(1 to 22 months) spiral-CT scanning revealed distinct shrinkage of the aneurysm, no graft migration or endoleak and patency of all revascularised vessels, except one renal artery in two patients. No patient experienced any temporary or permanent neurological deficit, and no dialysis was necessary.

Conclusion The combined endovascular and open surgical approach is feasible, without cross clamping of the aorta and with minimized ischemia time for renal and visceral arteries, and seems to be an appropriate strategy for patients with a thoraco-abdominal aortic aneurysm or dissection.

Fenestrated and Branched Stent-grafting After Previous Surgery Provides a Good Alternative to Open Redo Surgery

Verhoeven E.L.G., Muhs B.E., Zeebregts C.J.A.M., Tielliu I.F.J., Prins T.R., Bos W.T.G.J., Oranen B.I., Moll F.L., van den Dungen J.J.A.M. Eur J Vasc Endovasc Surg 2006;33:83-89.

Objective To present our experience using fenestrated and branched endoluminal grafts for Para-anastomotic aneurysms (PAA) following prior open aneurysm surgery, and after previous endovascular aneurysm repair (EVAR) complicated by proximal type I endoleak.

Methods Fenestrated and/or branched EVAR was performed on eleven patients. Indications included proximal type I endoleak after EVAR and short infrarenal neck (n=4), suprarenal aneurysm after open AAA (n=4), distal type I endoleak after endovascular TAA (n=1), proximal anastomotic aneurysm after open AAA (n=1), and an aborted open AAA repair due to bleeding around a short infrarenal neck.

Results The operative target vessel success rate was 100% (28/28) with aneurysm exclusion in all patients. Mean hospital stay was 6.0 days (range 2–12 days, SD 3.5 days). Thirty day mortality was 0%. All cause mortality during 18 months mean follow-up (range 5–44 months, SD 16.7 months) was 18% (2/11) with no deaths from aneurysm rupture. Cumulative visceral branch patency was 96% (27/28) at 42 months. Average renal function remained unchanged during the follow-up period.

Conclusions Our report highlights the potential of fenestrated and branched technology to improve re-operative aortic surgical outcomes. The unique difficulties of increased graft on graft friction hindering placement, short working distance, and increased patient co-morbidities should be recognized.

Medical Optimisation Can Reduce Morbidity and Mortality Associated with Elective Aortic Aneurysm Repair

Dawson J., Vig S., Choke E., Blundell J., Horne G., Downham C., Loftus I., Thompson M.M. Eur J Vasc Endovasc Surg 2006;33:99-103.

Objectives Patients with aortic aneurysms have significant comorbidities which influence outcome. Our practice includes comprehensive assessment to identify comorbidities, allowing subsequent medical optimisation prior to aneurysm repair. The aim of this study was to assess this process and to identify any factors predictive of outcome.

Design Prospective observational study.

Materials Medical case notes of 200 patients referred with aortic pathology.

Methods Data analysed included preoperative, perioperative and postoperative factors. Multiple logistic regression analysis was performed to identify predictors of outcome.

Results Following assessment 17 patients (8.5%) were found to be unfit for intervention and 165 patients (82.5%) proceeded to aneurysm repair. In this group assessment uncovered previously undiagnosed cardiac, respiratory and renal comorbidity in 19%, 57% and 29% of patients respectively. Multiple logistic regression analysis indicated that optimisation by a renal physician reduced post-operative renal impairment (OR 0.12, 95% CI 0.03–0.45, P=0.002) while optimisation by a cardiologist reduced respiratory complications (OR 0.7, 95% CI 0.05–0.99, P=0.049). An abnormal echocardiogram was associated with pneumonia (OR 6.9, 95% CI 1.6–29, P=0.01) and death (OR 7.9, 95% CI 1.15–54, P=0.036).

Conclusion Pre-operative assessment identifies previously undiagnosed comorbidity in a significant proportion of patients. Subsequent medical optimisation may reduce post-operative morbidity and mortality.

Outcome of Ultrasound-guided Sclerotherapy for Varicose Veins: Medium-term Results Assessed by Ultrasound Surveillance

Myers K.A., Jolley D., Clough A., Kirwan J. Eur J Vasc Endovasc Surg 2006;33:115-120.

Objective To estimate medium-term success after a technique for ultrasound-guided sclerotherapy for superficial chronic venous disease.

Design A prospective study in a single unit with ultrasound surveillance after treatment.

Materials Results after 1189 treatment sessions for 807 venous saphenous veins and related tributaries or non-saphenous tributaries in 489 patients.

Methods Univariate life table analysis determined primary and secondary success rates. Multivariate Cox regression analysis detected covariates that affected outcome.

Results Primary and secondary success rates at 36 months for all veins were 52.4% (95%CI 46–58%) and 76.8% (95%CI 71–82%). Cox regression analysis for primary success for all veins showed significantly worse results for saphenous veins compared to tributaries (HR 3.72 – 95%CI 1.9 to 7.3). Cox regression for all saphenous veins showed independently worse results for patients less than 40 years age (HR 2.16 – 95%CI 1.27–3.66), small compared to great saphenous veins (HR 1.58 – 95%CI 1.11–2.24), veins greater than 6mm diameter compared to smaller veins (HR 2.22 – 95%CI 1.40–3.50), liquid compared to foam sclerotherapy (HR 2.20 – 95%CI 1.28–3.78), lower volumes of sclerosant compared to volumes greater than 12 ml (HR 0.51 – 95%CI 0.33–0.81) and highly diluted compared to concentrated sclerosant (HR 2.05 – 95%CI 1.21–3.46) with worse results using highly diluted or undiluted 3% sclerosant compared to a 1.5% concentration. There were no significant differences for primary success for saphenous veins for date of procedure, sex, side, primary or recurrent varicose veins, or commercial type of sclerosant.

Conclusions Ultrasound-guided sclerotherapy gives satisfactory results if it is accepted that treatment may need to be repeated to achieve secondary success. Results provide a basis for further research to explore factors that might affect outcome. Younger patients with larger diameter saphenous veins may warrant alternative forms of treatment, particularly for small saphenous reflux.