Clinical effectiveness and cost-effectiveness of foam sclerotherapy, endovenous laser ablation and surgery for varicose veins: results from the Comparison of LAser, Surgery and foam Sclerotherapy (CLASS) randomised controlled trial

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Declared competing interests of authors: Bruce Campbell, Paul Bachoo, Ian Chetter, Michael Gough, Jonothan Earnshaw, Tim Lees, Julian Scott and Sara A Baker declare that they receive direct payments in private practice for undertaking treatment of varicose veins using one or more of the treatments examined in the CLASS trial.

Published April 2015
DOI: 10.3310/hta19270

Plain English summary

Results from the CLASS randomised controlled trial

Health Technology Assessment 2015; Vol. 19: No. 27
DOI: 10.3310/hta19270

NIHR Journals Library www.journalslibrary.nihr.ac.uk

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Many people undergo treatment for varicose veins, which are visible tortuous veins. Different types of treatment are available. These are surgery (that is, removing the vein by stripping it out), laser (using the heat energy of the laser to close the vein) or injection of a foam to make the walls of the vein stick together.

We compared these three treatments in terms of how well they worked from a participant and clinician perspective and their relative cost-effectiveness. Seven hundred and ninety-eight people with varicose veins requiring treatment were allocated at random to one of these three treatments. Outcomes were assessed at 6 weeks and 6 months. We found that all three treatments reduced the symptoms associated with varicose veins and improved quality of life (QoL). Foam allowed people to return to their normal activities quickly, but had fewer benefits in terms of patient-reported QoL and more complications.

Foam was also less likely to close the leaky vein, thus increasing the chance of more treatment being needed in the future. Overall, the main finding is that consideration of both success at 6 months and estimated 5-year costs and benefits suggests that laser should be considered as the preferred treatment for patients who are suitable for all three treatment options. We are following the study participants to 5 years, as long-term results are important to determine the longer-term costs and consequences (in terms of recurrent varicose veins) of these three treatments.

Health Technology Assessment

HTA/HTA TAR

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 5.116

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the ISI Science Citation Index and is assessed for inclusion in the Database of Abstracts of Reviews of Effects.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 06/45/02. The contractual start date was in June 2008. The draft report began editorial review in September 2013 and was accepted for publication in June 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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