Title: A SYSTEMATIC REVIEW INTO QUALITY OF LIFE FOLLOWING ENDOVENOUS INTERVENTIONS FOR VARICOSE VEINS.

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Introduction: Endovenous interventions effectively treat varicose veins and improve patients quality of life(QoL). The aim of this review was to understand the relationship between interventions and outcomes using validated QoL measures.

Methods: MEDLINE, Pubmed, Cochrane and CINAHL databases and clinical trial registers were interrogated. Outcomes recorded: days taken to return to baseline(DTB), duplex patency(%), mean change in Venous Clinical Severity Score(mcVCSS) and mean change in Aberdeen varicose vein questionnaire(mcAVVQ) at 6 months post-intervention.

Results: Of 2,709 papers reviewed, 109 were included.

Endovenous laser ablation(EVLA)(6994 limbs, mean age 49.3±12.8 years) showed a mean DTB 5.5±2.0, mean patency 94.9±4.6, mcVCSS 3.22±1.10 and mcAVVQ 8.45±3.03.

Radiofrequency ablation(RFA)(2493 limbs, mean age 50.52±11.9) showed a mean DTB 5.8±2.1, mean patency 91.3±9.1, mcVCSS 3.24±1.15 and mcAVVQ 9.06±3.61.

Sclerotherapy(2970 limbs, mean age 50.06±16.7) showed a DTB 4, mean patency 76.7±19.6, mcVCSS 3.63±0.93 and mcAVVQ 0.30±5.33.

Mechanochemical ablation(MOCA)(282 limbs, mean age 54.3±16.0) showed a DTB 3.5, mean patency 86.1±2.7, mcVCSS 3.22±0.99 and mcAVVQ 6.06±3.45.

Cyanoacrylate embolisation(CAE)(389 limbs, mean age 46.63±13.1) showed a DTB of 1, mean patency of 95.3±11.0, mcVCSS 1.96±0.62 and mcAVVQ 11.36±4.38.

Steam ablation(3 studies, 225 limbs, mean age 54.5±14.0) no data on DTB, mean patency 95.0±1.56, mcVCSS 2.70±0.28 and mcAVVQ 3.99±1.68.

There were no statistical differences(one-way ANOVA) in mean DTB(p=0.673), mcVCSS(p=0.157), mcAVVQ(p=0.131), however duplex patency was shown to be different(Kruskal-Wallis 20.448, p=0.001), most likely secondary to outcomes of sclerotherapy.

Conclusion: All endovenous interventions demonstrate an improvement in clinical and QoL outcomes, however no intermodality difference was noted. Duplex demonstrates poorer clinical outcomes from sclerotherapy.

'Take-home message': .Endovenous interventions including new modalities of MOCA and CEA are effective in treating superficial venous disease and improving patients QoL.