

00376 **Ultrasound Guided Foam Sclerotherapy for Varicose Veins: A Review of the Current Literature**

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Aims: Catheter-directed foam sclerotherapy (CDFS) is a relatively new endovenous technique used in the treatment of superficial venous disease. It claims an improved safety profile with comparable efficacy compared to non-CDFS methods. This article therefore aims to review the current literature of CDFS, as well as to compare its outcomes with other non-CDFS methods.

Methodology: The systematic review was conducted using the Preferred Reporting Items for Systematic Review Analyses (PRISMA) guidelines. All studies over several large databases that reported clinical outcomes after CDFS for varicose veins were included.

Result: Of 15 studies identified, 10 were suitable for inclusion. Outcomes for usage of CDFS for treatment of SSV incompetence could not be analysed due to insufficient data. For GSV incompetence, the average CEAP value of patients undergoing treatment is C-3.47. CDFS offers a higher rate of technical success over non-CDFS methods (Peto Odds Ratio: 38.43, Fixed Odds Ratio: 30.95, 95% CI: 47.72) ($P < 0.001$). Post-operatively, patients had a higher rate of GSV occlusion in the medium term (at 1 year) over non-CDFS procedures (Peto Odds Ratio: 11.40, Fixed Odds Ratio: 8.80, 95% CI: 14.77) ($P < 0.001$).

There was also lower incidence of complications on follow-up. These include pain, deep vein thrombosis, thrombophlebitis and hyperpigmentation. The incidence of thrombophlebitis was lower in CDFS compared to non-CDFS (Peto Odds Ratio: 28.74, Fixed Odds Ratio: 24.01, 95% CI: 34.40) ($P < 0.001$).

Conclusion: CDFS was demonstrated to offer a higher rate of technical success and GSV occlusion in the medium term, with a reduced rate of complications when compared to non-CDFS methods. However, the quality of evidence presented in this review is limited by the paucity of publications, heterogeneity of papers, and poor quality of evidence.

Consensus guidelines and definitions of reporting outcome measures must be standardised to allow comparison with other techniques.