Validation of a New Duplex Derived Haemodynamic Effectiveness Score,

the Saphenous Treatment Score, in Quantifying Varicose Vein Treatments q

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CHIVA effectiveness score misunderstanding

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The article Validation of a New Duplex Derived Haemodynamic Effectiveness Score, the Saphenous Treatment Score, in Quantifying Varicose Vein Treatments C.R. Lattimer 354 et al. / EJVES 43 (2012) 348e354 proposes: Protagonists for saphenous conservation surgery (CHIVA) have

the option to change the scoring by giving competency the improved score of 1 and occlusion a reduced score of 2. However, it is important that the order of precedence should remain the same with reflux prioritizing over occlusion and occlusion prioritizing over competency. As CHIVA disconnects closed and open deviated shunts and fractionates the blood column, a saphene trunk reflux is not a failure when not increased or triggered by Valsalva maneuver because no more overloaded by deep venous blood thanks to the effective disconnection . A saphene tributary or extra saphenous vein reflux is not a failure when not increased or triggered by Valsalva maneuver and not fed ( overloaded) by any connection with saphene trunks because no more overloaded by deep venous blood nor saphenous trunks thanks effective disconnections. These refluxing flows are draining their physiologic territories according to the physiologic hierarchy” thanks to the shunts correction and despite their inverted direction. Occlusion is a failure because the CHIVA purpose is conservative.

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Dear Christopher,

I will not be in Prague nor Florence, but I hope meet you some day.

The venous network drains physiologically from superficial veins into deep and then towards the heart. I classified it in N3 made of supra fascia veins like Saphena tributaries, N2 intra-fascia veins like Saphenous trunks and arches and Giacomini and N1 deep veins.

The normal hierarchical drainage is N3>N2>N1 or N3>N1. The drainage is physiological-like if this provided it complies with this hierarchy, even if its flow direction is opposite to the “normal” and named “refluxing”. The flow is pathological when the hierarchy is inverted like N1>N2>N3 or N2>N3 so that, even if its direction is “normal” like in some particular configurations. In these cases, the vein is overloaded by flows fed by other territories according to a closed shunt hemodynamic configuration activated by the muscular pump. In normal, Valsalva systole ( if correctly done , like blowing into a stopped straw…) stops the flow. In case of closed shunt valve incompetence between N1 and N2, or N1 and N3 it triggers a reflux into N2 and /or N3. As CHIVA disconnects N2-N1 and/or N3-N1 reflux, the absence of reflux triggered by Valsalva is 1 = success because the vein is no more overloaded and the column pressure is fractioned. So reflux at Valsalva is 2 = failure . In case of opened deviated shunt, when N2 refluxes into N3, without any N1-N2 reflux, Valsalva doesn’t trigger any reflux into N3 nor N2. The reflux is activated only by Squeezing and/or Paranà manoeuvres. So a refluxing N3 at squeezing manoeuver is 2 = failure if N3 is still connected to N2 and 1 = success if not connected.

I’m conscious of the difficulty to “understand” this “jargon”. But new concepts need new words and definitions. The good outcomes of CHIVA attest for the correctness of the pathophysiological model that led to this method. These concepts are helpfull also to improve the diagnosis accuracy and treatment , not only in varicose veins but in deep venous disease and venous malformations.

I think that the book " Principles of Venous Hemodynamics" by Franceschi and Zamboni ( Novapublishers New York) 2010 is a mandatory help for who wants to understand properly.

Best wishes

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  | | --- | | **attimer, Christopher** c.lattimer09@imperial.ac.uk |   Dear Prof Franceschi,    Thank you for your efforts in explaining CHIVA and in opening my eyes to the "good" reflux when it is involved in drainage. This is new information to 98% of venous specialists in the UK and would form the basis of a great lecture.  I have never practiced CHIVA but believe it is the way forward rather than creating occlusions (laser, RF, stripping etc) which serve to promote collaterals (recurrence).  The UK is very reluctant to accept innovation and lags behind Europe in varicose vein treatment.  Unfortunately there is a lack of a scoring system that uses competency (+/- good reflux) as an outcome, but the STS may suffice. It is simple and can be modified.  CHIVA is complex, understandable only by a select few, and needs to be accepted as a better treatment in the UK.  I am sure that some of the features of the STS can be modified, perhaps by first defining the induction test. Since gravity is the insult, a gravitational challenge test (elevation-dependency) seems the most appropriate.  I suspect that the good reflux would disappear using such a challenge. We have shown earlier that reflux duration is an operator dependent variable with Valsalva and have classified reflux induction tests as pre and post SFJ in the latest edition of Acta Phlebologica.    Could the STS be modified (1 = success, 2 = failure), above and below knee as you have mentioned below as a way of promoting CHIVA in the UK either by yourself or your pupils?    I will be presenting in both Prague and Florence in a few weeks and look forward to meeting you should you be present. Perhaps Dr Kalodiki could introduce us.    With best wishes,    C R Lattimer | 1 juin (Il y a 4 jours)  https://mail.google.com/mail/u/0/images/cleardot.gif |  | **https://mail.google.com/mail/u/0/images/cleardot.gif**  **https://mail.google.com/mail/u/0/images/cleardot.gif** | | |  | | --- | | à George, dr.azzam, Evi, moi  https://mail.google.com/mail/u/0/images/cleardot.gif | | | |   Dear Prof Franceschi, | 17 mai (Il y a 12 jours)  https://mail.google.com/mail/u/0/images/cleardot.gif |  | **https://mail.google.com/mail/u/0/images/cleardot.gif**  **https://mail.google.com/mail/u/0/images/cleardot.gif** |
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Thank you very much

Eva,

The problem with your score and CHIVA is that it doesn't match with CHIVA hemodynamic assessment.CHIVA  Good results on the GSV are: when the GSV is no more overloaded ( ( by extra pressure and flow due to closed shunts and dynamic blood column fractionning impairment), i.e:

 1/ Success  when  compentency ( after SHUNT 2  and  3  treatment), reflux at squeezing test but no reflux at Valsalva after SHUNT 1, 4, 5, 6.( after disconnection of escape points from deep venous network and pressure column fractionning).

 2/Failure when Occlusion and reflux activated by Valsalva

The purpose of venous treatment is restoring the venous function i.e improving the drainage  and reducing the venous caliber thanks to fractionning the column and disconnecting the veno-venous shunts. CHIVA does it and RCTs confirmt it. On an other hand, the possible use of GSV despite incompetence for arterial by-pass is still undisputable and remains an ethic and legal issue.

 Warm regards

Claude Franceschi  
PS: do you think that a letter to the EJVES editor would be necessary in order to precise these informations and avoid misunderstanding?

Mendoza 2011

Mendoza E, Berger V, Zollmann C, Bomhoff M, Amsler F. Diameter-reduction of the great saphenous vein and common

femoral vein after CHIVA. Phlebologie 2011;40:73–8.