

## 6B VASCULAR SURGERY 2

### **O145 PREVALENCE OF CAROTID ARTERY STENOSIS IN PATIENTS WITH TRANSIENT ISCHAEMIC ATTACK OR ISCHAEMIC STROKE: A LARGE PROSPECTIVE CASE SERIES, SYSTEMATIC REVIEW AND METAREGRESSION ANALYSIS**

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**Introduction:** It is suggested that the prevalence of carotid stenosis in patients with transient ischaemic attack (TIA) or ischaemic stroke has declined. We therefore determined the prevalence of carotid stenosis in a comprehensive regional stroke service and reviewed the literature to determine if there has been a change in prevalence over time or geographic location.

**Method:** A one year prospective observational study was performed on consecutive patients presenting with ischaemic stroke or TIA. Significant carotid stenosis was defined as atherosclerotic stenosis of the internal carotid artery at the bifurcation measuring  $\geq 50\%$  on duplex ultrasonography, computed tomography angiography, or contrast-enhanced magnetic resonance angiography. A systematic review of the literature on the prevalence of carotid stenosis in patients with ischaemic events was conducted.

**Result:** Carotid imaging studies was performed in 1252 out of 1444 patients diagnosed with acute ischaemic stroke or TIA in our stroke service. The prevalence of carotid stenosis in our study was 19.0% (n=238; 95% CI 16.6% to 21.4%). Carotid stenosis was deemed symptomatic in 99 patients (7.9%; 95% CI 6.3% to 9.5%). A total of 47 studies with data on carotid stenosis from 37,276 patients were included in our systematic review. The pooled prevalence estimate of any significant carotid stenosis described in 37 studies was 16.0% (95% CI 14.3% to 17.7%) and the pooled prevalence estimate of symptomatic carotid stenosis described in 11 studies was 10.4% (95% CI 7.0% to 13.9%).

**Conclusion:** Atherosclerotic carotid stenosis remains a common disease worldwide, accounting for 10% of all stroke and TIA.

#### **Take-home message:**

Atherosclerotic carotid stenosis remains a common disease worldwide, accounting for 10% of all stroke and TIA.

### **O146 PILOT STUDY OF THE USE OF CYANOACRYLATE IN THE TREATMENT OF VARICOSE VEINS**

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**Introduction:** The treatment of varicose vein disease has changed significantly over the past decade. Endovenous ablation, especially using thermal methods, has become the new norm. However, it is often associated with patient discomfort during tumescent infiltration and the ablative procedure. The non-thermal, non-tumescent (NTNT) techniques are believed to be more advantageous as they eliminate these potential adverse events. In this study, the use of a new cyanoacrylate compound (Variclose vein sealing system, Biolas®, Ankara, Turkey) is assessed.

**Method:** Patients with symptomatic varicose veins were invited to have their truncal saphenous incompetence treated using the new cyanoacrylate glue. Intraoperatively, their level of discomfort was assessed. Patients also had their clinical status and quality of life assessed at baseline and at 1 month post-operatively.

**Result:** Seventeen patients (20 limbs) were recruited. The mean age was 54 years. Eighty-five percent of limbs were reviewed at the 30-day follow-up. The mean baseline VCSS was 3.6 ( $\pm 2.5$ ), which improved to 2.4 ( $\pm 3$ ) at the 30-day point. Improvements were also noted in both the generic and specific quality of life scores. The median maximum pain score using a VAS was 34mm and 33mm for average pain. The complete/proximal occlusion rate at 30 days was 88%.

**Conclusion:** These preliminary results suggest that endovenous ablation using cyanoacrylate is safe and results in quality of life improvements similar to that seen in studies evaluating thermal techniques along with a low degree of intra-operative pain. Larger comparative studies are, however, required to confirm its effectiveness.

#### **Take-home message:**

Endovenous ablation using cyanoacrylate adhesive appears safe and leads to improvement in clinical and quality of life scores similar to that seen with endothermal ablation.

### **O147 USE OF PROPHYLACTIC LOW MOLECULAR WEIGHT HEPARIN IN VARICOSE VEIN PATIENTS UNDERGOING ENDOVENOUS TREATMENT: A UK VASCULAR SURGERY CONSULTANT SURVEY**

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**Introduction:** There is currently no consensus on the use of prophylactic low molecular weight heparin (LMWH) in preventing venous thromboembolic events (VTE) in varicose vein patients undergoing endovenous treatment (EVT).

**Method:** A self-administrative questionnaire was sent to all UK consultant vascular surgeons.

**Result:** More than half (55.5 per cent, 227/409) of contacted consultants responded of whom 203 (49.6 per cent) undertook EVT within the last five years. The majority (84.7 per cent, 172/203) had given LMWH to at least one patient undergoing EVT with 25.0 per cent (43/172) giving it to every patient and the remaining did not prescribe any DVT prophylaxis (15.3 per cent, 31/203). The commonest indications were thrombophilia (65.0 per cent, 132/203) and previous deep vein thrombosis (60.1 per cent, 122/203). More consultants (60.5 per cent, 104/172) gave LMWH prior to intervention than after (39.5 per cent, 68/172). Two thirds (66.9 per cent, 115/172) used single dose and the rest used multiple doses. Most consultants (75.4 per cent, 153/203) expressed a need for specific guidance on the role of LMWH in patients undergoing EVT.

**Conclusion:** There is great variation in the use of prophylactic LMWH in varicose vein patients undergoing EVT. Further research on its clinical and cost effectiveness is required to inform clinical practice.

**Take-home message:**

There is great variation in the use of prophylactic LMWH in varicose vein patients undergoing EVT. Further research on its clinical and cost effectiveness is required to inform clinical practice.

**O148 A CONTEMPORARY ANALYSIS OF LONG TERM MORTALITY IN PATIENTS WITH PERIPHERAL ARTERIAL DISEASE - IS THERE ROOM FOR IMPROVEMENT?**

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**Introduction:** Peripheral arterial disease (PAD) remains a common associated with significant long-term morbidity and mortality. The majority of such data is somewhat historic published prior to recognition of the role of best medical therapy (BMT). We present a more contemporaneous cohort of patients to identify current trends in long term outcome.

**Method:** We analysed 696 patients who underwent investigation for lower limb arterial disease with duplex imaging. Patient demographics, co-morbidities and long term outcome were collated. The primary outcome measure was all-cause mortality. and multiple regression analyses utilised for statistical evaluation.

**Result:** The cohort consisted of 696 patients, 445 men with a median age of 74 years (74-102), The median follow up period was 69.9 months (63-73). At the end of the follow up period a total of 314 patients had died (45%). Patients' co-morbidities included: ischaemic heart disease (30%), chronic kidney disease > 3 (40%), statin use (64%), antiplatelet use (62%) and ACE-inhibitor use (35%). Factors that significantly predicted mortality were a previous history of ischaemic heart disease (OR 2.537 95% CI: 1.353-3.817; p = 0.005), chronic kidney disease > 3 (OR 1.342 95% CI: 1.197-1.987; p=0.037), and patients not on an ACE inhibitor (OR 2.32 95% CI 1.234-4.352; p=0.038).

**Conclusion:** Despite the introduction of BMT, mortality rates are still high in the PAD population. Such data suggests that there is a continuing need to investigate ways in which we can reduce mortality rates and the link with ACE inhibitor prescription warrants further in depth analysis.

**Take-home message:**

Despite best medical therapy in treatment of peripheral arterial disease - there may be further ways we can reduce mortality rates and investigate the potential role of ACE inhibitors.

**O150 THE RELATIONSHIP BETWEEN DUPLEX DETECTED SUPERFICIAL VENOUS INCOMPETENCE AND QUALITY OF LIFE IN SYMPTOMATIC AND ASYMPTOMATIC POPULATIONS**

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**Introduction:** Chronic venous disease (CVD) has a negative effect on quality of life (QoL). Patient reported assessment tools such as the Aberdeen varicose vein (AVVQ) and EuroQol questionnaires, provide a means of profiling QoL. The aim of this study was to explore the relationship between quality of life and superficial venous incompetence (SVI).

**Method:** Consecutive, symptomatic patients with SVI were prospectively recruited alongside non-matched asymptomatic subjects with SVI and controls(asymptomatic, without SVI). Demographic, clinical CEAP and QoL(AVVQ and EQ5D) details were recorded.

**Result:** Symptomatic SVI patients(n=100) (68% female; mean age 54.4 years) had the following CEAP: C2(60%), C3(8%), C4(25%), C5(4%), C6(3%). Mean AVVQ was 15.61±8.60, mean EQ5D 0.719±0.253 and mean EQ5D-VAS 77.4±15.5. Asymptomatic subjects(n=102) (60.8% female; mean age 36.7 years); had the following CEAP: C0(70.3%) and C1(29.7%). Mean AVVQ 0.54±1.67, mean EQ5D 0.973±0.799 and mean EQ5D-VAS 88.4±11.4. A significantly worse AVVQ, EQ5D and EQ5D-VAS(Mann-Whitney, p<0.001) were shown for symptomatic patients compared to asymptomatic. Subgroup analysis of asymptomatic SVI participants(n=30) revealed a mean AVVQ of 0.92±2.22,mean EQ5D of 0.97±0.09 and mean EQ5D-VAS of 89.9±8.8, both significantly improved compared to the symptomatic patients(p<0.001). Subgroup analysis of asymptomatic SVI participants(n=72) revealed a mean AVVQ of 0.39±1.36,EQ5D of 0.98±0.07 and mean EQ5D-VAS of 87.8±12.2. Both showed a significantly enhanced QoL compared to symptomatic patients(p<0.001). Inter-subgroup analysis of asymptomatic patients revealed no significant differences in AVVQ(p=0.211), EQ5D(p=0.954) and EQ5D-VAS(p=0.648).

**Conclusion:** This study reveals the high incidence of SVI in an asymptomatic population; its presence had no effect on QoL in an asymptomatic population.

**Take-home message:**

There is a high incidence of superficial venous reflux in an asymptomatic population. Quality of life is worse in symptomatic patients with chronic venous disease whilst the presence of venous reflux did not significantly impact on the quality of life of asymptomatic individuals.

**O151 A SYSTEMATIC REVIEW ON ANTICOAGULATION FOLLOWING DEEP VENOUS STENTING**

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**Introduction:** Deep venous stenting has become the standard treatment for obstructive chronic venous disease. Nevertheless, the optimal post-procedural anticoagulation for stent patency is not known. This systematic review aims to assess the published literature on anticoagulation, in particular, primary stent patency rates at one year.

**Method:** MEDLINE and EMBASE databases were interrogated. Inclusion criteria were; use of post-procedural antithrombotic; at least 10 limbs stented and 1-year follow up; availability of patency data; English, Spanish and Italian language studies.

**Result:** Eighteen studies met the inclusion criteria. Mean study sample size was 45 patients (range 10-167) The overall patency rate was 82.5% at 1 year (87.2%,81.9% and 78.4% in the nonthrombotic iliac vein lesions, acute and chronic thrombosis respectively). With respect to patency, in acute thrombosis treated for more than 6 months, warfarin conferred an advantage over fluindione(OR, 2.57). Warfarin (including bridging heparin therapy) for more than 6 months was favourable(OR,1.54) compared to 3-6 months therapy. In chronic thrombosis, both heparin and warfarin had lower recurrence rates when treatment lasted more than 6 months compared to 2 months(OR= 2.58). Warfarin therapy for 6 months was more likely to result in stent patency in NIVL as opposed to acute thrombosis(OR= 1.67)

**Conclusion:** The overall level of evidence for type and duration of anticoagulation following deep venous stenting is low. Nevertheless, patency rates at one year are encouraging and further study into the duration and type of anticoagulation is needed. NIVL= Non-thrombotic Iliac Vein Lesions

**Take-home message:**

Long-term venous stenting patency is good, but more evidence is needed on the best post-stenting anticoagulation regime.

**O152 TIMELINE FOR ASSESSMENT, IMAGING AND REVASCULARISATION OF THE ACUTE DIABETIC ISCHAEMIC FOOT IN A NON ARTERIAL HOSPITAL (DGH)**

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**Introduction:** High-risk diabetic feet patients require referral to the vascular or foot surgeons for urgent assessment and intervention. Foot assessment, vascular opinion, imaging and revascularisation should not be delayed. However, treatment can be delayed or overlooked in Non-Arterial (NA) Hospitals. Once decision is made, local endovascular revascularisation should be performed within 8 days. Every effort and time to minimise tissue loss and reduce the risk of amputation must be taken.

**Method:** Retrospective study of lower-limb angioplasty and /stenting patients at DGH reviewed for 12 month period. Patient demographics, co-morbidities, duration between vascular assessment and date of revascularisation were recorded. Standards: Based on the Vascular Society –"Service Provision for Vascular Services Guidelines" 2015 data was analysed.

**Result:** Angioplasty/stenting was performed on 42 patients by a single Interventional Radiologist (IR). Mean age was 72 years. Smokers were 30/42 patients (71%) There were 18 diabetic patients (43%), HTN 28 (67%) and IHD 15 (36%) 2 patients were excluded. There were 4/40 (10%) patients that met the standard. Mean delay in revascularisation and imaging: 154 days. Among Diabetic patients (18), only 3 (16%) patients met the standard.

**Conclusion:** Our study proved that there is a significant delay in performing endovascular intervention. The most likely cause is lack of IR services in NA hospitals. We recommend that there should be clear written vascular network guidelines regarding endovascular interventions at NA hospitals and provision of adequate local IR service is mandatory.

**Take-home message:**

We recommend that there should be clear written vascular network guidelines regarding endovascular interventions at NA hospitals.