Advancing non-invasive vascular diagnostic services by promoting training and research in Vascular Science.

CSVS

THE COLLEGE AND SOCIETY
FOR CLINICAL VASCULAR SCIENCE
Great Britain and Ireland

SUMMER 2024

IN THIS ISSUE

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President's Message

A warm welcome to the Summer 2024 newsletter.

I would like to use this opportunity to thank our Conference Secretary and his support team on delivering an exciting day of talks and practical hands-on session at the Charing Cross Symposium in April of this year. This was the first time that our Society has been asked to officially participate in this event and it was a thoroughly informative and enjoyable exercise and we hope that this will become a permanent feature of our teaching calendar (full article in this issue).

The CSVS were also asked to attend the AHCS event at the House of Lords. A member from each society was invited to attend and represent the Professional Bodies Council at the Honorary Fellows event for the 2023 nominees. This was an informal method of networking with the wider Healthcare Science community.

I am also glad to inform you that the NHSE Physiological Sciences data is now available and under review. The outcomes and infographics from this process will be shared with our membership and also included in the upcoming Provision of Vascular Services 2024 document (POVS 2024).

Enjoy the summer newsletter and please look out for further updates on our online exams, new website and upcoming study days on our social media platforms.

Yours sincerely,

Kamran Modaresi
President of the CSVS

Charing Cross Symposium Collaboration

In April this year, the Charing Cross Symposium (CX) collaborated with The College and Society for Clinical Vascular Science (CSVS), marking the beginning of a prosperous partnership. This inaugural collaboration held at the elaborate Excel Exhibition Centre provided CSVS with a unique opportunity to hold an extensive programme showcasing expertise in clinical vascular ultrasound.

After the welcome introduction by Dr Kamran Modaresi (President of the CSVS), the day began with presentations on the use of duplex ultrasound to assess endovascular aneurysm repair (EVAR) and the carotid artery. The talks were delivered by some of our vascular scientists nationwide, including Joanne Walker from University Hospitals of Leicester on EVAR, Nazia Saeed and Emma Waldegrave on Carotids duplex ultrasound, from London Northwest and Oxford University Hospitals NHS Trusts. Dr Steven Rogers spoke about on the state-of-the-art 3D technology in imaging carotid artery. This segment covered the physics behind ultrasound and discussed the importance of image optimisation in Duplex imaging per modality and its potential pitfalls. This was put into practice at the workshop held later in the day.

The meticulously planned afternoon workshop led by CSVS featured live demonstrations of carotid and EVAR duplex ultrasound techniques. Facilitated by the CX organisers and with the presence of Clinical Application Specialists, the live demonstrations were conducted by highly experienced Clinical Vascular Scientists including Hannah Williamson, Ben Freedman, Lynne McRae, Joanne Walker and Janine Fletcher. The workshop also featured Lucy Watson from Queensland, Australia who stepped in to help at the workstations. Demonstrating the identification of pathology in Duplex ultrasound was a key feature of the workshop, highlighting the essential role of ultrasound control manipulation driven by physics to identify this. This approach of the workshop including theory and practical aspect ensured that attendees left with valuable knowledge and skills.

The stimulating workshops attracted a diverse group of international attendees including vascular surgeons, students, and scientists, with such global representation

adding to the richness of the discussions and learning experiences.

Overall, the workshop was a great success which was chaired by our conference secretary Klaus Bond. The CSVS would also like to thank our shadow conference secretary Nazia Saeed and our patient volunteer group from Lewisham and Greenwich Trust NHS and North West London hospitals. The feedback from the dedicated patient volunteers highlighted their impression of the venue, the ease of access to the Excel Exhibition Centre, and the welcoming atmosphere.

We are grateful to The Charing Cross Symposium committee for this opportunity, which through networking brings together a sense of collective passion towards learning and development, with this engagement as testament. The positive response from attendees and the effective delivery of content highlighted the strength and potential of this partnership paving the way for hopeful collaborative events in the future.

Husnayya Al-haddad
(Lewisham and Greenwich NHS Trust)

Veronica Sagayarajah
(North West London NHS)

CSVS Education Committee Update

It has already been nearly a year since I stepped into the role of Education Committee Chair in August 2023 and it is flying by. I was fortunate to watch and learn from our previous Chair, Hannah Lines, while sitting as Practical Exam Co-Officer and the support from everyone on every committee has really helped me to find my feet.

The Education Committee has enjoyed a productive start to the year working hard to support the membership with their CPD, practical exams and theory exams.

Since the pause of the theory exams on March 31st, our primary objective has been hyper focused on migrating our online exams to the new supplier ready for use. We envisage the new system should be operational at the end of June and will be communicating to the membership the new changes shortly. We have enjoyed many years of working with our outgoing exam team, Inteleos, and are grateful for their help in supporting us through the transition to the new provider.

In a normal year, we habitually organise study days to support the education of the membership that includes a 'Fundamentals Study Day', often held in early Spring, aimed at our members new to the profession (e.g. 1st and 2nd year trainees) and a 'Revision Study Day', often held in late spring, aimed at those with a bit of experience under their belt and perhaps planning to sit their theory exams. We enjoyed a successful online Fundamentals Study Day in March and in a change to the programme, we will be running the Revision Study Days later this year once the new theory exam system is live. Our new 'Themed Study Days Officer' is leading the organisation of various other study days throughout the year, including the advanced skill workshops, the next of which is being held on September 27th 2024 – look out for the advert!

I am immensely proud of all the hard work that every member of the Education Committee puts in to their roles around their clinical responsibilities and I would like to say a huge thank you. None of the work we do would be possible without the time and dedication of each of you and I am looking forward to continuing working with you over the next few years to come.

Yours sincerely,

Hannah Williamson
Chair of CSVS Education Committee

Professional Standards Committee Inside Look

As one of the newest members of the Professional Standards Committee (PSC) I was excited to attend my first committee meeting in April. I finally got to see the nitty gritty stuff that the PSC look into and that I would now get to work on. And there was plenty of work to do that day! (With obligatory pastries of course) Let me share with you a brief overview of the latest goings on behind the scenes in one of the CSVS's sub-committees.

One sizeable task that has been ongoing is to take the job descriptions and profiles for all the various job roles across vascular science and very clearly define them; the aim being to assist vascular departments across the country in recruitment and job matching. In fact, this work is essentially a continuation of decades' worth of efforts from committee members gone by who fought to establish the appropriate banding for us as vascular scientists. Particular focus now is on the more 'mid-grade' roles in recognition of the newer ways in which departments are expanding their teams.

This leads us onto our collaboration with the University of Gloucester team about the Healthcare Science (Vascular Science) Degree Apprenticeship course. Together with the Education committee the PSC will be engaging in meetings with the course leaders and tutors to ensure the course delivers the clinical competency of a Vascular Practitioner as per the requirements of the UK workforce, as well as the appropriate level of professional standards. The CSVS has already done great work in supporting and advising on the development of the curriculum prior to the launch of the course.

Next we are currently reviewing the society's PPGs (professional performance guidelines). How many of you have ever been tasked with rewriting department protocols? Or you get a request come through for a scan that you've not done in a while, or at all?? Ah panic over, there is a whole set of guidelines readymade to help walk you through any type of scan you would be asked to do! And I can vouch that the review process is quite rigorous. We are going through each one thoroughly in turn to ensure everything is fully up-to-date, clinically relevant and truly helpful in setting standards for vascular scanning.

Other discussion was around things like IQIPS accreditation, quality assurance and even probe orientation. I think we've probably all thought at one stage, 'wait a minute, is my probe the right way round??' We talked animatedly about the different ways that people scan, typically with upper limbs. Is there a right way? Could this be standardised?

So these are the conversations we are having; from the big national-level topics to the little day-to-day things that we all experience in our scanning. Behind all of these discussions is the ultimate goal of aiding every person in our profession to work to the same high set of standards. And so the PSC work continues! If you have anything that you think would be appropriate for us to talk about just drop us an email: psc_chair@svtgbi.org.uk. ✤

Janine Fletcher
Lead Vascular Scientist
University Hospitals Dorset

Bitesize Research: CHRONIC LIMB THREATENING ISCHAEMIA (CLTI)

AUTHORS' NAMES :
Siobhan Trochowski[1] and Dr Steven K Rogers[2]

1. Jackie Walton Vascular Laboratory, Oxford University Hospitals NHS FT
2. Manchester Academic Vascular Research and Innovation Centre (MAVRIC), Division of Cardiovascular Sciences, The University of Manchester and Manchester Vascular Centre, Manchester Academic Health Science Centre, Manchester University NHS Foundation Trust, Oxford Road, M13 9WL.

References

PAPER 1:

Benson et al. (2019) ***Comparison of Immediate and Long-term Outcomes in Men and Women Undergoing Revascularisation for Chronic Limb Threatening Ischaemia in the Bypass vs. Angioplasty in Severe Ischaemia of the Leg (BASIL-1) Trial.*** *European Journal of Vascular and Endovascular Surgery, 2019; 58 (2); 224-228. DOI: 10.1016/j.ejvs.2019.03.001*

SUMMARY

This reanalysis of the BASIL-1 study showed that, compared to men, women had similar short term but significantly better long-term outcomes after revascularisation. The outcomes measured were amputation free survival, overall survival, and freedom from major adverse limb events (MALE).

PROS

This was the first study to compare the outcomes for men and women in a randomised setting, where patients had similar anatomical and clinical disease severity and similar length of follow up. BASIL-1 had a well described selection criteria of patients with CLTI requiring infra-inguinal treatment, allowing for other trends to be visible from the data.

CONS

CLTI patients will usually have an ankle pressure of <50mmHg, and this is often used in the selection criteria for CLTI studies. This was not a requirement for the BASIL-1 study; patients were only required to present with rest pain or tissue loss. Therefore, there may be more variation in the population recruited compared to other studies. Also, post-op differences in anatomical appearances post treatment were not assessed, so could not be included in the comparison.

IMPACT ON PRACTICE

It is important to consider the effect of sex when developing treatment pathways and revascularisation strategies for patients with CLTI.

PAPER 2:

Bradbury et al. (2023) ***A vein bypass first versus a best endovascular treatment first revascularisation strategy for patients with chronic limb threatening ischaemia (CLTI) who required an infra-popliteal, with or without an additional more proximal infra-inguinal revascularisation procedure to restore limb perfusion (BASIL-2): an open-label, randomised, multicentre, phase 3 trial.*** *The Lancet, 2023; 401(10390); 1798-1809. DOI: 10.1016/S0140-6736(23)00462-2*

SUMMARY

CLTI patients often require multiple revascularisation procedures to maintain and restore limb perfusion and experience frequent readmissions for limb-related complications. In this study patients were assigned to either vein bypass or endovascular treatment. If no great saphenous vein (GSV) was suitable, then composite or prosthetic grafts were used at the surgeon's discretion.

BASIL-2 found that, for patients with CLTI who require infra-popliteal +/- infra-inguinal revascularisation, carrying out an endovascular intervention as the first line of treatment for CLTI is associated with better amputation-free survival compared to vein bypass as first line treatment. The primary outcome measured was the number of deaths, with a best endovascular treatment first revascularisation strategy resulting in fewer deaths. Limb-related outcomes were similar in both groups.

PROS

Data was collected from 41 vascular surgery centres.

CONS

Target number of participants not met due to challenges in recruitment (345 patients enrolled). To mitigate this, patients were followed up for longer.

IMPACT ON PRACTICE

Patients with CLTI should receive endovascular treatment first.

PAPER 3:

Farber et al. (2022) ***Surgery or Endovascular Therapy for Chronic Limb-Threatening Ischemia (BEST-CLI).*** *The New England Journal of Medicine, 2022; 387(25); 2305-2316. DOI: 10.1056/NEJMoa2207899*

SUMMARY

In this study, patients needing infra-inguinal treatment who had a usable segment of GSV for bypass were assigned to 'cohort 1', whilst patients who would require an alternative conduit for bypass were assigned to 'cohort 2'. These two cohorts were then randomised to either vein bypass or endovascular treatment.

The primary outcome was MALE (defined as amputation above the ankle or a major limb reintervention) or death. BEST-CLI found that patients in 'cohort 1', with CLTI and a usable GSV conduit, the incidence of a MALE or death was significantly lower in the vein bypass group compared to the endovascular group. In patients in 'cohort 2' who lacked a suitable GSV the outcomes were similar between bypass and endovascular.

PROS

A large sample size of 1830 patients were enrolled.

CONS

Target number of participants not met due to challenges in recruitment. Target percentage of women in the study (28%) was lower than the target. Lack of funds limited the follow up of 'cohort 2'.

IMPACT ON PRACTICE

Patients with CLTI should receive vein bypass first.

1. Mills et al. (2014) The Society for Vascular Surgery Lower Extremity Threatened Limb Classification System: Risk stratification based on Wound, Ischemia, and foot Infection (WIfI). Journal of Vascular Surgery 59; (1); 220-234. DOI: 10.1016/j.jvs.2013.08.003

PAPER 4:

Teso et al. (2021) ***Pedal Acceleration Time (PAT): A Novel Predictor of Limb Salvage.*** *Annals of Vascular Surgery, 2021; 75; 189-193. DOI: 10.1016/j.avsg.2021.02.038*

SUMMARY

For patients with CLTI and diabetes, non-invasive arterial tests such as ABPI and absolute toe pressures may not be viable due to tibial vessel calcification or extensive distal tissue loss (e.g. below ankle amputation).

Pedal acceleration time (PAT) involves assessment of the arcuate, first dorsal metatarsal and plantar arteries and measurement of time over slope from the onset of systole to the peak of systole (traditionally called systolic rise time).

A retrospective review of a prospectively kept database was carried out to identify limbs with CLTI planned for revascularisation with documented pedal acceleration time measurements. It was found that PAT could be used along with the current WIfI[1] (wound, ischaemia, and foot infection) scoring system to assess severity of ischaemia and could be associated with success of limb salvage. Primary outcome measured was limb loss higher than the ankle.

PROS

Four different PAT classifications were used: class 1 (20-120msec), class 2 (121-180msec), class 3 (181-224msec) and class 4 (>125msec). Class 1 suggests no ischaemia, class 2 is mild, class 3 moderate, class 4 severe. (msec=millisecond)

CONS

The data was obtained retrospectively from a single institution. The study was only performed on patients with infra-inguinal arterial occlusive diseases, so there is possibility of selection bias.

IMPACT ON PRACTICE

Pedal acceleration time can be used along with the current scoring system to evaluate severity of ischaemia as an alternative to ABPI or TBPI.

Vascular Access and Haemodialysis - STUDY DAY

DATE:
27TH SEPTEMBER 2024

TIME:
09:45-16:00

VENUE:
WESTON EDUCATION CENTRE, KING'S COLLEGE HOSPITAL, DENMARK HILL.

FEES:
MEMBER: £115 / NON-MEMBER: £205

The next study day will focus on Vascular Access and Haemodialysis, offering a multi-disciplinary approach with guest speakers from vascular surgery, nephrology, and interventional radiology.

The event will include vascular ultrasound demonstrations and hands-on scanning.

The study day will take place at King's College Hospital Weston Education Centre, Denmark Hill – conveniently accessible by direct train from London Victoria, London Blackfriars, and Clapham Junction.

Registration is now open on the CSVS website.

AVS Accreditation

Huge congratulations to these members for successfully passing their AVS Exams

- Rebecca Fulls
- Maria Bunakova
- Louis Alexander
- Siobhan Trochowski
- Jason Mapano