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# Comparison of superficial surgical site infection between delayed primary and primary wound closures in ruptured Appendicitis

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Abstract

Background: A systematic review and meta-analysis was conducted to compare clinical outcomes between endovenous laser ablation (EVLA), radiofrequency ablation (RFA), ultrasound-guided foam sclerotherapy (UGFS) and surgery.

Method: We searched MEDLINE and Scopus from 2000 to August 2011 to identify randomised controlled trials (RCTs) comparing EVLA, RFA, UGFS, and surgery or combinations of these for treatment of varicose veins. Differences in clinical outcomes were expressed as pooled risk ratio and unstandardised mean difference for dichotomous and continuous outcomes, respectively. Methodological quality was assessed using Cochrane tools.

Results: Twenty-eight RCTs were included. The primary failure and clinical recurrences were not significantly different between EVLA and RFA versus surgery with the pooled RR of 1.5 (95%CI: 0.7, 3.0) and 1.3 (95%CI: 0.7, 2.4) respectively for primary failure, and, 0.6 (95%CI:0.3, 1.1) and 0.9 (95%CI:0.6, 1.4) respectively for clinical recurrences. The endovenous techniques had advantages over surgery in lowering wound infections (RR = 0.3 (95%CI: 0.1, 0.8) for EVLA), haematoma (RR = 0.5 (95%CI: 0.3, 0.8) and 0.4 (95%CI: 0.1, 0.8) for EVLA and RFA), and return to normal activities or work (mean differences = 4.9 days (95%CI: 7.1, 2.7) for RFA).

Conclusion: The primary failure and recurrence in EVLA and RFA were non-significantly different compared with surgery. However, they had lower haematoma, less wound infection, less pain and quicker return to normal activities.

Keywords: endovenous laser, radiofrequency ablation, foam sclerotherapy, surgery, occlusion, recurrence, complication, systematic review, meta-analysis

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