Hand-assisted Laparoscopy Versus Conventional Median Laparotomy for Aortobifemoral Bypass for Severe Aorto-iliac Occlusive Disease: A Prospective Randomised Study


Objectives To determine the safety and the long-term results of primary stent placement for distal aortic stenoses is an alternative to surgical treatment because of its high patency and relatively low complication rates.

Methods and materials Thirty-six consecutive patients with severe aorto-iliac occlusive disease (TASC C/D) without history of major abdominal surgery necessitating an aortobifemoral bypass were randomised between a hand-assisted laparoscopic (HALS) approach and a conventional medial laparotomy. Operative data, early recovery data, quality of life and vascular outcome were analysed.

Results No significant differences in operative data were found. Fluid and solid diet were resumed earlier (28.8 hrs vs. 76.9 hrs; p=0.016) (45.6 hrs vs. 105.6 hrs; p=0.02) and in-hospital stay was shorter (7.5 vs. 8.9 days; p=0.005) in the HALS group. Six weeks post-operatively social functioning measured by the SF-36 survey score was better in patients randomised to HALS (p=0.023).

Conclusions HALS is a less invasive approach for aortofoemoral bypass.

From Innumercity to Insight: The Uncertainty of Help versus Harm in Treatment of Asymptomatic Aneurysms


Objective To determine the safety and the long-term results of primary stent placement for distal aortic occlusive disease.

Methods and material In 1994 we started a randomised screening trial of 12,639 64–73 year-old males; 6,306 were controls, and 6,333 were invited to an abdominal ultrasound scan at their district hospital. Information on all deaths until 15.3.2005 was obtained from the Office of Civil Registration. Information on AAA related deaths was obtained from the national registry of Causes of Deaths from 1.4.1994 to 31.12.2001, and supplemented with AAA deaths known to the Danish National Patient Registry until 15.3.2005. Operations were obtained from the Danish National Vascular Registry from 1.4.1994 to 15.3.2005.

Death certificates and medical records were reviewed by two independent assessors. The analyses were based on “intention to treat” from the date of randomisation.

Results The attendance rate was 76.6% and 191 (4.0%) had an AAA. The median observation time was 9.58 years. In the invited group 13 subjects were acutely operated on compared to 40 in the control group (Risk ratio: 0.32 (95% C.I. 0.17–0.60, P<0.001)), and 14 died due to AAA compared to 51 in the control group (Hazard ratio: 0.27 (95% C.I.: 0.15–0.49, P<0.001)).

Conclusion Over ten years, screening reduced mortality from AAA by 73%, and the frequency of emergency operations by 68%.

Long-term Results of Primary Stent Placement to Treat Infrarenal Aortic Stenosis


Objective To determine the safety and the long-term results of primary stent placement for localized distal aortic occlusive disease.

Methods Retrospective observational study.

Patients and Methods From July 1998 to July 2005 17 patients (14 females and 3 males; mean age 57 years (39–80)) were treated for intermittent claudication. Five of these patients underwent additional endovascular treatment of focal iliac lesions.

Results Technical success defined as residual stenosis of less than 50% or a trans-stenotic systolic pressure gradient <10% was achieved in 14 of 17 (82%) patients. Major complications included dissection at the puncture site in one patient and thrombosis of additional iliac stents in another patient. Both of these complications were successfully treated. During a mean follow-up of 27 months (range 1–86), four patients had recurrence of symptoms due to in-stent restenoses (n=2), femoral (n=1) or iliac occlusion (n=1), respectively. By Kaplan-Meier analysis, primary aortic hemodynamic patency was 83% at 3 years. Secondary aortic hemodynamic patency was 100%. The primary clinical patency was 68% at 3 years.

Conclusion Primary stent placement for distal aortic stenoses is an alternative to surgical treatment because of its high patency and relatively low complication rates.

The PADHOC Device is a Better Guide to the Actual Incapacity Suffered by Claudiants than the Gold Standard Constant Load Treadmill Test


Background The Constant Load Treadmill Test (CLTT) is currently the primary method used to measure walking impairment in patients with peripheral vascular disease. The aim of this study was to compare the CLTT and PADHOC device as assessments of walking impairment.

Methods 55 patients with intermittent claudication underwent a CLTT and a Double Physiological Walking Test (DPWT) using the PADHOC device. Health-related quality of life was measured using the Short Form 36 and the Claudication Scale.

Results The initial claudication and maximum walking distance from the first part of the DPWT showed the best correlation with domains of pain and physical function.

Conclusions The DPWT is more representative of the functional incapacity experienced by patients with intermittent claudication. We believe that the PADHOC is a suitable alternative to the CLTT in the assessment of this patient group.

Ultrasonic Endarterectomy for Long Superficial Femoral Artery Atherosclerotic Occlusive Disease


Objective To report the long term results of ultrasonic superficial femoral artery endarterectomy (USFAE).

Methods Retrospective study.

Patients and Methods From January 1998 to June 2004 218 USFAEs were performed in 202 selected patients (178 males, 192 procedures) with a median age of 65 years (46-87 years). Indications for operation were disabling intermittent claudication in 137 procedures (68%), rest pain in 24 procedures (12%), and limb salvage in 41 procedures (20%). The new medical technology of ultrasonic endarterectomy is based on the application of the mechanical vibrations in the range of low frequency ultrasound. The ultrasonic device consists of the ultrasonic generator, acoustic unit and the flexible wave concentrators with special working tips in the shape of a ring.
Follow up consisted of clinical evaluation, ankle-brachial index measurements and duplex scanning.

**Results**

The mean follow-up time was 30.1 months. The mean length of the endarterectomised SFAs was 29 cm (range, 15–43 cm). The five year cumulative primary patency rate by means of life table analysis was $45.8\%\pm4.4\%$ (SE). Percutaneous transluminal balloon angioplasty and surgical re-interventions were performed in thirty three and five patients respectively resulting in a primary assisted patency rate of $57.5\%\pm4.1\%$. The five year secondary patency rate was $65.6\%\pm3.8\%$. Limb salvage was achieved in 35 of the 41 patients with gangrene.

**Conclusions**
The long term results of ultrasonic SFA endarterectomy suggest this is an effective technique.

An “All-Comers” Venous Duplex Scan Policy for Patients with Lower Limb Varicose Veins Attending a One-stop Vascular Clinic: Is It Justified?


**Objective**

To determine whether clinical assessment could predict the correct management of patients with varicose veins (VVs), select those who would need duplex scanning, and identify deep venous reflux (DVR).

**Methods**

Prospective study of 342 consecutive limbs with VVs. These were divided into 3 groups: 170 (50%) limbs with primary VVs without skin changes (group I), 37 (11%) with recurrent VVs without skin changes (group II), and 135 (39%) with primary or recurrent VVs with skin changes (group III). Clinicians were asked to document whether they would normally request a duplex scan because of clinical uncertainty. Agreement between decision-making based on clinical and on duplex findings was documented.

**Results**

Agreement between clinical and duplex findings for groups I, II, and III was 82%, 59%, and 67%, respectively. In 112 cases (66%) in group I, clinicians felt certain about the diagnosis and yet duplex scanning revealed they were wrong in 12% of cases. In group II, clinicians would request a duplex scan because of clinical uncertainty. Agreement between decision-making based on clinical and on duplex findings was documented.

**Conclusions**

Clinical evaluation of patients with VVs is unreliable in planning their management. Clinicians can neither predict those who will require duplex scanning nor correctly identify DVR. Even experienced surgeons often “get it wrong” when assessing primary uncomplicated veins despite being certain about the diagnosis. Therefore, an “all-comers” duplex imaging policy should be implemented if optimal management is to be achieved.

Knee versus Thigh Length Graduated Compression Stockings for Prevention of Deep Venous Thrombosis: A Systematic Review


**Objective**

Graduated compression stockings are a valuable means of thrombo-prophylaxis but it is unclear whether knee-length (KL) or thigh length (TL) stockings are more effective. The aim of this review was to systematically analyse randomised controlled trials that have evaluated stocking length and efficacy of thromboprophylaxis.

**Method**

A systematic review of the literature was undertaken. Clinical trials on hospitalised populations and passengers on long haul flights were selected according to specific criteria and analysed to generate summated data.

**Results**

14 randomized control trials were analysed. Thirty six of 1568 (2.3%) participants randomised to KL stockings developed a deep venous thrombosis, compared with 79 of 1696 (5%) in the TL control/thigh length group. Substantial heterogeneity was observed amongst trials. KL stockings had a significant effect to reduce the incidence of DVT in long haul flight passengers, odds ratio 0.08 (95%CI 0.03–0.22). In hospitalised patients KL stockings did not appear to be far worse than TL stockings, odds ratio 1.01 (95%CI 0.35–2.90). For combined passengers and patients, there was a benefit in favour of KL stockings, weighted odds ratio 0.45 (95% CI 0.30–0.68).

**Conclusion**

KL graduated stockings can be as effective as TL stockings for the prevention of DVT, whilst offering advantages in terms of patient compliance and cost.