

and radiofrequency ablation (RFA) have been shown to be efficacious. This study found that all endovenous interventions were effective in improving the clinical severity of varicose veins at 1 year despite differing rates of persistent vein occlusion.

Summary: A prospective, randomized, single-center study was performed to evaluate patient outcomes and venous occlusion rates after indirect RFA, direct RFA, and EVLA. An intent-to-treat analysis was performed of the 450 participants randomized to one of three treatment arms. Of note, about one-third of each group was class C2 and more than 60% C3 to C4. Venous clinical severity scores at 1 year showed similar improvements with all three modalities as did Aberdeen Varicose Vein Questionnaire quality of life measurements. Vein occlusion rates were better after indirect RFA and EVLA than direct RFA (radiofrequency-induced thermotherapy). Increased periprocedural pain as well as other adverse events was more common with EVLA, although the authors admit that a different wavelength device is preferred and associated with less pain.

Comments: My hat is off to this group for their high-quality contribution to the evidence supporting endovenous ablation for the treatment of chronic venous insufficiency. Although vein occlusion rates differed among treatments, the percentage perhaps influenced by the intent-to-treat analysis, the clinical severity scores were the same and showed improvement in patient-reported outcomes at 1 year.

Flavonoids: Fact or fiction

Therapeutic Approach to Chronic Venous Insufficiency - Clinical Benefits of Red-Vine-Leaf-Extract AS 195 (Antistax)



Stücker M, Rabe E, Meyer K, Ottillinger B, Schütt T. *Pharmazie* 2019;74:193-200.

Conclusions: Red vine leaf extract (AS 195) may have an important role in mitigation of symptoms or prevention of chronic venous insufficiency.

Summary: Orally administered extract of red vine leaf has been shown to have a protective effect on the venous intima as well as anti-inflammatory and prothrombotic inhibitory properties. This venoactive drug has been studied and recommended for two or more decades. AS 195 shows a statistically and clinically significant improvement over placebo in patient-reported symptoms. It is well-tolerated, safe, and does not have cross-medication interactions.

Comments: Plant-derived venotonic agents, specifically the more studied red vine leaf extract AS 195, may represent a reasonable adjunctive treatment option for patients with mild to moderate chronic venous insufficiency. The antioxidant properties may be of benefit as well. If safe and inexpensive, patients may benefit from more widespread use of this dietary supplement.

Go for the glue!!

Endovenous Cyanoacrylate Glue to Treat Varicose Veins and Chronic Venous Insufficiency-Experience Gained From Our First 100+ Truncal Venous Ablations in a Multi-Ethnic Asian Population Using the Medtronic VenaSeal Closure System



Tang TY, Rathnaweera HP, Kam JW, Chong TT, Choke EC, Tan YK. *Phlebology* 2019 Jan 28;268355519826008; DOI: 10.1177/0268355519826008. [Epub ahead of print]

Conclusions: Cyanoacrylate glue is safe and effective for the treatment of chronic venous insufficiency.

Summary: This single-center, observational study evaluated the outcomes of cyanoacrylate glue (VenaSeal) for the treatment of axial veins with insufficiency in 77 patients and 93 legs. Of note, almost 70% of patients had C4 to C6 disease. At 1 year, the great saphenous vein and small saphenous vein occlusion rates were 54 of 59 (91.5%) and 5 of 8 (62.5%), respectively. Despite the anatomic recurrences, there were no clinical symptomatic occurrences.

Comments: VenaSeal has been shown to be safe and efficacious for axial reflux in patients with chronic venous insufficiency. There have been some reports of delayed inflammation owing to glue with new recommendations for anti-histamines and pain medications. However, patients have had good clinical outcomes and glue has been shown to be a favorable treatment for chronic venous insufficiency. Long-term high-quality data are needed to justify the efficacy and reliability compared with other endovenous ablation methods.

Legs and pelvis – 50% of patients have combined insufficiency!! really!!

Incidence and Distribution of Lower Extremity Reflux in Patients With Pelvic Venous Insufficiency



Scotti N, Pappas K, Lakhanpal S, Gunnarsson C, Pappas PJ. *Phlebology* 2019 Apr 3;268355519840846; doi: 10.1177/0268355519840846. [Epub ahead of print].

Conclusions: The incidence of lower extremity venous insufficiency is common in patients with pelvic venous insufficiency.

Summary: This is a retrospective study of 227 women, 454 limbs, with pelvic venous insufficiency. The group was young, average age 44 years with patients presenting with pain, swelling, heaviness, limb fatigue, itching, and cramping. One-third of patients had great saphenous vein, 21% had small saphenous vein, and 11 had combined saphenous venous incompetence. Patients with ovarian vein reflux were more likely to have axial vein reflux and 28% had a history of prior vein ablation therapy.

Comments: Pelvic vein and lower extremity vein reflux occur commonly in tandem in younger patients most likely owing to hormonal fluctuations. Therefore, in women who present with lower extremity venous symptoms, there should be a high index of suspicion for higher pelvic vein reflux. Ultrasound scanning of pelvic veins should be liberally used.