mal. Patients with ABI > 1.40 or (a history of) intermittent claudication were excluded. Serial troponin-T measurements were performed routinely before and after surgery. The main study endpoint was perioperative myocardial damage, the composite of myocardial ischaemia and infarction. Multivariate regression analyses, adjusted for conventional risk factors, evaluated the relation between asymptomatic low ABI and perioperative myocardial damage.

Results: In total, 148 (23%) patients had asymptomatic low ABI (mean 0.73, standard deviation ± 0.13). Perioperative myocardial damage was recorded in 107 (18%) patients. Multivariate regression analyses demonstrated that asymptomatic low ABI was associated with an increased risk of perioperative myocardial damage (odds ratio (OR): 2.4, 95% CI: 1.4–4.2)

Conclusions: This study demonstrated that asymptomatic low ABI has a prognostic value to predict perioperative myocardial damage in vascular surgery patients, incremental to risk factors imbedded in conventional cardiac risk indices.

A Systematic Review of Implementation of Established Recommended Secondary Prevention Measures in Patients with PAOD

Flu H.C., Tamsma J.T., Lindeman J.H.N., Hamming J.F., Lardenoye J.H.P. Eur J Vasc Endovasc Surg 2010;39:70-86.

Objective: Since patients with peripheral arterial occlusive disease (PAOD) are at high-risk for cardiovascular morbidity and mortality, preventive measures aimed to reduce cardiovascular adverse events are advocated in the current guidelines. We conducted a systematic review to assess the implementation of secondary prevention (SP) measures in PAOD patients.

Methods: PubMed, Cochrane Library, EMBASE and Web of Science databases were searched to perform a systematic review of the literature from 1999 till June 2008 on SP for PAOD patients. Assessment of study quality was done following the Cochrane Library review system. The record outcomes were antiplatelet agents, heart rate lowering agents, blood pressure lowering agents, lipid lowering agents, glucose lowering agents, smoking cessation and walking exercise.

Results: From a total of 2137 identified studies, 83 observational studies met the inclusion criteria, of which 24 were included in the systematic review comprising 34 157 patients. These patients suffered from coronary artery disease (n = 3516, 41%), myocardial infraction (n = 2647, 38%), angina pectoris (n = 1790, 31%), congestive heart failure (n = 2052, 14%), diabetes mellitus (n = 10 690, 31%),hypertension (n = 20 823, 73%) and hyperlipidaemia (n = 15 067, 64%). Contrary to what the guidelines prescribe, antiplatelet agents, heart rate lowering agents, blood pressure lowering agents and lipid lowering agents were prescribed in 63%, 34%, 46% and 45% of the patients, respectively. Glucose lowering agents were prescribed in 81% and smoking cessation in 39% of the patients.

Conclusion: The majority of patients suffering from PAOD do not receive the entire approach of SP measures as suggested by the current guidelines. To our knowledge, the cause of this undertreatment is multifactorial: patient, physician or health-care-related.

Endovenous Laser Ablation (980 nm) of the Small Saphenous Vein in a Series of 147 Limbs with a 3-Year Follow-up

Desmyttère J., Grard C., Stalnikiewicz G., Wassmer B., Mordon S. Eur J Vasc Endovasc Surg 2010;39:99-103.

Aim: This study aims to demonstrate the treatment outcomes of endovenous laser ablation (EVLA) of incompetent small saphenous veins (SSVs) with a 980-nm diode laser.

Materials and methods: Between 1 June 2003 and 30 June 2006, 128 patients (147 limbs) with varicose veins and reflux in the SSV on duplex ultrasound (US) examination were treated with a 980-nm diode laser under US guidance. EVLA was performed using pulsed mode with a power of 10 W. The pulse duration (1.5–3 s) was chosen to deliver a linear endovenous energy density (LEED) depending on the SSV diameter measured 1.5 cm below the sapheno-popliteal junction (SPJ) with the patient standing. For SSV diameters between 2 and 4.5 mm, the LEED applied was 50 J cm^{-1}. The LEED was 70 J cm^{-1} for 4.5–7 mm, 90 J cm^{-1} for 7–10 mm. Patients were evaluated at 1-week, 1-month, 1-year, 2-year and 3-year follow-up.

Results: The initial technical success rate was 100% in 147 patients. The SSV remained closed in 114 of 117 limbs (97%) after 1 year, all of 61 limbs after 2 years and all of 30 limbs after 3 years. For the three SSVs where re-canalisation was observed, the diameter was greater than 9 mm. Major complications have not been detected and, in particular, there was no deep venous thrombosis (DVT). Ecchymoses were seen in 60% with a median duration of 2 weeks. Temporary paraesthesia (mostly hypoaesthesia) was observed in 40% of treated legs with a median duration of 2 weeks. The maximum duration did not exceed 4 weeks. No skin discolouration, superficial burn, thrombophlebitis or palpable induration was observed.

Conclusion: EVLA of the incompetent SSV with a 980-nm diode laser appears to be an extremely safe technique. After successful treatment, there is a very low rate of re-canalisation of the SSV. Obliteration of the SSV was confirmed at 1-, 2- and 3-year follow-up; this study suggests that this procedure will provide a lasting result.

Radiofrequency Ablation vs Conventional Surgery for Varicose Veins – a Comparison of Treatment Costs in a Randomised Trial

Subramonia S., Lees T. Eur J Vasc Endovasc Surg 2010;39:104-11.

Objective: To compare the costs involved (from procedure to recovery) following radiofrequency ablation and conventional surgery for lower limb varicose veins in a selected population.

Design: Prospective randomised controlled trial.

Methods Patients with symptomatic great saphenous varicose veins suitable for radiofrequency ablation were randomised to either RF ablation or surgery (sapheno-femoral ligation and stripping). The hospital, general practice and patient costs incurred until full recovery and the indirect cost to society, due to sickness leave after surgery, were calculated to indicate mean cost per patient under each category.

Results: Ninety three patients were randomised. Eighty eight patients (47 – RF ablation, 41 – surgery) underwent the allocated intervention. Ablation took longer to perform than surgery (mean 76.8 vs 47.0 min, $p < .001$). Ablation was more expensive (mean hospital cost per patient £1275.90 vs £559.13) but enabled patients to return to work 1 week earlier than after surgery (mean 12.2 vs 19.8 days, $p = 0.006$). Based on the Annual Survey of Hours and Earnings (Office of National Statistics, UK) for full time employees, the cost per working hour gained after ablation was £6.94 (95% CI 6.26, 7.62).

Conclusion: The increased cost of radiofrequency ablation is partly offset by a quicker return to work in the employed group (ISRCTN29015169http://www.controlled-trials.com).