangiogenese *Phlebologie*, 29, pp. 144-148.  199 | |  |  | | |  | | --- | |  | | Maeso, J., Juan, J., Escribano, J.M., Allegue, N., Di Matteo, A., Gonzalez, E., Matas, M. Comparison of clinical outcome of Stripping and CHIVA for tratment of varicose veins in the lower extremities (2001) *Ann Vasc Surg*, 15 (6), pp. 601-605. | |  |  | | |  | | --- | |  | | Mendoza, E. CHIVA - Alternative oder Ergänzung zum Stripping? (2002) *Vasomed*, 14, pp. 6-17. | |  |  | | |  | | --- | |  | | Recek, C. Spätergebnisse nach Krossektomie und Sklerotherapie (2000) *Phlebologie*, 29, pp. 23-26. | |  |  | | |  | | --- | |  | | Zamboni, P., Marcellino, M.G., Cappelli, M., Feo, C.V., Bresadola, V., Vasquez, G., Liboni, A. Saphenous vein sparing surgery: Principles, techniques and results (1998) *J Cardiovasc Surg*, 39 (2), pp. 151-162. |   ISSN: 09421181 CODEN: VASOF Language of Original Document: German Abbreviated Source Title: Vasomed Document Type: Article Source: Scopus  Perrin, M.a , Guidicelli, H.b , Rastel, D.c  [Surgical techniques used for the treatment of varicose veins: Survey of practice in France [Résultats d'une enquête sur les techniques chirurgicales utilisées dans le traitement des varices]](http://www.scopus.com/record/display.url?eid=2-s2.0-0347124708&origin=resultslist) (2003) *Journal des Maladies Vasculaires*, 28 (5), pp. 277-286. Cited 9 times.  a Chirurgie Vasculaire, 26 Chemin de Décines, 69680 Chassieu, France b Chirurgie Vasculaire, CHU de Grenoble, BP 217, 38043 Grenoble Cedex 09, France c Médecine Vasculaire, 9 place des Jacobins, 38130 Echirolles, France  Abstract This survey was undertaken in 2001 among surgeons of the French speaking Vascular Surgery Society (SCV-Société de Chirurgie Vasculaire de Langue Française) and SCV non-members with a heavy caseload in varicose vein surgery. Aim of the study: To identify: -the various surgical procedures used for treating chronic venous disease and in particular varicose veins; - the current use of preoperative investigation with duplex ultrasound; - the type of anesthesia used; - the postoperative treatment prescribed, and specifically compression therapy. Material and methods: This survey was conducted by mail through a "half open" questionnaire including 17 questions and a patient form (see appendices I and II). 675 surgeons were questioned (501 were SCV members and 174 non members). Results: Two-hundred and eighty surgeons answered (41.5%). The level of replies for French surgeons was 45.3%. A scientific committee assessed these replies. The surgeons were classified into different groups according to their membership of the SCV, own practice, and caseload (table I). The 2 most performed procedures were respectively high ligation + saphenous trunk stripping + tributaries stab avulsion (71.9%) and high ligation + saphenous trunk stripping (17.3%). Isolated phlebectomy was 5.6%, high ligation + tributaries stab avulsion + saphenous trunk preservation 2.8%, isolated high ligation 2.2%, and ambulatory hemodynamic and conservative treatment of venous insufficiency (CHIVA) 0.3% (fig. 1). The various procedures used (total number, average and percentage) inside the different groups are displayed in tables II, III and IV. Concerning trunk stripping modality the 2 most frequently used techniques were invagination and Babcock techniques. Both were evaluated respectively for the great saphenous vein (invagination 78.1%, Babcock technique 44.2%) and the small saphenous vein (invagination 77.1%, Babcock technique 31.8%). Complete resection of the saphenous trunk was more frequently performed than partial stripping. Pre-operative duplex scanning was systematically undertaken by 85.4% of surgeons without a statistical difference between the different groups. General anesthesia remains the most used form of anesthesia (83.9%) followed by spinal or epidural anesthesia (70.4%), and local or loco-regional (29.2%). As multiple answers were allowed, the most frequent procedures associated with general anesthesia were spinal or epidural (36.9%). Responders prescribed postoperative compression and anticoagulation in 97.1% and 55.8% respectively. Intra-group comparison was then undertaken in order to determine if their practice was different. Annual caseload was significantly (P = 0.001) higher in Group I (353) than in Group II (226) and Group III (152). There was no difference in terms of the various surgical procedures used between the different groups. Group 1 favored the trunk stripping modality invagination for avulsion of the great saphenous vein and small saphenous vein. Concerning anesthesia, local and loco-regional anesthesia was used more by Group I than by the other groups as was anticoagulation. Responders perform perforator ligation and deep venous reconstructive surgery respectively in 70.3% and 22.4% without any intra group difference, however we have no information on frequency and indications for this type of surgery as these items were not included in the questionnaire. Discussion: Total number of procedures recorded in this survey is in keeping with the yearly French data concerning surgical treatment of varicose veins (ie, approximately 200,000 procedures). Since the emphasis was on surgical procedures sparing the saphenous trunks in varicose vein treatment only 10.9% of the techniques used in this survey were compatible with this purpose. Invagination technique for stripping both the great and small saphenous trunk was preferentially used by the Group I. Although it is surprising that all groups favored total trunk stripping particularly for the small saphenous vein. It is not surprising that a large majority, despite very little controversy on this point, performed preoperative duplex scanning. Although postoperative compression can be only quoted as a grade C recommendation according to evidence-based medicine, it was prescribed in almost all cases. Conclusion: Surgery for varicose veins is one of the most frequently performed surgical procedures in France, mainly by surgeons exercising in private practice. There is no significant difference between the various groups (SCV Member or not, type of practice and annual case load) concerning the various procedures used, although through careful analysis certain different tendencies may be identified. In addition postoperative compression is systematically prescribed.  Author Keywords Anesthesia;  Anticoagulation;  Chronic venous disease;  Compression;  Varicose veins;  Venous surgery  Index Keywords anticoagulant agent; anticoagulation, compression therapy, conservative treatment, controlled study, Doppler flowmetry, epidural anesthesia, general anesthesia, human, ligation, local anesthesia, normal human, postoperative period, preoperative period, review, saphenous vein, spinal anesthesia, surgical technique, treatment planning, varicosis, vascular surgery, vein insufficiency, vein occlusion; Humans, Physician's Practice Patterns, Questionnaires, Varicose Veins, Vascular Surgical Procedures  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Oberlin, P., Mouquet, M.C. Les interventions de chirurgie fonctionnelle: Une activité programmée importante mais hétérogène (2002) *Etudes et Résultats*, 194, pp. 1-10. | |  |  | | |  | | --- | |  | | Perrin, M. Chirurgie de l'insuffisance veineuse superficielle (1995) *Encycl. Méd. 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Document Type: Review Source: Scopus  Juan-Samsó, J.a b , Escribano-Ferrer, J.M.a , Rodríguez-Mori, A.a , Bofill-Brossa, R.a , Matas-Docampo, M.a  [Venous haemodynamic surgery in the treatment of varicose syndrome [Cirugía hemodinámica venosa en el tratamiento del síndrome varicoso]](http://www.scopus.com/record/display.url?eid=2-s2.0-0345686787&origin=resultslist) (2003) *Angiologia*, 55 (5), pp. 460-475. Cited 3 times.  a Serv. Angiol. Cir. Vasc./Endovasc., Hospital Universitario Vall d'Hebron, Barcelona, Spain b Serv. Angiol., Cir. Vasc./Endovasc., Hospital Universitario Vall d'Hebron, Pg. Vall d'Hebron 119-129, E-08035 Barcelona, Spain  Abstract Aims. The objective of this study is to update our knowledge of the different aspects of this subject, i.e. the rationale behind the method used, the anatomical-functional terminology employed, strategic principles and ways they can be applied. The results reported from the different series available are also analysed. Development. The CHIVA cure technique (ambulatory and haemodynamic treatment of venous insufficiency) was described by Franceschi in 1988. After the initial expansion of the procedure, its use diminished because it had not been submitted to adequate testing. Later standardisation of the method has led to different groups' adopting the strategy with satisfactory results. The terminology put forward by the European CHIVA Association in 2002 allows the different types of strategies in this therapy to be applied accurately. It must be noted that in the register of activities of the Spanish Society of Angiology and Vascular Surgery (SEACV) for the year 2002, a third of the varicose veins submitted to surgery in Angiology or Vascular Surgery units or services in Spain were performed using venous haemodynamic surgery. Conclusions. No definitive evidence exists (randomised prospective clinical trials are under development) in favour of the CHIVA cure, yet the data available do support this procedure as an alternative to stripping in the treatment of varicose veins.  Author Keywords CHIVA;  Duplex scan;  Great saphenous vein;  Haemodinamic venous surgery;  Stripping;  Varicose veins;  Veno-venous shunt;  Venous insufficiency  Index Keywords clinical trial, Europe, hemodynamic monitoring, human, review, Spain, standardization, surgical technique, varicosis, vascular surgery  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Lofgren, E.P. The operative treatment of varicose veins (1977) *Vascular Surgery*, pp. 1169-1175.  Rutherford RB, ed. Philadelphia: WB Saunders | |  |  | | |  | | --- | |  | | Muller, R. Traitement des varices par phlébectomie ambulatoire (1966) *Bull Soc Fr Phleb*, 19, p. 277. | |  |  | | |  | | --- | |  | | Franceschi, C. 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Vasc./Endovasc., Hospital Universitario Vall d'Hebron, Pg. Vall d'Hebron 119-129, E-08035 Barcelona, Spain; email: [7925jjs@comb.es](mailto:7925jjs@comb.es)  ISSN: 00033170 CODEN: ANGOA Language of Original Document: Spanish Abbreviated Source Title: Angiologia Document Type: Review Source: Scopus  Escribano, J.M., Juan, J., Bofill, R., Maeso, J., Rodríguez-Mori, A., Matas, M. [Durability of reflux-elimination by a minimal invasive CHIVA procedure on patients with varicose veins. A 3-year prospective case study](http://www.scopus.com/record/display.url?eid=2-s2.0-0037289817&origin=resultslist) (2003) *European Journal of Vascular and Endovascular Surgery*, 25 (2), pp. 159-163. Cited 29 times.  Dept. Angiol./Vasc./Endovasc. Surg., Hospital General Vall d'Hebron, C/Laforja 26, ático 2a, E-08006 Barcelona, Spain  Abstract Objectives: To assess the outcome of a conservative and haemodynamic method for insufficient veins on an ambulatory basis (French acronym, "CHIVA") with preservation of the greater saphenous vein (GSV) for treatment of primary varicose veins. Methods: Duplex incompetence of the sapheno-femoral junction (SFJ) and the GSV trunk, with the re-entry perforating point located on a GSV tributary was demonstrated in 58 patients with varices (58 limbs). The re-entry point was defined as the perforator, whose compression of the superficial vein above its opening eliminates reflux in the GSV. Duplex scanning was performed preoperatively and at 7 days, and patients were followed prospectively at 1, 3, 6, 12, 24, and 36 months after CHIVA. Operation consisted in flush ligation and division from the GSV of the tributary containing the re-entry perforating vein (no additional high ligation is included). If reflux returned, SFJ interruption was performed in a second surgical procedure. Results: The GSV diameter showed an average reduction from 6.6 to 3.9 mm 36 months after surgery. Reflux in the GSV system was demonstrated in all but five (8%) patients. Of the 53 patients with recurrent reflux, 46 underwent SFJ interruption. Conclusions: Elimination of reflux in the GSV after the interruption of insufficient collaterals is only temporary.  Author Keywords CHIVA;  Duplex ultrasounds;  Primary varicose veins;  Saphenous vein;  Varicose veins surgery;  Venous reflux  Index Keywords adult, ambulatory surgery, article, collateral circulation, controlled study, female, follow up, hemodynamics, human, major clinical study, male, minimally invasive surgery, priority journal, saphenous vein, second look surgery, surgical technique, treatment outcome, varicosis, vein diameter, vein insufficiency, vein ligation, vein surgery, venous reflux  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Munn, S.R., Morton, J.B., Macbeth, W.A., Mcleish, A.R. To strip or not to strip the long saphenous vein? A varicose veins trial (1981) *Br. J. Surg.*, 68, pp. 426-428. | |  |  | | |  | | --- | |  | | Large, J. Surgical treatment of saphenous varices, with preservation of the main great saphenous trunk (1985) *J. Vasc. 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Resultats de la cure hemodynamique de l'insuffisance veineuse en ambulatoire (CHIVA) (1992) *J. Mal. Vasc.*, 17, pp. 224-228. |   Correspondence Address  Escribano J.M.; Dept. Angiol./Vasc./Endovasc. Surg., Hospital General Vall d'Hebron, C/Laforja 26, ático 2a, E-08006 Barcelona, Spain  ISSN: 10785884 CODEN: EJVSF DOI: 10.1053/ejvs.2002.1825 Language of Original Document: English Abbreviated Source Title: Eur. J. Vasc. Endovasc. Surg. Document Type: Article Source: Scopus  Hanzlick, J.a b  [Varicose vein surgery - New and old techniques [Varizenchirurgie - Innovatives und bewährtes]](http://www.scopus.com/record/display.url?eid=2-s2.0-0037323772&origin=resultslist) (2003) *Vasomed*, 15 (1), pp. 13-18. Cited 1 time.  a Klin. Allg.-, Unfall-/Gefasschir., Fachbereich Gefaßchirurgie, Krankenhaus St. Josef, Regensburg, Germany b Fachbereich Gefaßchirurgie, Krankenhaus St. Josef, Landshuter Straße 65, 93053 Regensburg, Germany  Abstract While the stripping procedure as a standard treatment of the primary varicose veins has been performed since the 70s, diagnosis, indications and technical details were constantly improved by modifications. In addition we perform endoscopic perforator vein dissection, cross repair and radical extraction of the venous ulcers, followed immediately by mesh graft plastic. The kryo irrigator, the transilluminated varicosectomie (TriVex™) and the CHIVA-method are also non-destructive procedures and should be taken into consideration. Own experiences on 5,546 operations between 1971 and 2001 are demonstrated and discussed. At last a prognosis of varicose vein surgery is given in advance.  Author Keywords Future;  New methods;  Operation techniques;  Varicose veins  Index Keywords article, human, postoperative complication, prognosis, surgical equipment, surgical technique, treatment indication, treatment outcome, varicosis, vein stripping  Tradenames TriVex, Smith and Nephew  Manufacturers Smith and Nephew  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Hach, W., Hach-Wunderle, V. (1994) *Die Rezirkulationskreise der Primären Varikose*,  Springer Verlag, Berlin | |  |  | | |  | | --- | |  | | Hanzlick, J. Die rezidivvarikose der vena saphena parva (1999) *Zbl Chir*, 124, pp. 42-47. | |  |  | | |  | | --- | |  | | Heisterkamp, T., Weingard, I., Böhmer, H.J., Hartmann, M. Die nichtinvasive muskelpumpen-plethysmographie im vergleich zur phlebodynamometrie (2001) *Vasomed*, 14 (2), pp. 196-199. | |  |  | | |  | | --- | |  | | Lahl, W., Lehmann, M., Kurth, M., Torp, U., Sommer, H.J. 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Erfahrungen mit der doppler-funktionsmessung (2001) *Vasomed*, 13 (5), pp. 207-209. |   Correspondence Address  Hanzlick J.; Fachbereich Gefaßchirurgie, Krankenhaus St. Josef, Landshuter Straße 65, 93053 Regensburg, Germany  ISSN: 09421181 CODEN: VASOF Language of Original Document: German Abbreviated Source Title: Vasomed Document Type: Article Source: Scopus  Hach, W. [What is CHIVA? [Was ist CHIVA?]](http://www.scopus.com/record/display.url?eid=2-s2.0-0036939099&origin=resultslist) (2002) *Gefasschirurgie*, 7 (4), pp. 244-250. Cited 1 time.  Abstract The French phlebologist Claude Franceschi introduced the "Cure conservatrice et hémodynamique de l'insuffisance veineuse en ambulatoire" (CHIVA; ambulatory conservative and hemodynamic treatment of venous insufficiency) in 1988. It is based on Perthes' observation (1895) that varicose veins fill on standing and empty on walking when a tourniquet is applied to the thigh. This hemodynamic situtation is intended to be mimicked in CHIVA by graded surgical corrections of the varices. Franceschi's method is based on the theory of the four venous networks differing in the degree of harm they cause when affected. Different shunting patterns are referred to this theory, a shunt being a connection between one venous network and the next. Recirculation R1 designates the intrafascial leading veins. The R2 network comprises the stem veins. They, too, are thought to be situated intrafascially within a special saphenous fascia, which is visible on ultra-sound imaging. The R3 network comprises the epifascial collateral veins in the subcutaneous fat layer regardless of diameter; and reticular veins and capillaries and starburst varices make up R4. The surgical principle consists in flush ligation and division of the great or small saphenous vein junction without crossectomy. The effect of this is that a retrograde stream of blood is still fed into the preserved varicose stem vein, but it is reduced by that part of the retrograde flow that comes from the common femoral vein. Ultrasound diagnosis of the competent perforating veins and conservation of drainage into the deep venous system are considered very important.  Author Keywords CHIVA;  Shunting patterns;  Varicose vein correction;  Venous networks  Index Keywords collateral circulation, conservative treatment, echography, hemodynamics, human, review, saphenous vein, shunting, standing, tourniquet, varicosis, vein insufficiency, vein ligation, walking  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Caggiati, A. Fascial relationships of the long saphenous vein (1999) *Circulation*, 100, pp. 2547-2549. | |  |  | | |  | | --- | |  | | Caggiati, A., Ricci, S. 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Minimally invasive surgical management of primary venous ulcers vs compression treatment: A long term randomized study (2002) *Lecture, European Venous Forum Anually Meeting*,  Berlin, June 14-16 |   ISSN: 09487034 CODEN: GEFAF DOI: 10.1007/s00772-002-0234-7 Language of Original Document: German Abbreviated Source Title: Gefasschirurgie Document Type: Review Source: Scopus  Recek, C. [Principles of surgical treatment of varicose veins with regard to new findings on venous hemodynamics [Principy chirurgického lécení varixů konfrontované s novými poznatky o zilní hemodynamice.]](http://www.scopus.com/record/display.url?eid=2-s2.0-0036769087&origin=resultslist) (2002) *Rozhledy v chirurgii : mesicnik Ceskoslovenske chirurgicke spolecnosti*, 81 (9), pp. 484-491. Cited 3 times.  Abstract Pressure changes occurring during the activity of the calf muscle venous pump are the driving force of venous hemodynamics in the lower extremity. An ambulatory pressure gradient arises between the veins of the thigh and the lower leg as a consequence of pumping up the blood from the deep veins of the lower leg, where the venous pressure decreases, into the popliteal and femoral vein, where no pressure decrease occurs. Therefore, venous reflux can only take place in an incompetent vein connecting the femoral, profunda femoris, popliteal or iliac vein with one of the deep veins of the lower leg. Calf perforators represent the so called re-entry points and can't become the source of reflux. Venous reflex disturbs venous hemodynamics to a various degree dependent on the magnitude of reflux volume. When strong enough, it can produce the graviest form of chronic venous insufficiency even if localised in superficial veins. The magnitude of reflux volume, not the localisation of reflux in deep or superficial veins is the most important hemodynamic factor causing venous disturbance. The goal of varicose vein surgery is to remove reflux and visible varicose veins with the aim to achieve the most favorable hemodynamic and cosmetic results. Crossectomy is a very important step, because it is able to repair even the most pronounced hemodynamic disorder and restore normal hemodynamic conditions. If stripping of the incompetent saphenous trunk on the thigh is not performed in addition to crossectomy, the saphenous trunk continues to be patent and incompetent after surgery in most patients and provokes recurrent reflux. But nor can crossectomy combined with stripping avert the risk of recurrence definitively, because varicose veins are a dynamic disease with distinct tendency to recurrence. Correctly performed operation can reduce the recurrence rate and postpone its occurrence. A hemodynamic factor--the ambulatory pressure gradient--triggers probably the process leading to recurrence. When varicose veins recur, the recurrent reflux volume remains significantly lower for many years of follow-up as compared with the situation before surgery. External banding of incompetent valve in the long saphenous vein and the CHIVA-method are less efficient in comparison with standard surgery (crossectomy plus stripping). Sclerotherapy is a useful supplement to surgery during follow-up, as it is able to improve significantly the hemodynamic situation. This improvement is only transitory, but sclerotherapy can be repeated and the improvement re-established, if necessary, during follow-up.  Index Keywords article, blood flow, hemodynamics, human, leg, pathophysiology, varicosis, vascularization, vein, vein insufficiency, venous pressure; Hemodynamic Processes, Humans, Leg, Regional Blood Flow, Varicose Veins, Veins, Venous Insufficiency, Venous Pressure  Correspondence Address  Recek C.email: [recek@aon.at](mailto:recek@aon.at)  ISSN: 00359351 PubMed ID: 12515008 Language of Original Document: Czech Abbreviated Source Title: Rozhl Chir Document Type: Article Source: Scopus  Noppeney, T., Noppeney, J., Kurth, I. [Results of standard varicose vein surgery [Ergebnisse nach klassischer varizenchirurgie]](http://www.scopus.com/record/display.url?eid=2-s2.0-0036712950&origin=resultslist) (2002) *Zentralblatt fur Chirurgie*, 127 (9), pp. 748-751. Cited 13 times.  Gemeinschaftspraxis/Belegabteilung, Klinik Hallerwiese, Obere Turnstraße 8, 90429 Nürnberg, Germany  Abstract The principles of modern varicose vein surgery are based on the interruption of the cranial and distal points of venous insufficiency. Especially due to the rise of alternate surgery procedures, we have scrutinized our results of varicose vein surgery. In a retrospective analysis, the results of those patients (pat.) who underwent venous surgery in our institution in 1995 were analysed. In 1995 we performed 1575 varicose vein operations (n = 1019 pat., 16.8 % male, 83.2 % female). 63.5 % were on an out-patient basis. During a follow-up period of 4 to 66 months (av. 38 months) the patients were re-examined, 481 (47.2 %) by Duplex sonography, 94 (9.2%) by clinical examination alone, from 103 (10.1 %) information was obtained through a written inquiry. 341 pat. (33.5%) had just perioperative follow-ups. We didn't find any signs of varicosis in 301 pat. (33.3 %). Minor side branches could be detected in 515 pat. (56.8 %). In 90 pat. (9.9 %) a clearly visible varicosis could be seen. Based on the results of the Duplex examinations, 86 % of the pat. showed no recurrence after ligation of the sapheno-femoral junction and stripping of the LSV, the results after stripping of the short saphenous vein were similar. Analysis of the inquiry forms concluded that 62.3 % of the pat. were satisfied with surgery and the results. The results of the standard varicose vein surgery are satisfactory regarding recurrence rate and patient satisfaction. Our results are comparable to those published in prospective randomised studies. Alternate procedures, for example the CHIVA method, have still to proof their efficiency, especially in view of long-term results.  Author Keywords Results;  Standard operation;  Varicose vein surgery  Index Keywords adult, ambulatory surgery, artery ligation, article, clinical examination, echography, female, follow up, human, major clinical study, male, patient satisfaction, perioperative period, recurrent disease, retrospective study, saphenous vein, saphenous vein graft, surgical technique, varicosis, vein stripping, vein surgery; Adult, Aged, Aged, 80 and over, Ambulatory Surgical Procedures, Female, Follow-Up Studies, Humans, Male, Middle Aged, Postoperative Complications, Retrospective Studies, Treatment Outcome, Ultrasonography, Doppler, Color, Varicose Veins  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Balzer, K. Venen (1983) *Intra- und postoperative Komplikationen*, pp. 107-115.  Carstensen G (Hrsg). Springer, Berlin, Heidelberg, New York | |  |  | | |  | | --- | |  | | Bergan, J. 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Saphenous vein sparing surgery: Principles, techniques and results (1998) *J Vasc Surg*, 39, pp. 151-162. |   Correspondence Address  Noppeney T.; Gemeinschaftspraxis/Belegabteilung, Klinik Hallerwiese, Obere Turnstraße 8, 90429 Nürnberg, Germany; email: [tnoppeney.nbg@t-online.de](mailto:tnoppeney.nbg@t-online.de)  ISSN: 0044409X CODEN: ZECHA DOI: 10.1055/s-2002-33951 PubMed ID: 12221553 Language of Original Document: German Abbreviated Source Title: Zentralbl. Chir. Document Type: Article Source: Scopus  Mendoza, E. [Classification of the recirculations in the leg: Anatomic and physiologic bases of the CHIVA-method [Einteilung der rezirkulationen im bein: Anatomische und physiologische grundlagen der CHIVA-methode]](http://www.scopus.com/record/display.url?eid=2-s2.0-0036127711&origin=resultslist) (2002) *Phlebologie*, 31 (1), pp. 1-8. Cited 2 times.  Speckenslraße 10, 31515 Wunstorf, Germany  Abstract Recirculation in varicose veins was firstly thought of by Trendelenburg and further developed by Hach. This idea is also the basis on which Claude Franceschi founded his treatment for insufficient veins - CHIVA (in English ACHM). He divided the veins of the legs in the nets R1, R2 and R3. Deep veins correspond to R1, saphenous veins to R2 and epifascial tributaries to R3. Depending on the participation of these nets in the recirculation of a varicosity, Franceschi divided the recirculations in four types, which he called shunts (type I to IV). On these shunts he based the therapeutic decisions for the CHIVA-method. Most of the shunts are type I or III. In this cases the reflux fills the saphenous veins directly from the deep veins via a crosse or a perforator vein. The study of these models of recirculation throws a new light on the understanding of the distally dilated perforator veins, as well as on the direction of blood-flow in the different segments of the veins. Therefore it is interesting not only for persons that perform the CHIVA-method. Without having understood these concepts, it is impossible to judge upon CHIVA.  Author Keywords CHIVA;  Recirculation;  Varicose vein  Index Keywords body position, conservative treatment, human, leg, leg blood flow, review, saphenous vein, varicosis  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Caggiati, A. Fascial relations and structure of the tributaries of the saphenous veins (2000) *Surg Radiol Anat*, 22, pp. 1-4. | |  |  | | |  | | --- | |  | | Caggiati, A. Fascial relationships of the long saphenous vein (1999) *Circulation*, 100, pp. 2547-2549. | |  |  | | |  | | --- | |  | | Caggiati, A. 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A haemodynamic model for venous surgery (2001) *Eur J Vasc Endovasc Surg*, 21, pp. 361-369. |   Correspondence Address  Mendoza E.Speckenslraße 10, 31515 Wunstorf, Germany  ISSN: 0939978X CODEN: PHLBE Language of Original Document: German Abbreviated Source Title: Phlebologie Document Type: Review Source: Scopus  Mendoza, E. [Chiva - Aternative or supplementation to the stripping procedure? [Chiva - Alternative oder ergänzung zum stripping?]](http://www.scopus.com/record/display.url?eid=2-s2.0-0036167564&origin=resultslist) (2002) *Vasomed*, 14 (1), pp. 6-17. Cited 3 times.  Speckenstraße 10, 31515 Wunstorf, Germany  Abstract CHIVA was developed by Claude Franceschi and first published 1988. Since then it has spread over France, Italy and Spain, where it coexists with the stripping procedure. In Germany it has been introduced 1997, reaching popularity among the patients in 1999 and thus earning interest among the physicians in 2000. This method to treat varicose veins is based on an extensive duplex-ultrasound examination of the leg, which leads to a mapping of all superficial and deep veins. The hemodynamic analysis of this map allows to develop a strategy of vein-transsections with common surgical techniques, so that the hypervolumia of superficial veins is eliminated. They continue participating in the drainage of the leg, without being furthermore cosmetically bothering.  Author Keywords CHIVA;  Duplex-ultrasound;  Hemodynamics;  Varicose veins  Index Keywords conference paper, conservative treatment, echography, Germany, hemodynamics, hypervolemia, postoperative period, surgical drainage, surgical technique, varicosis, vein stripping  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Alemany, J. Varizenchirurgie im hinblick auf arteriellen ersatz (1995) *Poplitea-Aneurysmen. 9. Gefäßchirurgisches Symposium Titisee/Hochschwarzwald*,  Imig H, Schröder A: Varizen. Steinkopff Verlag, Darmstadt | |  |  | | |  | | --- | |  | | Berger, H.A. Aktueller stand in der behandlung der varikosis (1997) *Brandenburgisches Ärzteblatt*, 7 (11), pp. 484-488. | |  |  | | |  | | --- | |  | | Berger, H.A. Der kompressionsstrumpf in der behandlung der varikosis nach der methode von franceschi (1998) *Orthopädie Technik*, 49 (4), pp. 282-283. | |  |  | | |  | | --- | |  | | Berger, H.A. Neue aspekte für die chirurgie der varkosis (1997) *Schleswig-Holsteinisches Ärzteblatt*, 50 (1), p. 10. | |  |  | | |  | | --- | |  | | Bernardi, R. Nueva incisión para el tratamiento quirúrgico des varicocele. Conceptos semiológicos y quirúrgicos (1942) *Semana Médica*, 49 (30), pp. 165-192. | |  |  | | |  | | --- | |  | | Caggiati, A. Fascial relations and structure of the tributaries of the saphenous veins (2000) *Surg Radiol Anat*, 22, pp. 1-4. | |  |  | | |  | | --- | |  | | Caggiati, A. 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Saphenous vein sparing surgery: Principles, techniques and results (1998) *J Cardiovasc Surg*, 39 (2), pp. 151-162. |   Correspondence Address  Mendoza E.Speckenstraße 10, 31515 Wunstorf, Germany  ISSN: 09421181 CODEN: VASOF Language of Original Document: German Abbreviated Source Title: Vasomed Document Type: Conference Paper Source: Scopus  Iborra, E., Linares, P., Hernández, E., Vila, R., Cairols, M.A. [Clinical and random study comparing two surgical techniques for varicose veins treatment: Immediate results [Estudio clínico y aleatorio comparando dos técnicas quirúrgicas para el tratamiento de las varices: Resultados inmediatos]](http://www.scopus.com/record/display.url?eid=2-s2.0-0034505157&origin=resultslist) (2000) *Angiologia*, 52 (6), pp. 253-258. Cited 7 times.  Ciutat Sanitaria Univ. de Bellvitge, Barcelona, Spain  Abstract Aim: To compare clinical results after vein stripping with those obtained after CHIVA technique. Material and method: This is a prospective and randomised clinical study in 100 patients from the varicose vein waiting list of our hospital. They were 62 women and 38 men, mean age of 49 years. Inclusion criteria were those recommended by the SEAC. All those patients with past history of DVT or incompetence of the deep venous system and previous therapies (sclerotherapy or surgery) were excluded. An ATL Ultramark 9HDI colour duplex was used to carry out a venos haemodynamic mapping were carried out in all patient. Patients were allocated at random in two groups, Group I, vein stripping 49 patients, and Group II, CHIVA technique: 51 patients. Both groups were similar as far as the CEAP classification was concerned. Clinical and haemodynamic follow up were carried out at 7 days and thereafter at 1, 3 and 6 months from surgery. Results: Mean workdays loss was 19.2 days in group I and 7.8 days in group II. Traumatic saphenous nerve neuritis were present in 22.4% of cases in group I, whereas 7.5% in group II showed symptomatic long saphenous vein phlebitis. It can be stressed than duplex detected 21.5% of phlebitis at 1 month and 1.9% at 6 month from surgery. Clinical and aesthetic results at 6 months of the postoperative period did not show any statistical differences (chi-square and t Student) between the two treatments. Conclusions: Both techniques for treating patients with varicose veins are similar in the immediate postoperative period. There was though a shorter recovery in the CHIVA method of therapy with less workday lost. Complications such as neuritis were more frequent in the stripping group whereas phlebitis were the main complication in the CHIVA group.  Author Keywords CHIVA technique;  Varicose veins;  Vein stripping  Index Keywords absenteeism, adult, article, clinical trial, color ultrasound flowmetry, controlled clinical trial, controlled study, female, follow up, human, intermethod comparison, major clinical study, male, neuritis, phlebitis, randomized controlled trial, saphenous nerve, surgical technique, varicosis, vein stripping  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Eklof, B. Modern treatment of varicose veins (1988) *Br. J. Surg.*, 75, pp. 297-298. | |  |  | | |  | | --- | |  | | Rutgers, P.H., Kitslaar, P.E. Randomized trial of stripping versus high ligation combined with sclerotherapy in the treatment of the incompetent greater saphenous vein (1994) *Am J. Surg.*, 168, pp. 311-315. | |  |  | | |  | | --- | |  | | Abu-Own, A., Scurr, J.H., Coleridge-Smith, P.D. Saphenous vein reflux without incompetence at the saphenofemoral junction (1994) *Br. J. 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Institut für Gefäßmedizin, Zeil 51, 60313 Frankfurt am Main, Germany  Abstract The classic operation for treatment of a truncal varicosity affecting the long saphenous vein consists in resection of the region where the saphenous and the iliac and epigastric vessels come together and complete or partial removal of the vascular trunk. The Babcock technique is used for stage IV and for secondary truncal varicosity in the postthrombotic syndrome, while partial resection is reserved for stages I-III up to the distal point of insufficiency. In suitable cases the invagination method and cryoresection are optimal alternatives to stripping. In contrast, the Moszkowicz operation is hardly used any more because of the dangers of relapse and of phlebothrombosis. The Chiva method never became established in Germany: it is based ultimately on Trendelenberg's concept of surgery, which was abandoned almost 100 years ago. Even if an external valvuloplasty is used the varicose trunk of the vein is left in place, and the result of the procedure should still be checked by means of phlebographic documentation and by monitoring of the longterm results. Intraluminal coagulation with radiowave energy combined with resection of the junction of the saphenous and epigastric vessels seems to promise an extension of the spectrum of methods available, but wide experience of its application is still lacking.  Author Keywords Primary varicosity;  Stripping;  Surgery for treatment of varicose veins;  Truncal varicosis;  Varices  Index Keywords article, epigastric artery, human, phlebography, postthrombosis syndrome, saphenous vein, surgical technique, valvuloplasty, varicosis, vein stripping  Correspondence Address  Hach W.; Institut fur Gefassmedizin, Zeil 51, 60313 Frankfurt am Main, Germany  ISSN: 09487034 CODEN: GEFAF Language of Original Document: German Abbreviated Source Title: Gefasschirurgie Document Type: Article Source: Scopus  Wigger, P.a b  [Surgical treatment of primary varicose veins [Die chirurgishce therapie der primaren varikose]](http://www.scopus.com/record/display.url?eid=2-s2.0-0032494594&origin=resultslist) (1998) *Schweizerische Medizinische Wochenschrift*, 128 (45), pp. 1781-1788. Cited 9 times.  a Chirurgische Klinik, Kantonsspital Winterthur b Leitender Arzt Gefässchirurgie, Chirurgische Klinik, Kantonsspital, CH-8401 Winterthur, Switzerland  Abstract The principle of varicose vein surgery still remains the interruption of all insufficient communications between the deep and the superficial venous system and removal of the varicosities. The basis for differentiated surgical treatment is accurate preoperative assessment. Careful dissection of the saphenofemoral junction through a suprainguinal incision, with division of all the branches and flush tie of the long saphenous vein combined with invaginated stripping of the long saphenous vein to just below the knee, appears to be the method of choice for good clinical results and a low incidence of damage to the saphenous nerve. Oesch recently introduced a new technique of perforate invaginate (PIN) stripping which gives even better cosmetic results. Regarding the short saphenous vein, preoperative localization of the exact level of the saphenopopliteal junction is of major importance in the prevention of recurrence. Simple evulsion or epifascial or subfascial ligation were the most common treatments for incompetent perforating veins for many years. In 1985 Hauer described endoscopic subfascial dissection of perforating veins (ESDP), which reduces delayed wound healing, especially in trophic skin changes. Deprivation of blood supply with a pneumatic tourniquet such as the Lofqvist roller cuff is necessary. The tributaries are removed by stab evulsion phlebectomy with specially designed hooks. This technique was originally introduced by Muller for ambulatory treatment of varicose veins. The incisions of 1-3 mm guarantee excellent cosinesis and minimal trauma. Adhesive tape is used to close the incisions. A number of alternative techniques such as cryosurgery, laser surgery, paratibial fasciotomy and the CHIVA technique (Conservative Treatment and Haemodynamics in Venous Insufficiency in Outpatient Departments) are briefly described. Complications of varicose vein surgery are rare. Minor complications are skin nerve injuries, haematomas, infections and lymphatic fistulas. Major complications such as injuries to the femoral vein or artery occur in less than 0.05%. But once it has occurred it is of paramount importance to recognize the injury at the time of initial surgery, to avoid limb loss. Provided the preoperative assessment is accurate and the principles of selective surgical treatment are followed, the surgeon is able to perform a curative operation with a low complication rate and excellent cosmetic results.  Index Keywords ambulatory surgery, cryosurgery, dissection, endoscopic surgery, fasciotomy, femoral vein, human, laser surgery, postoperative complication, review, saphenous vein, surgical technique, varicosis, vein insufficiency, vein stripping, vein surgery; Humans, Postoperative Complications, Saphenous Vein, Varicose Veins, Venous Insufficiency  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Oesch, A. «Pin-stripping»: A novel method of atraumatic stripping (1993) *Phlebology*, 4, pp. 171-173. | |  |  | | |  | | --- | |  | | Hauer, G. Die endoskopische subfasziale Diszision der Perforansvenen - Vorläufige Mitteilung (1985) *Vasa*, 14, p. 59. | |  |  | | |  | | --- | |  | | Hauer, G. Operationstechnik der endoskopischen subfaszialen Diszision der Perforansvenen (1987) *Chirurg*, 58, pp. 172-175. | |  |  | | |  | | --- | |  | | Löfqvist, J. Chirurgie in Blutleere mit Rollmanschetten (1988) *Chirurg*, 59, pp. 853-854. | |  |  | | |  | | --- | |  | | Müller, R. 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Flush saphenofemoral ligation and multiple stab phlebectomy preserve a useful greater sphenous vein for years after surgery (1995) *J Vasc Surg*, 22, pp. 588-592. | |  |  | | |  | | --- | |  | | Schanzer, H., Skladany, M. Varicose vein surgery with preservation of the saphenous vein: A comparison between high ligation-avulsion versus saphenofemoral banding valvuloplasty-avulsion (1994) *J Vasc Surg*, 20, pp. 684-687. | |  |  | | |  | | --- | |  | | Hach, W., Vanderpuye, R. Operationstechnik der paratibialen Fasziotomie (1985) *Med Welt*, 36, pp. 1616-1618. | |  |  | | |  | | --- | |  | | Vanscheidt, W., Bertalanffy, C., Wenz, W., Schopf, E. Paratibial Fasciotomy (1991) *Vasa Suppl*, 32, pp. 471-478. | |  |  | | |  | | --- | |  | | Hamann, H., Cyba Altunbay, S. Die paratibiale Fasziotomie (1992) *Langenbecks Arch Chir Suppl Kongressbd*, pp. 466-469. | |  |  | | |  | | --- | |  | | Vanderpuye, R. 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(1991) *Vasa*, 20, pp. 311-318. |   Correspondence Address  Wigger P.; Leitender Arzt Gefasschirurgie, Chirurgische Klinik, Kantonsspital, CH-8401 Winterthur, Switzerland  ISSN: 00367672 CODEN: SMWOA PubMed ID: 9854291 Language of Original Document: German Abbreviated Source Title: Schweiz. Med. Wochenschr. Document Type: Review Source: Scopus  Zamboni, P.a b , Marcellino, M.G.a , Cappelli, M.a , Feo, C.V.a , Bresadola, V.a , Vasquez, G.a , Liboni, A.a  [Saphenous vein sparing surgery: Principles, techniques and results](http://www.scopus.com/record/display.url?eid=2-s2.0-0031778240&origin=resultslist) (1998) *Journal of Cardiovascular Surgery*, 39 (2), pp. 151-162. Cited 48 times.  a Institute of General Surgery, Vascular Laboratory, University of Ferrara, Ferrara, Italy b Institute of General Surgery, University of Ferrara, 44100 Ferrara, Italy  Abstract Objective. Evaluation of saphenous vein sparing surgical procedures alternative to high ligation and distal stab avulsion, in terms of effectiveness and suitability for eventual bypass surgery. Experimental design. Prospective evaluation of 421 operations for primary varicose veins, 64 external valve-plasties of the sapheno-femoral junction (EV-SFJ), (42 performed using the hand sewing technique and 22 using the Veno-cuff device), mean follow-up 52 months, and 357 hemodynamic correction of varicose veins (French acronymis CHIVA), mean follow-up 49 months. Moreover, a subgroup of 27 patients was operated on using the CHIVA technique in two steps, mean follow-up 18 months. Setting. Institute of General Surgery, University of Ferrara. Institutional practice, one-day surgery. Patients. Patients were selected using clinical and duplex scanning evaluations, and classified according to CEAP criteria. Patients with varicose veins due to sapheno-femoral reflux with duplex scanning evidence of mobile valve leaflets underwent EV-SFJ. The other patients were operated on using the hemodynamic correction technique. Interventions. EV-SFJ restores valve function correcting vein wall dilatation by applying an external prosthesis, CHIVA consists of selected ligatures of the superficial veins that allow superficial blood aspiration in the deep veins through the perforators as well as the preservation of saphenous drainage. Measures. The outcome was evaluated with independent clinical and ultrasonographic examinations; pre and postoperative AVP and LRR-RT measurements were assessed in 125 cases. Data from self-assessment of the functional and cosmetic result of the patients of the CHIVA group were also obtained using a scoring system. Moreover, scanning the preserved long saphenous vein the rate of long saphenous vein suitable as arterial conduit following sparing surgery was also evaluated. Results. Overall long saphenous vein patency registered after EV-SFJ and CHIVA was 94%. Varicose veins recurrence rate was 12% and 11%, respectively. Postoperative AVP and LRR-RT improvement was stastically significant (p < 0.001). Conclusions. These two alternative procedures seem to be effective in varices treatment following the proposed indications and techniques. In addition, they appear able to preserve a more significant rate of saphenous veins suitable for eventual bypass surgery than high ligation and multiple cosmetic avulsion.  Author Keywords Saphenous vein surgery;  Varicose veins surgery;  Vascular surgery methods  Index Keywords adult, aged, article, bypass surgery, clinical trial, echography, female, femoral vein, human, ligation, major clinical study, male, recurrence risk, saphenous vein, surgical technique, treatment outcome, varicosis, vein surgery, venous reflux; Adult, Aged, Blood Flow Velocity, Female, Femoral Vein, Follow-Up Studies, Humans, Leg, Ligation, Male, Middle Aged, Monitoring, Intraoperative, Phlebography, Prospective Studies, Recurrence, Saphenous Vein, Treatment Outcome, Ultrasonography, Doppler, Duplex, Varicose Veins, Vascular Patency, Vascular Surgical Procedures  Tradenames PTFE sleeve, gore, United States; Veno-Cuff  Manufacturers gore, United States  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Darke, S.G. The morphology of recurrent varicose veins (1992) *Eur J Vasc Surg*, pp. 512-517. | |  |  | | |  | | --- | |  | | Negus, D. 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Via Luigi Pulci 3, 50124 Firenze FI, Italy  Abstract Methods. In the period between 1 January 1992 and 31 December 1995, 1653 one-day surgery interventions for the treatment of primary varicose veins of the lower limbs have been performed. 1195 females (72%) and 458 males (28%), with average age of 49.7 years (range 19-81) were operated. 783 short strippings and 668 long strippings were performed for the treatment of long saphenous varicose veins (88%), while 79 operations were performed for the treatment of short saphenous varicose veins (4.7%). 1357 patients (82%) also underwent Muller phlebectomy. Moreover 8 CHIVA (0.4%), 5 isolated crossectomies (0.3%) and 13 crossectomies with limited phlebectomy (0.9%) were performed. 97 recurrencies were treated (5.7%). Spinal selective anesthesia was induced with hyperbaric marcaine in 89% of the cases, while peridural anesthesia was performed in 6% and assisted local anesthesia in 5% of the cases. Results. Five postoperative complications (0.3%) were observed, 4 due to anesthesia and 1 due to surgery, which made patient hospitalization necessary. In the first 7 days after surgery no new hospital admissions due to late complications were recorded. Conclusions. The conclusions is drawn that our short-term and long-term results show the positive theoretical benefits that one day surgery can give in these cases in terms of efficiency, effectiveness, quality and patient satisfaction.  Author Keywords Ambulatory surgery;  Varicose veins, surgery  Index Keywords bupivacaine; adult, aged, ambulatory surgery, article, epidural anesthesia, female, hospitalization, human, leg varicosis, local anesthesia, major clinical study, male, postoperative complication, recurrent disease, saphenous vein, spinal anesthesia, vein stripping  Chemicals/CAS bupivacaine, 18010-40-7, 2180-92-9, 55750-21-5  Correspondence Address  Dal Maso M.Via Luigi Pulci 3, 50124 Firenze FI, Italy  ISSN: 03949508 CODEN: CHRRE Language of Original Document: Italian Abbreviated Source Title: CHIRURGIA Document Type: Article Source: Scopus  Zamboni, P.a b , Feo, C.V.a , Marcellino, M.G.a , Vasquez, G.a , Mari, C.a  [Haemodynamic correction of varicose veins (CHIVA): An effective treatment?](http://www.scopus.com/record/display.url?eid=2-s2.0-0029823371&origin=resultslist) (1996) *Phlebology*, 11 (3), pp. 98-101. Cited 8 times.  a Institute of General Surgery, University of Ferrara, Ferrara, Italy b Institute of General Surgery, University of Ferrara, 44100 Ferrara, Italy  Abstract Objective: Evaluation of the feasibility and utility of haemodynamic correction of primary varicose veins (French acronym: CHIVA). Design: Prospective, single patient group study. Setting: Department of Surgery, University of Ferrara, Italy (teaching hospital). Patients: Fifty-five patients with primary varicose veins and a normal deep venous system (ultrasonographic criteria) were studied. Interventions: Fifty-five haemodynamic corrections by the CHIVA method described by Franceschi were undertaken. Seven patients were treated for short saphenous vein varices (group A) while 48 patients were treated for long saphenous vein varices (group B). Main outcome measures: Clinical: presence of varices and reduction in symptoms. Duplex and continuous-wave Doppler detection of re-entry through the perforators and identification of recurrences or new sites of reflux. Postoperative ambulatory venous pressure and refilling time measurements. Patients were studied for 3 years following surgery. Results: In group A, 57% short saphenous vein occlusions with no re-entry through the gastrocnemius and soleal veins were recorded. In group B the long saphenous vein thrombosis rate was 10%. In this group 15% of the patients showed persistence of reflux instead of re-entry at the perforators. Early recurrences were also observed. Overall CHIVA gave excellent results in 78% of the patients. Statistically significant ambulatory venous pressure and refilling time changes were recorded (p < 0.001). Conclusions: CHIVA treatment is inadvisable for short saphenous vein varices. Long saphenous vein postoperative thrombosis is related to development of recurrences.  Author Keywords CHIVA;  Day surgery;  Duplex ultrasonography;  Haemodynamic correction;  Varicose veins  Index Keywords adult, article, doppler echography, female, hemodynamics, human, italy, leg varicosis, major clinical study, male, patient selection, priority journal, saphenous vein, surgical technique, treatment outcome, vein blood flow, vein thrombosis, venous pressure  References   |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Bishop, C.C.R., Jarret, P.E.M. Outpatient varicose vein surgery under local anaesthesia (1986) *Br J Surg*, 73, pp. 821-822. | |  |  | | |  | | --- | |  | | Clinton, O., Negus, D. Suitability for day-care varicose vein surgery (1990) *Phlebology*, 5, pp. 277-279. | |  |  | | |  | | --- | |  | | Zamboni, P., Liboni, A. External valvuloplasty of the saphenofemoral junction using perforating prosthesis (1991) *Phlebology*, 6, pp. 141-147. | |  |  | | |  | | --- | |  | | Franceschi, C. (1988) *Theorie et Pratique de la Cure Conservatrice et Hemodynamique de L'insuffisance Veineuse en Ambulatoire*,  Dijon: Editions de l'Armacon | |  |  | | |  | | --- | |  | | Franceschi, C. La cure conservatrice et hemodynamique de l'insuffissance veineuse en ambulatoire (CHIVA cure) (1992) *J Mal Vasc*, 7, pp. 291-300. | |  |  | | |  | | --- | |  | | Fichelle, J.M., Carbone, P., Franceschi, C. Resultats de la cure conservatrice et hemodynamique de l'insuffissance veineuse en ambulatoire (1992) *J Mal Vasc*, 17, pp. 224-228. | |  |  | | |  | | --- | |  | | Hugentobler, J.P., Blanchmaison, P. CHIVA cure. Etude de 96 patients opres de juin 1988 a juin 1990 (1992) *J Mal Vasc*, 17, pp. 19-23. | |  |  | | |  | | --- | |  | | Quintana, F., Cabot, H., Puig, A. The CHIVA cure of varices of the lower extremities (1993) *Angiologia*, 45, pp. 66-67. | |  |  | | |  | | --- | |  | | Franco, G. La cure hemodynamique de l'insufficiance veineuse en ambulatoire. Revolution ou regression? (1992) *J Mal Vasc*, 17, pp. 301-307. | |  |  | | |  | | --- | |  | | Davies, A.H., Magee, T.R., Hayward, J. Non-invasive methods of measuring venous compliance (1992) *Phlebology*, 7, pp. 78-81. | |  |  | | |  | | --- | |  | | Negus, D. Should the incompetent saphenous vein be stripped to the ankle? (1986) *Phlebology*, 1, pp. 33-36. | |  |  | | |  | | --- | |  | | Sarin, S., Shields, D.A., Scurr, J.H., Coleridge Smith, P.D. Photophlethysmography: A valuable non-invasive tool in the assessment of venous dysfunction? (1992) *J Vasc Surg*, 16, pp. 154-161. |   Correspondence Address  Zamboni P.; Institute of General Surgery, University of Ferrara, 44100 Ferrara, Italy  ISSN: 02683555 CODEN: PHLEE Language of Original Document: English Abbreviated Source Title: PHLEBOLOGY Document Type: Article Source: Scopus  Zamboni, P., Marcellino, M.G., Feo, C., Berta, R., Vasquez, G., Pansini, G.C. [When CHIVA treatment could be video guided](http://www.scopus.com/record/display.url?eid=2-s2.0-0029032071&origin=resultslist) (1995) *Dermatologic Surgery*, 21 (7), pp. 621-625. Cited 2 times.  Institute of General Surgery, University of Ferrara, 44100 Ferrara, Italy  Abstract BACKGROUND. Hemodynamic correction (CHIVA) is a conservative, ambulatory, and controversial varicose vein treatment. It consists of selected ligatures of the superficial venous system, decided by means of preoperative duplex mapping. OBJECTIVE. Prospective evaluation of 80 patients, operated on according to the CHIVA technique described by Claude Franceschi. Mean follow- up length was 30 months. METHODS. Fifty-five consecutive patients were operated on after clinical, ultrasonographic, ambulatory venous pressure and light reflection rheography evaluations. After a 3-year follow-up, another 25 consecutive patients were selected applying some exclusion criteria that emerged in the first part of the study. This second series was operated on by means of intraoperative angioscopy. The same preoperative evaluations have been used to study the outcome in all patients. RESULTS. CHIVA failed in the short saphenous vein territory varices and when the long saphenous vein and the insufficient perforating veins had a preoperative diameter greater than 10 and 4 mm, respectively. The procedure showed a long saphenous vein patency of 90.4% and registered a total recurrence rate of 18.7%. CONCLUSIONS. CHIVA seems to be a more effective varicose vein treatment than high ligation and distal stab avulsion. It also preserves a higher rate of long saphenous veins, suitable for bypass surgery.  Index Keywords angioscopy, article, blood rheography, doppler flowmetry, hemodynamics, human, major clinical study, priority journal, recurrence risk, saphenous vein, surgical technique, varicosis, vein compliance, vein diameter, vein ligation, venous pressure; Adolescent, Adult, Ambulatory Surgical Procedures, Angioscopy, Collateral Circulation, Female, Follow-Up Studies, Hemodynamics, Hemorheology, Human, Intraoperative Care, Ligation, Male, Middle Age, Prospective Studies, Radiology, Interventional, Recurrence, Saphenous Vein, Transillumination, Treatment Outcome, Varicose Veins, Vascular Patency, Venous Pressure  Correspondence Address  Zamboni P.; Institute of General Surgery, University of Ferrara, 44100 Ferrara, Italy  ISSN: 10760512 CODEN: DESUF PubMed ID: 7606374 Language of Original Document: English Abbreviated Source Title: DERMATOL. SURG. Document Type: Article Source: Scopus  Franceschi, C. [The ambulatory and hemodynamic treatment of varicose veins (CHIVA cure) [LA CURE HEMODYNAMIQUE DE L'INSUFFISANCE VEINEUSE EN AMBULATOIRE (CHIVA)]](http://www.scopus.com/record/display.url?eid=2-s2.0-0027030724&origin=resultslist) (1992) *Journal des Maladies Vasculaires*, 17 (4), pp. 291-300. Cited 14 times.  12, Avenue de Wagram, F 75017 Paris, France  Abstract Contrasting with the destructive methods of treating varicose veins, the CHIVA cure (Cure Conservatrice et Hemodynamique de l'Insuffisance Veineuse en Ambulatoire) technique is a conservative and hemodynamic approach of this problem. Based on coherent physiological principles, it proposes rigorous analysis followed by effective correction of the hemodynamic disorders, resulting in lasting benefits on the esthetic, functional and tropic changes associated with varicose veins. The results of the CHIVA technique in several french and european-centers, including over 10000 procedures performed between 1987 and 1991, confirm the value of the method first described by the author in 1988. They confirm the necessity of respecting the strategic and tactical rules of this new approach and the need for specific theorical and practical training.  Index Keywords conference paper, hemodynamics, human, varicosis, ambulatory surgery, article, methodology, pathophysiology, physiology, postoperative complication, recurrent disease, vein insufficiency; Ambulatory Surgical Procedures, English Abstract, Hemodynamics, Human, Postoperative Complications, Recurrence, Varicose Veins, Venous Insufficiency  Correspondence Address  Franceschi C.12, Avenue de Wagram, F 75017 Paris, France  ISSN: 03980499 CODEN: JMVAD PubMed ID: 1494057 Language of Original Document: French Abbreviated Source Title: J. MAL. VASC. Document Type: Conference Paper Source: Scopus  Franco, G. [The ambulatory and hemodynamic treatment of varicose veins (CHIVA cure). Revolution or regression [LA CURE HEMODYNAMIQUE DE L'INSUFFISANCE VEINEUSE EN AMBULATOIRE (CHIVA). REVOLUTION OU REGRESSION]](http://www.scopus.com/record/display.url?eid=2-s2.0-0027027006&origin=resultslist) (1992) *Journal des Maladies Vasculaires*, 17 (4), pp. 301-307. Cited 3 times.  CERM, 150, Rue de Rennes, F 75006 Paris, France  Abstract Ambulatory Hemodynamic Treatment of Varicose veins (CHIVA), owing to dupplex scan, is a come back to forgotten method of cutting and ligation of superficial veins which have for a long time given the prooves of innefficiency. This method ignores the fondamental problems of venous insufficiency. The long dated superiority of this technic about venous preservation compaired with other methods is not demonstrated. The analysis of recurrent varicose veins after surgical treatment shows that the main cause is an inadequate operative technique associated with the evolution of the basic wall failure. CHIVA-cure, starting from the opposite opinion is doing un unbelievable come back to staged ligation expecting better results. The high rate of superficial venous thrombosis and complementary acts on the residual varicose veins, only one year after the primitive surgery, don't augur well of the future.  Index Keywords conference paper, hemodynamics, human, varicosis, ambulatory surgery, methodology, pathophysiology, physiology, recurrent disease, review, vein insufficiency; Ambulatory Surgical Procedures, English Abstract, Hemodynamics, Human, Recurrence, Venous Insufficiency  Correspondence Address  Franco G.; CERM, 150, Rue de Rennes, F 75006 Paris, France  ISSN: 03980499 CODEN: JMVAD PubMed ID: 1494058 Language of Original Document: French Abbreviated Source Title: J. MAL. VASC. Document Type: Conference Paper Source: Scopus  Lemasle, P., Baud, J.M. [Value of echo-marking in the surgical treatment of varicose veins (outside the CHIVA treatment) [Intérêt de l'écho-marquage dans la cure chirurgicale des varices (en dehors de la cure CHIVA).]](http://www.scopus.com/record/display.url?eid=2-s2.0-18244421432&origin=resultslist) (1992) *Phlebologie*, 45 (3), pp. 349-355. Cited 2 times.  Centre nouvelle France, Le Chesnay.  Abstract It is in fact only the cutaneous reflection of venous cartography established by echo-doppler investigation. The procedure is pre-surgical. Its chief value is the more accurate identification of hemodynamic and anatomical data, in particular when they are sub-clinical. Such data can then be actually used by surgeons, who are able to perform a procedure precisely suited to the individual patient. This greater accuracy enables the following aims to be achieved:--correction of all leak points;--excision of all pathological veins;--avoidance of any damage to healthy areas;--esthetic results;--prevention of recurrences, etc. However, it remains for angiologists and surgeons to evaluate and validate this method by prospective trials.  Index Keywords article, echography, human, varicosis; English Abstract, Evaluation Studies, Human, Varicose Veins  Correspondence Address  Lemasle P.  ISSN: 00318280 PubMed ID: 1470658 Language of Original Document: French Abbreviated Source Title: Phlebologie Document Type: Article Source: Scopus  Mandolesi, S., Ballo, M., Galeandro, I., Filippo, S., Migaldi, D., Spinelli, F., Nasso, C., Carbone, P., Scaramuzzino, L., Passariello, F. [The 1st national multicenter study of the CHIVA (Conservative Therapy and Hemodynamics in Venous Insufficiency in Outpatient Departments) method of treatment of varices. One-year follow-up [I multicentrica Nazionale sulla metodica CHIVA nel trattamento delle varici. Follow-up ad un anno.]](http://www.scopus.com/record/display.url?eid=2-s2.0-0025462730&origin=resultslist) (1990) *Annali Italiani di Chirurgia*, 61 (4), pp. 425-427. Cited 1 time.  Cattedra di Semeiotica Medica dell'Università di Palermo.  Abstract The authors present clinical and instrumental results of N. 543 operations executed by CHIVA system. These cases are the result of trial performed in seven SIOC (Italian Society of CHIVA Operators) centers executed from November '87 to July '89. Functional and aesthetic results had been very good on over 85% of all cases; superficial thrombosis were verified on 10% of all cases but almost completely asymptomatic. The aa. propose to start a deeper trial on 500 patients choose by rigorous criteria of inclusion.  Index Keywords adult, ambulatory care, article, clinical trial, follow up, human, Italy, multicenter study, multimodality cancer therapy, postoperative care, postoperative complication, thrombophlebitis, varicosis, vein insufficiency; Adult, Ambulatory Care, Combined Modality Therapy, English Abstract, Follow-Up Studies, Human, Italy, Postoperative Care, Postoperative Complications, Thrombophlebitis, Varicose Veins, Venous Insufficiency  Correspondence Address  Mandolesi S.  ISSN: 0003469X PubMed ID: 2082780 Language of Original Document: Italian Abbreviated Source Title: Ann Ital Chir Document Type: Article Source: Scopus  We hope that this information is useful to you.  If you have questions about this or other features of Scopus, please visit our [Info site](http://www.info.scopus.com/).  This email has been sent to you by Scopus®, a product of Elsevier B.V., Radarweg 29, 1043NX Amsterdam, The Netherlands, Tel.[+31 20 485 3911](tel:%2B31%2020%20485%203911).  © 2012 Scopus. 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