

## **Propensity Matched Analysis of AAA repair for patients with concurrent peripheral arterial disease**

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### **Background**

Abdominal aortic aneurysms (AAA) and peripheral arterial disease (PAD) share multiple risk factors, however there is minimal evidence comparing outcomes of AAA repair in patients with PAD. The objective of this study is to determine whether concurrent PAD affects clinical outcomes following AAA repair.

### **Method**

The Norwich Abdominal Aortic Aneurysm Database was utilised for this study (IRAS 318930). This contains data on over 1700 AAA repairs. PAD in this cohort was defined as those requiring surgical/radiological intervention for treatment that was unrelated to their AAA repair. Chi-square test and Kaplan-Meier survival analysis were used to identify association between PAD and mortality/ re-intervention. Subgroup analyses was undertaken for EVAR and open repair.

### **Results**

1703 patients underwent infrarenal AAA repair between 2009-2022. 90 cases of concurrent PAD were identified. PAD and non-PAD cases were weighted based on propensity-matching to counter for unequal sample sizes. There were no significant differences in survival overall, or in both subgroups, however there was a significant increase in re-intervention, embolectomy, surgical site infection, graft explantation and limb occlusion in the open repair group. In addition, the EVAR group had a significant increase in reintervention, endoleak, limb occlusion and graft infection.

### **Conclusion**

Patients undergoing AAA repair with concurrent PAD are associated with increased rates of reintervention and post-operative complications. Such patients should be identified and perhaps observed more stringently post-operatively, for example with CT scan to monitor for signs of impending limb occlusion, thus identifying complications quicker and improving outcomes.

## **A Survey of Early Year Consultant Vascular Surgeons in the UK to assess wellbeing, support and the availability of mentoring**

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### **Background**

To explore the support available to newly appointed consultant vascular surgeons (VS) following a complication or complaint; and evaluate the incidence of bullying, undermining and harassment (BUH), burnout and imposter syndrome.

### **Method**

A validated 59 question online survey was distributed by VSGBI, BSET, and Rouleaux Club through their national mailing lists in 2023. Responses were collated using the survey server (SurveyMonkey). Results were summarised using descriptive statistics.

### **Results**

65 responded representing 54% of the target population. 28% were female and 72% male. 62% had experienced a serious complication; with 25% not receiving any support. 25% had faced a complaint; with 31% not receiving any support. 45% experienced BUH; the perpetrator in 63% a VS colleague, in 41% a consultant colleague from another specialty and in 30% a manager. Most cases were not effectively managed. Support was provided to only 33% and effective in 67% of cases. 39% witnessed others being bullied. 47% had encountered a significant life event since becoming a consultant, with only 64% receiving support. 16% reported PTSD. 38% experienced burnout and 68% felt at risk of burnout. 55% reported imposter syndrome. Only 34% worked their ideal job plan, with the majority (58%) not feeling in a position to negotiate a better job plan. 48% had considered leaving the NHS and 32% felt they had made the wrong career choice.

### **Conclusion**

This survey is concerning, revealing significant distress amongst early-stage consultant VS. Unless urgently addressed there will be a significant impact on the future workforce.

## **Intravascular lithotripsy (IVL) in treating aortic occlusive disease: A pilot study**

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### **Background**

Aortoiliac occlusive disease (AIOD) traditionally used to be managed with open surgery which carries significant morbidity and mortality risks. Ongoing advances in endovascular therapy gave new tools such as Intravascular Lithotripsy (IVL), which have found typical use in treating atherosclerotic disease in the femoral-popliteal and aorto-iliac segments. IVL in treating aortic occlusive disease (AOD) has been limited as it's managed using primary stenting. This is likely due to the absence of dedicated IVL balloons till recently. Here, we present a pilot study using intravascular lithotripsy (IVL) to manage predominantly aortic atherosclerotic disease.

### **Method and Results**

We treated four patients presented with debilitating short-distance claudication with IVL for the abdominal aorta under LA. In three of them, we used 8mmx30mm balloons, and one with 10mmx30mm balloon. We delivered 300 pulses to treat the Abdominal Aorta. Due to the heavy calcium burden in three patients, we stented the abdominal aorta using Viabahn VBX Endoprosthesis. All patients established femoral pulses. None of the patients developed any post-operative complications. Their median follow-up is 6 months. All of them achieved good patency with improved walking distance (an Average of >500m n=3, and 150m =1). None of the patients needed re-intervention.

### **Conclusion**

Endovascular treatment of AOD has been limited to stenting. IVL offers promising technology to facilitate the treatment of such diseases. The availability of designated aortic balloons could change the endovascular management of these lesions. Short-term outcomes from our experience look promising. However, larger studies with long-term follow-up are needed.

## **Endovascular aneurysm repair with Perclose Proglide™ percutaneous access: Success rate and factors associated with access failure**

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### **Background**

Percutaneous access using the Perclose Proglide™ system is common for EVAR and FEVAR. This study aimed to describe our experience with the Proglide system and identify predictors of failure.

### **Method**

We retrospectively analysed patient records and computerised tomographic images of patients undergoing EVAR and FEVAR at our institution. The primary outcome was failure rate of percutaneous access defined by the need for unplanned open femoral repair. A multivariable logistic regression model was constructed to predict Proglide failure based on gender, common femoral artery characteristics (diameter, length, depth, calcium score), external iliac artery tortuosity, and sheath size.

### **Results**

Percutaneous access using the Proglide system was pre-planned for 268 groins in 138 patients (88.7% of 302 groins in 151 patients). Proglide failure requiring unplanned open femoral repair was required in 15.3% of groins. A planned approach with two pre-placed Proglide sutures was successful in 60.4% of 268 groins. In 24.3% of cases, additional percutaneous measures (an additional Proglide suture or an Angioseal device) avoided open cut down. Common femoral artery depth (OR: 1.03 per mm, 95% CI: 1.01-1.05,  $p=0.002$ ) and anterior common femoral artery calcification (OR: 5.3, 95% CI 1.46-19.0,  $p=0.01$ ) emerged as statistically significant predictors of Proglide failure.

### **Conclusion**

A percutaneous approach to EVAR/FEVAR using pre-placed Proglide sutures fails in 15% of groins, necessitating unplanned open femoral artery repair. CFA depth and anterior calcification are key factors to consider when planning endovascular access. These findings can inform pre-operative planning and patient selection, thus improving outcomes after endovascular aortic interventions.

## **Early and midterm outcomes of inner branch EVAR for complex aortic aneurysms**

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### **Background**

The management of complex aortic aneurysms historically posed significant challenges, Traditional open surgical repair carries risks of morbidity and mortality. The development of advanced endovascular solutions, including fenestrated and branched endografts has offered morbidity and mortality. Inner branch endografts represent a sophisticated device design evolution tailored to address anatomically complex cases.

### **Method**

All patients with either thoracoabdominal aneurysm/ juxtarenal aneurysms that were treated using inner branch endografts either as emergency or elective aneurysm repair since June 2023 till January 2025. primary outcome was aneurysm-related mortality. Secondary outcome measures included the freedom from all-cause mortality and reintervention, technical and clinical success, and late related complications including branch instability, endoleaks, and serious adverse events.

### **Results**

23 cases were done as elective, 8 cases as emergency. Technical success was achieved in 100% of cases. 30 days mortality was zero for elective cases and 12.5% for emergency cases. Satisfactory outcome was achieved in early follow up in 91% of elective cases, 87% in emergency cases. Reintervention rate was 6%

### **Conclusion**

Inner branch EVAR is a new technology which can be a good tool for the management of complex aortic aneurysm patients who are not fir for open repair and have multiple comorbidities. Long term data for follow up is required to fully assess the effectiveness of the inner branch EVAR.

## **Mental health among NHS clinical staff and patients in the vascular surgery department**

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### **Background**

Mental health remains a critical concern in healthcare, particularly in vascular surgery, where complex decisions such as major amputations can profoundly impact patients' psychological well-being. The mental health of clinical staff in this specialty, however, remains underexplored.

### **Method**

This observational cohort study assessed anxiety and depression among vascular surgery patients and staff using the Hospital Anxiety and Depression Scale (HADS) with an area of suggestion where they can highlight things that can improve their mood and work. Surveys were conducted in July and September 2024, and January 2025, with follow-ups to identify trends.

### **Results**

Among staff, a 20% prevalence of anxiety and depression was observed, with the highest distress levels reported among nurses and healthcare assistants. Among patients, psychological distress was high 23%. The levels since the impact of COVID-19-related stress were still the same superimposed by the burnout feeling among them.

### **Conclusion**

The study highlights the necessity for targeted mental health interventions within vascular surgery departments to support both staff and patients. Further research into specialty-specific mental health challenges is warranted.

## **From hopeless to healing: Recanalising deep veins in reformed intravenous drug users**

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### **Background**

Reformed drug users have overcome significant hurdles to rebuild socially and economically fulfilling lives. Venous leg ulceration in this population is common and very challenging to manage. The indications to treat chronic venous obstruction by endovascular recanalisation vary between studies. Specifically, this group is absent from internationally published guidelines on the management of ilioacaval and iliofemoral obstruction.

### **Method**

We discuss our experience of endovascular common femoral vein recanalisation and primary stenting in ex-IVDU patients. We retrospectively reviewed their pre-operative imaging, clinical course and post-operative follow up data.

### **Results**

Two patients aged 48 and 50 underwent common femoral vein recanalisation via endovenous methods. Both had been abstinent from injection for more than three years and both had suffered active venous ulceration in the preceding 6 weeks. One CFV stenosis was crossed via internal jugular access and one was recanalized from the superficial femoral vein. Both were stented primarily and patency was maintained at the first surveillance duplex scan.

### **Conclusion**

Although in its infancy (patient recruitment ongoing with further cases scheduled), our service has shown this to be a technically feasible day-case procedure which may reduce the burden on outpatient ulcer services. We suggest that a prior history of intravenous drug abuse should not preclude these patients from receiving endovenous treatment. In fact, this population may have the most to gain from aggressive management of their deep venous obstruction.

## **Preliminary efficacy of a supervised walking program for intermittent claudication: A prospective analysis**

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### **Background**

Intermittent claudication, a hallmark of peripheral arterial disease (PAD), impairs walking distance and undermines quality of life. Structured exercise programs are recommended as a first-line therapy, yet real-world data remain limited. These preliminary findings highlight the potential benefits of supervised walking interventions but require further confirmation.

### **Method**

This prospective study monitored individuals diagnosed with PAD-related intermittent claudication who enrolled in a 12-week supervised walking program. The regimen progressively increased walking duration and intensity based on symptom thresholds. Claudication distance was recorded weekly in standardized logs, and pain perception was documented using a validated scale. Data collection is ongoing, and the results presented here represent an interim assessment pending final analysis.

### **Results**

Preliminary evaluation suggests that mean claudication-free walking distance nearly doubled. Participants also reported marked pain reduction and maintained high adherence rates. Notably, older individuals (>65 years) achieved comparable gains, indicating broad applicability. However, these results remain provisional and will be revisited upon completion of the study.

### **Conclusion**

Although still evolving, these findings underscore the potential effectiveness of supervised walking interventions for individuals with intermittent claudication. Further research is needed to refine optimal exercise intensities, durations, and patient selection criteria, and to validate these initial outcomes in a more comprehensive manner.