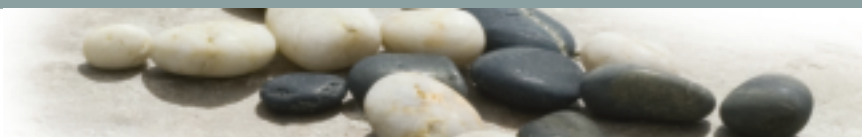




Yearbook
2008



2 Society

- 2** The Office
- 3** The Council
- 4** Message from the President
- 6** Members of Council
- 7** Committees
- 8** Annual General Meetings
- 9** Presidents
- 10** Prizes
- 11** List of prize winners
- 13** John Kinmonth Memorial Lectureship



14 Programme



29 Posters



31 Abstracts



97 AGM

- 97** Agenda
- 98** Honorary Secretary's Report
- 100** Honorary Treasurer's Report
- 104** Audit & Research Committee Report
- 107** Training & Education Committee Report
- 109** Professional Standards Committee Report
- 110** The Circulation Foundation Committee Report
- 112** Vascular Tutor's Report



114 Affiliations

- 114** Society of Vascular Nurses
- 115** The Society for Vascular Technology
- 116** The Venous Forum of the Royal Society of Medicine
- 117** Endovascular Forum
- 118** The Joint Vascular Research Group
- 119** Rouleaux Club



120 Membership



141 Exhibitors

The Office

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The Council



Front row, left to right:
Professor C Shearman, Mr M J Gough, Mr P R Taylor

Second row, left to right
Mrs S Ward (SVN), Professor J Michaels, Mr R Chalmers, Mr J J Earnshaw, Professor A R Naylor, Ms J Robey, Mr D C Berridge

Back row, left to right
Mr L Williams, Mr G Gilling-Smith, Mr D Baker, Mr D C Mitchell, Mr R Holdsworth, Mr T Lees, Professor G Stansby, Mr P Madhavan, Mr S Parvin

Not pictured: Mr W Yusuf, Mrs R Walker (SVT), Mr D Combie (BLS)

Message from the President



Mr Michael Gough

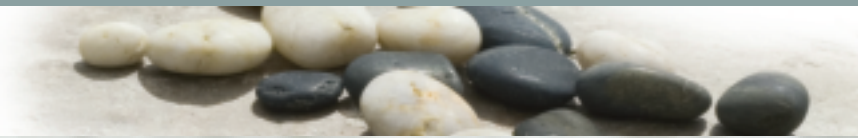
Being President of the Society has been a great honour - it has also been a lot more work than anticipated! There is much more to it than simply organising an Annual Meeting.

The first important event during the year was the Government announcement of funding for AAA screening. Although progress on this appears slow the first wave of five centres (likely to be those who already undertake screening) will be active from 1 April 2009. The programme will be rolled out over five years, initially funded centrally via the SHAs, but subsequently by PCTs. This could be a potential weakness of the scheme but if difficulties are encountered they should be referred to Robert Sherriff who is co-ordinating the Programme. The Society will be publishing guidance on the process for establishing a screening programme locally.

The other Department of Health initiative this year has been the Stroke and TIA initiative, which from our point of view aims to deliver carotid surgery to appropriate patients within two weeks of their index neurological event. Unlike AAA screening there is no funding attached to this but despite initial concerns that the guidelines would be difficult to implement, at least some centres are already meeting these timescales. It is important that the Members discuss their implementation with colleagues in neurology/stroke medicine and radiology to move this forward.

As always, registrar training and the status (specialty or sub-specialty) continues to be the major challenge facing vascular surgery. Progress is being made! Cliff Shearman and David Kessell have continued work on the joint curriculum. Progress on implementation has been facilitated by the General Surgery SAC agreeing that a CCT can be awarded to trainees after two years of general surgery and four years dedicated vascular/interventional training during their SpR years. Although, at the time of writing, this awaits ratification by the JCST and College Presidents, I am assured that we have their support.

Training issues remain inexorably linked to the concept of specialty status and it is certainly the view of The Royal College of Radiologists (RCR) that a successful application to PMETB for specialty/sub-specialty status is a pre-requisite for implementing joint training. This will be followed by a joint submission to PMETB by us (strictly speaking the JCST/Royal Colleges) and



the RCR for recognition of a new specialty/sub-specialty. It is possible that the new curriculum could be introduced in 2009.

Having read this, the astute may notice that the term specialty has been used in the last paragraph. There are many barriers to the latter as I have outlined in the newsletter, although there is a hint that some of these may be lifting (worn down?) so watch this space!

The other innovation in respect of training during the last year has been the introduction of post-CCT fellowships by the Department of Health. We were successful in obtaining seven of these one-year posts which together with four posts awarded to the RCR will allow us to pilot the new training modules. These posts will meet an urgent need for current trainees in respect of gaining experience in interventional radiology but will only be really helpful if they are repeated each year, until current trainees are replaced by those who have done all four years of the new curriculum. A request has been made to the Department of Health to consider this.

In addition to the post-CCT fellowships, Jonathan Earnshaw and Peter Taylor have negotiated commercial funding for three further posts. Unlike the posts in the present scheme these will be open to trainees in Wales, Scotland and Northern Ireland who were excluded from the post-CCT fellowships.

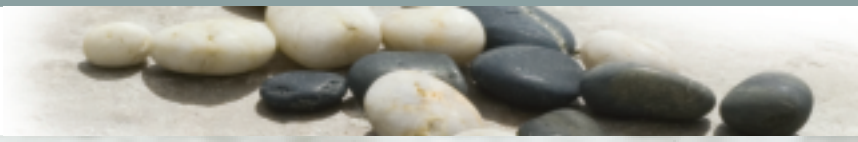
These new training opportunities are vital in the time leading up to our new training programme. If there is uncertainty about their availability, trainees will continue to seek experience abroad or opt for other posts (for example, those offered by BSET) which do not have a clear curriculum, nor rigorous methods of assessment and quality assurance.

You should all be aware of the launch of the new National Vascular Database. There are many reasons to contribute to this. It will produce excellent data for your Trust appraisal (and for completion of Clinical Excellence applications), as well as being mandatory for future revalidation and for those operating on screen-detected AAA. I would encourage your participation.

I hope you will enjoy the programme for the AGM this year. One small innovation is a slot for discussing a 'hot topic' which will allow us to debate issues of imminent importance to the Society. Don't miss it, first thing on Thursday morning! The rest of the meeting will focus on the every day problems that we face in vascular surgery, rather than the more esoteric. I am sure it will be educational as well as enjoyable. We have some excellent speakers, many of whom are not vascular surgeons!

Members of Council 2007-2008

President	Mr M J Gough
Vice-President	Mr P R Taylor
Vice-President Elect	Professor C Shearman
Honorary Secretary	Mr J J Earnshaw
Honorary Treasurer	Mr D C Berridge
Honorary Treasurer Elect	Mr S Parvin
Ordinary members	Mr D Baker Mr R Chalmers Mr G Gilling-Smith Mr R Holdsworth Mr P Madhavan Professor J Michaels Mr D C Mitchell Professor A R Naylor Professor G Stansby
Training & Education Committee Chairman	Professor C Shearman
Audit & Research Committee Chairman	Mr T Lees
Affiliate member	Mr L Williams
Vascular Tutor	Mr W Yusuf
Observers	Mrs R Walker, The Society for Vascular Technology Mrs S Ward, The Society of Vascular Nurses Mr D Combie, The British Lymphology Society



Committees 2007-2008

Audit and Research Committee

Mr T Lees (Chairman)
 Mr J J Earnshaw
 Mr P Madhavan
 Mr S Parvin
 Professor G Stansby
 Dr D Prytherch
 Dr D Wilson Nunn
 Mr C Gibbons
 Mr J V Smyth

Mr D Berridge
 Professor J Michaels
 Mrs S Baker
 Mr D Baker
 Dr R Uberoi
 Dr L O'Grady
 Mr P Barker
 Mr P Holt

Training and Education Committee

Professor C Shearman (Chairman)
 Mr G Gilling-Smith
 Mr D C Mitchell
 Mr L Williams
 Dr A Odurny
 Mr P R Taylor

Mr R Chalmers
 Mr R Holdsworth
 Professor A R Naylor
 Mr W Yusuf
 Mr M J Gough

Professional Standards Committee

Mr P M Lamont (Chairman)
 Mr J Clarke
 Mr P R Taylor
 Mr M J Gough (ex-officio)

Professor G Hamilton
 Mr T Lees
 Mr R B Galland

Circulation Foundation Committee

Professor Sir P Bell (Chairman)
 Mr R Chalmers
 Mr R N Baird
 Mr M J Gough
 Professor M Horrocks
 Mr P R Taylor
 Mr R Vohra
 Professor J Belch
 Ms L Allen, Society of Vascular Nurses
 Mrs C Flatman, Society for Vascular Technology

Mr A May
 Mr D C Berridge
 Professor K G Burnand
 Professor G Hamilton
 Mr T Lees
 Mr J Thompson
 Mr J Wolfe
 Professor A Watkinson

Membership of Vascular Advisory Committee

All Members of Council, plus Vascular Advisors:

Mr B Braithwaite, East Midlands
 Mr A Garnham, West Midlands
 Mr A Guy, Mersey
 Mr S Hardy, North Western
 Mr R Holdsworth, Scotland (West)
 Mr T Loosemoore, South West Thames
 Mr D Mehigan, Eire
 Miss S Renton, North West Thames
 Mr S Singh, South Yorkshire/North Derbyshire
 Mr M Tyrrell, South East Thames

Mr J Clarke, East Anglia
 Mr G Griffiths, Scotland (East)
 Mr R Hannon, Northern Ireland
 Ms S Hill, Wales
 Mr C Irvine, Yorkshire
 Mr T Magee, Oxford
 Mr G Morris, Wessex
 Mr M Salter, North East Thames
 Mr J Thompson, South Western
 Mr M G Wyatt, Northern

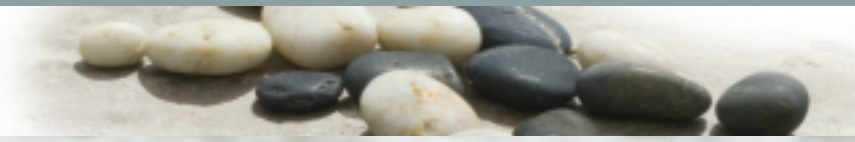
Vascular Members of the SAC in General Surgery:

Mr B Gwynn
 Professor C Shearman

Mr P M Lamont
 Mr S Silverman

Annual General Meetings

Year	Venue	President	Secretary	Treasurer
1966	Inaugural Meeting The Middlesex Hospital, London	Mr Sol Cohen	Mr JA Gillespie	Mr JA Gillespie
1967	Edinburgh	Mr Sol Cohen	↓	↓
1968	Hammersmith Hospital, London	Mr PGC Martin	Mr A Marston	Mr A Marston
1969	Royal Infirmary, Glasgow	Professor AW Mackay	↓	↓
1970	University College, Dublin	Professor FP Fitzgerald	Mr DGA Eadie	Mr DGA Eadie
1971	St Mary's Hospital, London	Mr HHG Eastcott	↓	↓
1972	The University, Dundee	Professor Sir D Douglas	Mr CV Jamieson	Mr CV Jamieson
1973	St Thomas's Hospital, London	Professor JB Kinmonth	↓	↓
1974	Queen Elizabeth Hospital, B'ham	Professor G Slaney	Professor AO Mansfield	Professor AO Mansfield
1975	St Bartholomew's Hospital, London	Professor GW Taylor	↓	↓
1976	Royal Infirmary, Bristol	Professor JH Peacock	Mr SG Darke	Mr SG Darke
1977	Pfizer Foundation, Edinburgh	Mr AIS Macpherson	↓	↓
1978	Liverpool	Mr CR Helsby	Professor CV Ruckley	Professor CV Ruckley
1979	John Radcliffe Hospital, Oxford	Mr D Tibbs	↓	↓
1980	St Thomas's Hospital, London	Mr FB Cockett	Mr PL Harris	Mr PL Harris
1981	University Hospital of Wales, Cardiff	Mr G Heard	↓	↓
1982	University Hospital of South Manchester	Mr S Rose	Mrs L de Cossart	Mr MH Simms
1983	St Mary's Hospital, London	Mr JR Kenyon	↓	↓
1984	Medical School, Birmingham	Professor F Ashton	Professor WB Campbell	Mr MJ Gough
1985	The Middlesex Hospital, London	Mr A Marston	↓	↓
1986	The Institute of Education, London	Mr M Birnstingl	Mr PM Lamont	Mr RB Galland
1987	Civic Centre, Newcastle-upon-Tyne	Mr PH Dickinson	↓	↓
1988	The University of Leeds	Mr J Shoesmith	Mr JJ Earnshaw	Mr DC Berridge
1989	Ninewells Hospital, Dundee	Professor W F Walker		
1990	Kensington Town Hall, London	Mr EJ Williams		
1991	Royal College of Surgeons, Dublin	Mr WP Hederman		
1992	Metropole Hotel, London	Professor NL Browse		
1993	Royal Northern College of Music, Manchester	Mr D Charlesworth		
1994	Assembly Rooms, Edinburgh	Professor CV Ruckley		
1995	Kensington Town Hall, London	Mr CW Jamieson		
1996	Bournemouth International Centre, Bournemouth	Mr SG Darke		
1997	Royal Lancaster Hotel, London	Professor A O Mansfield		
1998	City Hall, Hull	Mr JMD Galloway		
1999	De Montfort Hall, Leicester	Professor PRF Bell		
2000	London Arena, Docklands, London	Professor RM Greenhalgh		
2001	Metropole Hotel, Brighton	Mr RN Baird		
2002	Waterfront Hall, Belfast	Professor AAB Barros D'Sa		
2003	Scottish Exhibition and Conference Centre, Glasgow	Professor KG Burnand		
2004	Harrogate International Centre, Harrogate	Mr PL Harris		
2005	Bournemouth International Centre, Bournemouth	Professor M Horrocks		
2006	Edinburgh International Conference Centre, Edinburgh	Mr JHN Wolfe		
2007	Manchester Central Convention Complex	Professor G Hamilton		
2008	Bournemouth International Centre, Bournemouth	Mr MJ Gough		



Presidents



Mr M J Gough
President 2008



Professor G Hamilton 2007



Mr JHN Wolfe 2006



Professor M Horrocks 2005



Mr PL Harris 2004



Professor KG Burnand 2003



Professor AO Mansfield 1997



Mr JMD Galloway 1998



Professor PRF Bell 1999



Professor RM Greenhalgh 2000



Mr R Baird 2001



Professor AAB Barros D'Sa 2002



Mr W Hederman 1991



Professor NL Browse 1992



Mr D Charlesworth 1993



Professor CV Ruckley 1994



Mr CW Jamieson 1995



Mr SG Darke 1996



Mr A Marston 1985



Mr M Birnstingl 1986



Mr PH Dickinson 1987



Mr J Shoesmith 1988



Professor WF Walker 1989



Mr EJ Williams 1990



Mr DJ Tibbs 1979



Mr FB Cockett 1980



Mr G Heard 1981



Mr S Rose 1982



Mr JR Kenyon 1983



Professor F Ashton 1984



Professor JB Kinmonth 1973



Professor G Slaney 1974



Professor GW Taylor 1975



Professor JH Peacock 1976



Mr AIS MacPherson 1977



Mr CR Helsby 1978



Mr S Cohen 1967



Mr PGC Martin 1968



Professor AW Mackay 1969



Professor FP Fitzgerald 1970



Mr HHG Eastcott 1971



Professor Sir Donald Douglas 1972

Prizes

The Sol Cohen (Founder's) Prize is for the best *clinical* paper. The award is a silver salver engraved with the Society's logo and the year, plus a personal cheque for £500.

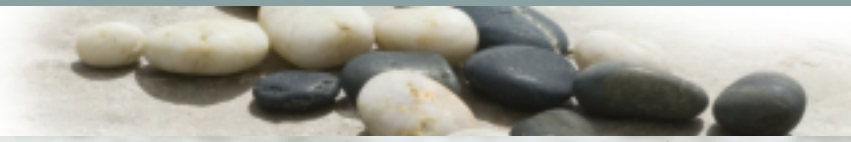
The British Journal of Surgery Prize is for the best *scientific* paper. The award is a cheque for £600 payable to the Research Fund of the Department from which the paper was submitted.

The Venous Forum Prize is for the best paper in the *Venous Forum* session, organised by the Officers of the Venous Forum. The award is a cheque for £250.

The Richard Wood Memorial Prize will be awarded for the best paper presented by a *non-doctor* in the scientific meeting. The award is an engraved medal, and a cheque for £250.

The Brighton Prize will be awarded for the best paper on the topic of vascular infections. The award is a cheque for £250 and a certificate.

- Vascular trainees are eligible for the Sol Cohen (Founder's) Prize and the BJS Prize. Both vascular trainees and non-medics are eligible for the Venous Forum and Brighton prizes. The Richard Wood prize is for non-medics only.
- Applicants must be the first author of the abstract, must have made a substantial personal contribution to the work and must deliver the paper in person.
- Vascular trainees must be in a training post on the closing date for submission of abstracts.



List of prize winners

The Sol Cohen (Founder's) Prize

- 1992 P Chan, St Mary's Hospital Medical School, London
Abnormal growth regulation of vascular smooth muscle in patients with restenosis
- 1993 PA Stonebridge, Edinburgh Royal Infirmary
Angioscopically identified features related to infra inguinal bypass graft failure
- 1994 PJ Kent, Mater Misericordiae Hospital, Dublin
Prognosis of vibration induced white finger after cessation of occupational vibration exposure
- 1995 BD Braithwaite, on behalf of the Thrombolysis Study Group
Accelerated thrombolysis with high dose bolus t-PA is as safe and effective as low dose infusions - results of a randomised trial
- 1996 MM Thompson, Leicester Royal Infirmary
A comparison of CT and duplex scanning in assessing aortic morphology following endovascular aneurysm repair
- 1997 IM Loftus, Leicester Royal Infirmary
Vein graft aneurysms - conclusive proof of a systemic process
- 1998 P Renwick, Hull Royal Infirmary
Limb outcome following failed femoro-popliteal PTFE bypass for intermittent claudication
- 1999 ME Gaunt, Leicester Royal Infirmary
Intraoperative change in baroreceptor function during carotid endarterectomy
- 2000 FJ Meyer, St Thomas's Hospital, London
More venous leg ulcers are healed by three-layer paste than by four-layer bandages: a randomised, controlled prospective study
- 2001 N Lennard, Walsgrave Hospital, Coventry
Crescendo TIAs: the use of pre-operative TCD directed IV Dextran therapy to control symptoms and emboli prior to elective carotid endarterectomy
- 2002 J Barwell, Cheltenham General Hospital, Cheltenham
The Eschar Venous Ulcer Study: A randomised controlled trial assessing venous surgery in 500 leg ulcers
- 2003 R Wilson, St George's Hospital Medical School, London
The suitability of ruptured AAA for endovascular repair
- 2004 ZA Ali, Addenbrooke's Hospital, Cambridge
Remote ischaemic preconditioning reduces myocardial injury after abdominal aortic aneurysm repair
- 2005 R Aggarwal, Department of Biosurgery and Surgical Technology, Imperial College London and Regional Vascular Unit, St Mary's Hospital, London
Acquisition of endovascular skills by consultant vascular surgeons: effect of repetition in a virtual reality training model
- 2006 GS McMahon, University of Leicester, Leicester
Low-molecular-weight heparin significantly reduces embolisation after carotid endarterectomy: a randomised controlled trial.
- 2007 RA Weerakkody, Cambridge Vascular Unit, Cambridge
An evaluation of radiation exposure in endovascular abdominal aortic aneurysm repairs

Richard Wood Memorial Prize

- 2003 EA Nelson, Department of Health Sciences, University of York, York
A randomised controlled trial of 4-Layer and short-stretch compression bandages for venous leg ulcers (VenUS I)
- 2004 S Maxwell, Regional Vascular Unit and the Department of Medical Bacteriology, St Mary's Hospital, London
Methicillin-resistant Staphylococcus aureus (MRSA): are we winning the war against infrainguinal bypass graft infection?
- 2005 E Horrocks, St Mary's Hospital, London
Carotid endarterectomy under local anaesthetic - evaluating a high fidelity simulated environment for training and assessment
- 2006 LC Brown, for the EVAR Trial Participants, Imperial College, London
Endovascular, not open repair, should be used in the fittest patients: the application of fitness scoring to EVAR trial patients
- 2007 P Bourke, Regional Vascular Unit, St Mary's Hospital, London
The proposed 18-week target - is there time for investigations?

Brighton Prize

- 2006 AHR Stewart, Gloucestershire Royal Hospital and Musgrove Park Hospital, Taunton
Systemic antibiotics prevent graft and wound infection in peripheral bypass surgery; a systematic review and meta-analysis

SARS Prize

- 2006 WRW Wilson, University of Leicester, Leicester and St George's Hospital Medical School, London
Decreased cellular telomere content is observed locally and systematically in abdominal aortic aneurysms
- 2007 TK Ho, Department of Surgery, The Royal Free and University College Medical School, The Royal Free Hospital, London
Increased SDF-1 alpha and CXCR4 but not SDF-1 beta expression in human critical limb ischaemia

List of prize winners

The British Journal of Surgery Prize

- 1993 D Higman, Charing Cross Hospital, London
Nitric oxide production is impaired in the saphenous vein of smokers
- 1994 GT Stavri, King's College School of Medicine and Dentistry, London
The role of hypoxia in neovascularisation of atherosclerotic plaque
- 1995 AD Fox, Royal United Hospital, Bath
A new modular approach to endoluminal grafting for abdominal aortic aneurysms
- 1996 C Marshall, University of Newcastle upon Tyne
Intravascular adhesion: a new assay to assess neutrophil adhesiveness in whole blood
- 1997 IM Loftus, Leicester Royal Infirmary
Increased proteolytic activity in acute carotid plaques - therapeutic avenues to prevent stroke
- 1998 IJ Franklin, Charing Cross Hospital, London
Non-steroidal anti-inflammatory drugs to treat abdominal aortic aneurysms
- 1999 DW Harkin, Royal Victoria Hospital, Belfast
In major limb vessel trauma reperfusion injury is increased by delayed venous reflow and prevented by anti-oxidant pretreatment
- 2000 DW Harkin, Royal Victoria Hospital, Belfast
Ischaemic preconditioning (IPC) prior to lower limb ischaemia reperfusion protects against acute lung injury
- 2001 SL Drinkwater, St Thomas's Hospital, London
Venous ulcer exudates inhibit in vitro angiogenesis
- 2002 M Griffiths, Royal Free Hospital, London
Nicotine abolishes the hypoxic induction of VEGF in human microvascular endothelial cells
- 2003 DR Lewis, The Royal North Shore Hospital, University of Sydney, New South Wales, Australia
Point of care testing of aspirin resistance in patients with vascular disease
- 2004 V Vijayan, Bristol Royal Infirmary
The early and long term reduction of porcine saphenous vein graft thickening using a biodegradable polyglactin external sheath
- 2005 C Ruiz, Peripheral Vascular Unit, Glasgow Royal Infirmary
Pre-operative ischaemia of the long saphenous vein predisposes to intimal hyperplasia in bypass grafts through enhanced smooth muscle cell migration
- 2006 MJ Bown, University of Leicester, Leicester
The IL-10-1082 'A' allele and abdominal aortic aneurysm
- 2007 A Thompson, Cardiovascular Genetics Departments, University College London, and the Vascular Department, Royal West Sussex NHS Trust, Chichester
TGF3 and LTBP4 are associated with altered AAA growth: a candidate gene study

Venous Forum Prize

- 2001 I Singh, St Thomas's Hospital, London
Inhibition of experimental venous thrombosis with a human anti-factor VIII monoclonal antibody
- 2002 J Barwell, Cheltenham General Hospital, Cheltenham
The Eschar Venous Ulcer Study: A randomised controlled trial assessing venous surgery in 500 leg ulcers
- 2003 EA Nelson, Department of Health Sciences, University of York, York
A randomised controlled trial of 4-Layer and short-stretch compression bandages for venous leg ulcers (VenUS I)
- 2003 RJ Winterborn, Gloucestershire Royal Hospital, Gloucester
Late results of a randomised controlled trial of stripping the long saphenous vein
- 2004 B Kianifard, Royal Surrey County Hospital, Guildford
Perforator veins do not remain closed following long saphenous vein stripping - results of a randomised trial with a one year follow up
- 2005 RJ Winterborn, Department of Vascular Surgery, Gloucestershire Royal Hospital
Prospective study of short saphenous varicose vein surgery: six weeks' results
- 2006 R Eifell, Department of Surgery, Queen Elizabeth Hospital, Gateshead and Northern Vascular Centre, Freeman Hospital, Newcastle upon Tyne
Quantitative measurement of superficial venous surgery using continuous ambulatory venous pressure measurement (CAVPM)
- 2007 R Winterborn, Gloucestershire Royal Hospital
No advantage in performing flush saphenofemoral ligation: results of a randomised trial

Best Video

- 2007 R Bulbilila, M Whyman, L Emerson, L Visser, F Slim and K Poskitt, Cheltenham General Hospital
Laparoscopic aortic aneurysm repair

Best Educational/Training Video

- 2007 J Tsui, R De Souza, G Hamilton, Royal Free Hospital, London
Carotid endarterectomy: retro-jugular approach and eversion technique

Best Poster

- 2007 G Atturu, S Brouillette, M Bown, NJ Samani, NJM London, R Sayers, University of Leicester, Leicester
Leucocyte telomere length is reduced in patients with abdominal aortic aneurysm



John Kinmonth Memorial Lectureship



Founded in 1983 utilising a gift made in his lifetime by Professor John Bernard Kinmonth FRCS (Council 1977-82), and donations made in his memory. A bronze medal bearing the arms of the College on one side and a portrait head of John Kinmonth on the other, and engraved with the Lecturer's name and the year in which the lecture is delivered, is presented on each occasion.

Conditions an annual lecture on a vascular topic. A nomination is solicited from the President of The Vascular Society and goes before Council for approval. The lecture is usually delivered at the annual meeting of the Society.

Previous Lecturers

- 1983 Professor Graham Douglas Tracy - *"Choosing a treatment plan for patients with leg ischaemia."*
- 1984 Mr Roger Neale Baird - *"Recognition of carotid artery disease."*
- 1985 Mr Adrian Marston - *"The gut and its blood-supply."*
- 1986 Professor Sir Peter Morris - *"Whither carotid endarterectomy."*
- 1987 Dr J Connolly - *"Can paraplegia in aortic surgery be prevented?"*
- 1988 Dr Thomas F O'Donnell - *"Management of the high risk abdominal aortic aneurysm"*
- 1989 Professor Averil O Mansfield - *"An artery and a vein dancing - the management of arteriovenous malformation"*
- 1990 Mr CW Jamieson - *"Dilemmas in improving vascular surgical services"*
- 1991 Professor Norman Browse - *"The lymphatics"*
- 1992 Professor Alexander Clowes - *"Vascular biology - the new frontier"*
- 1993 Dr Ray Gosling - *"The mechanics of atherosclerosis"*
- 1994 Dr Hero van Urk - *"Future development in endoluminal vascular surgery"*
- 1995 Dr Timothy Chuter - *"Clinical experience of stenting aneurysms"*
- 1996 Dr Jerry Goldstone - *"Vascular surgery: training, certification and practice; observations from the USA"*
- 1997 Mr Alan Scott - *"Screening and the management of abdominal aortic aneurysms - the missing links"*
- 1998 Mr Peter Harris - *"Vascular surgery: the European perspective"*
- 1999 Mr Simon G Darke - *"Optimal management of venous ulceration: an enigma slowly unfolding"*
- 2000 Professor Janet Powell - *"The good, the bad and the ugly - a tale of aneurysms"*
- 2001 Mr Jonathan Earnshaw - *"Audit of clinical outcomes in vascular surgery: a shield for our profession"*
- 2002 Professor David Bergqvist - *"Management of iatrogenic vascular injuries"*
- 2003 Professor Reginald Lord - *"Carotid disease: the burden of proof"*
- 2004 Professor Roger Greenhalgh - *"The impact of vascular clinical trials on clinical practice"*
- 2005 Mr John Wolfe - *"Operative vascular training and assessment: the last century, the present and the future"*
- 2006 Mr Peter Taylor - *"Achieving the Impossible"*
- 2007 Professor Kevin Burnand - *"Research in vascular diseases: achievements and unsolved problems"*

Programme

12-14 November 2008

Bournemouth International Centre

WEDNESDAY 12TH NOVEMBER

9.00am-12noon
VENOUS FORUM

THE TREGONWELL HALL

Chairmen: Mr Jonathan Earnshaw and Mr David Berridge

Current provision and future developments in venous disease

9.00am	A view from Germany	Professor Eberhard Rabe, Germany
9.15am	A view from France	Dr Yves Alimi, France
9.30am	A view from Scandinavia	Dr Leif Panduro Jensen, Denmark
9.45am	A view from the UK	Professor Alun Davies, London
10.00am	Panel discussion	

10.30-11.00am Coffee/Trade Exhibition

Venous disease updates

Chairmen: Mr Jonathan Earnshaw and Professor Alun Davies

11.00am	Update on stents in the venous system	Dr Graham Plant, Basingstoke
11.20am	VeIn Project	Mr Tim Lees, Newcastle-upon-Tyne
11.30am	Update on the management of leg ulcers	Professor Peter Vowden, Bradford

9.00am-12 noon
SOCIETY OF ACADEMIC AND RESEARCH SURGERY

BAY VIEW SUITE

Chairmen: Professor Kevin Burnand and Dr Greg Moneta

9.00-9.10am	Utility of high-resolution MR imaging to assess fibrous cap thickness, lipid-rich necrotic core and haemorrhage of carotid atheroma Sadat U, Young VE, Graves MJ, Gaunt ME, Varty K, Gillard JH Cambridge University Hospitals NHS Foundation Trust, Cambridge	
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page 31



- 9.10-9.20am** **Proteomic identification of protein levels in abdominal aortic tissue is correlated with aneurysmal size or expansion rate**
 Urbonavicius S ^{1,2}, Lindholt JS ¹ Urbonaviciene G ¹, Henneberg EW ¹, Vorum H ², Honoré B ²
 1 Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital, Denmark; 2 Institute of Medical Biochemistry, Aarhus University, Denmark
 page 32
- 9.20-9.30am** **Short leucocyte telomere length is associated with abdominal aortic aneurysm**
 Atturu G, Brouillette S, Bown M, Samani NJ, London NJM, Sayers R
 University of Leicester, Leicester
 page 33
- 9.30-9.40am** **Peri-operative antiplatelet therapy guided by point of care (POC) platelet function tests in cardiovascular surgery**
 Kotze CW, Harvey NH, Sepehrpour S, Kong RS, Hutchinson NP, Harper CM, Yusuf SW
 Brighton and Sussex University Hospitals NHS Trust, Brighton
 page 34
- 9.40-9.50am** **Innate immune pathways in neointimal hyperplasia formation: a role for Toll-like receptor 4**
 Jackson AJ, Coats P, Nixon GE, Orr DJ, Teenan RP, Wadsworth RM
 Peripheral Vascular Department, Glasgow Royal Infirmary, Glasgow
 page 35
- 9.50-10.00am** **Lower serum adiponectin is associated with an increased risk of cardiovascular events**
 Urbonaviciene G ¹, Frystyk J ², Flyvbjerg A ², Henneberg EW ¹, Lindholt JS ¹
 1 Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital, Denmark; 2 The Medical Research Laboratory, Clinical Institute, Aarhus University Hospital, Denmark
 page 36

10.00-10.30am **Coffee/Trade Exhibition**

Chairmen: Professor Kevin Burnand and Professor Matt Thompson

- 10.30-10.40am** **Rational design and protein engineering of novel ligands to suppress vascular inflammation**
 Moss AJ, Kang M, Brindle NP
 Department of Cardiovascular Sciences, University of Leicester, Leicester
 page 37
- 10.40-10.50am** **Intracellular accumulation of pro-atherogenic lipid particles is dependent on a novel cytoplasmic motif within the LOX-1 scavenger receptor**
 Vohra RS, Dunn S, Howell GJ, Walker JH, Ponnambalam S, Homer-Vanniasinkam S
 Leeds Vascular Institute, The General Infirmary at Leeds, Leeds
 page 38

10.50-11.00am Platelet inhibition by nitric oxide is reduced with increasing disease severity in peripheral arterial disease
 Dickinson KJ ^{1,2}, Riba R ², Irwin C ², Naseem K ², Homer-Vanniasinkam S ^{1,2}
 1 Leeds Vascular Institute, The General Infirmary at Leeds, Leeds; 2 Centre for Atherothrombosis Research, University of Bradford, Bradford

page 40

11.00-11.10am The effects of N-acetylcysteine on host inflammatory response and renal function in patients undergoing infra-inguinal bypass surgery
 Sharif MA, Badger SA, O'Donnell ME, Lee B, Hannon RJ, Lau LL, Young IS, Soong CV
 Belfast City Hospital, Belfast

page 41

11.10-11.20am Do novel risk biomarkers reflect the severity of peripheral arterial disease?
 Khandanpour N, Armon MP, Jennings B, Clark A, Meyer FJ
 Norfolk and Norwich Vascular Unit, Norwich

page 42

11.20-11.30am The cerebrovascular response to hypercarbia does not support vasoparesis as a mechanism for increases in middle cerebral artery blood flow velocity after carotid endarterectomy
 Howell SJ, Chapman GA, Dellagrammaticas D, Gough MJ
 Leeds Vascular Institute and the Academic Unit of Anaesthesia, The General Infirmary at Leeds, Leeds

page 43

11.30am-12noon

State of the Art Lecture: Ultrasound of the mesenteric arteries: criteria differ for native arteries, bypass grafts and stented arteries

Dr Greg Moneta, Oregon, USA

9.00am-12noon

MASTERCLASS: Scary moments II: unknown territories

MEYRICK/DURLEY SUITES



Sponsored by Life Line Screening

Breakout sessions:

Pathological clotting (including HIT)

Dr Beverly Hunt, London

Endovascular control of bleeding

Dr David Kessel, Leeds

Aortic coarctation

Professor George Hamilton, London

Venous trauma

Mr Paul Blair, Belfast

Problems in the superior mediastinum and the great veins

Mr Malcolm Simms, Birmingham

Sepsis in the groin of the vascular patient

Mr Chris Gibbons, Swansea

Operating on patients with Marfan's syndrome

Professor Robert Bonser, Birmingham

Improvisation in emergency vascular surgery

Professor Mandika Wijeyaratne, Colombo



9.00am-4.00pm
SOCIETY OF VASCULAR NURSES
Annual Meeting **PURBECK LOUNGE**

12noon-1.00pm
Lunch and viewing of trade exhibition **PURBECK HALL**

THE VASCULAR SOCIETY MEETING

1.00-1.15pm
Society President's opening remarks and presentation of new Honorary Members
 Mr George Davies, Mr Peter Jeffrey, Professor Charles Warlow and Professor Mandika Wijeyaratne
THE TREGONWELL HALL

1.15-2.30pm
SYMPOSIUM: Optimising the peri-operative care of vascular patients

Chairmen: Mr Michael Gough and Professor Julian Scott

How can we improve cardiac outcome? Professor Pierre Foëx, Oxford

Management of peri-operative anticoagulation Dr Roderick Nielson, Stirling

Peri-operative assessment, monitoring, and preservation of renal function Dr John Berridge, Leeds

Minimising postoperative risk of SIRS: factors determining early restoration of GI function Professor John MacFie, Scarborough

Infection control and antibiotic prophylaxis Professor Peter Hawkey, Birmingham

2.30-3.00pm
LECTURE: Optimising outcomes for lower limb reconstruction
 Dr Michael Belkin, Boston

3.00-3.30pm
Tea/Trade Exhibition **PURBECK HALL**

3.30-5.00pm
Scientific session 1: BJS Prize **THE TREGONWELL HALL**

Chairmen: Mr Jonathan Earnshaw and Mr Waquar Yusuf

3.30-3.45pm **A randomised double-blind placebo-controlled trial of the impact of high-dose statins on the ischaemia-reperfusion injury in elective AAA repair**
 Abdul Rahman MNA, Heng M, Madden L, Greenman J, McCollum PT, Chetter IC
 Academic Vascular Surgical Unit, Hull Royal Infirmary, Hull

- 3.45-4.00pm Atorvastatin Therapy: Effects on Reduction Of Macrophage Activity (ATHEROMA). Evaluation using USPIO-enhanced magnetic resonance imaging in carotid disease**
 Tang TY, Howarth SP, Graves MJ, Miller SR, Walsh SR, Hayes PD, Boyle JR, Varty K, Gaunt ME, Gillard JH
 Cambridge University Hospitals NHS Foundation Trust, Cambridge page 45
- 4.00-4.15pm Activated platelets and coagulation in patients on haemodialysis**
 Milburn JA, Cassar K, Ford I, Fluck N, Brittenden J
 Vascular Surgery & Renal Medicine, Aberdeen Royal Infirmary and School of Medicine, University of Aberdeen, Aberdeen page 46
- 4.15-4.30pm Dual antiplatelet therapy in surgery for critical limb ischaemia**
 Burdess A, Nimmo A, Garden OJ, Murie JA, Dawson AR, Fox KAA, Newby DE
 The University of Edinburgh, The Royal Infirmary of Edinburgh, Edinburgh page 47
- 4.30-4.45pm A novel nanocomposite polymer for the development of a new aortic stent graft**
 Bakhshi R, Eaton-Evans J, Edirisinghe M, Darbyshire A, You Z, Seifalian AM, Hamilton G
 University College, London page 48
- 4.45-5.00pm Decellularised porcine ureter (DURE) is a strong, biocompatible and compliance-matched scaffold for tissue engineering of a novel small calibre cardiovascular graft**
 Yow KH, Korossis S, Ingram J, Fisher J, Ingham E, Homer-Vanniasinkam S
 Institute of Medical and Biological Engineering, University of Leeds and the Leeds Vascular Institute, The General Infirmary at Leeds, Leeds page 50
- 5.00-6.20pm Scientific session 2**
- Chairmen:** Professor Gerry Stansby and Mr Rod Chalmers
 B Eligible for The Brighton Prize
- 5.00-5.10pm The 6-minute walk test provides an accurate measure of exercise capacity for risk assessment before major non-cardiac surgery**
 Sinclair RCF, Goodridge V, Batterham AM, Parry AD, Danjoux GR
 The James Cook University Hospital, Middlesbrough page 51
- 5.10-5.20pm Vascular trauma: survivability and surgical outcome in a deployed military trauma system**
 Stannard A, Brown K, Benson C, Hodgetts T, Clasper J, Midwinter M, Tai N
 Academic Department of Military Surgery and Trauma, Academic Department of Emergency Medicine, Royal Centre for Defence Medicine page 52



- 5.20-5.30pm Trends in hospital abdominal aortic aneurysm deaths in Scotland over 10 years, 1996-2005^B**
 Young JA, Moore J, Kerr L, Burton H, Stonebridge PA
 East of Scotland Vascular Network, Ninewells Hospital, Dundee
 page 53
- 5.30-5.40pm Preliminary results of a prospective randomised trial of a restrictive versus standard fluid regime in elective abdominal aortic aneurysm repair**
 McArdle GT, McAuley DF, McKinley A, Blair PH, Harkin DW
 Regional Vascular Surgery Unit, Royal Victoria Hospital, Belfast
 page 54
- 5.40-5.50pm Endovascular management of mycotic aortic aneurysms^B**
 Clough RE, Black SA, Lyons OT, Bell RE, Zayed H, Carrell T, Waltham M, Sabharwal T, Reidy J, Taylor PR
 Guy's and St Thomas' NHS Foundation Trust, London
 page 55
- 5.50-6.00pm Outcomes and aortic morphology following endovascular repair of acute and chronic Type B aortic dissection**
 Sayer D, Loftus I, Morgan R, Thompson M
 St George's Regional Vascular Institute, London
 page 56
- 6.00-6.10pm Robotic endovascular catheters (REC) improve accuracy, reduce time and minimise radiation exposure in complex vascular procedures**
 Riga CV, Cheshire NJW, Hamady M, Bicknell CD
 St Mary's Hospital, Imperial College, London
 page 57
- 6.10-6.20pm Intra-operative Dyna-CT improves technical success and short-term outcomes following endovascular repair of abdominal aortic aneurysms**
 Ali T, Biasi L, Morgan R, Loftus I, Thompson M
 St George's Regional Vascular Institute, London
 page 58

6.20-6.30pm Circulation Foundation Grant-Giving Presentation

6.30-7.15pm Welcome Drinks Civic Reception

PURBECK HALL

THURSDAY 13TH NOVEMBER

7.00-8.00am

BREAKFAST SYMPOSIUM:

The peripheral arterial disease (PAD) symposium

Diagnosis and beyond - what next for patient care?

PURBECK LOUNGE



Bristol-Myers Squibb

Sponsored by sanofi aventis and
Bristol-Myers Squibb

Chairman: Professor Cliff Shearman

The PAD patient: a different perspective

Dr Damian Jenkinson, Bournemouth

Diabetes as a risk factor for PAD

Professor Richard Donnelly, Nottingham

Inequalities of PAD management in the UK

Professor Jill Belch, Dundee

8.15am-4.30pm

SOCIETY FOR VASCULAR TECHNOLOGY ANNUAL MEETING

PURBECK LOUNGE

8.00-8.20am **'Hot Topic'**

Chairmen: Mr Michael Gough and Mr Jonothan Earnshaw

8.20-9.30am

Scientific session 3

V Eligible for Venous Forum Prize

R Eligible for Richard Wood Prize

THE TREGONWELL HALL

Chairmen: Professor Ross Naylor and Mr Prakash Madhavan

8.20-8.30am Using out-of-programme training to establish interventional radiology training for current and future surgeons

Weale AR, Haslam JE, Das N, Collin N, Jones L, Loveday EJ, Thornton MJ, Mitchell DC

North Bristol NHS Trust, Bristol

page 60

8.30-8.40am Anatomic factors in patient selection for carotid artery stenting (CAS): a new scoring system

Williams R, Stansby G, Macdonald S

Freeman Hospital, Newcastle-upon-Tyne

page 61

8.40-8.50am Extracranial and transcranial ultrasound assessment of patients with suspected 'positional' vertebrobasilar ischaemia

Sultan MJ, Hartshorne T, Naylor AR

The Departments of Vascular Surgery and Vascular Studies at the Leicester Royal Infirmary, Leicester

page 62



- 8.50-9.00am** **Pre-operative transcranial Doppler (TCD) emboli detection in symptomatic patients to determine the timing of carotid surgery**
 Gaunt A, Guy A, Newman J, Tiivas C, Marshall C, Higman DJ, Imray CHE
 University Hospital of Coventry and Warwickshire, Coventry
page 63
- 9.00-9.10am** **A model to predict risk in carotid surgery ^{V R}**
 Purkayastha D, McCollum C, Kane K (for the Vascular Governance North West participants)
 University Hospital of South Manchester, Manchester
page 64
- 9.10-9.20am** **10-year results of the Asymptomatic Carotid Surgery Trial**
 Halliday AW, on behalf of the ACST investigators
 St George's University of London, London
page 65
- 9.20-9.30am** **General anaesthesia versus local anaesthesia for carotid surgery (GALA): an open multi-centre randomised trial**
 Dellagrammaticas D, Lewis SC, Warlow CP, Bodenham AR, Colam B, Rothwell PM, Torgerson DJ, Horrocks M, Liapis CD, Banning AP, Gough M, Gough MJ, for the GALA Collaborative Group
 Neurosciences Trials Unit, Western General Hospital, Edinburgh
page 66

9.30-10.45am
SYMPOSIUM: Treatment of carotid disease

Chairmen: Mr Michael Gough and Professor Michael Horrocks

- | | |
|---|-------------------------------------|
| Implications of the GALA Trial | Professor Charles Warlow, Edinburgh |
| The UK CEA audit | Mr Tim Lees, Newcastle-upon-Tyne |
| Should we treat asymptomatic carotid disease? | Professor Ross Naylor, Leicester |
| Can we identify/target patients with an unstable plaque? | Professor Hugh Markus, London |
| Implications of the Stroke & TIA initiative: future trials | Dr John Bamford, Leeds |

10.45-11.15am
Coffee/Trade Exhibition

PURBECK HALL

Chairmen: Mr Richard Holdsworth and Professor Jonathan Michaels

THE TREGONWELL HALL

11.15-11.45am
LECTURE: Is there a role for angioplasty and/or stenting for SFA disease?

Dr Tony Nicholson, Leeds

11.45am-12.45pm
Scientific session 4

V Eligible for Venous Forum Prize

R Eligible for Richard Wood Prize

11.45-11.55am Change in practice from heparin to aspirin prophylaxis significantly reduced the thrombosis rate in renal paediatric recipients in a single centre

Al Midani A, Rudarakanchana N, Marks S, Taylor J, Lord R

Royal Free Hospital, London; Great Ormond Street Hospital for Children, London

page 67
11.55-12.05pm Bone marrow mononuclear cells drive thrombus resolution ^V

Wadoodi A, Saha P, Patel S, Waltham M, Burnand KG, Smith A

St Thomas' Hospital, King's College, London

page 68
12.05-12.15pm Hypoxia and hypoxia-inducible factor 1 may have a role in venous thrombus resolution ^{V R}

Evans CE, Humphries J, Wadoodi A, Waltham M, Burnand KG, Smith A

Academic Department of Surgery, St Thomas' Hospital, London

page 70
12.15-12.25pm Superficial thrombophlebitis of lower limb veins - far from a benign condition ^V

Olubaniyi BO, Kumar S, Dimitri S, Edwards P, de Cossart L

Countess of Chester NHS Foundation Trust, Chester

page 71
12.25-12.35pm The incidence of deep vein thrombosis following ultrasound-guided foam sclerotherapy ^V

Winterborn RJ, Taiwo F, Slim FJA, Whyman MR, Poskitt KR

Department of Vascular Surgery, Cheltenham General Hospital, Cheltenham

page 72
12.35-12.45pm Three-centre audit of IVC filter insertion over 12 years ^V

Hammond CJ, Bakshi D, Currie R, on behalf of study group

Leeds Teaching Hospitals NHS Trust, Leeds (base); Royal Liverpool University Hospital, Liverpool; Royal Devon and Exeter Hospital, Exeter

page 73
12.45-1.45pm
Lunch and Trade Exhibition

PURBECK HALL



1.45-3.15pm

Scientific session 5 - Clinical papers for the Sol Cohen (Founder's) Prize

THE TREGONWELL HALL

Chairmen: Mr Peter Taylor and Mr Geoff Gilling-Smith

- 1.45-2.00pm** **Duration of bandages after foam sclerotherapy: a randomised trial**
O'Hare JL, Stevens J, Parkin D, Earnshaw JJ
Gloucestershire Royal Hospital, Gloucester
page 74
- 2.00-2.15pm** **A RCT of non-surgical treatment for intermittent claudication in femoro-popliteal disease: 12-month results**
Mazari FAK, Mehta T, Rahman MNA, McCollum P, Chetter IC
Academic Vascular Surgery Unit, University of Hull, Hull
page 75
- 2.15-2.30pm** **Endovascular aneurysm repair independently demonstrates a volume-outcome effect**
Holt PJE, Poloniecki JD, Loftus IM, Thompson MM
St George's Regional Vascular Institute, London
page 76
- 2.30-2.45pm** **Regionalisation of vascular surgery improves outcome: a model of service provision**
Holt PJE, Poloniecki JD, Loftus IM, Thompson MM
St George's Regional Vascular Institute, London
page 77
- 2.45-3.00pm** **The RACE to protect brain**
Rix TE, Singh I, Gunaratnam G, Baht HS, Hargroves D, Insall R, Senaratne J
East Kent Vascular Centre, Kent
page 78
- 3.00-3.15pm** **10-year experience of using femoral vein for graft and arterial infections**
Ehsan O, Gibbons CP
Morriston Hospital, Swansea
page 80

3.15-3.45pm

Tea/Trade Exhibition

PURBECK HALL

3.45-5.00pm

EVIDENCE UPDATES: Venous and thrombo-embolic disease

THE TREGONWELL HALL

Chairmen: Professor Cliff Shearman and Dr Greg Moneta

The evidence for minimally invasive varicose vein therapy

Professor Andrew Bradbury,
Birmingham

Tips and tricks: factors influencing outcomes for EVLA and RFA

Mr Ian Chetter, Hull

Is foam sclerotherapy safe?

Professor Alun Davies, London

Thrombolysis for DVT

Dr Leif Panduro Jensen, Denmark

When to use an IVC filter

Dr Graham Plant, Basingstoke

5.00-6.00pm Annual Business Meeting

5.00-6.00pm Rouleaux Club AGM

PURBECK LOUNGE

7.30 for 8.00pm

Annual Dinner

with entertainment

WINDSOR HALL, BOURNEMOUTH INTERNATIONAL CONFERENCE CENTRE

FRIDAY 14TH NOVEMBER

7.00-8.00am

BREAKFAST SYMPOSIUM:

PURBECK LOUNGE

The role of ultrasound in vascular access surgery

Organised by The Vascular Society and The Society for Vascular Technology.

OLYMPUS

Sponsored by Olympus Keymed

Pre-operative assessment for vascular access

Mr Antonio Sassano, London

Postoperative assessment of vascular access

Mr David Mitchell, Bristol

Training in duplex ultrasound for surgeons

Ms Elaine Young, London
Mr Andy Weale, Bristol

8.00-9.30am

Scientific session 6

THE TREGONWELL HALL

R Eligible for Richard Wood Prize

Chairmen: Mr Simon Parvin and Mr Daryll Baker

8.00-8.10am

Folate supplementation improves arterial function in patients with peripheral arterial disease: a randomised double-blind, placebo-controlled clinical trial

Khandanpour N, Armon MP, Jennings B, Willis G, Clark A, Meyer FJ
Norfolk and Norwich Vascular Unit (NANVU), Norfolk and Norwich University Hospital, Norwich



- 8.10-8.20am** **The influence of hypoxia and role of phospholipase C- γ (PLC γ) in proliferation of vascular smooth muscle cells (VSMC): potential mechanisms of neointimal hyperplasia formation in infra-inguinal bypass**
Jackson AJ, Erridge CE, Coats P, Orr DJ, Teenan RP, Wadsworth RM
Peripheral Vascular Department, Glasgow Royal Infirmary, Glasgow
page 82
- 8.20-8.30am** **Pro-thrombotic changes in platelet, endothelial and coagulation function following haemodialysis**
Milburn JA, Cassar K, Ford I, Fluck N, Brittenden J
Vascular Surgery & Renal Medicine, Aberdeen Royal Infirmary and School of Medicine, University of Aberdeen, Aberdeen
page 83
- 8.30-8.40am** **Therapeutic neovascularisation for peripheral artery disease: a novel cell-based strategy^R**
Alexander MY¹, Wilkinson F¹, Liu Y¹, Ghosh J², Serracino-Inglott F²
¹ Cardiovascular Research Group, Core Technology Facility, University of Manchester, Manchester; ² Dept of Vascular & Endovascular Surgery, University Hospital, Manchester
page 84
- 8.40-8.50am** **Nitric oxide-eluting nanocomposite vascular bypass graft^R**
de Mel A, Seifalian AM, Hamilton G
Academic Division of Surgical & Interventional Sciences, UCL, Royal Free Hampstead NHS Trust Hospital, London
page 85
- 8.50-9.00am** **Proteomic identification of differentially expressed proteins in aortic wall of patients with ruptured and non-ruptured abdominal aortic aneurysms**
Urbonavicius S^{1,2}, Lindholt JS¹, Urbonaviciene G¹, Henneberg EW¹, Vorum H², Honoré B²
¹ Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital, Denmark; ² Institute of Medical Biochemistry, University of Aarhus, Denmark
page 86
- 9.00-9.10am** **A confirmed association between an ER- β polymorphic locus and refuted associations in TIMP-1 and MMP-9 with AAA**
Rayt HS, Bown MJ, London NJ, Sayers RD
University of Leicester, Leicester
page 87
- 9.10-9.20am** **Mesh closure can prevent incisional herniation after open aneurysm repair**
Bevis PM, Windhaber RAJ, Winterborn RJ, Lear PA, Poskitt K, Earnshaw JJ, Mitchell DC
Cheltenham General Hospital, Cheltenham; Gloucestershire Royal Hospital, Gloucester; Southmead Hospital, Bristol
page 88
- 9.20-9.30am** **Nordic poles immediately improve walking distance in claudicants^R**
Oakley C, Zwierska I, Tew G, Beard J, Saxton J
Sheffield Hallam University and Vascular Institute, Sheffield
page 90

9.30-9.45am
The MIMIC Trial results

Professor Roger Greenhalgh on behalf
 of the MIMIC Trial Investigators

9.45-10.45am
Scientific session 7

V Eligible for Venous Forum Prize

Chairmen: Mr David Berridge and Professor Alun Davies

- 9.45-9.55am A randomised trial of EVLT vs surgery for varicose veins** ^V
 Carradice D, Mekako AI, Hatfield J, Chetter IC
 Academic Vascular Surgical Unit, Hull
page 91
- 9.55-10.05am Treatment strategy and bilateral reflux influence the cost of endovenous therapy**
 Gohel MS, Davies AH
 Imperial Vascular Unit, Charing Cross Hospital, London
page 92
- 10.05-10.15am Is the concentration of sodium tetradecyl sulphate (STD) used for foam sclerotherapy important?** ^V
 Ikponmwosa A, Graham A, Homer-Vanniasinkam S, Gough MJ
 Biomedical Sciences, Bradford University, Bradford; Leeds Vascular Institute, The General Infirmary at Leeds, Leeds
page 93
- 10.15-10.25am Histological changes following foam sclerotherapy (FS) with sodium tetradecyl sulphate (STD)** ^V
 Ikponmwosa A, Abbott C, Homer-Vanniasinkam S, Gough MJ
 Leeds Vascular Institute, The General Infirmary at Leeds, Leeds
page 94
- 10.25-10.35am Randomised pilot trial of early foam sclerotherapy for venous leg ulcers** ^V
 O'Hare JL, Vandenbroeck C, Earnshaw JJ
 Gloucestershire Royal Hospital, Gloucester
page 95
- 10.35-10.45am Randomised controlled trial of anti-microbial agents for the treatment of venous leg ulcers**
 Michaels JA, King B, MacIntyre JB, Palfreyman SJ, Shackley PM, Stevenson MD, Campbell WB
 Sheffield Vascular Institute, University of Sheffield, Sheffield; Royal Devon and Exeter Hospital and Peninsula Medical School, Exeter
page 96

10.45-11.10am
Coffee/Trade Exhibition

PURBECK HALL



11.10am-12.20pm

SYMPOSIUM: The world in which we live

THE TREGONWELL HALL

Chairmen: Mr Michael Gough and Mr Peter Taylor

Vascular surgery in Sri Lanka

Professor Mandika Wijeyaratne,
Colombo

Training in vascular surgery in the USA

Dr Michael Belkin, Boston

Vascular surgery in Cape Town, South Africa

Mr Peter Jeffery, Cape Town

Training in the UK - missed opportunities?

Mr Leith Williams, Liverpool

Training in venous disease - a separate specialty?

Dr Greg Moneta, Oregon

12.20-12.30pm

Prize Presentations

12.30-12.40pm

Inauguration of the new President

12.40-1.20pm

THE KINMONTH LECTURE

Chairman: Professor Michael Horrocks, Council Member, RCS(Eng)

Translational vascular research: the road less travelled

Professor Shervanthi Homer-Vanniasinkam, Leeds General Infirmary

1.20-2.00pm

Lunch and Trade Exhibition

PURBECK HALL

Continuing Medical Education

Delegates will be provided with a Certificate of Attendance which they can add to their appraisal folder as evidence in their appraisal that they have attended a CPD meeting.

Breakfast Session

The Peripheral Arterial Disease (PAD) Symposium 2008 *Diagnosis and beyond – what next for patient care?*

A breakfast symposium chaired by Professor Cliff Shearman

Thursday 13 November, 2008

7.00am - 8.00am, Purbeck Lounge

Bournemouth International Centre, Bournemouth

We would like to invite you to a breakfast symposium on the Thursday of the Vascular Society Annual General Meeting. The symposium will consider topical issues affecting the medical management of vascular patients, including the following: an update on the REACH registry and its implications in clinical practice; diabetes as a risk factor for PAD; and inequalities of PAD management in the UK. Speakers, who are recognised as experts in their field, will provide a stimulating session which promises to inform and influence our vascular practice.

The PAD patient: a different perspective Dr Damian Jenkinson, Clinical Director of Stroke, Bournemouth

- Latest results from the REACH registry
- What does REACH mean for the stroke patient?
- What impact does the data have on the management of the multivascular patient?

Diabetes as a risk factor for PAD Professor Richard Donnelly, Professor of Vascular Medicine, University of Nottingham

- Diagnosing PAD in patients with diabetes
- Recommendations for the diabetic PAD patient
- Update on current guidelines

Inequalities of PAD management in the UK Professor Jill Belch, Professor of Vascular Surgery, Dundee

- What's happening in the UK?
- How can we encourage best practice?
- Case study – setting up a multivascular clinic

Speakers will address their topics in succinct 10 or 15-minute presentations, followed by audience discussion. This promises to provide lively debate, to inform vascular surgeons and nurses on pertinent issues for everyday practice in vascular disease.

Breakfast will be available at the Purbeck Lounge, Bournemouth International Centre, from 6.45am.

I look forward to seeing you at what promises to be a stimulating and informative event.



Cliff Shearman
Consultant in Vascular Surgery
Southampton University Hospitals

We are currently applying to the RCP for 1 CPD credit

This symposium is sponsored by sanofi-aventis and Bristol-Myers Squibb

PLA 08/1307 Date of Preparation: June 2008





Posters

12-14 November 2008

Bournemouth International Centre

Posters will be displayed in the Purbeck Hall (exhibition area) during the meeting.

Poster
number

- 1 **Carotid artery stenting (CAS): a UK centre experience of outcome and time to intervention**
Mahmood A, MacDonald S, Davey P, Lambert D, Clarke M, Wyatt MG
Northern Vascular Centre, Freeman Hospital, Newcastle-upon-Tyne
- 2 **Modified banding technique for flow reduction of vascular access with haemodynamic complications**
Rudarakanchana N, Midani A, Fernando B, Lord R
Renal Surgery Unit, Royal Free Hospital, London
- 3 **Trends & lessons learnt from a longitudinal observational study of mortality in a regional vascular unit**
Kuhan G, McCormick K, Rao R, Samaan A, Chetter IC, Renwick PM, Johnson BF, McCollum PT, Akomolafe B
Department of Vascular Surgery, Anaesthesiology and Clinical Audit, Hull Royal Infirmary, Hull
- 4 **Repair of thoraco-abdominal aneurysms: improvement with adjuncts but still high risk**
Modarai B, Young CP, Bell RE, Zayed H, Clough RE, Wood C, Chawla A, Taylor PR
The Vascular Unit, Guy's and St Thomas' NHS Foundation Trust, London
- 5 **An examination of cerebral autoregulation during carotid endarterectomy using multi-level analysis of intra-operative mean arterial pressure and middle cerebral artery blood flow velocity**
Howell SJ, Harris K, Gilthorpe MS, Chapman GA, Dellagrammaticas D, Gough MJ, West RM
The Leeds Vascular Institute and the Academic Unit of Anaesthesia, The General Infirmary at Leeds, and Biostatistics Unit, Centre for Epidemiology and Biostatistics, University of Leeds, Leeds
- 6 **Balloon angioplasty as the primary treatment for failing infra-inguinal vein grafts**
Mofidi R, Flett MM, Ross R, Levison RA, Griffiths GD, Chakraverty S, Stonebridge PA
On behalf of the East of Scotland Vascular Network, Ninewells Hospital, Dundee
- 7 **Abdominal aortic aneurysm (AAA) screening in patients undergoing angiography for ischaemic heart disease (IHD)**
Abela R, Prionidis I, Beresford T, Browne T
Broomfield Hospital, Chelmsford
- 8 **Late migration rate of Talent end graft**
Conway K, Wood A, Gordon A, Hill S, Williams I, Whiston R
University Hospital of Wales

- 9 **A single-centre vascular screening programme. Results of four years' experience**
 Hanafy M, Lea R, Dunne D
 The Mid Cheshire Hospitals (Leighton) NHS Foundation Trust, Crewe, Cheshire
- 10 **Clinical outcomes of endovascular treatment of isolated external iliac artery (EIA) occlusive disease over 5 years**
 Dindyal S, Akingboye AA, Bent C, Tai N, Walsh M, Mattson M, Kyriakides C
 Barts and the Royal London NHS Trust, London
- 11 **Is surveillance of small aneurysms appropriate in octogenarians?**
 Oshin OA, Brennan JA, Fisher RK, Vallabhaneni SR, Gilling-Smith GL
 Regional Vascular Unit, Royal Liverpool University Hospital, Liverpool
- 12 **Loss of great saphenous vein compliance with increasing obesity in females**
 Wall ML, Philips CJ, Davies RSM, Hobbs SD, Brown MD, Simm MH
 University Hospitals Birmingham NHS Foundation Trust, Birmingham
- 13 **Improved patency is another advantage to predialysis primary fistula surgery**
 Mockford KA, Azam J, Carlisle G, Stoves J, Wilkinson D, Mercer KG
 Vascular Surgical Department, Bradford Teaching Hospitals NHS Foundation Trust, Bradford
- 14 **Integration of endovascular simulation training into night-shift schedules is feasible and effective**
 Wang T, Aggarwal R, Naughton P, Van Herzeele I, Darzi A, Cheshire N
 Imperial College, London
- 15 **Trainee experience of a pilot fellowship in interventional radiology**
 Troxler M, Gough MJ, Kessel D
 Leeds Vascular Institute, The General Infirmary at Leeds, Leeds
- 16 **Out of hours workload for a combined vascular specialist in a regional referral centre: an unsustainable aspiration?**
 Hammond CJ, Baroni ML, Nicholson AA, Berridge DC, Scott DJA
 Leeds Teaching Hospitals NHS Trust, Leeds
- 17 **Evaluation of the rate of growth of abdominal aortic aneurysms (AAA); implication for AAA screening?**
 Gray J, Adair A, Yapanis M, Holdsworth R J
 Stirling Royal Infirmary, Stirling
- 18 **Surveillance after EVAR based on duplex ultrasound and abdominal radiography: a preliminary report**
 Oshin OA, Brennan JA, Fisher RK, Vallabhaneni SR, McWilliams RG, Gilling-Smith GL
 Regional Vascular Unit, Royal Liverpool University Hospital, Liverpool
- 19 **The efficacy of a three-curved rocker sole profile in improving intermittent claudication pain**
 Hutchins S, Lawrence G, Blair S, Richards J
 University of Salford, Manchester
- 20 **Radiation exposure to the vascular team in endovascular abdominal aortic aneurysm repairs**
 Chaudery M, Black S, Chong P, Hatrick A, Leopold P, Gerrard D
 Vascular Surgery Department, Frimley Park Hospital NHS Foundation Trust, Surrey



Abstracts

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Utility of high-resolution MR imaging to assess fibrous cap thickness, lipid-rich necrotic core and haemorrhage of carotid atheroma

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Objective

To compare carotid plaque morphology of acute symptomatic, recently symptomatic and asymptomatic patients (group 1, 2 and 3, respectively) with carotid artery disease using high resolution magnetic resonance imaging (HRMRI), to identify high-risk plaque characteristics associated with risk of thrombo-embolic events.

Method

Sixty patients (20 in each group) underwent multi-contrast imaging of their internal carotid arteries in a 1.5T MRI system. Different plaque components were manually delineated on acquired axial images and assessed by three independent readers.

Results

Fifty-five percent (n=11) of patients in group 1 had plaque haemorrhage versus 35% (n=7) for group 2 and 5% (n=1) for group 3 (p-value: group 1 vs. 2: 0.34, group 1 vs. 3: 0.001, group 2 vs. 3: 0.04). Type 1 (fresh) haemorrhage was more common in group 1 than group 2 (40% vs. 5%, p=0.01). Fibrous cap (FC) rupture was observed in 50% (n=10) of patients in group 1 vs. 35% (n=7) of group 2 patients (p=0.02) but none in group 3. The mean minimum FC thickness was the same in groups 1 and 2 ($600\pm 200\mu\text{m}$), compared with $800\pm 200\mu\text{m}$ for group 3 (p-value <0.01). No significant difference was seen in percentage lipid core area among the three groups. Good correlation was present among the three MR readers (intra-class correlation coefficient=0.71).

Conclusion

HRMRI can differentiate plaque components associated with an increased risk of thrombo-embolic events.

Proteomic identification of protein levels in abdominal aortic tissue is correlated with aneurysmal size or expansion rate

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Objective

Identification of biomarkers for the natural history of abdominal aortic aneurysms (AAA) holds the key to non-surgical intervention and improved selection for AAA repair. The aim of this study was to associate the basic proteomic composition of AAA wall tissue with strongest predictors of AAA rupture - size and expansion rate.

Method

A proteomic approach was used consisting of two-dimensional gel electrophoresis (2D-PAGE) and mass spectrometry (MS) to identify differentially expressed proteins in AAA tissue from 15 operated patients. The percentage volumes of protein spots with AAA were determined by computerised imaging, and associated with size and expansion rate. Relevant protein spots were in-gel digested and identified by liquid chromatography - tandem mass spectrometry (LC-MS/MS).

Results

Six protein spots showed a moderate correlation with AAA size ($\rho > +/-0.5$). Three protein spots were identified, all negatively correlated: vitronectin with traces of calreticulin ($\rho = -0.59$, $p = 0.036$); albumin ($\rho = -0.54$, $p = 0.038$); and a spot containing two proteins - collagen- α -3(VI)-chain-precursor and vitamin-D-binding-precursor ($\rho = 0.53$, $p = 0.042$). Sixteen protein spots correlated very strongly with AAA expansion rate ($\rho > +/-0.75$). Nine protein spots were identified, four positively correlated spots: glyceraldehyde-3-phosphate-dehydrogenase ($\rho = 0.83$, $p = 0.05$); annexin-A4 ($\rho = 0.94$, $p = 0.005$); transforming growth factor β (TGF- β)-induced-protein-ig-h3 ($\rho = 0.94$, $p = 0.005$); and a spot containing two proteins - TGF- β -induced protein-ig-h3 and collagen- α -3(VI) ($\rho = 0.83$, $p = 0.042$). The five negatively correlated spots were apolipoprotein H ($\rho = -0.93$, $p = 0.008$); fibrinogen- β -chain ($\rho = -0.85$, $p = 0.034$); apolipoprotein-A-I with traces of albumin ($\rho = -0.83$, $p = 0.042$); albumin fragment ($\rho = 0.89$, $p = 0.019$); and Ig- α -1 or 2 chain C ($\rho = -0.94$, $p = 0.005$).

Conclusion

A proteomic approach to identify potential biomarkers for prediction of natural history of AAA seems valuable, and identified several candidates. Larger studies are required to confirm the potential and clinical role of the identified proteins.



Short leucocyte telomere length is associated with abdominal aortic aneurysm

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Objective

Telomeres are specialised DNA structures present at the ends of linear chromosomes which shorten with each successive cell division. They represent the biological age of the cell. A variety of environmental, haemodynamic and genetic factors has been implicated in the pathogenesis of abdominal aortic aneurysm (AAA) but, in particular, age is strongly associated with AAA. The aim of this study was to determine the relationship between AAA and white cell telomere length.

Method

Peripheral blood samples were collected from 169 patients with AAA and 151 patients without AAA (controls). Genomic DNA was extracted and telomere length was measured using the telo-TAGGG telomere length assay kit (Roche-applied science). Data was analysed using Student's t-test and Pearson correlation (SPSS v14.0).

Results

The mean age of cases was 68.04 (range 60 years to 91 years) and controls were 68.97 (range 57 years to 87 years). The mean white cell telomere length was significantly lower in patients with AAA (5531 base pairs [bp]) compared with controls (5725 bp). (Mean difference: 193bp, 95% confidence interval 71bp to 315bp, $p=0.002$). There was a significant negative correlation between the size of AAA and telomere length (larger AAA had shorter telomere lengths) ($r=-0.185$, $n=169$, $p=0.031$).

Conclusion

Patients with abdominal aortic aneurysms have significantly shorter telomere lengths compared with controls. In patients with AAA, aortic size is negatively associated with telomere length. This suggests that cellular biological ageing may have a role in the pathogenesis and progression of AAA.

Peri-operative antiplatelet therapy guided by point of care (POC) platelet function tests in cardiovascular surgery

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Objective

Secondary prophylaxis with aspirin in high-risk cardiovascular surgical patients leading up to surgery is desirable for preventing peri-operative thrombotic events. However, it may increase the peri-operative haemorrhagic risk in hyper-responders. The purpose of this study was to evaluate two POC platelet function tests for detecting the effects of aspirin and the time taken for platelet function to return to normal after cessation of antiplatelet therapy in patients about to undergo cardiovascular surgery.

Method

With ethical approval, 84 patients (63 men, 21 women, mean age 69, range 43-87) scheduled for elective cardiac (n=41) and major vascular surgery (n=43) receiving aspirin were prospectively enrolled. Aspirin was discontinued at different intervals prior to surgery in the two groups. Pre-operative blood samples taken in the anaesthetic room were analysed by optical platelet aggregation (Verifynow™) and impedance aggregometry (Multiplate®).

Results

Agreement was observed between optical aggregation and impedance aggregometry (Spearman correlation, $r=0.72$, $p<0.0001$). Eighty-two patients (98%) with optical aggregation and 74 patients (88%) with impedance aggregometry demonstrated normal aggregation when aspirin was stopped 4 or more days prior to surgery. Both POC tests showed significant differences in platelet aggregation between patients who stopped aspirin more than 4 days before surgery as compared with fewer than 4 days (Mann-Whitney tests, $p<0.001$).

Conclusion

Both POC tests reliably detect the aspirin effect. The pre-operative cessation of secondary prevention with aspirin could be reduced to four days. Further studies are required to assess if these findings correlate with clinical endpoints of bleeding or thrombosis.



Innate immune pathways in neointimal hyperplasia formation: a role for Toll-like receptor 4

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Objective

Toll-like receptors (TLRs) activate inflammatory processes and stimulation of TLR pathways has been associated with neointimal hyperplasia (NIH) in arterial animal models. This study determined the presence of TLRs in human saphenous vein tissue, and assessed their functional status. The influence of TLR activation on vascular smooth muscle cell (VSMC) proliferation, a central feature of NIH, was also assessed.

Method

Saphenous veins were harvested from patients undergoing CABG and sections were wax embedded or cultured to obtain VSMC by explant method. TLR expression was determined by quantitative immunohistochemistry and functional status determined by adding specific ligands and measuring IL-8 production by ELISA. VSMC proliferation was determined by thymidine incorporation.

Results

TLR2 and TLR4 expression was demonstrated in both saphenous vein endothelial and vascular smooth muscle cells by quantitative immunohistochemistry. Specific ligands for TLR3 (PolyI:C) and TLR4 (Lipopolysaccharide) increased IL-8 production in VSMC. Background IL-8 levels of 124pg/ml rose to 1783pg/ml in response to TLR3 ligand while TLR4 ligand caused increases to 1001pg/ml ($p<0.05$). Ligands for TLR2 and TLR5 to 9 had no effect. Lipopolysaccharide at a physiologically relevant concentration increased VSMC proliferation by 5% over 24 hours as measured by thymidine incorporation. ($p<0.05$). This was not due to enhancement of p42/44 signalling pathways as measured by western blot.

Conclusion

Innate immune pathways may play a significant role in development of NIH. We have demonstrated that TLR4 is present in human saphenous vein and is functionally active. Furthermore, stimulation of TLR4 increases VSMC proliferation.

Lower serum adiponectin is associated with an increased risk of cardiovascular events

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Objective

Adiponectin is considered to have anti-atherogenic and anti-inflammatory properties and may be important as a biomarker for cardiovascular diseases. We examined whether serum adiponectin is linked with the first cardiovascular (CV) event in patients with peripheral arterial occlusive disease (PAD).

Method

The study included 471 patients with clinical evident PAD. We used Cox regression, adjusted for age, gender, diabetes mellitus, smoking status, diastolic blood pressure, body mass index, use of beta-blockers and total cholesterol, to assess the possible relationship between serum adiponectin and time to the first CV event, and death.

Results

Serum adiponectin levels were significantly lower in obese patients ($p < 0.0001$), in males ($p < 0.0001$), in patients with diastolic hypertension ($p < 0.0001$), in smoking persons ($p = 0.011$), and in patients who used beta-blockers ($p = 0.12$). Elevated adiponectin levels was seen in association with older age ($r = 0.256$, $p < 0.01$). During an average follow-up of 3.3 ± 2.3 years, 220 new cases of CV events and 97 all-cause deaths were detected. No significant difference between median adiponectin levels at baseline was observed between patients who experienced CV events and event-free patients ($p = 0.12$). In a multivariable Cox regression model, the adjusted hazard ratio (HR) for CV events in the lowest adiponectin tertile as compared with the middle tertile was 1.37 (95% CI 0.94-1.99; $p = 0.10$), and as compared with the highest tertile was 1.77 (95% CI 1.15-2.72; $p = 0.009$). Higher serum adiponectin levels at baseline were found in patients who died during the follow-up period ($p = 0.12$). The unadjusted risk ratio for all-cause death in the lowest adiponectin tertile as compared with the middle tertile was 0.66 (95% CI 0.39-1.12; $p = 0.12$), and as compared with the highest tertile was 0.57 (95% CI 0.34-0.96; $p = 0.036$). However, after adjustment for age and gender the observed association was reduced and did not reach statistical significance.

Conclusion

A lower baseline level of serum adiponectin is independently related to an increased risk of cardiovascular events in patients with PAD.



Rational design and protein engineering of novel ligands to suppress vascular inflammation

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Objective

Tie2 is a vascular endothelial tyrosine kinase receptor, signalling through which maintains microvascular quiescence. Signalling depends on a balance between a constitutively generated agonist, angiopoietin-1, and angiopoietin-2, an antagonist upregulated in injured tissues. Excessive vascular activation, through alteration of the balance of angiopoietin-1/angiopoietin-2 in favour of the latter, is fundamental in many human vascular diseases. There is evidence that reversing this ratio confers benefit. Angiopoietin-1 requires multimerisation for activation of Tie2. The resulting large structure is difficult to purify and administer in a soluble form. It would be advantageous to have a smaller, more soluble ligand. Our aim was to design such a ligand.

Method

Using a phage display system, random heptameric peptides were selected for specific Tie2 binding *in vitro*. Two peptides were subsequently each inserted into a pentameric construct consisting of the short N-terminal domain of cartilage oligomeric matrix protein. The proteins were expressed in *E. Coli*.

Results

Two proteins were developed. *In vitro* these stable proteins fold and do not aggregate in solution. They multimerise to their expected pentameric forms at 50kDa. Protein application to human vascular endothelial cells leads to a specific phosphorylation of the Tie2 receptor, maximal at 1µg/ml for each.

Conclusion

Using rational design we have engineered the first small molecular mass ligands for the Tie2 receptor. Two of these ligands have been shown to activate the receptor. Studies are currently underway to test the functional effects of these novel ligands on vascular endothelial apoptosis, leakage and inflammation.

Intracellular accumulation of pro-atherogenic lipid particles is dependent on a novel cytoplasmic motif within the LOX-1 scavenger receptor

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Objective

Cellular accumulation of pro-atherogenic oxidised low-density lipoprotein (OxLDL) is a key step in atherogenesis. This is mediated by scavenger receptors such as the lectin-like oxidised low-density lipoprotein scavenger receptor-1 (LOX-1). Here we test the role of cytoplasmic determinants within LOX-1 that regulate endocytosis.

Method

Human native lipid particles were purified, chemically modified *in vitro* into OxLDL, and incorporated with a fluorescent dye for use in receptor-ligand assays. Conserved residues within the human LOX-1 cytoplasmic domain were substituted with a non-polar, neutral amino acid (alanine) within a tagged LOX-1 (LOX-1) or a LOX-1 hybrid protein fused to a reporter molecule. Gene transfection and expression of the different LOX-1 proteins in cultured human cells were used to identify regulatory sequences in receptor-mediated endocytosis.

Results

Alanine-scanning mutagenesis of the LOX-1 cytoplasmic domain revealed, when compared with human LOX-1, the most significant inhibition on OxLDL uptake was caused by mutations at D4A (40% reduction), D5A (92% reduction) and L6A (43% reduction). Other substitutions within this domain had little effect on LOX-1-mediated OxLDL internalisation. This aspartate-aspartate-lysine (DDL) cytoplasmic motif could independently confer similar endocytic properties to a LOX-1 hybrid protein where an equivalent region within another cell surface receptor (human transferrin receptor-1) was replaced with the DDL motif from LOX-1.

Conclusion

LOX-1-mediated uptake of pro-atherogenic OxLDL is regulated by recognition of this novel and transplantable DDL tripeptide motif. These studies reveal new determinants in LOX-1 for intracellular trafficking and accumulation of OxLDL particles that promote atherogenesis.

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Platelet inhibition by nitric oxide is reduced with increasing disease severity in peripheral arterial disease

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Objective

Patients with peripheral arterial disease (PAD) exhibit platelet hyperactivity despite antiplatelet medication, which may represent reduced inhibition of platelet function and contribute to high cardiovascular morbidity and mortality. Platelet function may therefore be used to stratify these patients and identify those at high cardiovascular risk, allowing tailoring of aggressive antiplatelet regimens to reduce mortality.

Method

PAD patients (intermittent claudication [IC] and critical limb ischaemia [CLI]) and age-sex-matched controls were recruited. Flow cytometric analysis of basal, adenosine diphosphate (ADP)-induced and nitric oxide-inhibited (using the NO donor S-nitroglutathione [GSNO]) platelet-fibrinogen binding (PFB) and platelet-leucocyte aggregate (PLA) formation was performed. Numbers recruited: PFB assay C=13, IC=20, CLI=7; PLA assay C=13, IC=17, CLI=5.

Results

PFB at low-dose ADP concentrations and PLA formation (platelet-monocyte and platelet-neutrophil), both basally and at all ADP concentrations, were significantly increased with increased disease severity (PFB: C v CLI $p=0.044$, IC v CLI $p=0.008$; PLA: for example, ADP $0.1\mu\text{M}$ C v CLI $p<0.001$, C v IC $p<0.001$). Inhibition of PFB and PLA formation by NO was decreased with increasing disease severity (PFB: C v CLI $p=0.03$, IC v CLI $p=0.046$ for GSNO $10\mu\text{M}$, C v CLI $p=0.007$, IC v CLI $p=0.001$ for GSNO $100\mu\text{M}$. PLA: C v CLI $p=0.038$, IC v CLI $p=0.047$).

Conclusion

Patients with PAD exhibit increased platelet activity in response to ADP and decreased platelet inhibition by NO. Increased PLA formation and reduced inhibition of platelet function by NO may serve as markers for disease progression or prediction of cardiovascular morbidity/mortality, permitting more aggressive pharmacological management of cardiovascular risk in these patients.



The effects of N-acetylcysteine on host inflammatory response and renal function in patients undergoing infra-inguinal bypass surgery

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Objective

The aim of this prospective, randomised controlled trial is to investigate the effects of oral N-acetylcysteine (NAC) on the systemic inflammatory response and renal function in patients undergoing lower limb bypass surgery.

Method

Patients undergoing lower limb bypass surgery were randomised to receive either 600mg of oral NAC or the usual oral intake without NAC pre- and postoperatively. Urinary 11-dehydrothromboxane B₂, plasma IL6, urinary p75TNF receptors, absolute neutrophil count, C-reactive protein, intestinal permeability, and systemic inflammatory response score along with renal function, were measured before surgery (PO) and daily until day 5 postoperatively (D1-5). While a p value of <0.05 was considered significant, Bonferroni correction was used in the presence of multiple comparisons.

Results

Fourteen patients were randomised into each group. The control group had a higher concentration of urinary 11-dehydrothromboxane B₂ concentrations on D1 and D3 compared with pre-operative concentration. No significant change was observed in the NAC group. Absolute neutrophil count in the control group was significantly higher on D1-D3, with no difference in the NAC group. A significant reduction in serum creatinine concentration was found in the NAC group postoperatively. This was associated with a corresponding increase in estimated glomerular filtration rate. In the control group, no significant difference was observed in postoperative renal function. No significant change was demonstrated within or between the groups in the IL6, p75TNFr, lactulose-mannitol ratio, systemic inflammatory response score or morbidity and mortality.

Conclusion

The results show that NAC may reduce neutrophil activation and improve renal function in patients undergoing infra-inguinal arterial bypass surgery.

Do novel risk biomarkers reflect the severity of peripheral arterial disease?

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Objective

To determine the association between novel atherosclerotic risk biomarkers and severity of peripheral arterial disease (PAD).

Method

Stable claudicants were recruited from outpatient vascular clinics. All patients were taking antithrombotic and lipid-lowering therapy. Traditional and novel atherosclerotic biomarkers were measured. Traditional biomarkers were total cholesterol, low-density and high-density lipoprotein cholesterol (LDL, HDL), total cholesterol/HDL ratio, triglycerides and blood pressure. Novel biomarkers were C-reactive protein (CRP), von Willebrand Factor (vWF), interleukin-6 (IL6), red cell folate (RCF), vitamin B12, homocysteine (Hcy) and Hcy genotypes: MTHFR 677-CT, MTHFR 1298-AC, MTR 2576-AG, MTRR 66-AG. The severity of PAD was evaluated using ankle-brachial pressure index (ABPI), brachial-knee and brachial-ankle pulse wave velocity (bk and ba-PWV) measurements. The correlation between biomarkers and PAD severity was assessed using the Spearman correlation test and results were adjusted for the other biomarkers.

Results

One hundred and thirty-three patients with PAD were recruited. Hcy and systolic blood pressure had a positive independent correlation with bk-PWV ($\beta=+0.56$, $p=0.003$ and $\beta=+0.38$, $p<0.001$, respectively). RCF had an independent inverse correlation with bk-PWV ($\beta=-0.01$, $p=0.01$). Systolic blood pressure showed an independent positive correlation with ba-PWV only after adjustment for other biomarkers ($\beta=+0.1$, $p=0.04$). Cholesterol/HDL had an independent inverse correlation with ABPI ($\beta=-0.08$, $p=0.046$). There was no significant association between the other biomarkers and ABPI or PWV.

Conclusion

Hypercholesterolaemia and hypertension need aggressive treatment in this population. Plasma Hcy and RCF levels correlated well with severity of PAD. They are easily measured markers of disease and provide possible targets for further risk factor modification.



The cerebrovascular response to hypercarbia does not support vasoparesis as a mechanism for increases in middle cerebral artery blood flow velocity after carotid endarterectomy

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Objective

It has been proposed that hyperperfusion following carotid endarterectomy (CEA) is due to vasoparesis of maximally vasodilated vessels distal to a carotid stenosis which persists into the postoperative period. We tested this hypothesis by examining the association between the percentage change in mean middle cerebral artery blood flow velocity (mean MCAv) and pre-operative and postoperative cerebrovascular reactivity to hypercarbia.

Method

In patients undergoing carotid endarterectomy (CEA), ipsilateral mean MCAv was recorded using transcranial Doppler (TCD) on the day before and the day after surgery. Hypercarbia was induced by rebreathing and end-tidal CO₂ measured with a side-stream capnograph. Vascular reactivity was quantified as the percentage change in mean MCAv per kPa change in end-tidal CO₂ concentration. The association between vascular reactivity was examined using Spearman's rank correlation coefficient.

Results

Thirty-four patients (27 male), median age 71 (52-83) years, were studied. The median (range) change in mean MCAv post-CEA was 18.4(-26.0 to 208.6)%. The median (range) pre-operative cerebrovascular reactivity to hypercarbia was 18.7(-0.2 to 45.3)% kPa⁻¹, and the postoperative reactivity was 18.5(1.4 to 26.1)% kPa⁻¹. The rank correlation coefficient for the association between the percentage change in mean MCAv and pre-operative cerebrovascular reactivity was -0.08 (p=0.68) and that for postoperative cerebrovascular reactivity was -0.17 (p=0.37).

Conclusion

These data do not support an association between vasoparesis as identified by poor CO₂ reactivity and the magnitude of the change in post-CEA mean MCA velocity.

A randomised double-blind placebo-controlled trial of the impact of high-dose statins on the ischaemia-reperfusion injury in elective AAA repair

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Objective

Ischaemia-reperfusion injury (IRI) significantly contributes to AAA-related morbidity and mortality. We performed a double-blind RCT to analyse the impact of high-dose pre-operative statins on IRI following open AAA repair.

Method

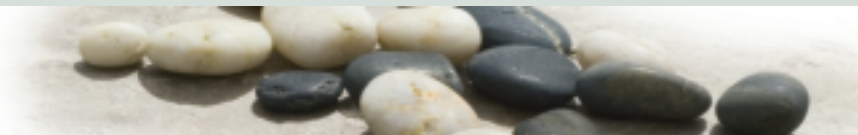
Forty patients (36 men), median age 76 (IQR 68-80) years, were randomised into placebo (n=20) or atorvastatin 80mg o.d. (n=20) groups, 3 weeks prior to open AAA repair. Blood and urine samples were collected at induction, 5 minutes, 6 and 24 hours following clamp release. Venous blood was analysed (ELISA method) for interleukin 10, sE selectin, sP selectin, soluble intercellular adhesion molecule-1 (sICAM-1), soluble vascular cell adhesion molecule-1 (sVCAM-1) and malondialdehyde (MDA). Arterial blood was analysed for a lactate and alveolar/arterial gradient. Urine was analysed for an albumin/creatinine ratio (ACR).

Results

Intra-group. The placebo group was associated with a significant increase from baseline in: i) IL 10 at 6 hours (p=0.027); ii) ACR at 5 minutes (p=0.004), 6 hours (p=0.001) and 24 hours (p=0.043); iii) lactate at 5 minutes (p=0.000). The statin group was associated with a significant increase from baseline in: i) IL 10 at 6 hours (p=0.000) and 24 hours (p=0.001); ii) sVCAM at 24 hours (p=0.043); iii) ACR at 5 minutes (p=0.000) and 6 hours (p=0.012); iv) lactate at 5 minutes (p=0.000). *Inter-group.* The statin group demonstrated a significant increase in sICAM at baseline (p=0.04) and 24 hours (p=0.01) in comparison with placebo.

Conclusion

sICAM and sVCAM elevation, associated with pre-operative statin loading, attenuates IRI-associated end organ damage.



Atorvastatin Therapy: Effects on Reduction Of Macrophage Activity (ATHEROMA). Evaluation using USPIO-enhanced magnetic resonance imaging in carotid disease

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Objective

This randomised double-blind study investigated the effects of low-dose (10mg) and high-dose (80mg) atorvastatin on macrophage activity in carotid atherosclerotic plaques using serial ultra-small super-paramagnetic iron oxide (USPIO)-enhanced MRI. The hypothesis was that treatment with 80mg atorvastatin would demonstrate quantifiable changes in USPIO-enhanced MRI defined inflammation within 12 weeks of therapy.

Method

Forty-seven patients with carotid stenosis >40% on ultrasonography and who demonstrated intraplaque accumulation of USPIO on MRI at baseline were randomised to either 10mg or 80mg atorvastatin daily for 12 weeks. The primary endpoint was change from baseline in signal intensity (Δ SI) on USPIO-enhanced MRI in carotid plaque at 6 and 12 weeks. Transcranial Doppler (TCD) monitoring was also performed for clinical correlation.

Results

Twenty patients completed 12 weeks of treatment in each group. A significant reduction from baseline in USPIO-defined inflammation was observed in the 80mg group at 6 weeks (Δ SI 0.13; $p=0.0003$) and 12 weeks (Δ SI 0.20; $p<0.0001$). In parallel, there were reductions in cerebral emboli count at 6 weeks (71%; $p<0.0001$) and 12 weeks (91%; $p<0.0001$) in the high-dose group on TCD. 80mg atorvastatin significantly reduced low-density lipoprotein cholesterol by 29% ($p<0.0001$) at 12 weeks.

Conclusion

Aggressive lipid-lowering therapy over a 12-week period is associated with a significant reduction in USPIO-defined inflammation and associated emboli counts. USPIO-enhanced MRI methodology may be a useful imaging biomarker for the screening and assessment of therapeutic response to 'anti-inflammatory' interventions in patients with carotid atherosclerotic lesions.

Activated platelets and coagulation in patients on haemodialysis

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Objective

Patients on haemodialysis (HD) have an increased risk of cardiac events. Controversy exists as to whether these patients have a pro-thrombotic state. We aimed to determine markers of platelet activation and coagulation in patients on HD compared with healthy volunteers.

Method

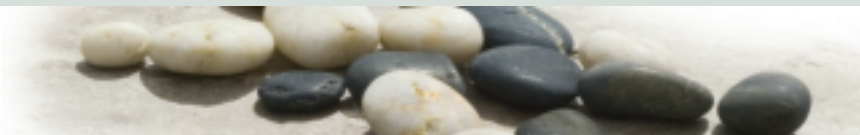
Platelet function was assessed in 78 patients pre-HD and 78 volunteers by: i) Ultegra rapid platelet function assay using the agonists thrombin receptor activating peptide (TRAP) and arachidonic acid (ASA); ii) flow cytometry of P-selectin expression and fibrinogen binding with/without ADP stimulation; and iii) measuring plasma soluble P-selectin. Coagulation and fibrinolysis were assessed by ELISA determination of thrombin-antithrombin (TAT) and D-dimer, respectively.

Results

ASA-stimulated platelet aggregation was significantly reduced in HD patients, of whom 50 (64%) were on aspirin therapy (median [IQR] 555 [355-671] versus 649 [385-675], $p < 0.001$). TRAP-mediated aggregation was similar in both groups. Unstimulated fibrinogen binding was significantly increased in patients (2.02 [1.48-2.62] versus 1.46 [1.15-1.94], $p < 0.001$) but stimulated fibrinogen was decreased (40.75 [26.7-50.3] versus 50.05 [40.6-59.9], $p < 0.001$). Unstimulated P-selectin was significantly decreased in patients (0.82 [0.52-1.46] versus 1.62 [0.86-2.34], $p < 0.001$), yet soluble P-selectin was significantly increased (43.26 [13.88-86.7] versus 24.67 [13.41-43.32], $p = 0.039$). Stimulated P-selectin was similar in both groups. Markers of coagulation were significantly increased in patients on HD: TAT 4.59 (2.67-6.04) versus 2.84 (1.81-3.82), $p < 0.001$ and D-dimer 876.5 (434.2-1338.5) versus 265.5 (175.0-401.51), $p < 0.001$.

Conclusion

Patients on HD have a pro-thrombotic state with chronically activated platelets and elevated markers of coagulation. Drug therapy to counteract this pro-thrombotic state should be considered with the aim of preventing both cardiac events and vascular access thrombosis.



Dual antiplatelet therapy in surgery for critical limb ischaemia

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Objective

Patients with critical limb ischaemia have a peri-operative cardiovascular morbidity comparable to patients with an acute coronary syndrome. We hypothesised that peri-operative dual antiplatelet therapy would improve biomarkers of atherothrombosis without causing unacceptable bleeding in patients undergoing surgery for critical limb ischaemia.

Method

In a prospective double-blind randomised controlled trial, 108 patients undergoing infra-inguinal revascularisation or amputation for critical limb ischaemia were maintained on aspirin (75mg daily) and randomised to clopidogrel (600mg prior to surgery, and 75mg daily for 3 days; n=50) or matched placebo (n=58). Platelet activation and myocardial injury were assessed by flow cytometry and plasma troponin concentrations, respectively.

Results

Clopidogrel caused a reduction in platelet-monocyte aggregation (30% versus 38%; p=0.007) that was sustained in the postoperative period (p=0.002). There were 18 troponin-positive events (8 clopidogrel versus 10 placebo; OR 0.91; p=0.863) with clopidogrel causing a greater decline in troponin concentrations (p<0.001). Clopidogrel did not increase major life-threatening bleeding (7 clopidogrel versus 6 placebo; OR 1.4; p=0.56), or minor bleeding (17 versus 12; OR 1.9; p=0.12). However, blood transfusions were increased (11 versus 4; OR 2.8; p=0.037).

Conclusion

In patients with critical limb ischaemia, peri-operative dual antiplatelet therapy reduces biomarkers of atherothrombosis without increasing life-threatening bleeds. A large-scale randomised controlled trial would establish whether dual antiplatelet therapy improves clinical outcomes in high-risk patients undergoing vascular surgery.

A novel nanocomposite polymer for the development of a new aortic stent graft

Bakhshi R, Eaton-Evans J, Edirisinghe M, Darbyshire A, You Z, Seifalian AM, Hamilton G

University College, London

Objective

We have developed an innovative self-expanding, sutureless stent graft for coronary, peripheral and EVAR use that incorporates a NiTi alloy scaffold with a nanocomposite polymer (UCL-Nano™) with improved haemocompatibility. Because of novel physicochemical and biological properties this new polymer has superior properties to Dacron and PTFE and favours spontaneous endothelialisation. This study assessed the bond strength between the polymer and metal stent over the lifespan of the device.

Method

An atomization spraying method was used to deposit polymer coatings on the NiTi using trialkoxysilane to improve bonding strength without suturing. A tensometer equipped with a 500N load cell measured peel strength of the polymer-coated NiTi alloy. Polymer-coating stability and durability were investigated by a battery of FDA non-clinical tests including accelerated cardiac cycle studies.

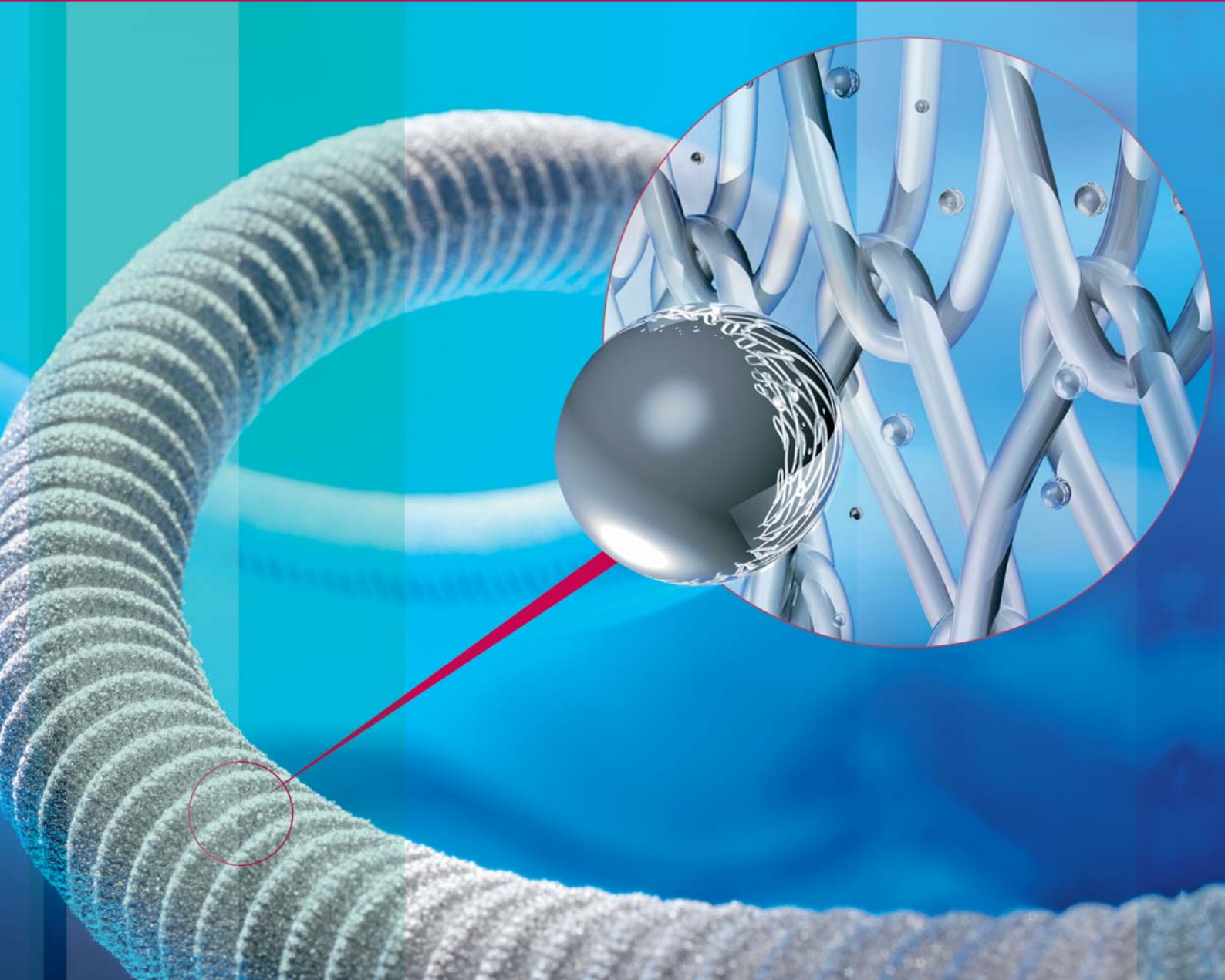
Results

A three-times increase in the bond strength of the polymer to the scaffold was achieved using this surface treatment. The nanocomposite coating remained stable after exposure to accelerated biological degradative solutions. The sutureless design of the stent graft demonstrated durability in extensive *in vitro* testing.

Conclusion

A new stent based on a biocompatible, biostable nanocomposite polymer bonded to an origami-designed folding nitinol alloy has been shown to have durable bonding without the need for sutures. This stent has demonstrated durability in extensive *in vitro* testing and is ready for *in vivo* study.

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Silver  Graft

An evolution in graft technology

B | BRAUN
SHARING EXPERTISE

Decellularised porcine ureter (DURE) is a strong, biocompatible and compliance-matched scaffold for tissue engineering of a novel small calibre cardiovascular graft

Yow KH, Korossis S, Ingram J, Fisher J, Ingham E, Homer-Vanniasinkam S

Institute of Medical and Biological Engineering, University of Leeds and the Leeds Vascular Institute, The General Infirmary at Leeds, Leeds

Objective

Current synthetic grafts perform poorly in small calibre anastomosis. Autologous conduits are often unavailable due to previous surgery or disease. We aimed to investigate the utility of decellularised porcine ureter as a tissue engineering scaffold for a small calibre cardiovascular graft.

Method

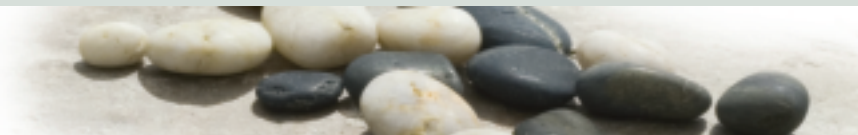
Porcine ureter was decellularised using a Tris buffer, 0.1% SDS and nucleases. Contact and extract cytotoxicity of the acellular scaffold was determined with L929 mouse fibroblast and A549 human cell lines. Decellularised ureter was then assessed biomechanically using uniaxial tensile testing, and compliance, burst pressure and suture retention testing. Controls included porcine femoral artery (FA) and human saphenous vein (HSV) (n=6 each group).

Results

Decellularisation was confirmed histologically. DURE did not demonstrate contact or extract cytotoxicity. Tensile strength for DURE (6.02 ± 0.82 MPa) was higher than FA (2.53 ± 0.13 MPa; $p < 0.0001$). At high pressures (80-260 mm Hg), DURE compliance ($3.77 \pm 1.24\%$ mm Hg⁻¹) matched native artery ($2.31 \pm 0.44\%$ mm Hg⁻¹) and was more compliant than HSV ($1.4 \pm 0.34\%$ mm Hg⁻¹; $p = 0.037$). Burst pressure and suture retention strength for DURE (3071 ± 351 mm Hg; 1.94 ± 0.2 N) were not significantly different ($p > 0.05$) from FA (2509 ± 320 mm Hg; 2.17 ± 0.87 N) and HSV (3004 ± 444 mm Hg; 2.22 ± 0.75 N).

Conclusion

DURE was biocompatible, of comparable strength with matching or higher compliance than FA and HSV. It may offer an exciting alternative to current prostheses.



The 6-minute walk test provides an accurate measure of exercise capacity for risk assessment before major non-cardiac surgery

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The James Cook University Hospital, Middlesbrough

Objective

To assess the validity of the 6-minute walk test (6MWT), undertaken at pre-operative assessment for scheduled major non-cardiac surgery, against a criterion measure, anaerobic threshold (AT), derived from cardiopulmonary exercise testing (CPET). Functional assessment of exercise capacity forms a cornerstone of pre-operative assessment and risk prediction before major surgery. We have previously demonstrated that reporting exercise capacity using maximum exercise tolerance (METs), as recommended by the ACC/AHA, provides a poor test that does not correlate with measured exercise capacity. We propose that the 6MWT may represent a more robust test and, importantly, provide an accurate surrogate for expensive CPET.

Method

Following ethics and research committee approval 15 participants awaiting major non-cardiac surgery entered this study. Oxygen consumption (VO_2) at AT was measured by CPET and maximum distance walked during two 6MWTs was recorded. Statistical analysis employed an ordinary least-squares linear regression method, using Pearson's correlation coefficient, to derive the validity co-efficient (r) and the standard error of the estimate (SEE), providing the typical prediction error associated with the prediction of AT from the results of a 6MWT in an individual patient.

Results

We found a validity coefficient of $r=0.76$, with a standard error of prediction of AT from distance walked during 6MWT of $\pm 2.4\text{mlO}_2\text{kg}^{-1}\text{min}^{-1}$.

Conclusion

The 6MWT correlates strongly with AT in this study. Based on this encouraging exploratory phase correlation we will now undertake a definitive concurrent validity study. We hope to provide an appropriate surrogate for CPET allowing improved risk assessment and outcome prediction for scheduled major non-cardiac surgery.

Vascular trauma: survivability and surgical outcome in a deployed military trauma system

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Academic Department of Military Surgery and Trauma, Academic Department of
Emergency Medicine, Royal Centre for Defence Medicine

Objective

Military vascular injuries are complex limb and life-threatening wounds which pose significant difficulties in pre-hospital and surgical management. Our aim was to provide a comprehensive description of the epidemiology, treatment and outcome of vascular injury amongst service personnel deployed on operations in Afghanistan and Iraq.

Method

Analysis of the British Military Trauma Registry was combined with hospital record and post-mortem review of all cases of vascular trauma in deployed service personnel over a 5-year period ending in January 2008.

Results

Of 1203 trauma patients, 121 sustained injuries to named vessels. Seventy-seven of 121 died prior to any opportunity for surgical intervention. All 19 patients who sustained an injury to a named vessel in the abdomen or thorax died; 18 did not survive to undergo surgery, one *in extremis* casualty underwent a thoracotomy and died. Six out of 15 patients with cervical vascular injuries survived to surgical intervention; two died following surgery. Of 87 patients with extremity vascular injuries, 37 survived to surgery with two postoperative deaths. Interventions on 38 limbs included 19 damage control (15 primary amputations, four vessel ligations) and 19 definitive limb revascularisation procedures (11 interposition vein grafts, eight direct repairs) of which four failed, necessitating three amputations.

Conclusion

In operable patients with extremity injury, amputation or ligation is often required for damage control and preservation of life, but favourable limb salvage rates are achievable in casualties able to withstand revascularisation. Despite marked progress in contemporary battle-field trauma care, torso vascular injury is usually not amenable to surgical intervention.



Trends in hospital abdominal aortic aneurysm deaths in Scotland over 10 years, 1996-2005

Young JA, Moore J, Kerr L, Burton H, Stonebridge PA
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Objective

Abdominal aortic aneurysm (AAA) affects 5% of the population and rupture leads to death in 1% of men over 60. This study analysed data from 1996-2005 of all in-patient AAA mortality in Scotland.

Method

Retrospective data were obtained from the Scottish Audit of Surgical Mortality which independently peer reviews every death under the care of a surgeon.

Results

A total of 1,978 deaths with a median age of 76 years were identified in the 10 years. Of these, 1,049 had surgical intervention with 183 being admitted electively and the remaining 866 as emergencies. Nine hundred and twenty-nine patients were deemed unsuitable for surgery. Associated comorbidities were common with cardiovascular diseases in 71% and respiratory disease in 33%. Areas for concern and consideration (ACONs) were highlighted for each of the groups. Surgical complications, delays (in presentation, to theatre and in getting blood products) and missed diagnoses accounted for the greatest proportion of ACONs for the elective admission deaths, emergency admissions and non-operated patients, respectively. Overall, 20% of deaths had ACONs with more than 50% in elective surgery AAA deaths in recent years.

Conclusion

AAA surgery has an inherent mortality which is multi-factorial and related to the urgency of the patient but there is considerable room for improvement as, overall, 20% of patients who died had sub-optimal care.

Preliminary results of a prospective randomised trial of a restrictive versus standard fluid regime in elective abdominal aortic aneurysm repair

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Objective

Open abdominal aortic aneurysm (AAA) repair is associated with cardiac and respiratory complications and an overall mortality rate of 2-8%. We hypothesise that excessive fluid administration during the peri-operative period contributes to complications and poor outcome after AAA repair.

Method

Design was a prospective randomised control trial (RCT) comparing a restricted fluid group with a standard fluid group in elective infrarenal open AAA repair at a single centre. Primary outcome measure was major complication (MC) rate between the groups; MCs included myocardial infarction, cardiac arrhythmia, pulmonary oedema, pulmonary infection, acute confusional state and acute renal failure. Secondary outcome measures included time to first bowel movement and duration of hospital stay.

Results

Preliminary results of the RCT were analysed (n=21). Demographics and POSSUM scores were not significantly different. Mean cumulative fluid balance on day 5 for the standard group (n=11) was 8242ml versus 2570ml in the restricted group (n=10), $p<0.01$. MC occurred in the standard group 7/11 (64%) versus the restricted group, 1/10 (10%), $p=0.024$. Median day to first bowel movement was 5 days in the standard group versus 2.5 days in the restrictive group, $p=0.026$. Median postoperative stay was 11 days in the standard group versus 7 days in the restricted group, $p<0.05$.

Conclusion

Serious complications are common after elective open AAA repair, and we have shown for the first time that a restricted postoperative fluid regime can prevent major complications, and reduce postoperative stay.



Endovascular management of mycotic aortic aneurysms

Clough RE, Black SA, Lyons OT, Bell RE, Zayed H, Carrell T, Waltham M, Sabharwal T, Reidy J, Taylor PR

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Objective

The traditional method for treating infective aortic pathology involves extensive open surgery. Endovascular repair for degenerative aortic aneurysms is well established but its role in those with infective pathology remains controversial. The aim of this study is to evaluate the mid-term results of a single centre experience.

Method

A retrospective analysis of a prospectively maintained endovascular database (1998-2008) was conducted, which identified 673 consecutive patients. Of these, 237/673 (35%) had thoracic aortic procedures and 436/673 (65%) had abdominal aortic procedures.

Results

Nineteen patients (19/673; 2.8%) were identified with infective aortic aneurysms in which there were a total of 23 separate aneurysms (16 thoracic, 7 abdominal). Six patients presented with rupture. Seven patients (37%) had a comorbid condition associated with a degree of immunocompromise and six had undergone previous aortic surgery. Fifteen of 19 (79%) had positive blood cultures with *S. aureus*, the most common organism. All 19 patients underwent endovascular repair. There were three Type I endoleaks (one requiring conversion to open repair) and two Type 2 leaks. One patient developed transient paraplegia, resolved by CSF drainage and one patient had a stroke. The 30-day mortality was 11%, and at median follow-up of 16 months (0-83), mortality was 27%. However, 11 patients had evidence of ongoing graft infection, at 4 years survival was 58%, and all six deaths in the series were aneurysm-related.

Conclusion

Endovascular treatment of infective aortic pathology provides an early survival benefit; however, concerns over ongoing graft infection remain.

Outcomes and aortic morphology following endovascular repair of acute and chronic Type B aortic dissection

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Objective

Following endovascular treatment of acute (AAD) and chronic (CAD) Type B aortic dissections, the study aimed to define early clinical outcomes, investigate medium-term aortic remodelling and document false lumen thrombosis rates.

Method

Seventy-eight patients underwent endovascular repair for AAD (38) and CAD (40). Indications for repair in AAD were rupture, end organ ischaemia or symptoms of impending rupture. Patients with CAD were treated for complications or significant aortic expansion. Early and late clinical outcomes were recorded. At follow-up CT scanning, true and false lumen diameter were recorded at: six levels of the aorta, the mid point of the endograft and below the endograft. False lumen thrombosis was recorded at each level.

Results

The 30-day mortality was 2.6% in AAD and 7.5% in CAD. The 30-day stroke and paraplegia rates were 5.3% and 0% in AAD and zero in patients with CAD. At 30 months, the cumulative re-intervention rate was 62% and 55% in AAD and CAD, respectively. In AAD, at 12 months, the false lumen thrombosis rate was 85% at the stent and 60% below it. In CAD, thrombosis rates were 68% above the stent and 33% below it.

Conclusion

Aortic remodelling is greater in AAD. In AAD and in the segment, for both dissection types, false lumen thrombosis rates are higher. In AAD and CAD there is a significant re-intervention rate. The length of aorta covered with the stent should be greater, particularly in CAD.



Robotic endovascular catheters (REC) improve accuracy, reduce time and minimise radiation exposure in complex vascular procedures

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St Mary's Hospital, Imperial College, London

Objective

To investigate whether steerable robotic endovascular catheters (RECs) may enhance vessel cannulation in phantom models.

Method

Ten endovascular specialists (>50 procedures) cannulated vessels within CT-reconstructed pulsatile models (Type-I, Type-III aortic arches and a fenestrated graft within a Type-II thoraco-abdominal aneurysm) under fluoroscopy using conventional and robotic techniques. Cannulation times, wire/catheter tip movements assessed by two independent observers (interobserver error-Cronbach's $\alpha=0.94$) and radiation exposure were compared using Wilcoxon signed-rank test.

Results

Arch vessels. Median carotid vessel cannulation times were significantly reduced using robotic catheterisation: i) Type-I arch: left carotid (LCA) 0.77 minutes (IQR 0.28-0.95) versus 3.23 minutes (2.51-3.75), $p=0.01$; right carotid (RCA) 0.9 minutes (0.6-1.03) versus 1.63 minutes (1.31-3.1), $p=0.008$; ii) Type-III: LCA 0.73 minutes (0.6-1.14) versus 3.78 minutes (1.21-4.08), $p=0.02$; RCA 1.67 minutes (0.67-3.2) versus 7.36 minutes (1.67-8.97), $p=0.01$. Movements were significantly reduced for all vessels using the REC: i) Type-I: left subclavian (LSA) 4 (4-5) versus 18 (14-33), $p=0.08$; LCA 8 (6.3-13.2) versus 64 (51-95), $p=0.008$; right subclavian (RSA) 8 (4-14) versus 17 (12-51), $p=0.02$; RCA 9 (7-9) versus 38 (21-76), $p=0.008$; ii) Type-III: LSA 6 (5-7) versus 18 (13-22), $p=0.008$; LCA 13 (12-13.7) versus 88 (45-188), $p=0.008$; RSA 25 (8-32) versus 54 (19-70), $p=0.03$; RCA 21 (6-31) versus 253 (69-346), $p=0.008$. *Fenestrated model.* Median cannulation time (L-renal 0.5 minutes [0.4-0.6] versus 6.3 minutes [1.3-7.1]; R-renal 0.99 minutes [0.66-1.14] versus 3.56 minutes [2.76-4.17]; superior mesenteric [SMA] 0.82 minutes [0.44-1.01] versus 2.06 minutes [1.08-6.84]) and movements (L-renal 5 [4-7] versus 136 [65-235]; R-renal 10 [7-15] versus 138 [56-166]; coeliac 10 [6-21] versus 51 [35-68]; SMA 8 [8-14] versus 46 [43-151]) were significantly reduced ($p=0.04$) using the REC. Robotic cannulation operator radiation exposure was zero.

Conclusion

With intuitive REC, the greatest differences are observed in challenging anatomical configurations, despite minimal operator exposure. In complex endovascular procedures, robotics may aid in overcoming the limitations of standard catheter technology.

Intra-operative Dyna-CT improves technical success and short-term outcomes following endovascular repair of abdominal aortic aneurysms

Ali T, Biasi L, Morgan R, Loftus I, Thompson M

St George's Regional Vascular Institute, London

Objective

Early re-intervention following EVAR is required in 10% of patients and increases mortality. Completion angiography cannot detect all graft-related anomalies and requires CTA to ensure technical success. Intra-operative Dyna-CT generates CT-like images from rotational angiographic acquisitions. We report our experience of combining Dyna-CT to the current gold standard of peri-operative graft surveillance.

Method

From September 2001-February 2007, analysis of 312 EVAR patients undergoing surveillance with uni-planar angiography and pre-discharge CTA (group A), was performed. In the second part of this study (September 2007-May 2008), a prospective analysis was performed on 80 consecutive patients, following a change in protocol with the addition of intra-operative Dyna-CT (group B).

Results

In group A, 14 patients (4.5%) required 20 secondary interventions within 30 days for graft-related complications of which two patients died. Re-intervention resulted in a median hospital stay of 12 days (range 5-38). Dyna-CT was feasible in 81.3% of patients in group B (n=65) detecting 26 anomalies, not apparent at completion angiography. In five patients (7.7%), immediate correction of clinically significant anomalies were required to achieve technical success. Median hospital stay was 3 days (range 2-16) with a peri-operative mortality rate of 2.4% (n=2/85). No patients required peri-operative adjunctive procedures.

Conclusion

Intra-operative Dyna-CT is feasible allowing immediate cross-sectional evaluation of the endovascular procedure and on-table correction of anomalies, thereby improving technical success and short-term outcomes.

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Using out-of-programme training to establish interventional radiology training for current and future surgeons

Weale AR, Haslam JE, Das N, Collin N, Jones L, Loveday EJ, Thornton MJ, Mitchell DC

North Bristol NHS Trust, Bristol

Objective

Vascular surgical trainees wish to receive training in vascular interventional radiology (IR). Pilot schemes will be implemented in 2009. We created an IR training post for surgeons from within our current staffing complement. We describe our experience of the first 9 months of this post.

Method

We obtained the agreement of our radiologists, the Programme Director, Regional Advisor and Postgraduate Dean. This gave the post provisional approval for out-of-programme training (OOPT). The post involves a continuing commitment to general surgery on-call.

Results

In 9 months (3rd Oct-30th June 2008) the trainee independently performed 136 angioplasties for PAD, plus 50 diagnostic arteriograms. In addition, 31 angioplasties of haemodialysis access were performed. This workload surpasses the Royal College of Radiologists' recommended requirement for vascular IR training of radiology trainees. The post was undertaken alongside the local radiology IR trainees. Throughout the period of training there was increasing joint team working. In addition, training was given in radiation protection and non-invasive vascular imaging. There are already plans for the trainee to continue exposure to IR in the next surgical training post. Initial enthusiasm has translated into joint IR training for surgeons combined with theatre, clinical and ward skills training for radiology specialist registrars.

Conclusion

We have demonstrated that training in IR can be provided without additional funding, within the current training structure. The next step is to convert this OOPT post to a core part of the regional surgical training programme.



Anatomic factors in patient selection for carotid artery stenting (CAS): a new scoring system

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Objective

To develop a scoring system to aid appropriate case selection for CAS based on anatomic features.

Method

A multinational and multispeciality panel of 12 carotid stenting experts was convened in order to avoid 'group think'. Delphi consensus methodology was applied and four 'rounds' were performed comprising emailed questionnaires, private decision-making (without face-to-face contact), structured interaction and explicit aggregation methodology (judgements were combined according to mathematical rules). In round 1 panellists proposed individual anatomic criteria that were considered relevant during CAS. In round 2 each criterion was scored on an integer scale from 1 (straightforward) to 9 (difficult). Round 3 involved distillation of 12 original criteria in order to reduce the volume of subsequent combinations. The final round involved scoring 96 combination anatomies (a 'full factorial' design) plus a dichotomous response, i.e. whether CAS should or should not be advised.

Results

There were 1164 responses. We were able to provide both a difficulty score for 12 individual anatomic features and for 96 combinations anatomies with a good level of agreement between panellists. After derivation of the mean (and standard deviation) of the cutting scores for the yes/no response across all panellists, we were able to produce a scoring system for combination anatomy comprising broad agreement bands to be presented as traffic light colours: red for particularly difficult anatomy, amber for moderate difficulty and green for lesser difficulty.

Conclusion

A scoring system has been developed, based on objective expert consensus, which can be used to categorise expected difficulty of CAS and aid case selection.

Extracranial and transcranial ultrasound assessment of patients with suspected 'positional' vertebrobasilar ischaemia

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Objective

A diagnosis of 'positional' vertebrobasilar ischaemia is suspected in patients presenting with dizziness/vertigo during lateral neck rotation/extension and is attributed to bony 'nipping' of the vertebral artery (VA). Some labelled with this diagnosis (often without further investigation) may then be turned down for major surgical interventions because they are otherwise considered high risk. This study used extracranial and transcranial ultrasound to determine whether a diagnosis of positional vertebrobasilar ischaemia was associated with any changes in flow in the VA and basilar (BA) arteries during head turning.

Method

Forty-six patients referred with a suspected diagnosis of positional vertebrobasilar ischaemia and an accessible window for transcranial Doppler underwent extra- and transcranial assessment of flow velocity and flow directionality in the VA and BA while the head was rotated into positions that normally triggered the patient's symptoms.

Results

Positional 'vertebrobasilar symptoms' were triggered by lateral head rotation in 35 (76%), while 11 (24%) developed symptoms following neck extension. Only one patient had a significant carotid stenosis (symptoms unchanged following carotid endarterectomy) and none had significant disease in the extracranial VAs. Not one single patient exhibited any reduction in BA/VA flow velocity during head turning/extension and none had reversal of flow.

Conclusion

The diagnosis of positional vertebrobasilar ischaemia should be made with extreme caution and only after an ENT consultation; 94% of patients subsequently referred to ENT noted an improvement in symptoms following entry into a vestibular rehabilitation programme.



Pre-operative transcranial Doppler (TCD) emboli detection in symptomatic patients to determine the timing of carotid surgery

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University Hospital of Coventry and Warwickshire, Coventry

Objective

Patients with symptomatic carotid artery stenosis (CAS) in whom transcranial Doppler (TCD) detects micro-emboli (MES) are at high risk of subsequent neurological events. Optimal management of patients with recurrent focal symptoms and CAS remains to be determined, and urgent carotid surgery (CEA) is advocated by some.

Method

Patients with more than one focal neurological episode and >70% CAS underwent TCD to detect MES. Patients with MES received TCD-directed Dextran therapy followed by CEA on the next available list. Non-embolising patients underwent elective CEA.

Results

One hundred and ten patients presented with CAS and more than one focal neurological event between 1999 and 2005. Embolisers: TCD detected emboli in 36 patients (median 4 hr⁻¹ Range 2-18), 32 of whom underwent CEA uneventfully. One patient declined surgery and sustained a subsequent CVA. Three patients occluded their CAS without symptoms whilst awaiting surgery. Non-embolisers: 74 patients had no detectable MES. Fifteen patients were deemed unfit (reasons included cardiac comorbidities, brain tumour and dementia). Fifty-nine patients were offered elective CEA, six declined. Fifty-three were listed for surgery; however, 15 patients with CAS occluded without symptoms whilst awaiting surgery, 38 underwent CEA. There were three postoperative CVAs (one thrombotic on day 1, and two haemorrhagic on days 5 and 10).

Conclusion

Higher complication rates have recently been reported with urgent CEA. In this pilot study, MES detection appears to allow stratification of patient sub-groups to determine the timing of surgery. There were no new neurological events in the non-embolising group awaiting CEA. Eighteen (16.3%) of all patients occluded their CAS without symptoms.

A model to predict risk in carotid surgery

Purkayastha D, McCollum C, Kane K (for the Vascular Governance North West participants)

University Hospital of South Manchester, Manchester

Objective

To evaluate peri-operative risk factors influencing the risk of stroke or death in carotid surgery.

Method

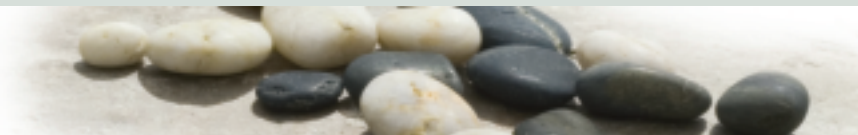
Data on 2239 carotid endarterectomies (CEAs) were collected from 46 vascular surgeons. Univariate analysis was used to identify variables impacting stroke or death ($p < 0.20$). Patient characteristics (demographic data, indication for surgery, previous intervention, medical history and investigations) and 30-day postoperative stroke and death rates were analysed with logistic regression analysis (Backward Wald model).

Results

Fifty-eight (2.6%) patients suffered stroke and 32 (1.4%) died. Of the ten variables significant for stroke risk on univariate analysis, seven were still significant on multivariate regression ($p < 0.05$) with the CEA stroke risk equation: $1.036 \times$ indications for surgery, $-1.309 \times$ ipsilateral stenosis (70-90%), $-0.973 \times$ ipsilateral stenosis ($>90\%$), $0.013 \times$ systolic blood pressure, $0.028 \times$ highest pulse rate, $0.784 \times$ cerebral monitoring, $0.936 \times$ warfarin, $0.797 \times$ antiplatelet drugs - 9.534 . A history of respiratory disease and low cholesterol were also associated with mortality. Risk factors from this model accurately predicted actual risk for stroke and mortality. For stroke risk, a score of <0.01 carries a predicted risk of 1.3% and >0.03 a stroke risk of 7.1%, the observed stroke rates were 1.4% and 7%. For mortality, a risk score of >0.02 had predicted and observed risks of 4.0% and 4.9%.

Conclusion

This model now needs to be tested prospectively to establish its accuracy, sensitivity and specificity.



10-year results of the Asymptomatic Carotid Surgery Trial

Halliday AW, on behalf of the ACST investigators

St George's University of London, London

Objective

Patients with substantial carotid artery stenosis (CAS) are at increased risk of suffering disabling or fatal ischaemic stroke. Carotid endarterectomy (CEA) reduces this risk but there is continuing uncertainty regarding immediate risks and long-term benefits. The Asymptomatic Carotid Surgery Trial aimed to determine net long-term effects of a policy of immediate versus deferred CEA on overall risk of stroke and on fatal and disabling stroke amongst asymptomatic patients with severe CAS.

Method

Patient eligibility included tight asymptomatic CAS (no symptoms within 6 months) determined by ultrasound and uncertainty about the need for immediate intervention. Outcomes included peri-operative stroke, myocardial infarction and death. After randomisation, patients were followed at 4 and 12 months, then annually. Follow-up continued until June 2008 and is 98% complete (20,341 patient follow-up years).

Results

This multi-centre randomised clinical trial randomised 3120 patients from 30 countries between 1993-2003. At 5 years, risk of stroke was halved from 12% to 6% (including 3% peri-operative hazard) and there was also a significant reduction in disabling/fatal strokes. The benefit at 10-year follow-up and the effects of medical treatments on outcome in the longer term has now been determined and these results will be presented.

Conclusion

In the ACST, the 98% complete 10-year outcomes represent a unique opportunity to report on the risks and benefits of immediate versus deferred CEA and the effects of changing medical treatment on stroke risks in asymptomatic patients with severe CAS.

General anaesthesia versus local anaesthesia for carotid surgery (GALA): an open multi-centre randomised trial

Dellagrammaticas, D, Lewis SC, Warlow CP, Bodenham AR, Colam B, Rothwell PM, Torgerson DJ, Horrocks M, Liapis CD, Banning AP, Gough M, Gough MJ, for the GALA Collaborative group

Neurosciences Trials Unit, Western General Hospital, Edinburgh

Objective

ESCT and NASCET established the role of CEA in appropriate patients but reported a 5-7% 30-day stroke/death risk. Strategies reducing this would be important. The GALA Trial was conceived following analysis of non-randomised and randomised studies suggesting a 50% risk reduction for LA CEA.

Method

A total of 3526 patients (symptomatic or asymptomatic disease) were randomised to GA or LA (95 centres, 24 countries). Primary outcome events were stroke, myocardial infarction or death (randomisation - 30 days post-surgery). The data were analysed by intention-to-treat analysis.

Results

Events occurred (99.9% follow-up) in 84/1752 (4.8%) GA and 80/1771 (4.5%) LA patients (not significant: three events prevented per 1000 LA patients [95% CI -11, +17]; risk ratio 0.94 [95% CI 0.70, 1.27]). There were no differences for individual outcome events: stroke 70 (4.0%) GA versus 66 (3.7%) LA (three prevented per 1000 LA patients [95% CI -10 to +16]); death 26 (1.5%) GA versus 19 (1.1%) LA (four prevented per 1000 [95% CI -3 to +12]); myocardial infarction LA 9 (0.5%) versus GA 4 (0.2%) (three more per 1000 LA patients [95% CI -2 to +8]). In patients with contralateral carotid occlusion (pre-defined sub-group), outcome events occurred in 15/150 (10%) GA versus 8/160 (5%) LA, $p=0.098$. Further 1-year survival data indicate fewer subsequent events (stroke, death, MI) in LA patients ($p=0.094$).

Conclusion

These data show that CEA outcomes have improved by up to a third since earlier trials and that both LA and GA are safe. For patients with contralateral carotid occlusion, LA might offer a benefit and trends suggesting improved 1-year survival following LA surgery require further analysis.



Change in practice from heparin to aspirin prophylaxis significantly reduced the thrombosis rate in renal paediatric recipients in a single centre

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Royal Free Hospital, London; Great Ormond Street Hospital for Children, London

Objective

Graft loss due to thrombosis is a major problem in paediatric transplantation. A prior retrospective study in our unit from 1987-2000 revealed the same thrombosis rate in patients with no antithrombotic therapy (11.1%), as in those receiving heparin (9.3%). This study evaluates the impact of changing to aspirin prophylaxis at 1mg/kg (maximum dose 75mg) for 1 month.

Method

One hundred and fifty-six consecutive transplants on aspirin (Oct 2000-Dec 2006) were analysed retrospectively using the same variables as in the previous study: live/deceased donor, donor and recipient age and gender, cold ischaemia time, single v multiple vessels, side of graft, aortic anastomosis. The patients were divided into three groups: group 1: no prophylaxis, group 2: heparin and group 3: aspirin.

Results

Groups 1 (n=126), 2 (n=128) and 3 (n=156) - live donor: 23%, 27% and 50.6%; recipient age 0-5 years: 31%, 27% and 17%; male recipient: 66%, 68% and 58%; donor age 0-5 years: 15%, 7% and 0%; male donor: 54%, 54% and 54.4%; multiple donor vessels: 23%, 16% and 30%; R-sided graft: 53%, 44% and 26 %; onto aorta: 48%, 65% and 21.7%. Graft loss from thrombosis occurred in 2/156 patients (1.2%) in group 3, compared with 11.1% and 9.3% in groups 1 and 2. There was no graft loss from haemorrhage and none in the 0-5-year olds (n=17) in group 3.

Conclusion

Over the past 7 years there has been an increase in live donors and hence more left kidneys were transplanted. Fewer recipients in group 3 were under 5, but no graft loss was observed in group 3, 0-5-year children, on aspirin. The fall in thrombosis rate from 10% to 1.2% is greater than could be expected by the change in the group characteristics. We would therefore advocate the use of aspirin prophylaxis in paediatric renal transplantation.

Bone marrow mononuclear cells drive thrombus resolution

Wadoodi A, Saha P, Patel S, Waltham M, Burnand KG, Smith A

St Thomas' Hospital, King's College, London

Objective

To examine the changes in circulating progenitor cells following venous thrombosis and to directly increase circulating progenitor cell load in order to enhance thrombus resolution.

Method

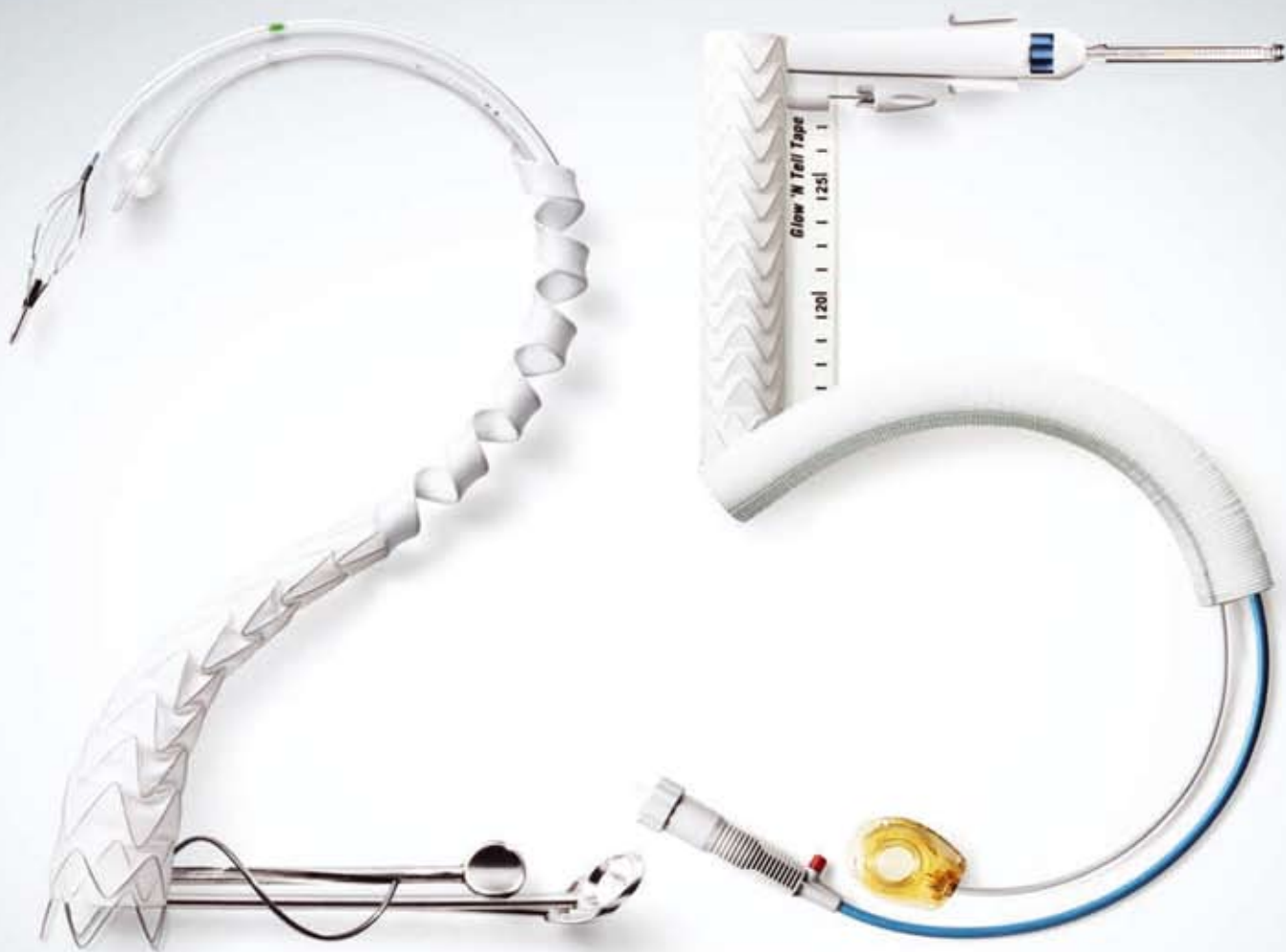
Thrombus was induced in the vena cava of five groups of six mice using reduced flow and vessel wall damage. Sham operated animals (n=30) and non-operated animals (n=6) were used as controls. Blood and bone marrow were processed for flow cytometry, using anti-SCA-1, anti-CD34 and anti-VEGFR2 antibodies at 12, 24, 48 hours, 7 and 14 days post-intervention. In the interventional study bone marrow mononuclear cells were isolated and injected into the tail vein of six animals, carrier solution was injected into control animals. Vein wall and thrombus was removed and fixed in formalin. Recanalisation was measured at four points along the thrombus using image-analysis software.

Results

At 24 hours there was a 25-fold increase in circulating SCA-1+, CD34+, VEGFR2+ cells above sham controls: 0.378% (0.12-0.76) vs 0.015% (0.01-0.13), p=0.004, with a lesser sustained increase between day 7 and 14 (p>0.05). Bone marrow resident progenitors were depleted over the 48-hour period in both the sham and thrombus groups (0.05%, CI 0.03-0.12, p=0.002) when compared with non-operated controls (6.69%, CI 1.6-9.5). In the interventional study there was increased recanalisation in the interventional group 9.3% (CI 5-15) vs. shams 4.5% (CI 1.9-9.1, p<0.05).

Conclusion

Progenitor cells show a bimodal circulating expression pattern in response to venous thrombosis. The bone marrow mononuclear cells are the probable source of circulating progenitors; injection of these cells significantly enhances thrombus resolution.



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Hypoxia and hypoxia-inducible factor 1 may have a role in venous thrombus resolution

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Academic Department of Surgery, St Thomas' Hospital, London

Objective

Vascular endothelial growth factor (VEGF) enhances venous thrombus recanalisation, but the stimulus for its production is unknown. The aim of this work was to determine whether hypoxia and expression of hypoxia-inducible factor 1 α (HIF1 α) in the venous thrombus could be a stimulus for the production of VEGF and thrombus recanalisation.

Method

Venous thrombi were induced in four groups of at least ten mice using a combination of reduced blood flow and endothelial damage. At 1, 3, 7, and 14 days after thrombus induction, oxygen tension in the thrombus was measured intra-operatively using a tissue oxygen monitor. Immunohistochemistry and enzyme-linked immunosorbent assays (ELISAs) were used to measure HIF1 α and VEGF expression in the harvested thrombi.

Results

Oxygen tension in the thrombus was lowest at day 1 (8.0 \pm 1.3mmHg) compared with days 3 and 7 (p <0.001) and remained below the oxygen tension of venous blood (78.0 \pm 0.9mmHg) throughout the course of resolution (p <0.0001). HIF1 α in the thrombus was higher at day 1 (13.5 \pm 1.7pg HIF1 α /mg soluble protein) compared with days 3 (p <0.001) and 7 (p <0.01). There was a strong negative correlation between oxygen tension and HIF1 α in the thrombus (r =-0.77, p <0.0001). VEGF in the thrombus was elevated at days 3 and 7 compared with days 1 and 14 (p <0.001).

Conclusion

In the resolving venous thrombus, VEGF production and recanalisation could be stimulated by relative hypoxia and expression of HIF1 α .



Superficial thrombophlebitis of lower limb veins - far from a benign condition

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Objective

This study presents a review of all cases of superficial thrombophlebitis (STP) of lower limb veins diagnosed and managed in one institution over an 8-year period. Our aim was to understand better its association with thrombo-embolic complications and to refine our care of patients with this condition.

Method

All patients referred for STP or query DVT, between 2000 and 2008 with STP had a colour flow duplex scan (CFDS). All case notes and scans were available for review.

Results

Two hundred and ten patients had STP. Two hundred and ninety-one CFDS were performed and each patient had at least one scan. Predisposing factors to STP included varicose veins (31%), previous DVT/phlebitis (20%), cancer (13%), recent long distance travel (12%), trauma (6%), puerperium (2%) and use of oral contraceptive pills (2%). Thrombus was located along the course of the long saphenous vein in 171 patients (82%) and short saphenous vein in 39 patients (18%). Sixty-four patients (30%) had a thrombo-embolic complication: 57 DVTs; 7 PEs. Fourteen patients had DVT which progressed to PE. Treatment was a variety of combinations of antibiotics, NSAIDs, compression stockings, warfarin, low-molecular-weight heparin and surgical disconnection (28). Eleven patients had a change of treatment plan following a follow-up scan.

Conclusion

Our findings show that STP is far from a benign condition with potential life-threatening thrombotic complications occurring in a third of patients. The benefits of operative intervention are unclear and studies are needed to answer this question as well as the best medical management.

The incidence of deep vein thrombosis following ultrasound-guided foam sclerotherapy

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Department of Vascular Surgery, Cheltenham General Hospital, Cheltenham

Objective

The reported incidence of deep vein thrombosis (DVT) following ultrasound-guided foam sclerotherapy (UGFS) varies between 0-5.7%. The aim of this study was to assess the early duplex findings following UGFS in order to objectively assess the rate of DVT.

Method

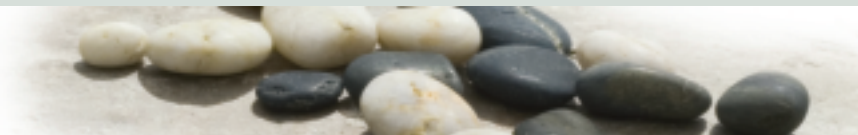
All patients undergoing UGFS between February 2006 and May 2008 attended within 1 month of treatment for quality control duplex imaging, performed by a senior vascular scientist. Data including patient characteristics, volume of foam injected, duplex ultrasound findings and clinical findings were prospectively collected.

Results

A total of 292 legs underwent UGFS (total number of treatment episodes 373, 71 legs had two treatments and ten had three treatments). The median age of patients was 64 years (range 22-87 years). DVTs were demonstrated in seven legs, 1.9%. All involved either the common femoral vein, superficial femoral vein or both. Four were asymptomatic (57%). One patient was diagnosed with a pulmonary embolism and subsequently underwent duplex imaging. The median volume of foam injected in those who developed a DVT was 10ml (range 1-17). The median volume in those who did not develop a DVT was 5ml (range 1-15) ($p=0.09$, Mann-Whitney U test).

Conclusion

DVT is not uncommon following UGFS. It is not related to the volume of foam injected. All patients undergoing UGFS for the treatment of varicose veins should be warned of the risk and should undergo quality control duplex imaging within 1 week of treatment as the DVTs are often asymptomatic.



Three-centre audit of IVC filter insertion over 12 years

Hammond CJ, Bakshi D, Currie R, on behalf of study group

Leeds Teaching Hospitals NHS Trust, Leeds (base); Royal Liverpool University Hospital, Liverpool; Royal Devon and Exeter Hospital, Exeter

Objective

Data from the US and Europe show a ten-fold increase in IVC filter insertion since 1998. This increase may be associated with the introduction of retrievable filters despite little evidence of their safety or efficacy. We audited IVC filter insertions at three UK centres over a 12-year period to see if there were differences in practice and results.

Method

Radiology department databases were interrogated for IVC filter insertions and removals between 1994 and 2006. Reports for these interventions, along with prior and subsequent imaging reports, were analysed.

Results

Five hundred and sixteen filters were placed, with a significant year-on-year increase. Indications differed between centres and a third of placements were for 'extended' indications such as pre-surgical prophylaxis. A retrievable filter was used in 86% of cases with retrieval attempted in only a third of these (median time to retrieval 11 days) and no evidence of increasing retrieval over time. Significant complications were rare, encountered in 1% of procedures. Mean 24-hour and 30-day mortality was 1% and 8%, respectively. There was no programmed follow-up of patients in whom filters were inserted at any of the three centres.

Conclusion

IVC filter use in the UK is increasing. The low rate of filter retrieval does not justify this increasing use of retrievable filters in the absence of robust safety and efficacy data. If this audit is a reflection of standard UK practice, the current lack of an evidence base or follow-up has the potential to lead to an increase in litigation.

Duration of bandages after foam sclerotherapy: a randomised trial

O'Hare JL, Stevens J, Parkin D, Earnshaw JJ

Gloucestershire Royal Hospital, Gloucester

Objective

To examine the influence on outcome of the duration of compression bandaging after foam sclerotherapy for truncal varices in a prospective trial.

Method

Patients were randomised to wearing post-treatment compression bandages (cotton wool roll and Peha-Haft bandage with overlying TED stocking) for either 24 hours or 5 days, followed by TED stockings alone for the rest of 2 weeks. Clinical follow-up was at 2 and 6 weeks with venous duplex imaging at the second visit to assess vein occlusion. Aberdeen Varicose Vein Symptom Score (AVVSS), SF-36 score, Burford pain score and skin staining and phlebitis were recorded.

Results

A total of 124 patients were randomised, 61 to 24 hours and 63 to 5 days of bandaging. Comparing 24 hours with 5 days, there was no significant difference in the change in AVVSS from baseline to 2 weeks (-0.29, -0.80, $p=0.72$) (Student's t-test) or to 6 weeks (-5.89, -5.14, $p=0.56$); nor in change in Burford pain score from baseline to 2 weeks (-9.04, -2.80, $p=0.25$) or to 6 weeks (-17.32, -8.46, $p=0.09$); or in change in SF-36 score from baseline to 6 weeks (2.02, 1.74, $p=0.90$). Target vein occlusion rates were similar at 6 weeks on duplex: 90% vs. 89%, respectively ($p=0.84$). There was no significant difference in the incidence of skin discolouration at 6 weeks (46%, 40%, $p=0.55$) or in 'phlebitis score' at 2 weeks ($p=0.20$ Mann-Whitney U test).

Conclusion

There was no advantage to maintaining compression bandaging for greater than 24 hours after foam sclerotherapy to truncal varices.



A RCT of non-surgical treatment for intermittent claudication in femoro-popliteal disease: 12-month results

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Objective

To compare percutaneous transluminal angioplasty (PTA), a supervised exercise programme (SEP) and combined therapy (PTA+SEP) in the treatment of intermittent claudication (IC) due to femoro-popliteal disease.

Method

Over a 6-year period, 178 patients (108 men, median age 70 years) with angioplastiable femoro-popliteal lesions were randomised to: PTA, SEP or PTA+SEP. Patients were assessed prior to and at 1, 3 6 and 12 months post-treatment. ISCVS outcome criteria (ankle pressures, treadmill walking distances) and Quality of Life (QoL) questionnaires (SF-36 and VascuQoL) were analysed.

Results

All groups were well matched at baseline. Thirty-three patients withdrew. Intra-group analysis: all groups demonstrated significant clinical and QoL improvements (Friedman test, $p < 0.05$); SEP (59 patients, 13 withdrew) - 69.6% of patients ($n=32$) improved following treatment (19 mild, 10 moderate, 3 marked), 13% ($n=6$) no improvement and 17.4% ($n=8$) deteriorated; PTA (60 patients, 8 withdrew) - 71.2% of patients ($n=37$) improved following treatment (16 mild, 16 moderate, 5 marked), 17.3% ($n=9$) no improvement and 11.6% ($n=6$) deteriorated; PTA+SEP (59 patients, 12 withdrew) - 85.2% of patients ($n=40$) improved following treatment (18 mild, 20 moderate, 2 marked), 14.9% ($n=7$) no improvement and 0% ($n=0$) deteriorated. Inter-group analysis: PTA+SEP produce a sustained improvement in clinical outcome measures than PTA or SEP alone, but there was no significant QoL advantage (Kruskal Wallis test, $p > 0.05$).

Conclusion

For patients with claudication, SEP should be the primary treatment and PTA should be supplemented by a SEP.

Endovascular aneurysm repair independently demonstrates a volume-outcome effect

Holt PJE, Poloniecki JD, Loftus IM, Thompson MM

St George's Regional Vascular Institute, London

Objective

There is an established relationship between open abdominal aortic aneurysm (AAA) repair and hospital volume. The relationship for endovascular repair (EVR) is not defined, and has implications for the delivery of vascular services.

Method

The Hospital Episode Statistics were used to identify cases of elective AAA repair from 2005-2007 (both open and endovascular). A multiple logistic regression model was constructed to delineate the relationship between annual caseload and surgical outcome. Risk-adjusted safety plots were produced to identify any outlying units using a complex risk model.

Results

Between 1st April 2005 and 31st March 2007 there were 7313 elective AAA repairs of which 5668 were open repairs and 1645 (22.5%) were endovascular. The overall national mean mortality was 5.63% with means of 6.18% for open repairs and 3.77% for EVR. Significant volume-outcome relationships were seen for all groups after risk adjustment. Overall, the volume effect for every additional case was (OR \pm 95% CI: 0.991 [0.988-0.994]; $p < 0.0001$). Analysis by treatment modality demonstrated a 77% reduction in the odds of mortality for every 100 EVRs ($p = 0.0007$) and 45% for every 100 open cases ($p = 0.0008$). Hospitals performing large EVR caseloads had lower mortality rates for open repairs than the national average. Outliers were detected both with evidence of surgical safety and danger. Those hospitals with evidence of danger were always low-volume hospitals.

Conclusion

Volume-outcome relationships persisted in England for elective AAA repair. Both EVR and open repairs independently demonstrated significant effects. These results may have a significant impact on the future provision of aneurysm services.



Regionalisation of vascular surgery improves outcome: a model of service provision

Holt PJE, Poloniecki JD, Loftus IM, Thompson MM

St George's Regional Vascular Institute, London

Objective

Evidence has demonstrated that a high annual caseload is associated with improved outcome in vascular surgery. This work models a regionalised service for aortic and carotid surgery, with the goal of improving patient survival.

Method

The model was generated based on Hospital Episode Statistics (HES) data (2000-2005). Hospitals performing elective abdominal aortic aneurysm (AAA) repair were hypothetically attributed to a series of networks with aortic surgery being centralised, in units that demonstrated statistical evidence of safety and exceeded a threshold of 32 procedures annually. This regionalised model for aortic surgery was then tested against carotid endarterectomy. The impact of the model was quantified in terms of mortality rates and travel times.

Results

Forty-eight vascular hubs were required nationally, compared with 242 hospitals in the current service configuration. Median travel distances and times were 16 miles and 28 minutes, respectively. The model predicted a reduction in the number of deaths from elective AAA repair from 1145 to 807 (OR+/-95% CI 0.689[0.627-0.756]; $p < 0.0001$) and for CEA from 175 to 133 (0.785[0.605-0.950]; $p = 0.016$). For every 46 (37-60) AAA repairs one surgical death was prevented.

Conclusion

Strategic service reconfiguration was modelled for elective AAA repair and CEA based on surgical outcome data and travel time. Adoption of this model may lead to improved outcomes from elective vascular intervention, and could be used as a model for the regionalisation of specialised surgery.

The RACE to protect brain

Rix TE, Singh I, Gunaratnam G, Baht HS, Hargroves D, Insall R, Senaratne J
East Kent Vascular Centre, Kent

Objective

Rapid access carotid endarterectomy (RACE) is an evidence-based treatment for symptomatic carotid stenosis. Our vascular centre aims to provide this service within 48 hours of symptoms in appropriate patients. This study audits safety and efficacy of the first year of RACE.

Method

A clear Trust protocol was publicised for the RACE pathway. A prospective database was established for all carotid endarterectomies (CE) performed. Outcomes were compared between elective (ECE) and rapid access operations.

Results

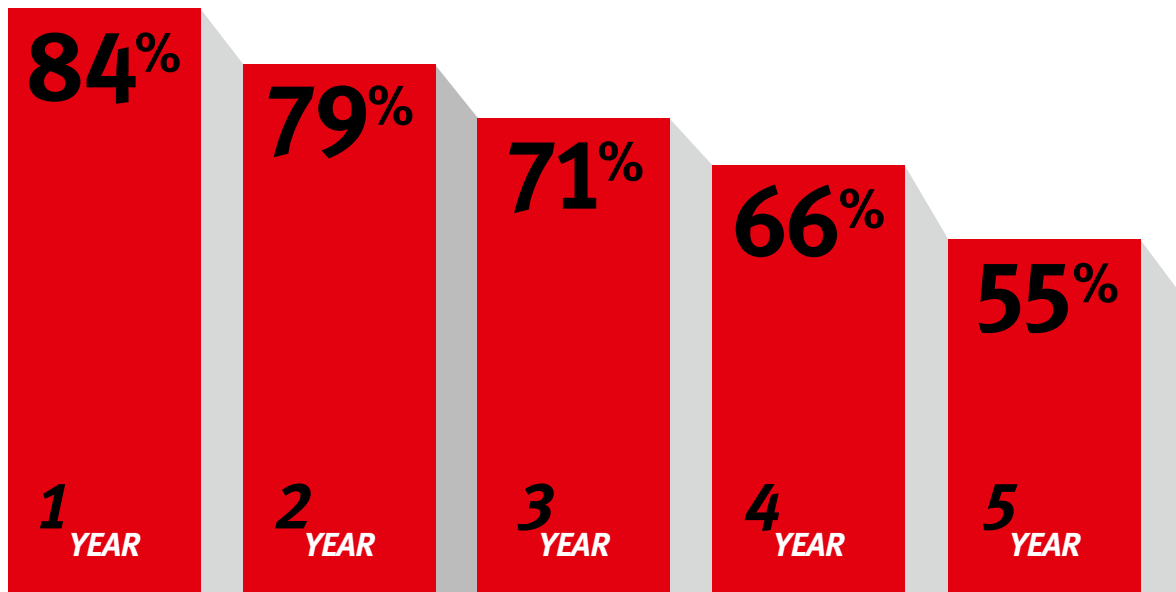
In 1 year 96 patients received CE; 20 were performed urgently. There were no significant differences in age or gender between ECE and RACE groups. Twenty-three (30%) of ECE were for asymptomatic stenosis; no other significant differences in surgical indication were seen. Forty-three percent of symptomatic ECE were for completed stroke vs 55% of RACE. Median delay between diagnosis and surgery was 113 days for elective and 2 days for RACE patients. There was one death following ECE (1.3%) and one stroke after RACE (5%); three cranial nerve injuries after ECE (3.9%) vs one (5%) after RACE; three haematomas after ECE (3.9%) vs one after RACE (5%) (all n.s.). Anaesthetic method did not influence outcome. The main reasons for delaying surgery in RACE patients were optimisation of patient fitness and availability of theatre time.

Conclusion

The RACE pathway dramatically reduces delay without compromising patient safety. In the first year of service we have treated 50% of suitable patients within 48 hours. Further education of patients and colleagues should reduce delay and improve outcomes for symptomatic carotid disease.

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Endoluminal SFA Bypass.

10-year experience of using femoral vein for graft and arterial infections

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Morrison Hospital, Swansea

Objective

Conventional treatments for infected prosthetic grafts and mycotic aneurysms carry a high mortality and morbidity, with a substantial risk of persistent graft infection. We present our 10-year experience of replacement of infected grafts and mycotic aneurysms with femoro-popliteal vein.

Method

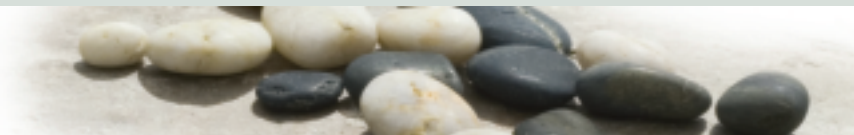
Forty-five patients underwent 47 arterial reconstructions with femoro-popliteal vein. Five had mycotic aneurysms (three aortic, one iliac and one femoral) and 40 had prosthetic graft infections (16 aortic, 11 femoro-femoral, four axillo-femoral, three ilio-femoral, two femoral false aneurysms, one axillo-axillary and three femoro-popliteal). Arterial reconstruction followed debridement of infected tissue, removing any infected graft, povidone iodine washout and appropriate antibiotic cover. Where possible, new grafts were placed in a clean field or wrapped in omentum. Six patients had femoral anastomoses covered by rectus femoris flaps or sartorius transposition.

Results

There were two early (30-day) postoperative deaths (4.4%) and two patients underwent major amputation. Median follow-up was 4.2 years (range 1 month to 10 years) with all other patients remaining free from infection with patent grafts. The commonest complication was anastomotic stenosis (11 patients) requiring percutaneous angioplasty, open profundoplasty or a vein patch to the aortic anastomosis. Three major wound infections healed without exposing the graft. One infarcted rectus femoris flap required removal. Donor limb swelling was transient.

Conclusion

Femoro-popliteal vein is an excellent conduit for reconstruction in arterial or prosthetic infections with good life and limb salvage. Duplex imaging is useful for confirming the suitability of the deep veins and for postoperative surveillance.



Folate supplementation improves arterial function in patients with peripheral arterial disease: a randomised double-blind, placebo-controlled clinical trial

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Norfolk and Norwich Vascular Unit (NANVU), Norfolk and Norwich University Hospital, Norwich

Objective

To determine whether folate supplementation improved arterial function in patients with peripheral arterial disease (PAD) in a randomised, double-blind, placebo-controlled trial.

Method

Individuals with PAD were randomly assigned to receive 400µg folic acid (n=45), 400µg methyl-tetrahydrofolate (5-MTHF) (n=48) or placebo (n=40) for 4 months. The primary endpoints were change in total plasma homocysteine (tHcy), ankle brachial pressure index (ABPI) and pulse wave velocity (PWV). The secondary outcomes were any change in plasma C-reactive protein (CRP), von Willebrand factor (vWF) or interleukin 6 (IL6) levels.

Results

Plasma tHcy was significantly reduced in both the folic acid and 5-MTHF groups compared with controls (median difference: -2.12µmol/l [95% CI -3.70, -0.75, p=0.0024] and -2.07µmol/l [95% CI 3.48, -0.54, p=0.0072], respectively). ABPI improved significantly in the folic acid and 5-MTHF groups compared with the placebo group (median difference: 0.07 [95% CI 0.04, 0.10, p<0.0003] and 0.04 [95% CI 0.00, 0.09, p=0.0279], respectively). Brachial-knee PWV (bk-PWV) reduced significantly in the group receiving 5-MTHF and there was a reducing trend in the group taking 5-MTHF compared with the controls (median difference: -1.10m/s [95% CI -2.20, -0.20, p=0.0105] and -0.90m/s [95% CI -2.10, 0.00, p=0.05], respectively). Plasma levels of CRP, IL6 and vWF were not affected (p>0.5). None of the variables changed significantly in the placebo group.

Conclusion

Folate administration effectively reduced homocysteine and improved ABPI and bk-PWV. This effect was independent of plasma inflammatory markers.

The influence of hypoxia and role of phospholipase C- γ (PLC γ) in proliferation of vascular smooth muscle cells (VSMC): potential mechanisms of neointimal hyperplasia formation in infra-inguinal bypass

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Objective

Neointimal hyperplasia (NIH) remains the commonest cause of vein bypass graft failure. Autogenous saphenous vein is exposed to chronic hypoxia prior to use in infra-inguinal bypass grafts and cell hypoxia has been associated with NIH. VSMC proliferation is a central feature of NIH, and PLC γ signalling pathways are linked to mitogenic responses in these cells. We assessed whether this pathway plays a pivotal role in VSMC proliferation under hypoxic conditions.

Method

Saphenous veins from patients undergoing CABG were harvested and sections were fixed for immunohistochemistry or cultured to obtain VSMC by explant method. VSMC were cultured under 5%, 10% or atmospheric oxygen (normoxia) for 24 hours and the effect of U73122 (a PLC γ inhibitor) on proliferation was determined by thymidine incorporation.

Results

PLC γ was detected by immunohistochemistry in endothelial cells and smooth muscle cells of saphenous vein. VSMC proliferation increased by 1.7-fold at 10% oxygen in cells stimulated with 0.5% foetal calf serum (FCS) compared with normoxic controls. At 5% oxygen proliferation increased 2.9-fold ($p < 0.05$). U73122 at 10^{-7} and 10^{-5} reduced VSMC proliferation by 43% and 81% at normoxia and by 37% and 63% at 5% oxygen ($p < 0.05$). This was not due to inhibition of p42/44 signalling pathways as measured by western blot.

Conclusion

Enhancement of VSMC proliferation at low oxygen tension suggests that pre-operative saphenous vein hypoxia may contribute to neointimal hyperplasia formation. PLC γ signalling pathways are important in VSMC proliferation in human vein, suggesting PLC γ may be a potential therapeutic target in neointimal hyperplasia.



Pro-thrombotic changes in platelet, endothelial and coagulation function following haemodialysis

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Objective

Heparin is commonly given during haemodialysis (HD) to prevent clot formation, but it is unclear how effectively this reduces the pro-thrombotic state. We aimed to determine the effect of a session of HD on markers of platelet, endothelial and coagulation activation.

Method

Blood samples were taken from the vascular access of 55 patients immediately before and after a HD session. Platelet function was assessed by: i) Ultegra rapid platelet function assay (RPFA), using the agonists thrombin receptor activating peptide (TRAP) and arachidonic acid (ASA); ii) flow cytometric measurement of P-selectin expression and fibrinogen binding +/- ADP stimulation; iii) measurement of soluble P-selectin; and iv) measurement of soluble CD40L. Coagulation factors (thrombin-antithrombin [TAT] and D-dimer) and endothelial vWF were assessed by ELISA.

Results

A mean of 70,535iU (SEM 331) of heparin was given during dialysis and 30 patients (55%) were on antiplatelet agents. Post-HD there were significant increases in unstimulated P-selectin (median [IQR] 0.73 [0.43-1.19] to 1.03 [0.6-2.03], $p=0.037$), stimulated P-selectin (24.1 [16.4-34.0] to 30.1 [17.7-42], $p<0.001$), soluble P-selectin (46.0 [24.7-81.9] to 63.4 [35.9-99.3], $p=0.002$) and sCD40L (0.527 [0.23-1.167] to 0.623 [0.224-2.012], $p=0.036$). Stimulated fibrinogen binding was increased post-HD (35.1 [21.5-49.5] to 42 [29.7-55.2], $p<0.001$), but unstimulated fibrinogen binding was unchanged. TRAP and ASA-stimulated aggregation were reduced post-HD (192 [159-253] to 179 [148-206], $p<0.001$) and (610 [483-643] to 530 [465-613], $p=0.009$), respectively. There were increases post-HD in TAT (4.9 [4.3-7.6] to 9.2 [6.7-14.5], $p<0.001$), D-dimer (862.6 [506.7-1359.0] to 1030.8 [705.9-1603.6], $p<0.008$) and vWF (1.65 [1.33-2.31] to 2.0 [1.6-2.6], $p<0.001$).

Conclusion

This study has shown that despite the use of heparin markers of coagulation, platelet and endothelial activation are increased following HD. More effective medical strategies to reduce the pro-thrombotic state of patients on HD should be investigated.

Therapeutic neovascularisation for peripheral artery disease: a novel cell-based strategy

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Objective

Interest in therapeutic angiogenesis using stem/progenitor cells has developed from evidence showing bone marrow-derived endothelial progenitor cells (EPCs) contribute to tissue vascularisation. Our study aims to identify and characterise the angiogenic process, in particular the mobilisation of cells and factors involved in neovascularisation, with a view to developing an interventional cell-based therapy for critical leg ischaemia.

Method

Tibial arterial segments from amputated limbs of 20 patients with peripheral artery disease (PAD) underwent immunohistochemical localisation of microvessels, hepatocyte growth factor (HGF) and its receptor, c-Met. Immunohistochemistry was also used to identify the progenitor cell markers, c-kit, CD34, and CD146. ELISA compared serum HGF in patients with PAD against healthy controls. The Boyden chamber assay was used to determine the influence of HGF on vascular progenitor cells.

Results

HGF and c-Met were detected mainly around some, but not all microvessels. Progenitor cell markers were detected in the HGF-positive microvessels, in both large and small microvessels. No HGF/c-Met-positive microvessel staining was apparent in normal internal mammary arteries. Serum HGF was increased compared with healthy controls. HGF acted as a potent chemotactic agent for vascular progenitor cell migration. This effect was mediated by activation of the serine/threonine kinase Akt, shown by western blot analysis. Treating the cells with the PI3K inhibitors, Wortmannin or LY294002, abolished these effects.

Conclusion

These data suggest that HGF functions as a pro-angiogenic factor in patients with ischaemic disease by recruitment of c-kit-, CD34-, CD146-positive progenitor cells. The HGF-cMet pathway is a promising target to treat chronic ischaemic disease.



Nitric oxide-eluting nanocomposite vascular bypass graft

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Academic Division of Surgical & Interventional Sciences, UCL, Royal Free Hampstead NHS Trust Hospital, London

Objective

Prosthetic grafts must resist thrombosis and intimal hyperplasia (IH) ideally by endothelialisation. We have developed a nanocomposite graft (POSS-NC), mechanically strong and biostable, which induces *in situ* endothelialisation. However, between implantation and development of complete endothelialisation there is a possible risk of thrombosis and IH on the bare patches. Nitric oxide (NO) has a complex powerful protective role and the aims of this study were to: i) incorporate NO donors and test the effects on platelet activity and coagulation; ii) test the synergistic effect of peptides-NO on accelerating endothelial progenitor cell (EPC) adhesion and endothelialisation.

Method

POSS-NC-NO grafts were incorporated with SNAP, a NO donor. NO elution was tested using Griess assay. Platelet adhesion was measured after 120-minute incubation using scanning electron microscopy (SEM). Thrombo-elastography using polymer-coated cups measured coagulation patterns. EPC adhesion on SNAP-incorporated peptide biofunctionalised-POSS-NC was measured under static conditions and endothelialisation of the material under pulsatile flow. Alamar-Blue assay determined cell adhesion/proliferation. Cell morphology was assessed with SEM, and endothelialisation by RT-PCR and immunostaining for CD31, vWF and eNOS.

Results

The POSS-NO graft successfully eluted NO and significantly prevented platelet adhesion. Thrombo-elastography studies with SNAP showed a narrower maximum amplitude (related to clot strength) and longer time for initial fibrin formation. Peptides and NO synergistically enhanced EPC adhesion/proliferation. SEM, immunostaining and RT-PCR confirmed enhanced endothelialisation.

Conclusion

This NO-eluting nanocomposite graft demonstrated enhanced antithrombogenic properties and greater efficiency for *in situ* endothelialisation from circulating EPC. This graft has the potential for accelerated spontaneous endothelialisation in addition to inherent resistance to thrombosis.

Proteomic identification of differentially expressed proteins in aortic wall of patients with ruptured and non-ruptured abdominal aortic aneurysms

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1 Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital, Denmark; 2 Institute of Medical Biochemistry, University of Aarhus, Denmark

Objective

To compare the basic proteomic composition of abdominal aortic aneurysm (AAA) wall tissue in patients with non-ruptured and ruptured aneurysms.

Method

A proteomic approach with two-dimensional gel electrophoresis (2D-PAGE) and mass spectrometry (MS) was used to identify differentially expressed proteins in AAA tissue from nine patients with non-ruptured and eight patients with ruptured AAA. Computerised image analysis was used to detect protein spots. Differentially expressed protein spots were in-gel digested and identified by liquid chromatography - tandem mass spectrometry (LC-MS/MS). Western blot analysis was used to confirm differential expression.

Results

Seven differentially expressed proteins were detected among 745 protein spots, selecting spots whose average relative volumes differed more than two-fold between the non-ruptured and the ruptured group. Four protein spots were up-regulated in the ruptured group and three were down-regulated. Five of the spots were identified. Among the up-regulated spots, No. 605 was identified as peroxiredoxin-2. The up-regulation was confirmed by western blotting. No. 381 was identified as an actin fragment. Two spots, Nos. 719 and 499, could not be identified. Among the down-regulated protein spots, No. 130 contained two peptides: one reliably determined peptide, FEDGVLPDYPR, is found in vitronectin; another peptide, QIDNPDYK, was borderline significant and found in calreticulin. The down-regulation of vitronectin was confirmed by western blotting. Spot Nos. 193 and 199 both contained peptides from albumin with actin also present in No. 199.

Conclusion

The identified proteins suggest that the aortic wall of ruptured aneurysms respond to a stressful condition and that proteolytic degradation of the cytoskeleton and connective tissue may be part of the response.



A confirmed association between an ER- β polymorphic locus and refuted associations in TIMP-1 and MMP-9 with AAA

Rayt HS, Bown MJ, London NJ, Sayers RD

University of Leicester, Leicester

Objective

Many different candidate genes have been reported to be associated with AAA. However, of the studies implicating genes with AAA formation, cohort sizes are usually small, and data from different studies are usually contradictory. We studied four of the genes that are thought to have a positive association with AAA in a much larger suitably powered cohort to determine whether these associations previously identified could be replicated.

Method

Polymorphisms of the matrix metalloproteinase-9 (MMP-9), tissue inhibitor of matrix metalloproteinase-1 (TIMP-1), platelet activating factor acetylhydrolase (PAFAH), and the estrogen receptor-beta (ER- β) were genotyped using polymerase chain reaction-based methods in 1725 individuals (1000 AAA; 725 controls).

Results

Only the ER- β polymorphism showed a statistically significant difference between AAA patients and controls (1730 G/A SNP; OR 1.41, $\chi^2=20.54$; $p<0.05$), with the 'AA' genotype present in 15.4% of patients with AAA as opposed to 8.5% of controls. There was no relationship between polymorphisms of MMP-9 (OR 0.94, $\chi^2=0.08$; $p=0.77$) and TIMP-1 (OR 0.87, $\chi^2=1.77$; $p=0.18$) genes. In contrast to the Japanese populations where it was first described, there was only one control patient who had a polymorphism in the PAFAH gene.

Conclusion

Contrary to previous smaller studies these findings suggest that polymorphisms of MMP-9 and TIMP-1 have no association with AAA. An association with an ER- β receptor gene polymorphism has been robustly confirmed.

Mesh closure can prevent incisional herniation after open aneurysm repair

Bevis PM, Windhaber RAJ, Winterborn RJ, Lear PA, Poskitt K, Earnshaw JJ, Mitchell DC

Cheltenham General Hospital, Cheltenham; Gloucestershire Royal Hospital, Gloucester; Southmead Hospital, Bristol

Objective

Can the incisional hernia rate after abdominal aortic aneurysm (AAA) repair be reduced by prophylactic placement of a pre-peritoneal polypropylene mesh?

Method

Consecutive patients undergoing elective AAA repair were randomised to either mass closure or prophylactic pre-peritoneal placement of a polypropylene mesh. Eighty-five patients (77 male) aged 59-89 years (mean 73) were recruited between November 2003 and March 2007. Forty patients were randomised to prophylactic mesh placement and 45 patients to standardised mass closure (control).

Results

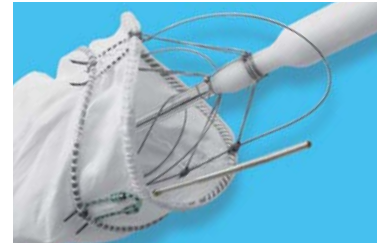
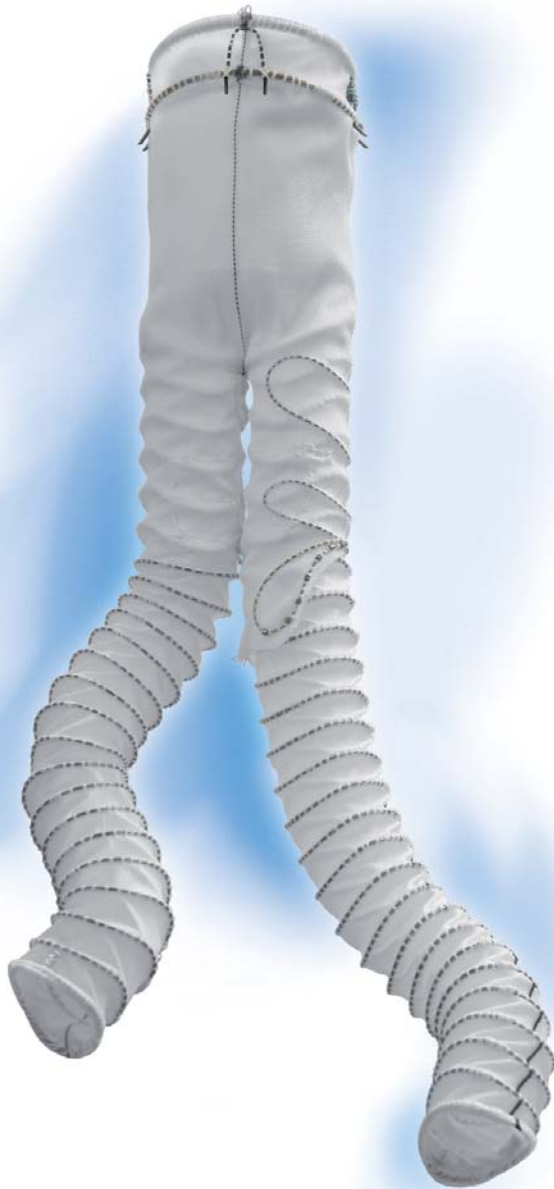
Operative time was 90-225 minutes (median 150 minutes) in the mesh group and 90-300 minutes (median 140 minutes) in the control group ($p=0.95$, t-test). One patient in the mesh group developed a superficial wound infection and there was one mesh-related seroma. Two patients in the control group developed wound infections. Patients were followed up for a median of 787 days. Five patients in each group died during the follow-up period. At 1-year follow-up, two (5.6%) patients in the mesh group and 15 (37.5%) in the control group had developed incisional hernias ($p=0.0008$ FE). At 2-year follow-up, four (11.1%) patients in the mesh group and 16 (40%) in the control group had developed incisional hernias ($p=0.0081$ FE). There were no new incisional hernias in subsequent follow-up. One patient in the mesh group and four in the control group underwent incisional hernia repair ($p>0.05$ FE).

Conclusion

Prophylactic placement of polypropylene mesh at the time of elective AAA repair does not increase operative time and significantly reduces the incidence of incisional hernia.

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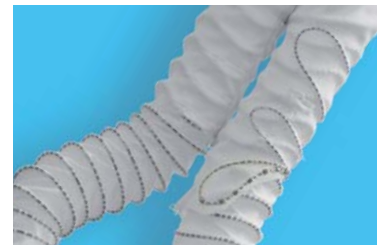
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Nordic poles immediately improve walking distance in claudicants

Oakley C, Zwierska I, Tew G, Beard J, Saxton J

Sheffield Hallam University and Vascular Institute, Sheffield

Objective

To investigate the immediate effects of Nordic pole walking (NPW) on walking distance and cardiopulmonary workload in patients with intermittent claudication.

Method

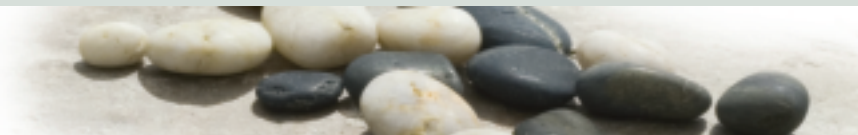
Using a standardised treadmill test ($3.2\text{km}\cdot\text{h}^{-1}$ at 4% gradient), walking distance, cardiopulmonary responses, leg pain and perceived exertion during NPW were compared with responses evoked by normal walking in 20 patients with intermittent claudication. The distance to onset of claudication pain (claudication distance [CD]) and to maximum walking distance (MWD), heart rate (HR), expired gas parameters, leg pain (Borg's CR-10 scale) and perceived exertion (Borg's rating of perceived exertion [RPE] scale) were compared.

Results

CD increased significantly from a median (range) distance of 77 (28-503) m to 130 (41-1080) m and MWD increased significantly from 206 (81-1078) m to 285 (107-1080) m when patients used the Nordic poles ($p=0.000$). The level of leg pain at MWD was also significantly reduced during NPW ($p=0.002$). Perceived exertion at MWD did not increase despite an increase in cardiopulmonary work, as indicated by an increase in oxygen consumption (16.5%; $p=0.000$).

Conclusion

These results show that NPW immediately enables patients with intermittent claudication to walk further with less pain, despite a higher workload. NPW might be a useful strategy for improving the cardiovascular fitness in patients with intermittent claudication.



A randomised trial of EVLT vs surgery for varicose veins

Carradice D, Mekako AI, Hatfield J, Chetter IC

Academic Vascular Surgical Unit, Hull

Objective

Small randomised trials with limited follow-up have failed to demonstrate any benefit of endovenous laser therapy (EVLT) over surgery. We performed a randomised trial of EVLT vs surgery in the management of varicose veins, aiming to assess clinical efficacy and in depth quality of life (QoL) changes up to 2 years.

Method

Two hundred and sixty-seven patients (63% women), mean age 50 years, with symptomatic varicose veins were recruited and randomised, to surgery (n=132) and EVLT (n=135). Assessments were performed at 1, 6 and 12 weeks, 1 and 2 years. Outcome measures included: Venous Clinical Severity Score (VCSS), Aberdeen Varicose Vein Questionnaire (AVVQ), Short Form-36 (SF-36), EuroQuol (EQ5D), postoperative pain scores and time to return to normal activity and work.

Results

Intra-group analysis: statistically significant improvements ($p < 0.05$ -Friedman) were observed with both interventions in VCSS, AVVQ, SF-36 and EQ5D and sustained up to 2 years. Inter-group analysis: SF-36 physical function at 1 week demonstrated less deterioration following EVLT, median 90 (IQR: 70-95), than following surgery 80 (65-90) ($p = 0.016$; Mann-Whitney U). Other improvements in QoL were equal between the two groups. EVLT resulted in reduced postoperative pain scores compared with surgery ($p = 0.001$; Mann-Whitney U). The reduction in pain and preservation of physical function with EVLT resulted in an earlier return to normal activity 4 days (2-14) vs 21 (14-30) and work 4 days (2-14) vs 14 (10-28) ($p < 0.001$; Mann-Whitney U).

Conclusion

This is the first large RCT to demonstrate the early benefits of EVLT and long-term efficacy equivalent to surgery.

Treatment strategy and bilateral reflux influence the cost of endovenous therapy

Gohel MS, Davies AH

Imperial Vascular Unit, Charing Cross Hospital, London

Objective

Excellent clinical outcomes for endovenous laser ablation (EVLA), radiofrequency ablation (RFA) and foam sclerotherapy have been reported, although the cost-effectiveness of these varicose vein treatments remains unknown. This study aimed to compare the costs of endovenous and traditional treatments for varicose veins.

Method

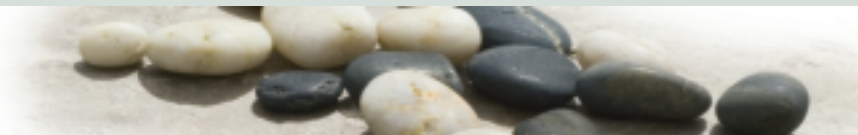
A decision-tree economic analysis model was used to compare seven treatment strategies for unilateral and bilateral greater saphenous vein (GSV) reflux. Probability estimates for clinical outcomes were obtained from published prospective studies. The primary outcome measure was estimated mean cost over 1 year and component costs were obtained from UK NHS published costs and device manufacturers.

Results

For both unilateral and bilateral GSV reflux, foam sclerotherapy was found to be the cheapest treatment strategy (£518 and £961, respectively), despite the lower reported GSV occlusion rates. Both EVLA (£990) and RFA (£1175) performed using local anaesthesia (LA) were cheaper than day-case traditional surgery (£1275) for unilateral disease, whereas endovenous ablation under general anaesthetic (GA) was more expensive (£1684 and £1881 for EVLA and RFA, respectively). For patients with bilateral GSV disease, the costs of EVLA (£1833) and RFA (£2057) under GA were comparable with LA procedures (£1833 and £2150, respectively), but more expensive than traditional surgery (£1487).

Conclusion

The cheapest treatment modality for primary unilateral and bilateral GSV reflux is likely to be foam sclerotherapy. Treatment of unilateral GSV reflux using EVLA or RFA under LA may be cheaper than open surgery. EVLA and RFA using GA are probably most cost-effective in patients requiring bilateral surgery.



Is the concentration of sodium tetradecyl sulphate (STD) used for foam sclerotherapy important?

Ikponmwosa A, Graham A, Homer-Vanniasinkam S, Gough MJ

Biomedical Sciences, Bradford University, Bradford; Leeds Vascular Institute, The General Infirmary at Leeds, Leeds

Objective

There is a lack of consensus regarding optimum STD concentrations for foam sclerotherapy and this study assesses endothelial damage following application of STD foam at varying concentrations and different durations.

Method

Human saphenous vein endothelial cells were seeded on to 24 well plates, cultured to confluence and used at passage 3-5. 400 μ l of 0.25%, 0.5%, 1.0% and 3.0% STD foam (Tesari method) was added to experimental wells for 1, 2 or 5 minutes. A modified Lowry assay quantified protein content within experimental wells before and after addition of foam.

Results

Light microscopy of wells following foam application failed to identify any intact cells for all STD concentrations. Following 1-minute exposure, protein concentration (mg/ml) increased for 0.2% (0.92 to 1.39, $p=0.004$), 0.5% (0.96 to 1.64, $p=0.019$), 1% (0.89 to 1.15, $p=0.009$) and 3% (0.92 to 1.45, $p=0.01$) concentrations. Protein measurements did not differ significantly following 2- and 5-minute exposures.

Conclusion

Protein detection following application of foam STD represents cell membrane disruption and release of intra-cellular protein and this is supported by the absence of intact cells on light microscopy. 1-minute exposure to 0.25% STD produced the same degree of endothelial disruption as 3-minute exposure to 3% foam. This suggests that higher concentrations of sclerosant which are associated with an increased risk of skin pigmentation and tissue necrosis may be unnecessary.

Histological changes following foam sclerotherapy (FS) with sodium tetradecyl sulphate (STD)

Ikponmwosa A, Abbott C, Homer-Vanniasinkam S, Gough MJ

Leeds Vascular Institute, The General Infirmary at Leeds, Leeds

Objective

Minimally invasive varicose vein treatments are increasingly popular. Whilst laser and radiofrequency ablation cause permanent vein destruction in most instances, they are more costly than ultrasound-guided FS. Unfortunately medium-term re-canalisation rates are high (20-32% at 1-3 years) for the latter. This study investigates possible explanations for this by assessing histological evidence of vein injury following foam application.

Method

Thirty patients (primary varicose veins, sapheno-femoral [SFJ] and great saphenous vein [GSV] reflux) undergoing SFJ ligation and stripping were included in the study. 3cm proximal GSV segments harvested before stripping were divided into test and control samples. One percent and 3% STD foam (Tesari) was applied to the vein lumen of test samples for 1, 2 and 5 minutes (n=5 for each time and STD concentration). Following immediate fixation, sections underwent H&E and specific elastin and collagen staining.

Results

One percent and 3% foam caused $\leq 50\%$ endothelial cell loss after 1 and 2-minute exposure increasing to 80-90% after 5 minutes, although islands of endothelial cells remained visible in all sections. Subendothelial vacuolation (smooth muscle cell damage) only occurred after 5 minutes as did collagen bundle disorganisation. This was minimal, affecting only the inner media. Elastin was unaffected. One percent and 3% STD had similar effects. Foam started to liquify after 90 seconds.

Conclusion

Persisting endothelial cells and patchy partial thickness smooth muscle/collagen injury may explain the capacity for recanalisation and high clinical recurrence rates following FS. Further, significant venous injury only occurred after a longer exposure to STD than may occur *in vivo*.



Randomised pilot trial of early foam sclerotherapy for venous leg ulcers

O'Hare JL, Vandenbroeck C, Earnshaw JJ

Gloucestershire Royal Hospital, Gloucester

Objective

To examine the role of foam sclerotherapy, in addition to four-layer compression bandages, in patients with venous leg ulcers.

Method

Patients with an active venous leg ulcer, in the presence of superficial truncal venous incompetence, an ABPI >0.8, and no or segmental deep venous reflux were recruited prospectively. They were randomised to four-layer compression bandages alone (control) or early additional foam sclerotherapy. Follow-up was every 3 weeks until ulcer healing. The primary endpoint was ulcer healing 24 weeks after randomisation. Venous duplex imaging was undertaken after foam sclerotherapy at 24 weeks.

Results

Of 315 new presentations to the leg ulcer clinic from October 2005 to September 2007, 72 patients met the trial entry criteria. A total of 40 patients agreed to randomisation, 18 to additional foam sclerotherapy. Six patients withdrew and two patients died, one before and one after the 24-week follow-up. This left 34 patients for analysis, 13 who had additional foam sclerotherapy. Their mean age was 68 years and mean ulcer duration at presentation was 28 weeks. Ulcer healing at 24 weeks was 17 of 20 (1 died) in the control group and 12 of 13 with additional foam. There were no complications after foam and the 24-week vein occlusion rate was 82%.

Conclusion

This study did not recruit as many patients as planned, but showed that early foam sclerotherapy is safe in patients with a venous leg ulcer. There was no evidence that it speeded up ulcer healing.

Randomised controlled trial of anti-microbial agents for the treatment of venous leg ulcers

Michaels JA, King B, MacIntyre JB, Palfreyman SJ, Shackley PM, Stevenson MD, Campbell WB

Sheffield Vascular Institute, University of Sheffield, Sheffield; Royal Devon and Exeter Hospital and Peninsula Medical School, Exeter

Objective

To assess the effectiveness of silver-donating anti-microbial dressings in promoting the healing of venous leg ulcers.

Method

Patients with active venous ulceration were recruited from community leg ulcer clinics associated with two centres in the UK. Patients, stratified by centre and ulcer size, were randomised to receive silver-donating or non-adherent (control) dressings beneath standard multi-layer compression bandaging. Primary outcome was healing at 12 weeks; secondary outcomes included healing at 6 months and 1 year, time to healing, recurrence rate, quality of life and symptomatic measures.

Results

Of 304 assessed patients, 213 were randomised, 107 to anti-microbial and 106 to non-adherent dressings. Baseline characteristics did not differ significantly between groups. Follow-up was available to the primary endpoint for 97% of patients, when 62 of 104 available patients with anti-microbial dressings (59.6%) and 59 of 104 control patients (56.7%) had healed. Median time to healing was 67 days (95% CI 54-80) for anti-microbial dressings and 58 days (95% CI 43-73) for the control group. There were no significant differences in healing rate or any other of the secondary endpoints. Healing rates of ulcers were significantly related to patient gender, recruitment centre, presence of comorbidities and initial ulcer size. Average total treatment costs were significantly higher for anti-microbial dressings at £417.97 (95% CI £375.01 to £460.93) vs. £320.12 (95% CI £277.42 to £362.82).

Conclusion

Routine use of silver-donating dressings for venous leg ulcers confers no significant benefit in healing rates and adds significantly to the cost of treatment.



Annual General Business

Meeting Agenda

Thursday 13 November 2008 at 5-6pm

Bournemouth International Centre

1. Apologies
2. Minutes of AGM 2007
3. Any other business
4. President's Report: Mr Michael Gough
5. Honorary Secretary's Report: Mr Jonothan Earnshaw
6. Honorary Treasurer's Report: Mr David Berridge
7. Audit and Research Committee Report: Mr Tim Lees
8. Training and Education Committee Report: Professor Cliff Shearman
9. Professional Standards Committee: Mr Peter Lamont
10. Vascular Tutor: Mr Waquar Yusuf
11. Circulation Foundation Committee
12. Vice-President's Report: Mr Peter Taylor
13. Election of Officers: Result of ballot for Ordinary Members of Council

Honorary Secretary's Report



Jonothan Earnshaw

The Vascular Society Secretariat is like the referee at the FA Cup Final; it is best if almost invisible, dealing with problems from the membership quickly and efficiently. The last year has been difficult, particularly for Jeanette Robey, our Chief Executive, because of the changes in Secretariat personnel. It proved very hard to replace Audley Farrell, the Secretariat assistant, and then in the spring Terrie McCann left to further her career. We, of course, wish her all the best in her new post, and she leaves with grateful thanks from the Society.

As I hope you already know we have recruited two new members to the Secretariat team - Neelam Daswani and Rebecca Wilkinson - and for the last few months the office has been stable and functioning well. I would particularly like to pay tribute to Jeanette who papered over the cracks when required this year and who should now be able to relax a bit more, confident in the support of her team.

Not that there is much time to relax at The Vascular Society office. President Michael Gough has fulfilled his duties with exceptional energy and enthusiasm. He has led the Society well down the path of separate subspecialty status as you will have read in his report. Although to some, this direction remains controversial, your Council is convinced that this solution is a pragmatic compromise in the present circumstances. It should not deflect the Society from continuing its path away from general surgery. This is wholly reliant on being able to train the UK vascular specialist of the future. Defining and writing the new curriculum is fundamental to this process. Cliff Shearman and David Kessel from the BSIR have spent many happy hours leading the collaboration over the paperwork. Those of us who work closely with radiology colleagues know how supportive this can be, and how valuable is a shared vision. It is the only path to a safe transition to successful management of vascular disease by a specialist team using modern methods.

This year has been momentous for the announcement of a funded National Aortic Aneurysm Screening Programme by the Prime Minister in the spring. For many this is too late and the progress is too slow, but we should not lose sight of the fact that this will be the first National Aneurysm Screening Programme in the world. To Brian Heather, who designed the Gloucestershire version of the project on which the National Programme will be based, on the back of a fag packet, the process is painfully slow. However, behind the scenes there is real movement. The IT for the Programme is currently being sourced and the Standard Operating



Procedure is now in Version II (available on the VS website). A national AAA advisory group is formed and met for the first time in October. The initial centres will go live in April 2009 after a trial interval to test the IT. The process of becoming a screening centre is organised through Strategic Health Authorities (SHA), where bids will be received. Mike Wyatt, writing in the summer vascular newsletter, reported on progress in the North West and the methods used to prepare a bid. It is likely that the early adopter centres in 2009 will be those who already have experience with screening, but the Department of Health has promised complete coverage in England within five years, so in April 2010 inexperienced centres will have to start.

It is fundamental that The Vascular Society is embedded in the National AAA Programme, rather than simply providing 'technicians' to fix aneurysms. Initially Council believed the Society could have a role in designing the vascular networks and screening units. However, it seems that this will be defined by individuals responsible for screening at the SHA (hence Mike Wyatt's encouragement to contact them early). It is likely most screening units will be led by a Director who will be a vascular surgeon. We are currently in negotiation to use the National Vascular Database as the means of collecting both process and outcome data for the National Programme. It will mean collecting a little extra data on the referral process than we do now, but will have the advantage that it should attract Department of Health funding to support the NVD. It would be incumbent upon members to include all vascular cases to promote the NVD as the central focus for outcome governance.

Finally on AAA, there is a storm cloud over our operative results in the UK. Chris Gibbons has reported in the pre-AGM newsletter that data from VASCUNET suggest that results in the UK are worse for open aortic surgery than in the rest of Europe. Good outcomes are fundamental to AAA screening, a fact that can be agreed by both The Vascular Society and the Department of Health. We will therefore be discussing a Quality Improvement Framework for aortic surgery led by Tim Lees and the Audit Committee. Details will be announced later but we hope this will provide a forum to drive outcome improvement.

It is really a huge pleasure to be working with talented and industrious VS Executives and Council. David Berridge demits office as Treasurer, to be replaced by Simon Parvin. David has been an excellent Treasurer, and has kept a tight and sensible reign on the Society's finances. His Yorkshire 'voice of austerity' will be sadly missed at Council meetings. We have elected Chairs for the main VS committees, to shadow their colleagues ready to take over in a year's time. Whilst paying tribute to current colleagues, their successes have raised the bar of achievement. One of the joys of being Secretary is that there seems to be a constant source of eager and enthusiastic colleagues ready to take up the challenge of leading the Society on behalf of the membership.

Honorary Treasurer's Report



David Berridge

I am pleased to report another good year for your Society. The Annual General Meeting in Manchester produced a profit of over £70,000 and the successful carotid meeting in Dublin contributed a further £8,000 to The Vascular Society.

A complete review of the expenses of the Society was again conducted in conjunction with our Chief Executive, Jeanette Robey. This has resulted in a further reduction of administration costs from £216,820 in 2006, to £197,876 in 2007, and now to £185,855 in 2008.

The National Vascular Database continues to evolve in the joint collaboration with Dr Foster. Tim Lees refers to this in the Audit and Research Committee report. Continuing enhancements to the development are within the budget of your Society. The Society maintains sufficient funds to cover this initiative, and it does not put the Society at immediate risk, even with the scenario of a loss of major sponsorship or poor profit at an AGM.

In order to keep pace with these development and maintenance costs, it is essential that we apply a modest increase to the annual membership subscriptions for Ordinary Members, but we can avoid an increase this year for the other membership categories. The proposed increases are shown below.

AGM venues in Liverpool 2009 and Brighton 2010 have been negotiated successfully and booked to ensure that we can achieve our necessary operating profit.

The Vascular Society website (www.vascularsociety.co.uk) has been updated, with our webmaster Kieren Hasler. Please send any comments to The Vascular Society office and we will attempt to modify the site accordingly.

The Circulation Foundation continues its grant-giving programme following the very successful *per una* collaboration with George Davies. This raised £117,000 net for the Circulation Foundation. In addition, the Mary Davies award of £25,000 is available this year. The Circulation Foundation report will highlight future events, attempting to increase the income further.

Maquet has recently joined as a Major Sponsor and I welcome them to this Society. I would personally like to thank all of our Major Sponsors for their continued support: Angiodynamics, B Braun, W L Gore, LeMaitre, Maquet, Vascutek.

Membership categories	Subscription Rate	
	01.01.08	01.01.09
	£	£
Ordinary	175	185
Affiliate	100	100
Overseas	100	100
Associate	100	100
Senior	35	35
Honorary	Nil	Nil



Finally, I would like to thank Jeanette Robey for her limitless help and encouragement during my time as Honorary Treasurer. I am grateful for the co-operation I have had from all members of Council during my tenure, and in particular to Peter Lamont and Jonathan Earnshaw as successive Secretaries, and Michael Horrocks, John Wolfe, George Hamilton and Mike Gough as successive Presidents.

I hand over to Simon Parvin and I wish him every success as Honorary Treasurer for the next four years.

VSGBI Ltd. - Profit and loss account

Year ended 31st December 2007

	2007 £	2006 £
Turnover	293,363	362,415
Cost of sales	(240,494)	(281,808)
Gross Profit	52,869	80,607
Administrative expenses	(14,689)	(20,853)
Other operating income	32,529	48,807
Operating Profit	70,709	108,561
Interest receivable	1060	874
Profit on ordinary activities before taxation	71,769	109,435
Tax on profit on ordinary activities	-	-
Profit on ordinary activities after taxation	71,769	109,435
Deed of Covenant	(71,769)	(109,435)
Profit for the financial year	-	-

The Vascular Society

Income and expenditure accounts

Year ended 30th June 2008

The Vascular Society

	2008		2007	
	Unrestricted Funds £	Restricted Funds £	Total £	Total £
Incoming resources				
Voluntary income:				
Subscriptions	87,677	-	87,677	83,280
Deed of covenant	71,769	-	71,769	109,435
Sponsorship	50,000	-	50,000	50,000
Donations and other income	5,708	-	5,708	6,590
Investment income:				
Bank interest	10,005	-	10,005	7,828
Total incoming resources	225,159	-	225,159	257,133
Resources expended				
Costs of charitable activities:				
Research awards	-	-	-	-
Donations	6,000	-	6,000	6,750
	6,000	-	6,000	6,750
Costs of generating voluntary income:				
Travel and subsistence	24,986	-	24,986	26,998
Management expenses	-	-	-	979
Office costs	12,900	-	12,900	14,102
Salaries and wages	72,984	-	72,984	79,764
Research costs	23,746	-	23,746	21,781
Tutor costs	7,500	-	7,500	7,500
Printing	6,117	-	6,117	7,251
Computer support costs	6,003	-	6,003	5,894
Stationery, postage and photocopying	4,523	-	4,523	8,723
General expenses	1,167	-	1,167	3,345
Recruitment fee	3,947	-	3,947	-
Prizes	1,100	-	1,100	1,250
Depreciation	4,305	-	4,305	4,201
Loss on disposal of fixed assets	-	-	-	1,693
	169,278	-	169,278	183,481
Governance costs:				
Audit and accountancy	8,914	-	8,914	7,050
Insurance	566	-	566	595
Legal and professional	1,097	-	1,097	-
Management and administration of the charity	179,855	-	179,855	191,126
Total resources expended	185,855	-	185,855	197,876
Net incoming resources for the year	39,304	-	39,304	59,257



The Vascular Society

Income and expenditure accounts

Year ended 30th June 2008

Circulation Foundation

	2008		2007	
	Unrestricted Funds £	Restricted Funds £	Total £	Total £
Incoming resources				
Voluntary income:				
Deed of covenant	117,000	-	117,000	-
Legacies	-	-	-	100,000
Donations and other income	44,837	25,000	69,837	76,997
Tax recoveries	4,928	-	4,928	7,699
Activities for generating funds:				
Fundraising income:				
- Golf day	-	-	-	17,832
- Marathon	1,114	-	1,114	8,515
- Annual dinner	1,215	-	1,215	18,653
- Other	3,933	-	3,933	2,919
Investment income:				
Bank interest	18,741	-	18,741	11,479
Total incoming resources	191,768	25,000	216,768	244,094
Resources expended				
Fundraising expenditure:				
- Golf day	-	-	-	8,663
- Marathon	1,469	-	1,469	1,650
- Annual dinner	340	-	340	10,178
- Other	4,974	-	4,974	4,560
	6,783	-	6,783	25,051
Costs of charitable activities:				
Research awards	50,000	28,000	78,000	58,000
Donations	-	-	-	-
	50,000	28,000	78,000	58,000
Costs of generating voluntary income:				
Travel and subsistence	1,090	-	1,090	1,402
Management expenses	-	-	-	-
Office costs	1,743	-	1,743	1,893
Salaries and wages	32,270	-	32,270	34,542
Research costs	-	-	-	-
Tutor costs	-	-	-	-
Printing	3,042	-	3,042	12,773
Computer support costs	-	-	-	891
Stationery, postage and photocopying	2,344	-	2,344	1,083
General expenses	837	-	837	869
Recruitment fee	3,878	-	3,878	-
Prizes	750	-	750	750
	45,954	-	45,954	54,203
Governance costs:				
Audit and accountancy	2,755	-	2,755	2,350
Insurance	-	-	-	168
Legal and professional	4,472	-	4,472	2,633
Management and administration of the charity	53,181	-	53,181	59,354
Total resources expended	109,964	28,000	137,964	142,405
Net incoming resources for the year	81,804	(3,000)	78,804	101,689

Audit & Research Committee Report



Chairman: Tim Lees

National Vascular Database

The web-based system of data collection has now been running for 12 months. As of August this year, 231 contributors in 133 hospitals were registered on the database and there were 2500 submitted records. The website address is <https://www.nvdonline.org.uk>. If you wish to submit data to the NVD but do not know your log in please contact Sara Baker.

The screenshot displays the National Vascular Database (NVD) web-based data entry interface. The page is titled "National Vascular Database" and shows a user logged in as "Dr Peter [Lastname]". The interface includes a navigation menu on the left with options like "Add record", "Search", "Download", "Manage my address", "Manage my account", "Manage my hospital", "Manage my procedure", "Manage my case files", "Tracking cases", and "Reporting". The main content area is divided into sections for "Operation basic" and "Procedure specific procedure data". The "Operation basic" section includes fields for "Start time", "End time", "Grade of Next Senior Surgeon", and "Timing of surgery". The "Procedure specific procedure data" section includes fields for "Abdominal aortic aneurysm surgery", "Open", "Graft type of graft", "Other - specify", "Laparoscopic AAA repair", "Aneurysm", "Grade of aneurysm", "Aortic findings", and "Intraoperative blood loss". The "Graft type of graft" field is highlighted in yellow. The page also shows a browser address bar with the URL "https://www.nvdonline.org.uk" and a taskbar at the bottom with various application icons.

Figure 1. An on-line data entry screen page for abdominal aortic aneurysm.

Behind the scenes there has been considerable work undertaken on the database in order to make data entry simple and to ensure that data submission is complete so that subsequent analysis is meaningful. The additional analysis and reporting functions and upload facility have taken longer than planned, but there have been many hurdles to overcome on the way, some of which were expected and some which were not. These should be available before the AGM.

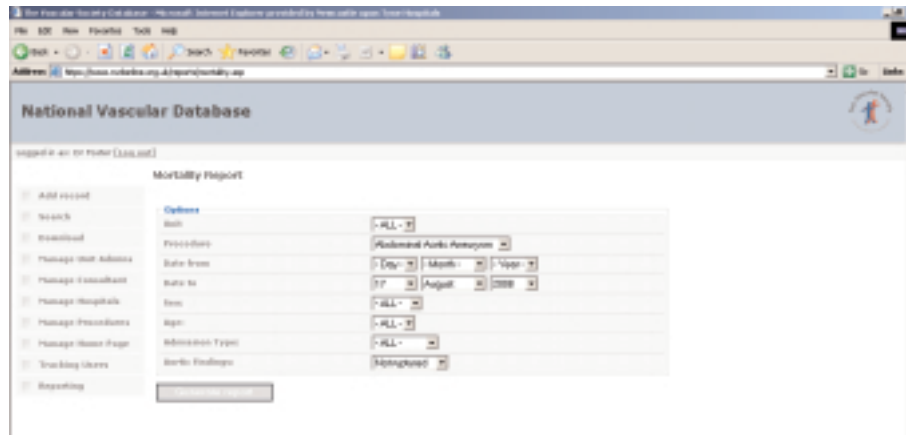


Figure 2. Individual/unit mortality report.

The upload facility presents some particular dilemmas. This facility was requested in order to assist those members who wish to continue to use an alternative system for data collection, and perhaps wish to collect additional data items to those collected for the NVD. However, each time a change is made to the database, e.g. a data field added, the upload programme will need to be rewritten. We are receiving regular requests for changes to the database and have been asked to consider expanding the database to allow users to collect all their operative data. I am encouraged by this, but if we expand the database in this way we will be unable to maintain the upload facility and will need to move exclusively to online data entry.

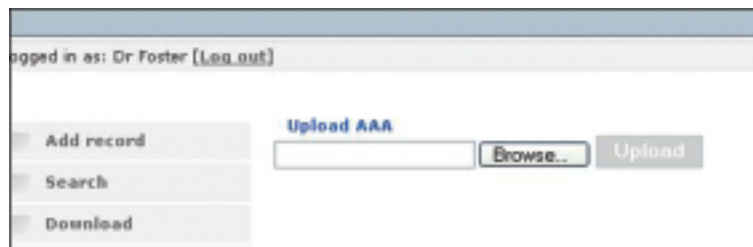


Figure 3. The upload facility.

We remain committed to developing a comparison of NVD and HES data within the system. This will require extra funding. In addition we will need to collect patient identifiers and are still having discussions with the Patient Information Advisory Group regarding the regulations surrounding this.



**Royal College
of Physicians**
Setting higher medical standards

National Carotid Intervention Audit

This is a collaborative project between the Royal College of Physicians and the VSGBI, funded by the Healthcare Commission (now the Healthcare Quality Improvement Partnership).

Report: The final report of the first round of this audit has now been published, and some of the data will be presented in the Carotid Symposium at the AGM. This will include operative

and follow-up data on cases performed between 1st December 2005 and 31st December 2007. Trust level reports have been made available to all the contributors and I would like to thank all those vascular surgeons who participated in data collection and are continuing to do so. If the steering group can assist you in any way with local presentations of the data, or with the development of local action plans for improving the delivery of service please contact ceaaudit@rcplondon.ac.uk.

Round 2: The Healthcare Commission has approved funding to continue the audit for a further two years from 1st January 2008. There have been some changes to the dataset in response to your feedback from the first round and carotid stent insertion has been included. This second round will also involve collaboration with the BSIR. By the time of the AGM the carotid database will have moved to sit alongside the other three index procedures on the website <https://www.nvdonline.org.uk>. If you are not contributing to the audit and wish to do so please contact Dora Kamugasha at the email address above or Sara Baker.

Aneurysm screening

Discussions are ongoing with the UK National Screening Committee with regard to a possible role of the VSGBI in providing data from the NVD for quality assurance related to the screening programme and aortic aneurysm interventions.

Vascunet

I would like to acknowledge the hard work of Chris Gibbons over the last year as Chairman of Vascunet. He has successfully increased international collaboration in the field of vascular audit and in conjunction with Dendrite Clinical Systems Ltd has produced an excellent Vascular Surgery Database Report on behalf of Vascunet and the ESVS. This has highlighted variations in mortality rates between countries which will no doubt be the subject of debate at the AGM.

Feedback & collaboration

If you have any feedback on the NVD or any other issues please contact me (email, Tim.Lees@nuth.nhs.uk; tel: 0191 223 1269), or Sara Baker (details below).

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Fax: 01202 704622

Email: sara.baker@rbch.nhs.uk



Training & Education Committee Report



Chairman: Cliff Shearman

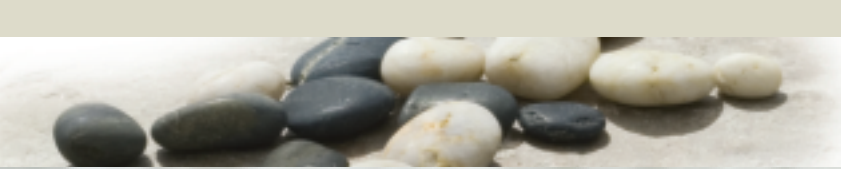
With the rapid developments in the role of endovascular intervention and the evolution in the delivery of services, with few, if any, newly appointed vascular surgeons having a role in general surgery, it has become apparent that current training programmes are not adequate. To be competent to provide a modern vascular service and competitive for consultant posts, trainees are obliged to seek training outside conventional programmes, often travelling abroad. It is absurd to accept that current programmes are not fit for purpose and rely on out-of-programme training to make our trainees competitive for consultant posts.

Two issues have to be tackled to correct this problem. First, we need to describe the competencies and knowledge that a vascular trainee needs to acquire, and how these will be assessed; a curriculum. Second, this has to be established into the training programme. There is an immediate need to support the current trainees and a longer-term requirement to establish a vascular training programme for the future vascular specialist.

During the year the Committee has spent a lot of time developing and refining the new curriculum and we hope by the AGM to be able to present it to you in draft form for comment. We anticipate a lot of revision of this document and we need Members of the VSGBI to go through it and feed back their views and comments so that we can ultimately have a really robust curriculum.

The curriculum is the key to bring about change in training. As the President described in the newsletter we do not have the authority to change training programmes; that power lies with PMETB and to some extent the SAC in General Surgery. By demonstrating the breadth of the vascular curriculum and the time needed to complete it we have been able to convince the SAC that four years of vascular training will be needed. This will allow the implementation of a full vascular curriculum.

In the short term we have tried to stimulate the development of training opportunities by asking units to set up 'pilot' training schemes jointly with radiology. The Working Group of the Royal Colleges of Radiology and Surgery (England, Edinburgh and Glasgow) has continued to meet regularly, and it was based on the desire of this group to see joint training



opportunities that these posts were encouraged. The purpose of the posts is to build collaboration between surgical and radiological trainers and to get posts up and running, offering opportunities to current trainees. They also allow us to assess the curriculum and begin to embed it in vascular training programmes. A number of units have expressed an interest in establishing the posts and several are up and running. I hope many more will follow.

During this year we had the bonus of funding awarded for seven post-CCT endovascular fellowships for surgical trainees and four for radiological trainees. While these programmes offer ideal opportunities for some of our current trainees to gain skills, we still need to integrate this training into the pre-CCT programmes, hence the importance of the pilot posts.

Manpower planning is essential for the future of vascular services and we are conscious that there have been attempts at a national level to look at surgical services in general, but there has been no detailed work for vascular services. We have access to some sophisticated modelling tools and are gathering information from the VAC members about current services to try and predict the future need for trained vascular specialists.

To finish on a positive note, the Educational Masterclass at the AGM continues to thrive and the course was oversubscribed last year. Feedback both from established consultants and trainees was extremely positive. This year we have continued to focus on those difficult and frightening situations that we all like to avoid. We have invited well known experts to take part and offer their solutions of how to avoid a thorny problem or, if you can't, how to get out of it! I would be grateful for ideas for next year, but in the meantime please register early and encourage your colleagues to attend for what I hope will be a fantastic course.



Professional Standards Committee Report



Chairman: Peter Lamont

This year saw the production of individual abdominal aortic aneurysm results on the National Vascular Database, using funnel plots to assess operative mortality. Three outliers were identified, triggering the Society's agreed clinical governance response. The relevant Trust Medical Director was advised of the outcome and asked to validate the data locally before assessing the need for any remedial action. The Society offered to provide external assistance and advice if required. Local validation revealed some discrepancies from the NVD, although higher than expected mortalities were found. In no instance was an individual surgeon found to be at fault and no one was suspended. Careful case review suggested system issues around pre-operative risk assessment, the availability of dedicated vascular anaesthetists and appropriate HDU/ITU support. In all cases an action plan has been generated to address the local problems through service improvements. Thus, although stressful for the individual surgeons involved, the process has been a very positive one for future service provision and in particular was seen as a useful counterpoint to the target-driven focus on cancer care, which often left surgeons feeling that vascular surgery was an under-resourced poor relation. In all, the openness of discussions and the willingness to address the issues exhibited by both the surgeons, the managers and the medical directors involved have been very impressive.

Data from the National Carotid Endarterectomy Audit is also likely to provide outliers in terms of postoperative stroke and mortality risk, although the statistical interpretation of small numbers is likely to prove a major hurdle. The Professional Standards Committee has been asked to provide guidance to Council on this issue and I hope to report further on this at the AGM.

The Colleges are currently working hard at defining generic standards for GMC recertification and will involve the specialist societies to flesh out specialty-specific standards in due course. Thus far, assurance has been given that consultants will be recertified in their current field of expertise, rather than in the whole field of their CCT, much to the relief of those who no longer undertake the full range of general surgery.

In the light of Mr Peter Taylor's election to the Vice Presidency, the Committee was delighted that Council elected Mr Robert Galland to fill his place on the PSC. The Society is also grateful to those members who have agreed to the inclusion of their name on the senior members' list, which exists to provide a pool of experienced vascular surgeons willing to provide external advice to hospitals and other agencies on disciplinary or service matters.

Circulation Foundation Report



Chairman: Sir Peter Bell



The Circulation Foundation has had a good year and we have been able to maintain the start we made last year in giving out grants. This year we again intend to offer the Circulation Foundation Research Fellowship, the Mary Davies Research Fellowship and travel grants to allow members to receive training, particularly in endovascular techniques. Money is also available to support the activities of vascular technologists and vascular nurses. The Owen Shaw Award also continues to be available.

The project to look at healthy eating, conducted by Professor Anderson, has now been completed and showed some interesting results. This report will be published soon and will hopefully lead to further activities in the food area from which the Circulation Foundation will, in the long term, benefit probably by endorsements of healthy food products. Once again, George Davies is helping us in this area.

The *per una* sportswear launch has been very successful and has provided the Circulation Foundation with funds in excess of £100,000, the use of which is currently being discussed by the Committee. It is likely that more grants will be made available in due course.

We are also trying to discuss with various organisations the possibility of joint funding which would give us a better and more widespread appeal.

This year the annual dinner was not held because the event, although successful, required a large amount of effort for relatively little return. We replaced it with an event where sponsors and donors listened to presentations from those who were successful in obtaining grants last year. By doing this we hope to encourage more donations in future. The annual dinner will restart once its format has been discussed further. It was our intention to hold an alternative event at Vinopolis in London this year but the financial situation with regard to the risk and returns, and the support likely to be generated was thought to make it non-viable at present.

I have to announce some changes that have occurred already and some which will occur in the future. First, Terrie McCann has moved on to another position and I would like to thank her for all the hard work she did in establishing the Circulation Foundation. She has been replaced by Rebecca Wilkinson who has taken over the things that Terrie did and will, I hope,



do more beside. She will be coming to see many of you to make your acquaintance, and encourage you to do things locally to raise money. One of these is to establish patient organisations along the lines of the British Diabetic Association and the Kidney Foundation. These groups will receive help and support from her and also hopefully from the local surgeons. As you also know Rod Chalmers has been appointed Vice Chair of the Circulation Foundation with responsibility for liaison between the VS Council and the CF Committee; he will also be encouraging many of our members to take a more active role in the Circulation Foundation.

I will be demitting office after five years in November following the AGM and am happy to say that my place will be taken by Andrew May. Andrew has been a great supporter of the Foundation and will, I am sure, take it forward in the next five years to a point where we shall be able to give more money to vascular research. I am glad to say that George Davies has agreed to continue to support the Foundation and I will do all I can to ensure a smooth transition and a successful future. I have enjoyed being Chairman of the Circulation Foundation for the last five years and would like to give my thanks to all of those who did most of the work during that time. I wish the organisation well in the future and will be happy to help in any way I can.

**The Circulation Foundation would like to thank the following Members of
The Vascular Society for their donation during the year July 2007-June 2008**

Mr Ademola Akomolafe	Mr Munther Aldoori	Mr Roger Baird	Mr Daryll Baker
Professor Jonathan Beard	Professor Sir Peter Bell	Mr David Berridge	Mr Bruce Braithwaite
Professor Kevin Burnand	Mr Paul Burns	Mr Rod Chalmers	Mr Richard Corbett
Professor Alun Davies	Mrs Linda de Cossart	Mr Richard Downing	Mr Jonothan Earnshaw
Mr Robert Edmondson	Mr Ian Franklin	Mr Simon Fraser	Mr Andrew Garnham
Mr David Gerrard	Mr Chris Gibbons	Mr Michael Gough	Mr Gareth Griffiths
Professor George Hamilton	Mr Simon Hardy	Mr David Harvey	Professor Michael Horrocks
Mr Michael Jenkins	Mr Tim Lees	Mr Adrian Marston	Mr Andrew May
Mr Mark McCarthy	Mr David Mitchell	Mr Simon Parvin	Mr David Reilly
Miss Sophie Renton	Mr Paul Renwick	Professor Julian Scott	Professor Cliff Shearman
Mr Malcolm Simms	Mr Peter J Taylor	Mr Martin Thomas	Mr Kevin Varty
Miss Lucy Wales	Mr David Williams	Mr John Wolfe	Mr Kenneth Woodburn

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Fundraising and Events Co-ordinator

Ms Rebecca Wilkinson

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Fax: 0207 430 9235

E-mail: info@circulationfoundation.org.uk

Website: www.circulationfoundation.org.uk

Vascular Tutor's Report



Waquar Yusuf

Two new courses have been developed since the last AGM. The course on EVAR planning was the first to be supported jointly by The Vascular Society and the British Society of Interventional Radiology. Twelve CT workstations were available for the two-day course which covered the principles and planning for EVAR, with an opportunity to carry out image processing, reconstruction and measurement under the supervision of an experienced faculty of radiologists, radiographers and surgeons. By the end of the course candidates had a good understanding of qualitative assessment of aorto-iliac arteries and specific planning for standard endovascular grafts.

The course was well attended and proved successful. It is available again in January 2009 and I would encourage all vascular trainees to attend. Even established surgeons who are at the beginning of their endovascular experience will find it useful.

The second new course on amputations was also well attended and rated highly by the participants. It was held in the new, improved dissection room. A multi-disciplinary faculty of vascular and orthopaedic surgeons, prosthetists, physiotherapists and an anaesthetist provided lectures and demonstrations of various amputation techniques including digital amputations, trans-metatarsal/ray amputation, Symes amputation, below knee (long posterior and skew flaps), through knee, Gritti-Stokes, above knee, hip disarticulation, hind quarter and upper limb amputations.

The participants were able to perform the various procedures under supervision and there was very encouraging feedback for this course. It would be of interest to not only surgeons in training but other team members involved in managing amputees. We would like to see a greater participation from vascular and theatre nurses, and colleagues from rehabilitation centres in our next course.



The skills courses in open vascular surgery are to be matched closely to the syllabus and stages of the new curriculum. A new course manual is being compiled to support a week-long course next June. The first two days will cover skills appropriate for junior trainees and the last three days will be suitable for surgeons in the final stage of training (ST4-8). A fixed week in the calendar will hopefully facilitate the participation of the trainees.

For the future, efforts are being made to make training in vascular ultrasound more widely available. The Society for Vascular Technology is helping with the development of a new course covering practical experience in the vascular laboratory. This is an ambitious project and needs considerable work before it can be implemented.

I would like to acknowledge the excellent support of Margarita Bartholomew, Ratandeep Jhita, Farhana Jilani and Ruth Warne from the Education Department at the College of Surgeons. I would also like to thank Members of The Vascular Society and British Society of Interventional Radiology, and experts from other specialties and disciplines for participating as Faculty in the various courses.

Society of Vascular Nurses



The Society of Vascular Nurses has now been in existence for 15 years and has around 150 individual members and 20 ward members, representing the breadth of the United Kingdom and Ireland. The Society's aims are to support, educate and inform nurses, and other healthcare professionals caring for patients with peripheral vascular disease. Our members come from both primary and secondary care and range from junior staff nurses to nurse consultants, with the occasional podiatrist and physiotherapist in between.

The Society provides a national network to promote knowledge about vascular disease and encourage nurses to gain the knowledge and skills to fulfil the complex needs of vascular patients. Members are encouraged to become actively involved in nursing or multidisciplinary research and to present their work at the national conference. The Circulation Foundation provides the James Purdie prize which is awarded to the best research presentation at the annual conference. This is an excellent way for nurses working with vascular patients to share their work with other nurses. For those who do not want to speak at a conference, there is the opportunity to enter the poster competition.

The SVN awards a maximum of four £500 bursaries each year and these are used to allow members to undertake various educational opportunities or research pursuits.

The Society produces a quarterly newsletter which is sent to all members. The newsletter includes articles on professional and educational issues, research and development. The website is currently undergoing an update to make it more interactive for members.

The SVN annual conference continues to be held alongside The Vascular Society and SVT annual general meeting - providing an excellent multidisciplinary forum. The SVN remains grateful to The Vascular Society for their continued support at this meeting.

Sue Ward, President

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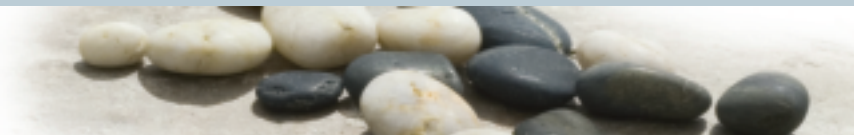
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The Society for Vascular Technology (SVT) of Great Britain and Ireland



2008 has been a very active and challenging year for the Society and it is rewarding to see many of the tasks the various committees have taken on come to fruition.

The National Stroke Review Committee Guidelines were published in May by the DOH. The Society was involved in their preparation and also wrote a document to highlight the workforce implications. There is further ongoing involvement of the Society on the educational and training framework of the Stroke Review Committee, and for all those involved in the management of TIA and stroke.

The Guidelines for Grading Carotid Stenosis have also been completed and are due to be published by the Professional Standards Committee, following endorsement by The Vascular Society and various other bodies.

The Circulation Foundation Grant of £5,000, intended to fund research projects or to gain experience in another centre, has been renewed and will add valuable support to the membership.

The Society has also been committed to working fully with the Modernising Scientific Careers project. The successful outcome of this process will lead to a structured, centrally funded, fully supernumerary training programme which will be vital to the ultimate sustainability of the profession.

In its 17th year, the Society continues to grow; we have an increasing membership, with more people sitting the accreditation exams, a great encouragement to a young and small Society.

A new upgraded website was launched in May along with a forum for the members to discuss and express their views on subjects relating to vascular technology. The quarterly newsletter continues to offer communication to the membership. The AGM on 13th November heralds the start of another year of even more challenges. We hope that active involvement will lead to even more achievements.

Naghmana Riazuddin, President

Executive Committee

President
Naghmana Riazuddin, Reading
Vice-President
Elaine Young, London
Past President
Rachel Walker, Bath
Treasurer
Jane Murray, Southport
Membership Secretary
Maggie Glass, Edinburgh
Conference Secretary
Grant Robinson, Denbighshire
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Valda Gazzard

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Surinder. Dhanjil, London
Officer responsible for exams (in Ireland)
Nuala McMahon, Dublin
Examination Papers
Teresa Robinson, Bristol
Annette Quinn, London
Jacqui George, Plymouth
Study Day Organiser
Trevor Frankel, Wrexham
Newsletter Questions
Karen Gallagher, Edinburgh

Professional Standards Committee:

Chair
Tim Hartshorne, Leicester
Members
Crispian Oates, Newcastle
Theresa Fail, Southampton
Pouan Khodabakhsh, Leicester,
Sonia Charles, Manchester
Mohamed Aslam, London
Keith Humphries, London

Website: www.svtgbi.org.uk

Email: svt@vascularsociety.org.uk

The Venous Forum of the Royal Society of Medicine



The **ROYAL**
SOCIETY of
MEDICINE

Jonathan Earnshaw completes his term as our President with an exciting review of the current provision and future developments in venous disease from European, Scandinavian and UK perspectives as part of the Venous Forum Meeting. The second half of the meeting includes updates on venous stents, leg ulcer management and the VeIn Project.

On behalf of the Venous Forum I would like to thank Jonathan for his usual limitless enthusiasm and encouragement during his Presidency.

This year has also seen the departure of Tim Lees as Secretary. Tim has been an excellent Secretary and has provided a very smooth period for me to take the reins. I thank him for all of his work as Secretary and his continued work with the VeIn Project.

There have been three new appointments to Council this year - Mr Andrew Parry, Mr S Kumar and Mr Tim Magee. I am also pleased to report that Dr Marianne Vandendriessche has agreed to continue on Council for a further three years.

Our President-Elect, Professor Alun Davies, and I have arranged a joint meeting with the British Association of Sclerotherapists in association with Mr Phillip Coleridge-Smith on 29/30th April 2009 to be held at the Royal Society of Medicine. The programme is available on www.rsm.ac.uk/venous.

The Forum's journal, *Phlebology*, under the careful stewardship of Professor Alun Davies continues to evolve. It is now produced six times per year, is on Medline, and is the journal affiliated with the American College of Phlebology, UKVF, EVF and the Australian College of Phlebology, and the Australasian and New Zealand Journal of Phlebology.

The Venous Forum continues in a healthy financial status, and wishes to continue the mutually beneficial relationship with The Vascular Society of Great Britain and Ireland.

I hope you enjoy the Venous Forum meeting at The Vascular Society in Bournemouth, and I look forward to welcoming you to the RSM on the 29/30th April 2009.

David Berridge, Secretary

Principal Officers

President

Mr Jonathan Earnshaw

Tel: 08454 226190

Email: Jonathan.earnshaw@glos.nhs.uk

President Elect

Professor Alun Davies

Tel: 0208 846 7320

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Email: david.berridge@leedsth.nhs.uk

Treasurer

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Email: Frank.c.t.smith@bristol.ac.uk

Editor, Phlebology

Professor Alun Davies

Tel: 0208 846 7320

Email: a.h.davies@i.c.ac.uk

Academic Administrator

Ms Becky Harmer

Tel: 0207 290 2985

Email: venous@rsm.ac.uk



Endovascular Forum



Members of The Vascular Society and British Society of Interventional Radiology, together with trainees from both disciplines, met in Stratford upon Avon on the 20th and 21st June to discuss topical issues in endovascular therapy and (perhaps as importantly) to develop and reaffirm friendships with colleagues from 'the other side'.

The format of previous meetings was maintained with each session being co-chaired by a surgeon and a radiologist who together moderated lively debate and discussion from the floor after each presentation.

The first afternoon included sessions on carotid intervention and on the endovascular management of thoracic and abdominal aortic aneurysms. The day concluded with a stimulating and very useful session in which surgeons and interventionists presented their 'disasters, near misses and great escapes'. The following morning included sessions on renal and lower limb intervention as well as a debate on the management of varicose veins.

The meeting concluded with a session on training chaired by Dr Derek Gould and Professor Julian Scott. Opinions remain divided about how we can best provide the full range of vascular and endovascular interventions but it was clear that, although we may not always agree about who should do what, we are all committed to working together and to developing a shared curriculum and training pathway for the vascular specialists of the future. That, of course, is the spirit in which the Forum was established and in which it continues to flourish.

Geoff Gilling-Smith

Principal Officers

Co-Chairmen

Professor Matt Thompson

Dr David Kessel

Mr Geoff Gilling-Smith

Dr Raman Uberoi

Dr Duncan Ettles

Contact details

Jeanette Robey, Chief Executive

The Vascular Society

The Royal College of Surgeons

35-43 Lincoln's Inn Fields

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Tel: 0207 973 0306

Fax: 0207 430 9235

E-mail: office@vascularsociety.org.uk

Website: www.vascularsociety.org.uk

Ruth Moss, Conference Organiser

BSIR

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G61 4WR

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Email: ruth.moss@ntlworld.com

The Joint Vascular Research Group



The Joint Vascular Research Group (JVRC) is a collaborative network of vascular centres who share an enthusiasm for clinical research. Membership is by centre and we encourage the participation of surgeons, radiologists, nurses and technologists.

Since our last meeting, we are delighted to have published two peer review papers in major vascular journals ^{1, 2}. The JVRC has also published several books, copies of which are still available from Nikki Bramhill of tfm publishing (email: nikki@tfmpublishing.com; web site: www.tfmpublishing.com). These include 'The Evidence for Vascular Surgery', 2nd edition, 'Rare Vascular Disorders' and 'Pathways of Care in Vascular Surgery'.

I would like to thank our industry partners, Nuros and sanofi aventis, for their continued support and am delighted that John Howard (Nuros) will be sponsoring a champagne reception in Bournemouth before the next JVRC dinner on the evening of Tuesday 11th November 2008. This event is open to all members attending the preceding JVRC meeting at 17.00 in the Bayview Suite at the Bournemouth International Centre.

Finally, membership of the JVRC remains open to any interested centre. We welcome 'new blood' and if you are interested, please could you contact us directly. We thank you for your continued support and look forward to seeing as many of you as possible in Bournemouth.

Mike Wyatt, Chairman

Contact details

Chairman

Mike Wyatt

Email: mike.wyatt@nuth.nhs.uk

Group co-ordinator

Lesley Wilson

Email: lesley.wilson@nuth.nhs.uk

Address for correspondence:

Northern Vascular Centre

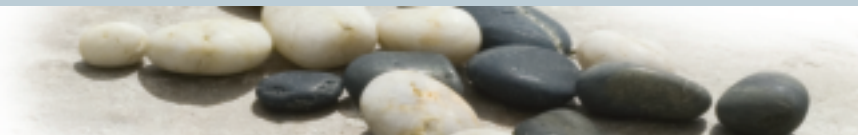
Freeman Hospital

Newcastle upon Tyne, NE7 7DN

Tel: 0191 244 8457

Fax: 0191 223 1225

1. O'Hare JL, Vandenbroeck CP, Whitman B, Campbell B, Heather BP, Earnshaw JJ: Joint Vascular Research Group. A prospective evaluation of the outcome after small saphenous varicose vein surgery with one-year follow-up. *J Vasc Surg* 2008. Epub 2008 Jun 28. PMID: 18586437.
2. Sajid MS, Hamilton G, Baker DM; Joint Vascular Research Group. A multicenter review of carotid body tumour management. *Eur J Vasc Endovasc Surg* 2007 Aug; 34(2): 127-30. Epub 2007 Apr 2. PMID: 17400487.



Rouleaux Club



The Rouleaux Club continues to go from strength to strength and now has over 170 Members. We are the only national representative voice for vascular trainees in the United Kingdom and are actively shaping the future direction of vascular surgery training.

We are pleased to announce that membership of the Rouleaux Club is now open to Interventional Radiology trainees. After a very successful joint meeting with the junior section of the BSIR, both organisations voted overwhelmingly to allow reciprocal membership. We hope this will be the start of a long and fruitful collaboration with radiological colleagues.

The website www.rouleauxclub.com is free and membership is open to all trainees who are committed to a career in treating vascular disease. It is an excellent and up-to-date resource for trainees. Training courses, meetings, fellowships and consultant posts are advertised on the site. We welcome submissions from organisations wishing to contact vascular trainees regarding events of interest to our members. We are also building a vascular training post database which will list country-wide vascular training opportunities. For the first time we will also be rating our trainers.

The Club meets twice a year, in November at The Vascular Society AGM, and in June. The 2008 summer meeting was joined with the meeting of the British Society of Endovascular Therapy. Rouleaux Club meetings are sponsored, informal, enjoyable and of high educational value from both a surgical and radiological perspective. For the summer meeting at The Belfry, many partners and children of Rouleaux Club Members were able to join the social aspects of the meeting.

We urge all trainees to join us, without cost, by logging on to the website. If you wish to become more involved or have suggestions regarding future activities of the Club please email one of the Committee directly or via the website.

Jeremy Crane, Rouleaux Club Secretary

Committee

President

Martin Claridge

Email: martin@claridge.org.uk

Vice President

Rob Hinchliffe

Email: robhinchliffe@gmail.com

Secretary

Jeremy Crane

Email: j.crane@imperial.ac.uk

Treasurer

Simon Hobbs

Email: simon@hobbysy.fsworld.co.uk

VS Council Representative

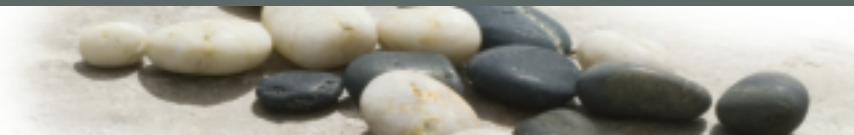
Leith Williams

Email: leithal94@googlemail.com

ASIT Representative

Robert Brightwell

Email: r.brightwell04@imperial.ac.uk



Exhibitors

12-14 November 2008

Bournemouth International Centre

Alphabetical list of confirmed exhibitors as at 6th October 2008; number = 59

AngioDynamics UK Ltd MAJOR SPONSOR

Building 2000 Beach Drive
1 Q Cambridge
Waterbeach
Cambridge, CB25 9TE
Tel: 01223 729300
Web: www.angiodynamics.com

Stand F

AngioDynamics may be a new name to the UK vascular market, but since its foundation in 1988 the company has become a major player in the US medical devices field. Focusing on interventional products, AngioDynamics was looking to grow their business, so when Diomed and the EVLT products became available for purchase, this was 'The Perfect Match'.

For existing EVLT customers there has been a seamless transition to AngioDynamics and going forward EVLT will be fully supported and further developed by the company. AngioDynamics has continued sponsorship of The Vascular Society and welcomes you to visit their exhibition stand.

Archimed Insense Medical Ltd

(Insense Limited)
Colworth Park
Sharnbrook
Bedford, MK44 1LQ
Tel: +44 (0)1234 782870
Fax: +44 (0)1234 783444
Email: Helen.Scrase@insense.co.uk
Web: www.insense.co.uk

Stand 7

*Restoring the oxygen balance in chronic
and infected wounds*

Archimed is an innovative new company focused on wound healing. New products, OXYZYME™ and IODOZYME™, are the first oxygenating moist wound healing systems for chronic and infected wounds, using advanced biochemistry to work like a molecular pump, drawing in oxygen from the atmosphere and transporting it to the surface of the wound, generating iodine in the process. The OXYZYME™ and IODOZYME™ systems are as easy to use as conventional dressings, comfortable for the patient, and provide oxygen balance where it is needed most. Of the 61 case studies completed to date in our on-going OXYZYME™ case study programme, 69% of wounds have either healed or improved.

Atrium UK

Peter House
Oxford Street
Manchester, M1 5AN
Tel: +44 (0)161 209 3675
Fax: +44 (0)161 209 3676
Email: atriumuk@atriummed.com
Web: www.atriummed.com

Stand 43

Come and see the new Atrium FLIXENET™ vascular PTFE graft, a 'next generation' composite graft construction that offers exceptional strength, handling and durability.

Built from a proprietary biomaterial film lamination process, FLIXENET™ exhibits unequalled kink and compression resistance for improved surgical handling and minimal needle hole bleeding. It provides unsurpassed 'burst' and 'suture strength' and is designed to minimise 'weeping'.

FLIXENET™ is the latest advance in a series of unique medical device innovations, built upon Atrium's strong 27-year heritage of excellence in advanced polymer and biomaterial science.

Atrium UK awaits you to tell you about our industry-first FLIXENET™ NO-WEEP GUARANTEE.

Bard

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Forest House
Tilgate Forest Business Park
Brighton Road, Crawley
West Sussex, RH11 9BP
Tel: 01293 527888
Fax: 01293 552428
Web: www.barduk.com

Stand 45

Bard Peripheral Vascular is a leading supplier of prosthetic grafts to vascular surgeons. Innovative anastomotic engineering has produced proprietary technology in the treatment of PVD, in particular limb salvage, for both above and below the knee.

DISTAFLO® bypass grafts have a unique patented cuff technology and are the only ePTFE prosthetic graft to show proven improvement in patency below knee by altering arterial haemodynamics with unique anastomotic engineering technique.

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VENAFLO® II vascular grafts demonstrate cuff technology for increased patency in haemodialysis situations. VECTRA® vascular access grafts offer quick access following implantation when early cannulation is necessary.

Bard, Distaflo, Dynaflo and Venaflo are registered trademarks of C. R. Bard, Inc., or an affiliate

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Stand 25

Thorncliffe Park
Sheffield, S35 2PW
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Fax: 0114 225 9111
Web: www.bbraun.co.uk

B. Braun Medical Ltd is a member of the B. Braun Group, one of the world's leading healthcare companies. B. Braun manufactures and distributes on a global basis, employing more than 33,500 people worldwide.

B. Braun offers healthcare professionals and hospitals an outstanding range of products, from our world renowned surgical instruments to our innovative implants and therapeutic systems.

As Major Sponsors of The Vascular Society, B. Braun offers an excellent range of traditional products for the vascular surgeon, including a full portfolio of vascular prosthetic implants, associated vascular products, the Silvergraft range and our unique vascular patch. All of our products will be available for viewing and further discussion on our stand. We look forward to welcoming you.

BVM Medical Ltd

Stand 56

BVM House
Trinity Lane
Hinckley
Leicestershire, LE10 0BL
Tel: 01455 614555
Fax: 01455 614546
E-mail : info@bvmmmedical.com
Web: www.bvmmmedical.com

BVM Medical is pleased to show the Straub thrombectomy system and the SUPERA vascular stent. The Straub thrombectomy system not only breaks the thrombus it also detaches it from the vessel wall and aspirates the broken down thrombus. Studies have shown Rotarex works on organised thrombus older than 6 months. The SUPERA vascular stent is made of interwoven nitinol, which has extreme flexibility without compromising any strength. The SUPERA has been designed for the SFA, popliteal and below the knee vessels, but it can also be used in the iliacs. We look forward to you visiting our stand.

Covidien

Stand 28

Covidien (UK) Commercial Ltd
154 Fareham Road
Gosport
Hampshire, PO13 0AS
Tel: +44 (0)1329 224366
Fax: +44 (0)1329 224400
Email: amy.rooks@Covidien.com

Visit Covidien, formerly Tyco Healthcare, to hear about our latest innovative technologies:

VascuSeal

The VascuSeal vascular sealant system is intended for use as a surgical sealant during arterial and venous reconstructions to prevent bleeding through suture lines.

Sutures

Try what's new with the Covidien vascular needle portfolio and see our proprietary Vascufil™ vascular suture, with zero memory and exceptional handling.

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Credenhill Ltd

Stand 13

10 Cossall Industrial Estate
Ilkeston
Derbyshire, DE7 5UG
Tel: 0800 195 0650
Fax: 0800 028 5206
E-mail: sales@credenhill.co.uk
Web: www.credenhill.co.uk

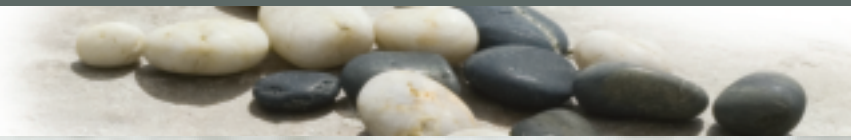
Credenhill is one of the leading UK specialists in compression hosiery and related equipment, supplying hospitals, private clinics and pharmacies across the UK with products to suit a comprehensive range of patient needs. Come and see our extremely competitively priced compression hosiery for post-sclerotherapy and EVLT patient care. The unique range of Oesch instruments for vein surgery will also be on display. We wish you a successful and enjoyable conference.

Cryolife Europa Ltd

Stand 53

Bramley House
The Guildway
Old Portsmouth Road
Guildford
Surrey, GU3 1LR
E-mail: Europa@cryolife.com

Cryolife Europa Ltd will be demonstrating the BioGlue syringe system. BioGlue surgical adhesive is available



in a fully disposable syringe system in 2ml, 5ml and 10ml volumes. The easiest just got easier. The smaller profile of the syringe improves site access and visualisation. All-inclusive packaging saves time and storage space. BioGlue surgical adhesive is clinically proven in over 290,000 procedures worldwide and is CE marked for cardiothoracic, pulmonary, vascular and general surgical applications including dura mater repair. Also available is the Syringe Spreader Tip making it even easier to apply BioGlue in a thin even layer. The Syringe Spreader Tip is available in 12mm and 16mm widths.

Datascope Medical Company Limited
Stands 10 and 11

Lakeview Court
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Huntingdon
Cambs, PE29 6XR
Tel: 01480 423600
Fax: 01480 423638

We will present the Intervascular range of vascular grafts, which includes the unique Silver and ePTFE ranges. Alongside these, we have the Endoscopic Vessel Harvester with an established use in cardiothoracic surgery. We will concentrate on expanding its use in the treatment of peripheral vascular disease (PVD).

The recently acquired peripheral vascular 'Sorin CarboStent' range will allow us to provide for both the surgical and interventional approach to treating PVD.

The AAA Extender Cuff to treat Type 1 endoleaks, and the Safeguard 12 & 24cm wound-site management device, used to achieve and maintain haemostasis, completes our vascular offerings.

Dendrite **Stand 44**

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Henley-on-Thames
Oxfordshire, RG9 2BA
Tel: 01491 411 288
Fax: 01491 411 377
E-mail: info@e-dendrite.com
Web: www.e-dendrite.com

Dendrite Clinical Systems is a world leader in vascular and endovascular database software for hospital departments, as well as national and international registries.

At the recent ESVS meeting in Nice, France, Dendrite presented and published the Second VASCUNET Database Report on over 84,000 procedures from 386 hospitals, in ten countries. Visit the Dendrite booth to receive your FREE copy of this report.

In conjunction with the UK, European and the American Venous Forums, the company is proud to host the International Venous Registry. Visit the Dendrite booth for your FREE registration for this database and for a quick training session.

Edwards Lifesciences Ltd **Stand 50**

Sherwood House
78-84 London Road
Newbury
Berkshire, RG14 1LA
Tel: (0)870 606 2040

Edwards Lifesciences Corporation designs, develops and markets a comprehensive line of products and services to treat advanced cardiovascular disease. The worldwide leader in tissue replacement heart valves and heart valve repair products, the company is focused on four main areas: heart valve therapy, critical care, cardiac surgery systems and vascular therapy. At this year's Vascular Society AGM come and meet some of the team and see the comprehensive Fogarty family of catheters - the gold standard in clot management; the versatile Fogarty Hydragrip and Cosgrove Flexclamps and inserts, as well as the full range of Albograft and Lifespan grafts.

Emmat Medical Ltd **Stand 34**

5A Newton Court, West Strand
Pendeford Business Park
Wolverhampton, WV9 5HB
Tel: 01902 788777
Fax: 01902 788555

Emmat Medical is a highly thought of listed NHS supplier. We have a very strong presence in the UK vascular market, with many discerning vascular surgeons enjoying the high quality vascular instruments we supply. We at Emmat are proud to be exclusive distributors to Tekno & Geister who manufacture high quality vascular instruments, i.e. RingTip F/C- Diamond Dusted N/H-Gregory carotid clamps, also vascular needle sets to name a few.

Emmat's staff are long-serving highly experienced instrument people, which means we can supply and deliver a quality service backed by in-house theatre need experience.

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Cardiff, CF24 5HN
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Fax: +44 (0)29 2049 2520
E-mail: sales@huntleigh-diagnostics.co.uk
Web: www.huntleigh-diagnostics.com

Huntleigh, with a worldwide reputation as a UK leading designer and manufacturer of medical instruments, will be displaying their latest range of vascular assessment equipment including the Intraoperative Probe. The new Dopplex Assist Series and Dopplex Assist Reporter software with additional features including rapid ABPI/TBPI and exercise applications will also be displayed.

Juzo UK Ltd **Stand 21**

Unit 1, Edison Place
Dryburgh Industrial Estate
Dundee, DD2 3QU
Tel: 01382 826620
Fax: 01382 826641

KCI Medical

KCI Medical Ltd.
KCI House
Langford Business Park
Langford Locks
Kidlington, OX5 1GF
Tel (free): +44 (0)800 980 8880
Fax: +44 (0)1865 840 626
Email: ukmarket@kci-medical.com
Web: www.kci-medical.com

Stand 24

Kinetic Concepts Inc. is a global medical technology with leadership positions in advanced wound care and therapeutic support systems.

KCI's V.A.C.® (Vacuum Assisted Closure) Therapy has been shown to provide cost-effective and clinically proven wound therapy. To date, V.A.C.® Therapy has helped to treat 3 million patients worldwide in all care settings.

KCI's therapeutic support systems offer clinically and cost-effective pressure area care solutions. AtmosAir® is a dynamic non-powered mattress system which uses atmospheric pressure through Self-Adjusting Technology™ (SAT™) to deliver dynamic pressure redistribution for patients without the need for power.

Visit us on stand 24 to learn more about the therapies available from KCI.

**LeMaitre Vascular GmbH
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65843 Sulzbach/Ts.
Germany
Tel: +49 (0)6196 659 2315
Mobile: +49 (0)179 734 1717
Fax: +49 (0)6196 5614343
Web: www.lemaitre.com

Stand C

LeMaitre Vascular is a leading global provider of innovative devices for the treatment of peripheral vascular disease. We develop, manufacture, and market disposable and implantable vascular devices to address the needs of vascular surgeons and interventionalists. Our diversified product portfolio consists of well-known brand name products used in arteries and veins outside of the heart.

Life Line Screening

Corporate Headquarters
Park Center Plaza II, Suite 200
6150 Oak Tree Blvd
Independence, Ohio 44131
USA
Web: www.lifelinescreening.co.uk

Stand 41

Established in 1997, Life Line Screening is becoming a leading provider of quality, community-based preventive health screenings in the UK. We offer screenings to detect carotid artery stenosis, systolic hypertension, atrial fibrillation, abdominal aortic aneurysms, peripheral arterial disease and diminished bone density. Our participants are generally age 50

and over and are asymptomatic, although they tend to have significant risk factors. The screenings are all non-invasive, and the costs are very affordable.

Life Line Screening uses state-of-the-art ultrasound technology to conduct screenings. Sonographers adhere to strict protocols to ensure consistency and accuracy. Each screening is reviewed by a fully accredited consultant in the UK. Participants receive a written report within 21 days. If a technologist identifies a condition that needs immediate attention, such as a large aneurysm, at the time of the screening, he or she will discretely notify the participant and provide information for that participant to take to his or her GP right away.

As our mission statement attests, we strongly encourage our participants to seek follow-up care with their GP once the screening process is complete. We do not make diagnoses or make any recommendations as to treatment.

Lombard Medical Technologies Plc Stand 40

4 Trident Park
Didcot
Oxfordshire, OX11 7HJ
Tel: +44 (0) 1235 750800
Fax: +44 (0) 1235 750879
Web: www.lombardmedical.com

A British company manufacturing Aorfix™ for AAA treatment.

The Aorfix™ stent graft is fixed securely to the aorta, preventing migration and flexible enough to bend without kinking in severely angulated aortas and tortuous iliac arteries. Clinical trial work is ongoing with European and US studies looking at the graft in high angle aortic neck aneurysms.

A variety of training courses run feature live cases and the chance to hear presentations from experts using the stent graft.

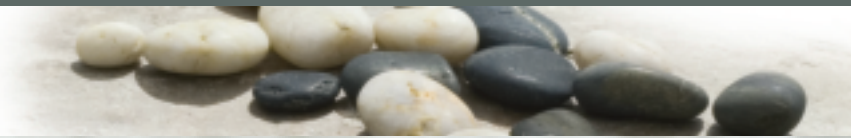
3-dimensional imaging software sizing reports are produced for new users and an experienced clinical team is available to support cases.

**Maquet Limited
MAJOR SPONSOR**

14-15 Burford Way
Boldon Business Park
Sunderland, NE35 9PZ
Tel: 0191 519 6200
Email: sales@maquet.co.uk
Web: www.maquet.co.uk

Stand E**MAQUET ACQUIRES VASCULAR GRAFTS
FROM BOSTON SCIENTIFIC**

Hemashield™ and Exxcel™ vascular grafts are now supplied by Maquet, the surgical products and equipment specialist. This follows Maquet's acquisition of Boston Scientific's vascular and cardiac business in May 2008.



Hemashield Gold knitted vascular grafts are for use in peripheral and abdominal vascular interventions, while Hemashield Platinum woven vascular grafts are specifically designed for use in thoracic procedures. Maquet's new range also includes the Hemashield Platinum Finesse carotid patches and the Exxcel soft range of ePTFE grafts.

Maquet welcomes you to join them on their stand at the AGM in Bournemouth.

Medi UK Ltd

Stand 14

Plough Lane
Hereford, HR4 0EL
Tel: 01432 373500
Fax: 01432 373510
Contact: Stephanie Fryer
Email: enquiries@mediuk.co.uk
Web: www.mediuk.co.uk

Medi is the leading global manufacturer of medical compression garments for lymphoedema and venous disease.

Always looking to improve our range and service, we are pleased to announce the following:

mediven® plus, mediven® elegance, mediven® Active and mediven® 95 ranges of leg and arm garments are now available on FP10/ GP10, enabling seamless continuity of care by linking the hospital and community with the availability of quality RAL standard compression garments in both sectors.

mediven® ulcer kit is the only 20:20 mmHg ulcer kit available in the UK, designed to assist with the effective management of mild to moderate venous ulcers.

For more detailed information regarding the entire range, come and meet the Medi team on Stand 14.

Medtronic Ltd

Stand 29

Suite One
Building 5
Croxley Green Business Park
Watford
Herts, WD18 8WW
Tel: 01923 212213
Fax: 01923 241004
Web: www.medtronic.co.uk

Medtronic Vascular offers a wide range of innovative products in the evolving field of endovascular repair of the abdominal and thoracic aorta.

The new Endurant stent graft system incorporates 12 years of experience of treating AAA, bringing to market a highly flexible and conformable graft. Utilising the simple and easy to use, hydrophilic coated Xcelerant delivery system, it is an evolution in stent graft technology. This combined with the Talent AAA and Valiant TAA devices provides physicians with a wide portfolio of products to treat thoracic and abdominal aortic disease.

Also within the Medtronic Vascular product range is a wide range of peripheral vascular stents for iliac, renal, SFA and carotid interventions.

Mentice

Stand 42

Rosen Lundsgatan 8
Gothenburg
Sweden, 41120
Tel: +46 767 68 0218
Fax: +46 313 39 9499

Mentice has a vision of improving patient safety as a leading developer and supplier of virtual reality applications within the field of medicine giving special attention to the area of endovascular procedures and minimally invasive surgery.

Mentice works closely with leading medical and healthcare professionals in order to develop long-term solutions that are of use to the medical profession and the industrial community. Our systems are turnkey solutions, including hardware, software, and expert assistance for training, education, and assessment.

Mentice is a world leader in providing simulators with 600 installations and over 100 validation studies worldwide. The company has offices in Australia, Germany, Singapore, Sweden (HQ), Switzerland, the UK and the USA.

Mount International Ultrasound Services Ltd (MIUS)

Stand 39

Units 1-3 The Glenmore Centre
Marconi Drive
Waterwells Business Park
Gloucester, GL2 2AP
Tel: 01452 729380
Fax: 01452 729488
Email: sales@mius.org.uk
Web: www.mius.org.uk

MIUS has had an eleventh year of successive growth with turnover for 2008 reaching towards £3 million, much of which is due to the increased uptake on MIUS service contracts, and our latest service (Probe fix), which is a customised process for carrying out repairs to any make and type of Probe. MIUS offer very competitive and, where required, flexible service contract rates on most makes and models of ultrasound systems. Our services include contracts; probe repair; new and pre-owned ultrasound systems and transducers, and rental of modern ultrasound systems, available right now for short, medium and long-term rentals at very competitive prices.

National NHS Library for Health

Stand 17

Workforce Deanery
St Chad's Court
213 Hagley Road
Edgbaston
Birmingham, B16 9RG
Web: <http://www.library.nhs.uk/vascular/>

The Vascular Specialist Library is a web-based service, part of the NHS National Library for Health. We are clinician-led, using the expertise of health information specialists, to provide access to high quality, impartial, evidence-based information on all aspects of vascular disease. Regular site updates and monthly e-bulletins highlighting newly published guidance, policy documents, events and systematic reviews can help ensure that you stay up-to-date with the evidence base in your field. This service is free at point of use and no passwords are needed to access the site. Save time and effort whilst improving patient care by visiting us at: <http://www.library.nhs.uk/vascular/>.

Nuros Ltd

6 Abbey Lane Court
Evesham
Worcestershire, WR11 4BY
Tel/Fax: 01386 429421
Email: c.services@nuros.co.uk
Web: www.nuros.co.uk

Stand 9

A real alternative.....

Nuros Ltd presents a comprehensive range of peripheral vascular products combining advanced features and specifications with proven quality and reliability.

Nuros offers a comprehensive product range including the advanced E-vita abdominal and endograft systems.

This attractive, mainly European product portfolio is offered with exceptional levels of customer service and competitive pricing to provide a real alternative.

We look forward to welcoming you to stand no 9.

Nuview Ltd

26 Daniels Industrial Estate
Bath Road
Stroud, GL5 3TS
Tel: 01453 759659
Fax: 01453 759950
Web: www.vorosscopes.co.uk

Stand 18A

Nuview, is delighted to be exhibiting their new sight-enhancing EyeMag loupes and V2 illumination system:

- EyeMag Pro medical loupes provide superb edge-to-edge clarity of the magnified field of view during intricate procedures, offering professional users superb visual quality with 3.2x to 5x magnification.
- EyeMag Smart loupes provide optimum image quality at 2.5x magnification, with elective working distances from 300-550mm in increments of 50mm.
- V2 illumination system, the state-of-the-art LED technology for advanced intensity, minimal power consumption and shadow free 20,000 lux LED illumination.

Nuview's friendly team of professionals will be on hand, ready to offer their expert advice to all visitors.

Olympus KeyMed

KeyMed House
Stock Road
Southend-on-Sea
Essex, SS2 5QH
Tel: 01702 616333

Stand 49

Olympus KeyMed will be demonstrating Olympus CelonLab Precision, a unique bipolar radiofrequency system for the treatment of varicose veins, throughout the 2008 AGM. Olympus Celon's patented technology enables simple set-up and operation with treatment possible at up to 1cm/second. As the exclusive UK & Ireland distributor for Aloka ultrasound products, Olympus KeyMed will also showcase systems from Aloka optimised for vascular imaging. The Aloka range includes the flagship Alpha 10, which incorporates a number of unique technologies such as eFlow and eTracking for flow-mediated dilatation (FMD) studies, and the t3000, an innovative laptop-based design of ultrasound scanner.

Otsuka Pharmaceuticals (UK) Ltd

BSI Tower
389 Chiswick High Road
London, W4 4BJ
Tel: 020 8742 4300
Web: www.otsuka-europe.com

Stand 8

Otsuka Pharmaceuticals is a diversified health care company dedicated to the research and development of innovative medical, pharmaceutical, and nutritional consumer products. As one of Japan's leading research-based healthcare companies, Otsuka comprises 81 businesses in 16 countries worldwide, including the UK. In June 2002, Otsuka Pharmaceuticals (U.K.) Ltd launched Pletal® (cilostazol), the first drug in intermittent claudication (IC) for twenty years. Pletal is indicated to improve maximal and pain-free walking distances in patients with IC. Prescribing information is available at our stand.

Perimed UK Ltd

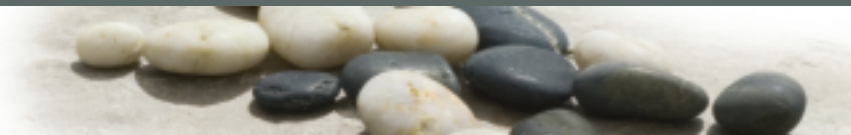
Suite 14, Manchester House
113 Northgate Street
Bury St Edmunds, IP33 1HP
Web: www.perimed.co.uk

Stand 23

Perimed aims to improve the quality of life for people suffering from vascular diseases, by providing instruments, software and expertise for precise and convenient measurement of vascular function and diseases.

Perimed UK is also the exclusive UK supplier of the PARKS range of ultrasound Doppler instruments.

Applications for our PERIFLUX SYSTEM 5000 include assessment of: peripheral systolic pressures (ankle-brachial and toe-brachial), wound healing and amputation level, hypoxia and ischaemia.



Applications for our PERISCAN PIM 3 LDPI include investigation of: angiogenesis, growth factors, diabetes, wound healing, Raynauds syndrome and iontophoresis.

Come and see our NEW PRODUCT FOR THIS YEAR - PeriSoft for Windows Examination Manager - A software for clinicians.

Philips Healthcare

Stand 26

The Observatory
Castlefield Road
Reigate
Surrey, RH2 0FY
Tel: 07974 357368
Fax: 017837 230401
E-mail: katie.odriscoll@philips.com
Web: www.philips.com/healthcare

Philips offers a comprehensive portfolio of ultrasound equipment:

- The iU22, Philips' premium system with intelligence design and control, offers revolutionary performance and workflow. It allows fast patient throughput, due to its unique 'Protocol' capability.
- The HD11 XE with feature-rich high definition imaging.
- The HD15, the most clinically advanced system in Philips' family of high definition ultrasound systems.
- The HD7 offering high performance versatility.
- Philips' HD3 provides entry into high definition performance.

Pierson Surgical Ltd

Stand 18b

North Bradley House
Church Lane
North Bradley, Trowbridge
Wiltshire, BA14 0TA

Pierson Surgical is a surgical products distributor covering products and services for cardiovascular, vascular and general surgery, including:

- Peters sutures for all types of surgery.
- Landanger surgical instruments.
- Sterile disposable instruments.
- The Rooke® heel float system.
- Möller endovascular tumescence pump.
- Customised procedure packs, gowns and drapes.
- Varicose vein clinics.

Pierson Surgical works closely with Origin Medical Ltd in establishing a new network of varicose vein clinics across the UK, offering private clients the latest varicose vein treatments. Please contact Annie if you would be interested in the opportunity to practice at one of our clinics.

Premier Health Resources

Stand 12

1 Stirling House
Stirling Road
Guildford
Surrey, GU2 7RF
Tel: 0845 644 0244
Fax: 01483 544 966
E-mail: info@premier-health-resources.co.uk
Web: www.premier-health-resources.co.uk

Premier Health Resources (PHR) is a UK-based company established to provide equipment and supplies to individuals and medical clinics. PHR is a 'one stop shop' for everything you need to be able to set up and run a vein or thread vein practice or perform minor surgery. PHR uses its purchasing power to provide high quality materials for the best possible price. PHR has now expanded to provide the same service for most minor operative procedures. We are committed to providing our clients with an excellent service.

Promed Ltd

Stand 35

116a High Street
Somersham
Huntingdon
Cambs, PE28 3EN
Tel: 01487 842842

Promed will exhibit the new Biolitec range of ELVeS™ PainLESS lasers for EVLA procedures, utilising the 1470nm wavelength. This new wavelength has been shown to reduce postoperative pain and bruising. The ELVeS™ 70cm procedure kit offers superior technology with the introduction of the 'low profile' vascular sheath, allowing uncompromised access and ultrasound visualisation at any point along the GSV. In addition we will demonstrate the new Veinlite™ system for vein mapping with autoclavable illumination ring and the Syris™ cross polarised light technology for improved sclerotherapy procedures. Please visit us on Stand 35.

Pulse Surgical Ltd

Stand 46 & 47

32a Station Road
Chinnor
Oxon, OX39 4PZ

Pulse Surgical Ltd provides a diverse but complimentary mix of vascular products due to its complete independence. We can also offer unrivalled service and support to you and your staff through our highly skilled and experienced team.

Our range of products includes Scanlan fine surgical instruments, Omniflow biosynthetic grafts for distal and AV access applications, bioprosthetic carotid patches, vessel occluders, loupes, and MediStim's state-of-the-art flow monitoring and validation system.

We also have a brand new, simple and effective surgical sealant for most types of bleeding control.

Pyramed Limited

Unitech House
Units B1-B2, Bond Close
Kingsland Business Park
Basingstoke
Hampshire, RG24 8PZ
Tel: 01256 306 505
Fax: 01256 365 486
Web: www.pyramed.co.uk

Stand 18

Pyramed Limited is part of the Medical & Scientific Group of United Drug Plc and is a recognised supplier of leading edge medical device products for existing broad-stream diagnosis and therapies, as well as new and emerging technologies for developing therapies. We continually optimise our existing product range in co-operation with international opinion leaders to take up the challenge to develop innovative medical products.

Some of our most innovative products include; the Vari-Lase endovenous laser procedure kit for EVLA, and the Bolton Relay thoracic stent graft.

For further information about our products, please refer to our website www.pyramed.co.uk or contact your local product specialist.

sanofi-aventis

One Onslow Street
Guildford
Surrey, GU1 4YS
Tel: 01483 554342
Fax: 01483 554880

Stand 33

In the UK, sanofi-aventis, an affiliate of the global pharmaceutical company sanofi-aventis, is a dynamic, rapidly growing organisation that is working to meet the needs of healthcare professionals and their patients.

Sponsored by sanofi-aventis, TAMARIS is a randomised controlled clinical trial assessing the benefit of a gene therapy treatment in preventing major amputation or death in critical limb ischaemia patients with ischaemic skin lesions. NV1FGF is a recombinant DNA plasmid encoding angiogenic growth factor FGF-1. Potential patients can be referred to any of the 8 UK participating sites for assessment of eligibility. Please visit our stand for more information.

ScanMed and SMART Medical

4/5 Draycott Business Centre
Draycott
Moreton-in-Marsh
Gloucester, GL56 9JY

Stand 55

ScanMed and SMART Medical will launch the Vicorder Portable Vascular Lab from Skidmore Medical. The Vicorder provides bilateral arterial and venous protocols including ABI/TBI, PWV segmental pressures and muscle pump tests amongst a comprehensive range of features. The compact

system is suitable for use in the vascular lab, clinic and community with easy to use protocols designed for single-handed bilateral assessment.

The new range of digital TCD monitors from Compumedics DWL and the Finometer range of continuous non-invasive blood pressure and haemodynamic monitoring will also feature, providing integrated non-invasive monitoring for theatre and postoperative applications.

Siemens Medical Solutions

Stands 5 & 6

Sir William Siemens Square
Frimley
Camberley
Surrey, GU16 8QD
Tel: 0800 512128
Fax: 01276 696466

In line with our reputation for innovation, Siemens will be showing two new products within its range of ultrasound systems:

ACUSON S2000 - an advanced solution that draws together the latest imaging innovations to optimise workflow and simplify examinations.

ACUSON Antares - delivers premium performance imaging power.

ACUSON X300 - a compact, portable colour Doppler solution, delivering exceptional clinical performance across a wide variety of vascular applications.

ACUSON P50 - a brand new, dedicated high-performance cardiac and vascular system configured with standard PC functionality in a portable package.

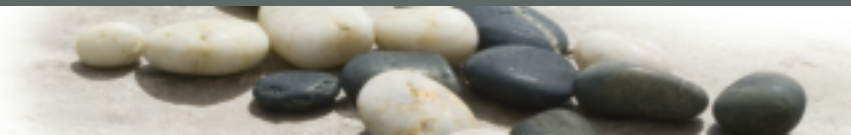
ACUSON P10 - the world's smallest ultrasound device. The size of a pda so can be taken anywhere and is designed to be used in a variety of scanning situations.

SJT Medical

Stand 16

Spartan House
20 Carlisle Street
Sheffield, S4 7LJ
Tel/Fax: 0114 272 8273
Web: www.sjtmedical.com

SJT is a specialist provider of surgical loupes, LED head lights, operating microscopes, vascular Doppler, personal protective and laser eye wear, caps and shoes for professionals working within vascular surgery. We are launching our new range of ultra-light flip-up loupes and TTL loupes which use very high-quality optics offering a high resolution and a wide field of vision at competitive prices. Our new range of LED lights includes our super LED operating light of 50,000 lux brightness eliminating the need to use big bulky fibre optic lights. At SJT Medical we understand the importance of increased vision, clarity and comfort at an affordable price.

**Smith & Nephew Healthcare Ltd****Stand 3**

Healthcare House
Goulton Street
Hull, HU3 4DJ
Tel: 01482 222200
Fax: 01482 222211
E-mail: advice@smith-nephew.com
Web: www.smith-nephew.com

Smith & Nephew is a focused, high technology medical device business with leading global market positions in wound management, orthopaedics and endoscopy.

Smith & Nephew Wound Management provides an advanced range of treatments for difficult to heal wounds. It develops innovative new solutions to chronic and acute wound management problems, delivering the best and most cost-effective outcomes available. VERSAJET* is a novel hydrosurgery tool. Using a combination of a localised vacuum and a high-speed stream of saline it cuts and removes tissue at the same time. To find out more about this revolutionary tool, please visit our stand no 3.

SonoSite Ltd**Stand 4**

Alexander House
40A Wilbury Way
Hitchin
Herts, SG4 0AP
Tel: + 44 (0)1462 444800
Fax: + 44 (0)1462 444801
Email: Europe@sonosite.com
Web: www.sonosite.co.uk
Contact: Tracey Byard, UK Sales Manager

SonoSite®, the world leader in hand-carried ultrasound, introduces the M-Turbo™ ultrasound system, the next generation of system designed specifically for the full range of clinical applications at the point of patient care. The M-Turbo system delivers an exponential increase in raw processing power for superior image clarity across all exam types, plus seamless connectivity for digital image export in a rugged, hand-carried product weighing less than 4kg. Extensive quality controls such as 'drop testing' ensure that SonoSite products continue to set the industry standard for reliability and durability, and with SonoSite's standard five-year warranty on the M-Turbo system and transducers, costly service contracts are a thing of the past.

STD Pharmaceutical Products Ltd**Stand 15**

Plough Lane
Hereford, HR4 0EL
Tel: 01432 373555
Fax: 01432 371314
E-mail: enquiries@stdpharm.co.uk
Web: www.stdpharm.co.uk

STD Pharmaceutical is a family run business which started out in 1967. We have products to support sclerotherapy and iontophoresis.

We make Fibro-Vein which is the only licensed sclerosant in the UK; it is effective on all sizes of veins from truncal veins to telangiectasia.

We also promote tap water iontophoresis, a simple but very effective treatment for patients suffering from hyperhidrosis of the hands and/or feet and axillae. The treatment is effective for over 85% of sufferers and being non-invasive is an ideal first-line treatment. There are machines for hospitals/clinics as well as smaller units for home use.

St James Place Wealth Management**Stand 54**

Hedgefield House
Low Road
Barrowby
Grantham
Lincolnshire, NG32 1DJ
Tel: 01476 569528
Fax: 01476 569282
E-mail: andrew.hodgson@sjpp.co.uk

St James's Place specialise in meeting the financial needs of people who have created significant capital, or who earn higher incomes, and whose circumstances are therefore more complicated than most. All of our advice is face-to-face and focused on the personal needs of each individual as we recognise that no one client's objectives or circumstances are the same as another. This approach combined with the average of 16 years' experience of our advisers, ensures the relationships we build are founded on trust.

Synermed**Stand 36**

Beech House
840 Brighton Road
Purley
Surrey, CR8 2BH
Tel: 0845 634 2100
Fax: 0845 634 2101
Email: mail@syner-med.com
Web: www.syner-med.com

Syner-Med (PP) Ltd has been a provider of thrombolytic therapy for the management of occluded vascular access catheters. In 2008 the range of vial sizes has been extended to offer greater flexibility in therapy choice.

This year has also seen the company launch a new intravenous iron preparation. Having been the leading supplier of intravenous iron for many years the company is pleased to provide this highly innovative product.

tfm publishing Ltd**Stand 32**

Castle Hill Barns
Harley
Nr Shrewsbury
Shropshire, SY5 6LX
Tel: 01952 510 061
Fax: 01952 510192
Email: nikki@tfmpublishing.com
Web: www.tfmpublishing.com

tfm publishing Ltd is an independent UK publishing company focused on specialist medical and surgical titles. The company has built an enviable reputation for producing first class titles at attractive prices, with outstanding production values and acclaimed layouts. The tfm publishing list now covers over 50 titles, many of them written and edited by renowned international authors.

The tfm list covers a number of medical and surgical disciplines, including vascular, orthopaedic, trauma, cardiothoracic, urology, radiology, gastroenterology, cardiology, plastic surgery, neurology, neurosurgery, and anaesthesia. The 'evidence' range of surgical books is growing, with a view to having a much broader range of surgical disciplines covered. We have also commissioned a brand new series on the evidence-based management of various disorders, the first two of which are 'Evidence-based Management of Lipid Disorders' and 'Evidence-based Management of Hypertension'. Forthcoming titles in this series will cover heart failure, diabetes, stroke, epilepsy and arrhythmias.

Uniplex UK Ltd

Stands 1 & 2

11 Furnace Hill
Sheffield, S3 7AF
Tel: 0870 777 7316
Fax: 0114 272 7288
Web: www.beepo.co.uk
Contact sales@beepo.co.uk for all enquiries

Uniplex UK Ltd is a surgical instrument maker. In addition, the company distributes Xenon light sources and headlight-mounted video systems and the Gelita range of haemostats. GelitaSpon® is gelatine-based sponge which is prepared in numerous ways to satisfy the most demanding of need, and will make significant cost savings, without compromising quality. GelitaCel® is cotton-based oxidised resorbable cellulose which offers better handling characteristics, faster resorption and lower costs than most existing haemostats. It will be worth calling in to booths 1 & 2 for a demonstration which should make you eager to trial GelitaSpon® and GelitaCel®, as well as the chance of winning an i-Pod Shuffle in an easy to enter draw.

Vascutek MAJOR SPONSOR

Stand D

Newmains Avenue
Inchinnan
Renfrewshire, PA4 9RR
Tel: +44 (0)141 814 5547
Fax: +44 (0)141 814 7170
Web: www.vascutek.com

Vascutek, a TERUMO Company, is an established world leader in the development of vascular grafts. Anaconda™ represents the next generation of AAA stent graft systems. Intuitive and of a modular design, Anaconda™ is the only repositionable device which

also features exceptional flexibility. Based at a custom-built facility in Scotland, Vascutek uses advanced vascular technologies to develop products that address the needs of vascular and cardiovascular surgeons throughout the world. Vascutek has a continuous programme of Research and Development and maintains communication with surgeons around the world in order to deliver innovative products trusted by surgeons.

VNUS Medical Technologies UK Ltd Stand No. 19 & 20

Kenneth Dibben House
Enterprise Road
Southampton Science Park
Chilworth, Hampshire, SO16 7NS
Mobile: 0788 520 1444
Tel: 0800 258 5995
Fax: 0800 258 5996
USA: +1408 426 8180
E-mail: mharris@vnus.com
Web: www.vnus.co.uk

VNUS® Medical Technologies is the world leader in endovenous ablation treatment for venous reflux disease. The VNUS Closure® Procedure has now been performed in Europe for over 10 years, and since then over 300,000 patients worldwide have been treated with VNUS Closure® catheters. Our latest generation VNUS ClosureFAST™ catheter uses segmental ablation, and can treat a 45cm vein length in 3-5 minutes with temperature-controlled RF energy delivery. This catheter has been evaluated in a six-centre RCT versus endovenous laser. The results were in our favour with significantly lower postoperative pain, significantly less postoperative bruising, and fewer postoperative adverse events.

Wisepress Online Bookshop

Stand 5a

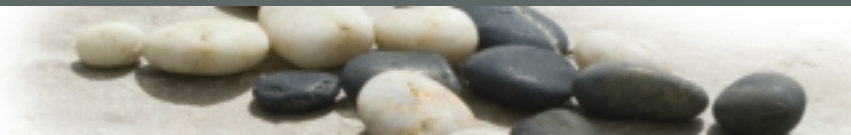
The Old Lamp Works
25 High Path
Merton Abbey
London, SW19 2JL
Tel: 020 8715 1812
Fax: 020 8715 1722
E-mail: bookshop@wisepress.com
Web: www.wisepress.com

[Wisepress.com](http://www.wisepress.com), Europe's leading conference bookseller, has a complete range of books and journals relevant to the themes of the meeting. Books can be purchased at the stand or, if you would rather not carry them, posted to you - Wisepress will deliver worldwide. In addition to attending 250 conferences per year, Wisepress has a comprehensive medical and scientific bookshop online with great offers, some up to 40% off the publisher list prices.

WL Gore & Associates MAJOR SPONSOR

Stand B

Kirkton Road South
Kirkton Campus
Livingston, EH54 7BT



The Gore Medical Products Division has provided creative therapeutic solutions to complex medical problems for more than three decades. During that time, more than 23 million innovative Gore Medical Devices have been implanted, saving and improving the quality of lives worldwide. The extensive Gore Medical family of products includes vascular grafts, endovascular and interventional devices, surgical meshes for hernia repair and sutures for use in vascular, cardiac and general surgery.

York Medical Technologies Ltd **Stand 22**

Unit 12
Brookfield Business Park
York Road
Shiptonthorpe, YO43 3PU
Tel: +44 (0)1430 803113
Fax: +44 (0)1430 803234
E-mail: sales@yorkmedicaltechnologies.com
Web: www.yorkmedicaltechnologies.com

York Medical Technologies Ltd (YMT) is the UK sales partner for top surgical instrument manufacturers such as Medicon, Stille, Heinz Waldrich and Dufner. We are also the sole UK distributor of the Thompson Retractor, the original table mount retractor system. YMT also supplies British pattern instruments from B&H, Dixons, Murrays and others along with a very high quality range of open mesh sterilisation baskets and containers. A wide range of associated disposable items, including Stille arthroscopy cannulae, Kirschner wires and skin staplers are available along with the award-winning range of theatre fluid management products from Colby.

Zonare Medical Systems UK Ltd **Stand 27**

Suite A8
Westacott Business Centre
Westacott Way
Littlewick Green
Maidenhead, SL6 3RT
Tel: 08448 711 811
Fax: 08448 711 810
E-mail: lesley.brown@zonare.co.uk
Web: www.zonare.co.uk

ZONARE Medical Systems, Inc. designs, develops, and manufactures premium compact performance ultrasound solutions, which combine revolutionary technology with an innovative physical design. Zone Sonography technology™, ZONARE's unique patented approach to ultrasound imaging, is focused on bringing the highest performance to all clinical settings, leading to advanced diagnostic capabilities, cost-effective operation and increased value. This technology enables ZONARE to deliver advanced software features such as Auto Optimisation™ and ZST™, which compensates for differing speed of sound in different body masses, IQ Scan™, which allows full retrospective imaging and compound tissue harmonics ensuring that ZONARE keeps the user at the leading edge of ultrasound technology.

Other Exhibitors

ACST

Department of Cardiological Sciences
St George's Hospital Medical School
Cranmer Terrace
London, SW17 0RE
Tel: 0208 725 3746
Fax: 0208 725 3782
Email: ehayter@sghms.ac.uk

Circulation Foundation

The Royal College of Surgeons
35-43 Lincoln's Inn Fields
London, WC2A 3PE
Tel: 0207 304 4779
Fax: 0207 430 9235
E-mail: info@circulationfoundation.org.uk
Web: www.circulationfoundation.org.uk

GALA

Neurosciences Trials Unit
Bramwell Dot Building
Western General Hospital
Crewe Road
Edinburgh, EH4 2XU
Tel: 0131 537 2930
Fax: 0131 332 5150
Email: gala@skull.dcn.ed.ac.uk
Web: www.galatrial.com

The Vascular Society

The Royal College of Surgeons
35-43 Lincoln's Inn Fields
London, WC2A 3PE
Tel: 0207 973 0306
Fax: 0207 430 9235
Email: office@vascularsociety.org.uk
Web: www.vascularsociety.org.uk

UKCEA Audit

Dora Kamugasha, Project Co-ordinator
UKCEA Audit, Clinical Effectiveness
and Evaluation Unit
Royal College of Physicians
11 St Andrews Place, Regent's Park
London, NW1 4LE
Tel: 0207 935 1174 ext 335/378
E-mail: Dora.Kamugasha@rcplondon.ac.uk

Vascular News

Biba Publishing
44 Burlington Road
Fulham
London, SW6 4NX
Tel: 0207 736 8788
Fax: 0207 736 8283
E-mail: info@bibamedical.com
Web: www.vascularnews.com

Acknowledgement

The Society would like to thank the following Major Sponsors for their support of this meeting and throughout the year:



More Than The Valvulotome.



Future annual meetings

18-20 November 2009

Arena and Convention Centre, Liverpool

24-26 November 2010

Hilton Brighton Metropole, Brighton

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UK LIMITED

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MAQUET

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More Than The Valvulotome.


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Worldwide*

 **VASCUTEK**
TERUMO

The Vascular Society
The Royal College of Surgeons
35-43 Lincoln's Inn Fields
London
WC2A 3PE

Tel: 0207 973 0306
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Website: www.vascularsociety.org.uk