

Indications included ischaemia (41%), sepsis (40%) or both (19%). 36% developed medical complications postoperatively: (25% chest infection, 8% cardiac failure and 3% urosepsis). Mean post-operative length of stay was 35 days (range 1 - 215). In-hospital mortality rate was 16.3% and at one year was 26.6%.

Conclusion: The post-operative management of diabetic patients requiring major amputation is associated with a high medical complication rate. We have shown that worryingly, in-hospital mortality for this group is higher than that for open AAA surgery. Prioritisation at all levels of hospital care is required to deliver improved outcomes.

0347: VASCULAR TRAINING IN SCOTLAND AND NORTHERN IRELAND: CHALLENGES FOR THE INTRODUCTION OF THE VASCULAR CURRICULUM

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Background: Vascular surgery has evolved into an independent specialty. With the recruitment process for vascular surgical trainees underway there is a responsibility to ensure curriculum requirements are met. This review aimed to provide an insight into current vascular training in Scotland and Northern Ireland, with a view to identifying areas that we must help to address in order to provide the highest quality of future training.

Method: Surgical trainees with a declared interest in vascular surgery were sent a voluntary, online questionnaire.

Results: Twenty trainees returned completed questionnaires. Open surgical experience was generally good, as were formal teaching opportunities. Areas of concern included participation in general surgical on call and a lack of endovascular training. Endovascular simulation was well received and exclusively industry sponsored. Only half of trainees have been involved in vascular research.

Conclusion: Most trainees in Scotland and Northern Ireland feel positive about current training. The volume of open surgical experience in conjunction with a supportive consultant body is central to this. However provision of endovascular training remains a central issue, which we must stridently aim to improve. Collaboration with industry and simulation are likely to be central to improving this.

0375: RETROPERITONEAL OPEN AORTIC SURGERY IN THOSE UNSUITABLE FOR ENDOVASCULAR TREATMENT

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Aim: Currently, the first line surgical approach for abdominal aortic aneurysms (AAA) is endovascular. However there remains a group of patients that require open surgical repair. Traditionally, the transperitoneal approach has been the most widely practiced as it is familiar to all trained in general surgery. The retroperitoneal (RP) approach offers advantages and our experience of this technique is presented.

Method: Retrospective review of all patients undergoing RP surgery between June 2010 and December 2012 at the University Hospital of Wales. **Results:** 27 patients underwent RP surgery during this period (25 elective, 2 urgent).

Aortic cross clamp positions were infrarenal (n=6 due to severe neck angulation), suprarenal (n=7), supraceliac (n=9) and thoracic (n=5). There was no mortality. Major complications were only encountered in the thoracic and supraceliac groups, and included paraplegia (n=1), diaphragmatic rupture (n=1), prolonged ventilation and tracheostomy (n=4), and acute kidney injury requiring temporary dialysis (n=2).

Conclusions: These are complex cases and need to be considered on an individual basis as to their suitability for stent graft or open reconstructive surgery. In tertiary vascular units regularly performing the RP approach, excellent results can be obtained for these increasingly difficult cases.

0404: IMPACT OF PREVIOUS SURGERY AND REVISIONS ON OUTCOME AFTER MAJOR LOWER LIMB AMPUTATION

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Introduction: Morbidity and mortality following lower limb amputations (LLA) remain disappointingly high. This study aimed to assess the impact of previous ipsilateral vascular intervention on outcomes following major lower limb amputation.

Methods: Prospective data was collected for all major lower limb amputations performed between Jan 2010 and December 2011. Statistical analysis was performed to establish if previous interventions were a risk factor for poor post-operative outcomes.

Results: 148 patients underwent LLA of whom 55 (37.2%) had undergone a previous ipsilateral procedure. These procedures included bypass(22), angioplasty(22), amputation of digit or forefoot(17), endarterectomy(1) and embolectomy/ thrombectomy(5). The primary and secondary amputation cohorts were well matched for gender, BMI and cardiac co-morbidities. However those who underwent secondary amputations were older (p=0.016) and less likely to suffer from renal failure (p=0.012). Previous interventions did not impact on level of amputation (Below knee primary 60.3% versus 66.7% p=0.780). A previous intervention increased the likelihood of revision surgery (17% vs 4.5% p= 0.027) but did not affect post operative mortality (p=0.782).

Conclusion: A previous ipsilateral vascular intervention is associated with a higher risk of revision surgery but does not appear to impact upon post operative survival.

0405: THE IMPACT OF SURGEON SENIORITY ON FISTULA OUTCOMES

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Introduction: Arteriovenous fistula(AVF) surgery affords an excellent opportunity for trainee surgeons to learn key techniques in vascular surgery. Concerns exist that given high early postoperative failure rates and limited AVF sites it should be performed by Consultants and Senior trainees only. This study aimed to establish whether seniority impacts upon outcomes of AVF surgery.

Methods: Ethical approval was obtained the study. All patients referred for AVF formation were considered for inclusion. Demographic data, co-morbidities, medications and previous access history were recorded. Surgery was performed by either Consultant Vascular Surgeons or Research Fellow. Clinical review was undertaken 30days post-operatively.

Results: 77 patients underwent AVF formation. 63.6% of procedures were carried out by the trainee. The groups were well-matched for demographics, co-morbidities and medications. There was no difference in anatomical site of formation i.e. wrist or antecubital fossa between groups operated on by consultant versus trainee(p=0.373). There was no difference in early failure rates for AVF between groups(p=0.710). The complication rates and need for re-intervention were comparable(p=0.139, and 0.256 respectively).

Conclusion: The seniority of the operating surgeon does not appear to impact on outcomes following AVF formation. Trainee surgeons can, with adequate training and/or supervision, perform access surgery without detriment to patients.

0427: COMMON FEMORAL ARTERY ENDARTERECTOMY USING BOVINE PERICARDIUM PATCH ANGIOPLASTY IS A SAFE AND EFFECTIVE PROCEDURE

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Background: Surgical endarterectomy with patch closure is the best treatment for patients with isolated occlusive atherosclerotic disease of the common femoral artery (CFA). This study aimed to assess short and long-term outcomes of this operation using bovine pericardium for patch angioplasty.

Patients and Methods: All patients, over a 10-year period in a single institution undergoing isolated CFA endarterectomy, were included. Patients undergoing concomitant endovascular therapies were excluded. Data was collected from theatre logbooks, patient records and local vascular databases. Patient demographics, clinical presentation, operative technique, 30-day morbidity and mortality, and long-term outcomes were documented.

Results: 70 patients underwent 75 CFA endarterectomies within the study timeframe. Mean follow-up was 5.1 years. 30-day morbidity included 6 haematomas, 1 compartment syndrome, symptom recurrence in 1 patient

requiring endovascular intervention, and limb loss in 1 critically ischaemic patient. There were 2 deaths within this period, 1 from MRSA sepsis from a pre-existing ulcer, and the other from a lower respiratory tract infection. Symptom recurrence over long-term follow-up occurred in 10 patients (13.3%).

Conclusions: Isolated CFA endarterectomy is a robust and efficacious treatment for CFA atherosclerotic disease. The exclusive use of bovine pericardium for patch angioplasty is safe and not associated with surgical site infections.

0461: LOWER LIMB AMPUTATION: STRIVING FOR QUALITY AT THE NORFOLK AND NORWICH UNIVERSITY HOSPITAL

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Aim: The VSGBI Quality Improvement Framework (QIF) for Major Amputation Surgery (MAS) has the primary aim of reducing the mortality rate of MAS to less than 5% by 2015. This audit assessed adherence to the standards in this QIF at the Norfolk and Norwich University Hospital (NNUH).

Method: A prospective database of amputations undertaken at the NNUH was retrospectively audited for a 6 month period (January-June 2012) against 22 of the domains listed in the QIF.

Results: 19 of the 22 targets audited were fully met by the NNUH Vascular Unit. The 30-day mortality rate was 4.5%. The most senior surgeon scrubbed was a Consultant for 59% and Vascular Registrar for 41%. Operations were performed on a normal working day in 82% of cases. Peri-operative antibiotics were given to 36% of patients by the anaesthetist. Mean time to amputation was 10.3 hours (SD=26.6) but 41% waited more than 48 hours.

Conclusions: The NNUH already offers MAS with excellent outcomes. The following improvements have been made: Patients have prophylactic antibiotics prescribed at the time amputation is agreed upon. Operations approaching a delay of 48 hours are prioritised on an emergency list or transferred to the next elective vascular list.

0475: THE CORRELATION BETWEEN LOWER LIMB ISCHAEMIA, BALANCE, PHYSICAL FUNCTIONAL ABILITY AND QUALITY OF LIFE

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Introduction: Worsening claudication affects walking distance, quality of life (QoL), physical functional ability and balance. These are not routinely measured in clinical practice due to time and cost. This study aimed to identify whether the use of markers of lower limb ischaemia (LLI) could be used as surrogate markers for these other measures, to allow a holistic assessment.

Methods: This prospective observational study recruited patients with intermittent claudication and assessed their;

- a. markers of LLI: pre and post exercise ABPI, walking ability with a constant load treadmill test.
- b. Physical Functional ability: summary performance physical battery score (SPPB), TUG test, chair stand time and hand grip strength.
- c. Balance, measured objectively using the sensory organisation test (SOT); a test of six components that assesses postural sway and is associated with the likelihood of future falls.

Results: A mild to moderate significant correlation was present between treadmill walking distances and physical functional ability ($r=.248$ to $.514$, $p<.001$ to $p=.005$), QoL ($r=.193$ to $.442$, $p<.001$ to $.019$) and some components of the SOT ($r=.165$ to $.173$, $p=.00$ to $.036$).

Discussion: Measures of LLI should not be used as a surrogate marker for physical functional ability, QoL and balance. A separate assessment of these should be undertaken.

0476: FEAR OF FALLING IN CLAUDICANTS AND ITS RELATIONSHIP TO PHYSICAL ABILITY, BALANCE AND QUALITY OF LIFE

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Objectives: Intermittent claudication is associated with poor physical function, quality of life (QoL) and balance impairment. Fear of falling (FoF)

is a recognised contributing factor to poor physical ability. Any link between claudication and FoF is yet to be determined. This study aimed to explore the prevalence of FoF in claudicants, its relationship with physical function and QoL.

Methods: A prospective observational study was performed. FoF was determined using the ABC questionnaire and the categorical question "are you afraid of falling?" Physical ability and QoL (SF36, VascuQoL) were determined.

Results: 161 claudicants (118 men, median age of 69 years) were assessed, 83 answered the categorical question "Are you afraid of falling?" By ROC curve analysis, an ABC threshold $<74\%$ denoted a FoF, which was associated with poorer physical function and QoL.

Conclusion: FoF is associated with poor physical, social and psychological function, addressing this may improve all aspects of health.

0479: DRIVING ADVICE GIVEN BY VASCULAR SURGEONS: A SURVEY OF VASCULAR SOCIETY MEMBERS

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Objectives: It is a legal requirement of doctors to assess all patients' fitness to drive based on DVLA guidelines. We re-audited the current advice given to patients by members of the Vascular Society (VS) and compared this to 2012 DVLA guidance as well as previous results from the 2007 audit.

Methods: An online survey was performed of UK resident members of the VS. This covered a spectrum of scenarios commonly seen in vascular surgical practice. Options were provided in line with DVLA guidelines for domestic driving.

Results: The Re-Audit identified similar results to the 2007 responses for claudication; correct advice provided for 96.5% (previously 98.3%) and for single TIAs a similar proportion (42.8% versus 40.3%) were inappropriately stopped from driving.

Advice had improved for those with;

- 1. Multiple TIAs, 12.2 % (versus 27.0%) were allowed to drive inappropriately,
- 2. 6.5cm AAA, 41.3% (versus 74.6%) were allowed to drive inappropriately
- 3. A peri-operative MI, 44% (versus 19.9%) was correct.

The rate of incorrect advice to stop driving doubled for those with a 5.5cm AAA from 6.6% (2007) to 12.6% (2012).

Conclusions: DVLA guidance for vascular conditions has remained consistent over the past five years however advice from surgeons remains imprecise.

0484: THE UK ENDOVASCULAR TRAINEES (UKETS): A NOVEL ENDOVASCULAR TRAINING COLLABORATION

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Aim: To establish a training group focused on basic endovascular skills for cardiologists, radiologists and vascular surgeons.

Methods: UKETS (www.ukets.org) is a brand new training group established by trainees for trainees. We have no company affiliations. We offer basic hands on, expert led, VR simulation training. Our mantra is "safe access, safe navigation, safe closure", our courses focus on these three key principles. Our pilot course ran in August 2012 with kind support from ASiT.

Results: 35 candidates attended the pilot event. Feedback was obtained through online retrospective questionnaires. Prior to the event approx $\frac{3}{4}$ of trainees had never trained on a simulator. By the end of the course 100% either agreed or strongly agreed that simulation was a useful tool in achieving the course objectives. 85% either agreed or strongly agreed that cross speciality training was useful. Our faculty unanimously agreed that the course represented a valuable and unique training opportunity.

Conclusion: UKETS promote an environment where trainees can learn and share ideas whilst enhancing patient safety; practicing basic endovascular skills that are important no matter what your chosen speciality. This is the first group of its kind established in Europe.