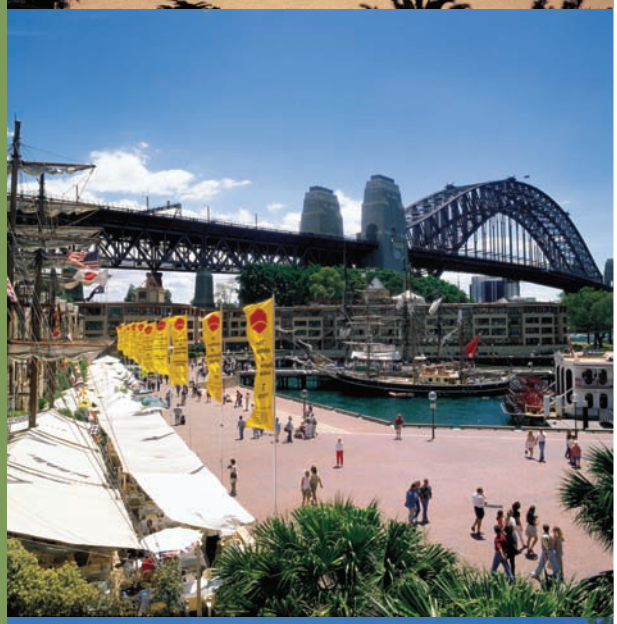

The 11th Annual Scientific Meeting & Workshops

THE AUSTRALASIAN
COLLEGE OF
PHLEBOLOGY

CONFERENCE PROCEEDINGS

Stamford Plaza Double Bay

Sydney, Australia

18th to **21st September 2007**

INVITATION TO SYDNEY

On behalf of the Australasian College of Phlebology I am pleased to welcome you to our 11th Annual Scientific Meeting (ASM) and Workshops. This year the conference will be held in the jewel of Australian cities - Sydney.

This year's program promises to be one of the best the College has ever presented. We will play host to a number of the world's leading experts including Dr Attilio Cavezzi (Italy), Dr. Louis Grondin (Canada), Dr. Ted King (USA), Dr. John Kingsley (USA), Prof. Hugo Partsch (Austria), and Prof. Eberhard Rabe (Germany). With such a cavalcade of international celebrities, this conference is one not to be missed.

Dr Attilio Cavezzi is no stranger to Australasian phlebology. We can credit Attilio for introducing us to foam sclerotherapy during our 6th ASM in Sydney back in 2000. Attilio's passion and expertise in foam has not bubbled away over the years and this year we will hear a number of talks and, in particular, a State of the Art Keynote Lecture on this important topic. Also, in a special Workshop, Attilio will share with us his knowledge of duplex anatomy.

Dr. Louis Grondin will again be attending our conference much to the delight of many (his Breakfast with the Stars talk from last year was the highest rated item on the program). We are all looking forward to another inspiring performance from our Esteemed Fellow Emeritus! Apart from scientific lectures, we have planned a special Cocktail party featuring Louis Grondin. This will be an evening of mystery and intrigue based on 'Being John Malkovich' and 'The Affair of the Necklace'. Having come alive, Count Cagliostro will use Alchemy and magic to mesmerize you into another century. Special prizes will reward the observants! Bienvenue, Louis!

Dr John Kingsley is also no stranger to Australia. His lively and exciting lectures in the Cairns meeting last year prompted our invitation to John to head back down under. Being a highly experienced vascular surgeon with a wealth of knowledge, John will not only enlighten us on complex surgical procedures but will also share with us his experience with endovenous lasers. I am particularly looking forward to John's Keynote lecture on restless leg syndrome and would urge you all to invite your physician colleagues and in particular neurologists and psychiatrists to this lecture. We may see a reduction in the use of amitriptylline and antidepressants following John's talk! I am also very much looking forward to John's breakfast session: Phlebology Alabama Style. John will be sharing with us how things are done down south. Enjoy a hot Southern breakfast and listen to some of John's extraordinary tales.

The legendary Hugo Partcsh, dermatologist extraordinaire, and undoubtedly the King of Compression Therapy will come back to Australia after 8 years of absence. Hugo graciously accepted my invitation and will go out of his way, literally, to arrive at 0620 to give his first lecture at 0920 (subject to Airport Immigration and Customs cooperation!). Only Hugo's unlimited energy can pull off such trickery. He will also run a special workshop to teach us the secrets of successful compression therapy with short stretch bandages. Gruss Gott und Willkommen!

We are especially delighted to host the President of the Union International Phlebologie (UIP), and the current President of the German Society of Phlebology, Professor Eberhard Rabe. Eberhard took over from Claudio Allegra in UIP's Chapter meeting in Japan. Australia will be one of Eberhard's first international visits as the new President of UIP. We wish Eberhard all the best in his new position and trust his organizational and management skills combined with German precision will significantly benefit UIP and its member societies. We look forward to Eberhard contribution to our meeting. Herzlich Willkommen!

I am also very humbled by Dr Ted King's acceptance of my invitation to join us in Sydney. I sat in a number of Ted's lectures in the UIP's Chapter meeting in Kyoto and the depth of knowledge and experience was so overwhelming that an invitation was inevitable. Make sure you do not miss Ted's excellent lecture on the influence of fluence on endovenous laser ablation. As an experienced user of both Biolitec and Cooltouch lasers, Ted will provide a fair and balanced opinion on endovenous technologies.

This exciting list of international speakers is complemented by a comprehensive program. The always popular Basic Phlebology Certificate course (Sclerotherapy Certificate) will be held on Tuesday 18th September. This course provides an excellent introduction for those who are entering the field or for trainees who are preparing for their Part I examinations. The course involves a full day of didactic teaching tempered with ample opportunity for speaker interaction. Advanced trainees of the College are welcome to attend this course.

Wednesday 19th September is the first day of the Annual Scientific Meeting. We traditionally start our annual conference with the Advanced Phlebology and Refresher Course. Attendance at the course is at no extra cost for conference delegates and we encourage all to take advantage of the opportunity to refresh their training and learn from the world leaders. Advanced trainees of the ACP are required to attend this course at least twice during the period of their training.

The Scientific Program of the conference will run from Thursday 20th to Friday 21st September. Special symposia are dedicated to popular topics such as endovenous laser ablation and foam sclerotherapy. Popular themes such as 'Controversies in Phlebology' remain a feature of our meetings and this year the experts will battle out the use of prophylactic anticoagulation for endovenous laser therapy. Other special symposia are dedicated to 'Basic Sciences', 'Deep Vein Incompetence', 'Chronic Venous Insufficiency' and 'Venous Thromboembolism'.

Given the wide scope of phlebology and the comprehensive program we have prepared for this year, we had to incorporate parallel sessions to accommodate everyone's preferences. For those with more practical inclinations, Diagnostic Workshops will run parallel to some of the sessions.

This year's conference will conclude with the Inauguration Ceremony of the Australasian College of Phlebology on Saturday 22nd September. This ceremony will be held at the historic Great Hall of the University of Sydney. Awards of excellence in various fields of phlebology and Fellowship certificates will be presented. The ceremony will be followed by a glorious evening of celebrating with fine food, wine and entertainment surrounded by the beautiful architecture of the Great Hall.

Finally, I would like to thank our local invited speakers for their dedication and support. We certainly handpicked the best in Australia and New Zealand for this meeting and hope that our future meetings will continue to enjoy the support of our local scientific faculty.

I am sure you'll agree that this year's conference is going to be action packed. I hope you enjoy the conference and social events.

Warmest Regards,

Kurosh Parsi
Convenor

TABLE OF CONTENTS

2007 Annual Scientific Meeting Organising Committee:

Dr Kurosh Parsi (Convenor), Dr Mark Elvy, Dr David Jenkins,
Dr Louis Loizou, Dr Paul Thibault

2007 Inauguration Ceremony Organising Committee:

Dr Louis Loizou (Convenor), Professor Masud Behnia,
Dr Kurosh Parsi

AUSTRALASIAN COLLEGE OF PHLEBOLOGY

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NSW Faculty

Eastern Suburbs Division	Departmental Head: Dr Kurosh Parsi
North Shore Division	Departmental Head: Dr Joseph Graiche
Western Sydney Division	Departmental Head: Dr David Jenkins
Rural Division	Departmental Head: Dr Mark Elvy
North Coast Division	Departmental Head: Dr Paul Thibault

VIC Faculty

Melbourne Division	Departmental Head: Dr Louis Loizou

PAST CONFERENCES

Year	Conference Location
1994	Australia, Sydney- The Park Grand Hotel
1995	Australia, Gold Coast- Marriott Surfers Paradise Resort
1996	Australia, Cairns- Reef Hotel Casino
1997	Hawaii- Grand White Waikoloa
1998	Australia, Sydney-World Congress Meeting (Darling Harbour, Convention Centre). No ACP conference this year.
1999	Australia, Melbourne- Hotel Sofitel
2000	Australia, Sydney- Star City
2001	Rome-World Congress Meeting (UIP). No ACP conference this year.
2002	Australia, Gold Coast- Sheraton Mirage
2003	No ACP meeting this year.
2004	Australia, Gold Coast - Sheraton Mirage
2005	Australia, Coffs Harbour - Pacific Bay Resort
2006	New Zealand, Queenstown - Millennium Hotel
2007	Australia, Sydney - Stamford Plaza Double Bay

The Remarkables, Queenstown, New Zealand

KEYNOTE & INVITED INTERNATIONAL SPEAKERS

Dr Attilio Cavezzi

Dr Atillio Cavetzzi is a vascular surgeon from S. Benedetto del Tronto, Italy. Born on 7th May 1961, he graduated in Medicine at Bologna University in 1988, and obtained his speciality in Vascular Surgery in 1993 at Modena University. Atillio has undoubtebly been instrumental in promotion of foam, ultrasound guided sclerotherapy as a legitimate alteranative to surgery in many countries and in particular in Australia and New Zealand. Atillio is an international teacher of phlebology and lymphology, has hundreds of publications and is the author or co-author of a number of books in phlebology and lymphology.

Dr Louis Grondin

Dr. Grondin is the Medical Director of the Cosmetic Laser & Vein Centre. After receiving his medical degree from Laval University in 1979, he completed his internship at McGill University in Montreal. In 1982, he completed a year of Internal Medicine at the University of Calgary, Foothills Hospital. Dr. Grondin has trained in Phlebology and Angiology in Montreal and Europe. Dr. Grondin's special areas of interest include ultrasound-guided treatment for venous disease, endovenous laser surgery, microsurgery, Tumescent Lipo-Sculpture, cosmetic laser surgery, facial contour lift and facial and body rejuvenation.

Professor Ted King

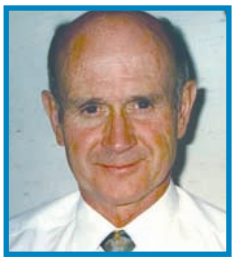
Dr. King is a clinical assistant professor at the Medical School of the University of Illinois in Chicago. Dr. King has expertise in ultrasound venous mapping, endovenous thermal and chemical ablation, ultrasound-guided foam sclerotherapy, and visually guided liquid and foam sclerotherapy. His research interests include all endovenous treatment modalities. Clinically, Dr. King's clinical interests include the non-surgical treatment of symptomatic vulvar and labial varices, Klippel-Trenaunay Syndrome, Restless Legs Syndrome secondary to varicose vein disease, recurrent varicose veins after previous treatment, venous stasis ulcers, and the cosmetic treatment of hand and facial veins.

Dr John Kingsley

Dr. John Kingsley is a vascular surgeon from Birmingham, Alabama. He is board certified in both vascular surgery and general surgery by the American Board of Surgery. For 25 years he practiced these specialties in communities of Oregon and Alabama. He and his associates have performed over 4000 endovenous procedures with numerous simultaneous adjunctive procedures. He is often invited to speak with physician colleagues about his experience, including the IUP meeting in Kyoto, Japan this year. Dr. John Kingsley was selected Chairman of the Board of Vein Associates of America, an American public company with the goal to create vein centers across the U.S. patterned after the Birmingham center.

Professor Ken Myers

Prof Ken Myers has had a major interest in venous disease for more than 25 years. In the past, he has been Head of the Department of Vascular Surgery at Prince Henry's Hospital and the Monash Medical Centre in Melbourne, former Chairman of the Division of Vascular Surgery of the Royal Australasian College of Surgeons. He is the President of the Australian and New Zealand Society of Phlebology and has participated in or organised many international phlebology meetings. He has been at the forefront of developing new techniques such as echosclerotherapy and endovenous laser therapy.



Professor Hugo Partsch

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Professor Hugo Partsch is a Professor of dermatology and phlebology from Vienna, Austria. Professor Partsch has been a pioneer of phlebology in Europe and is well-known for his extensive research in compression therapy and venous thromboembolism. His other research interests include peripheral vascular disease, neuropathic foot and lymphoedema. Born in Vienna, he graduated from the School of Medicine, University of Vienna in 1962. He trained in General Medicine and then completed his specialist training in dermatology in 1970. He received his professorship in dermatology in 1985 and served as the Head of the Department of Dermatology, Wilhelminen-Hospital Vienna. Professor Partsch served as the President of Union Internationale de Phlébologie (UIP) from 1999 to 2003. He has published more than 360 papers in scientific medical journals and has made numerous contributions to scientific publications.

Professor Eberhard Rabe

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Professor Eberhard Rabe is a professor of dermatology and phlebology from Bonn, Germany. Professor Rabe graduated from the Medical Faculty of the RWTH Aachen in 1984. In 1992 he finished his training in dermatology and received recognition as a specialist phlebologist from the General Medical Council of "Nordrhein" in 1995. He received his Professorship in Dermatology in 2002. In his current position, Professor Rabe is the head of department of phlebology in the Dermatological Hospital Bonn. Since 1997, Professor Rabe has been the President of the German Society of Phlebology. From 1998 to 2005, he served as the Vice President of the Union Internationale de Phlebologie (UIP) and was elected President of UIP in 2007.

Associate Professor Allan Sturgess

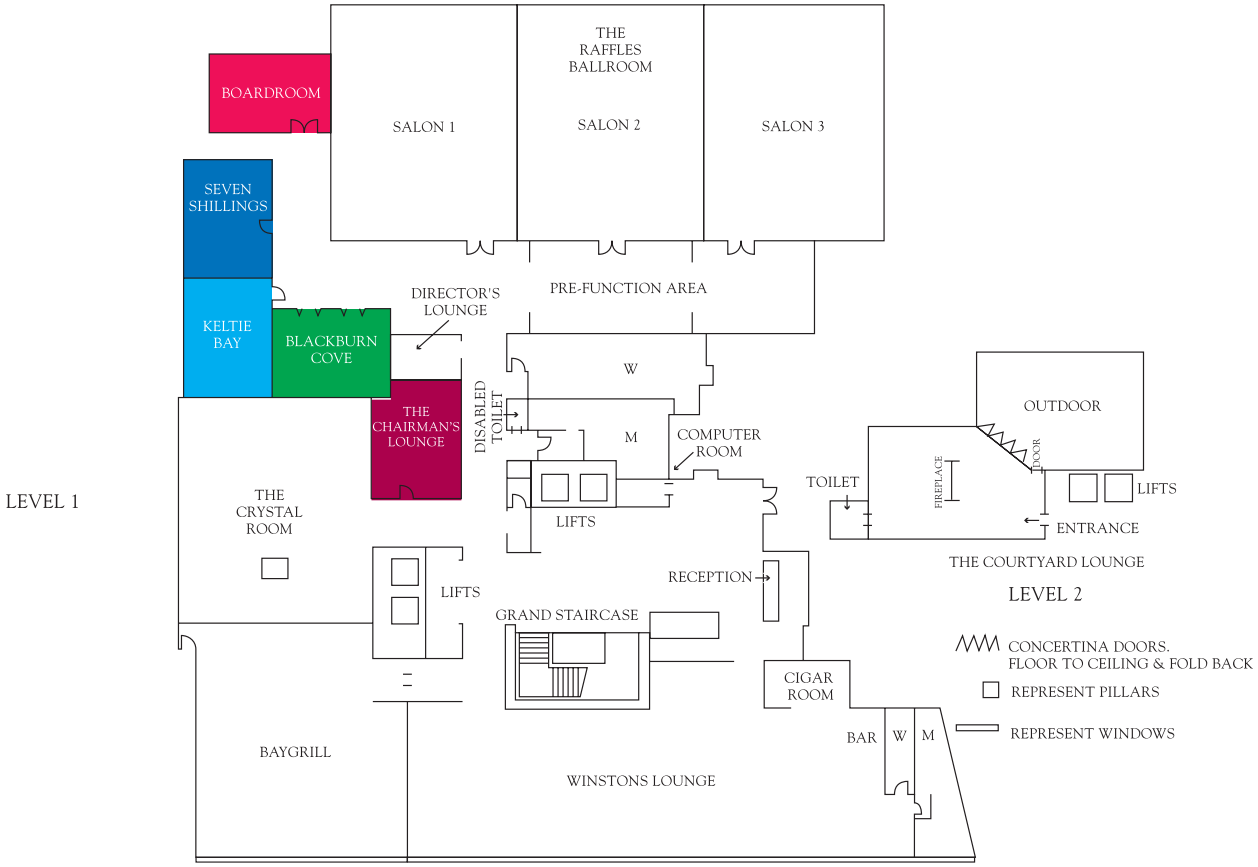
A/Prof Allan Sturgess trained in clinical and laboratory immunology at the Walter and Eliza Hall Institute of Medical Research and the Royal Melbourne Hospital under Ian Mackay and Senga Whittingham. There his interest in autoimmunity and autoimmune diseases began and continues to this day. He has worked at St George Hospital in Sydney since 1988 where his work includes supervision of the Immunorheumatology Laboratory as well as clinical work at the interface of immunology and rheumatology. Prof Sturgess is a world authority on antiphospholipid syndrome and has contributed tremendously to the spread of knowledge with respect to diagnosis, investigations and management of this condition.

Professor Andre van Rij

André van Rij is Professor of Surgery at the Dunedin School of Medicine University of Otago where he directs the Vascular Research Unit. His research has focused on venous disease and the biology of varicose vein recurrence and venous thrombosis. His translational research bridges new basic research into the venous clinic. Dr van Rij is a vascular surgeon and President of the NZ Association of General Surgeons.

STAMFORD PLAZA DOUBLE BAY

Meeting Rooms



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Parking Information

Car parking is at the Stamford Plaza Double Bay at $20 per day with Valet Parking available. There is a council multi-story carpark 100 metres on Cross Stret and over 380 car parks in the immediate area. See hotel Concierge for further details.

Tue 18 September — Basic Phlebology Certificate Course (Phlebology Part 1)

0700-1700	Registration	
0800-0805	Dr Kurosh Parsi	Conference Welcome
	CLINICAL ASSESSMENT OF VENOUS DISEASE	**Chair - Dr Louis Loizou**
0805-0825	Dr Abdullah Omari	An Overview of Venous Disease
0825-0845	Dr Louis Loizou	Patient Assessment
0845-0905	Dr Joseph Graiche	Doppler Principles and the Applications of CW-Doppler
0905-0925	Dr Robert McDonald	Thrombophilia and Hypercoagulable States
0925-0945	Dr Louis Loizou	Review of CEAP Classification
0945-1000	Discussion	
1000-1030	Morning Tea	
	ANATOMY AND PATHOPHYSIOLOGY	**Chair - Dr David Jenkins**
1030-1050	Dr Peter Paraskevas	Anatomy and Physiology of the Venous System
1050-1110	Dr Mark Elvy	Venous Hypertension and its Complications
1110-1130	Dr Paul Thibault	Patterns of Telangiectasias
1130-1150	Dr Joseph Graiche	Interpreting Duplex Reports
1150-1200	Discussion	
1200-1300	Lunch	
	SCLEROTHERAPY	**Chair - Dr Jacqui Chirgwin**
1300-1320	Dr Paul Thibault	Treatment Overview
1320-1340	Dr David Jenkins	Techniques of Sclerotherapy
1340-1400	Dr Paul Thibault	Sclerosing Agents and their Mechanisms of Action
1400-1420	Dr Phillip Artemi	Pharmacokinetics and Pharmacodynamics of the Sclerosing Agents
1420-1440	Dr David Jenkins	Sclerotherapy of Non-Leg Veins
1440-1500	Discussion	
1500-1530	Afternoon Tea	
	COMPLICATIONS OF SCLEROTHERAPY	**Chair - Dr Mark Elvy**
1530-1545	Dr Adrian Lim	Absolute and Relative Contraindications of Sclerotherapy
1545-1600	Dr Joseph Graiche	Overview of Complications of Sclerotherapy
1600-1615	Dr Kurosh Parsi	Post-Sclerotherapy Ulcers
1615-1630	Dr Adrian Lim	Anaphylaxis, Anaphylactoid and Allergies
1630-1645	Dr Kurosh Parsi	Post-Sclerotherapy DVT and DVS
1645-1700	Dr Paul Thibault	Post-Sclerotherapy Telangiectatic Matting and Pigmentation
1700-1715	Discussion	
1715-1730	Coffee Break	
	MEDICOLEGAL AND TRAINING	**Chair - Dr Paul Thibault**
1730-1745	Dr Chris Lekich	Medicolegal Issues
1745-1800	Dr Andrew Stirling	Critical Appraisal
1800-1810	Dr Jillian Tatham	How to Write a Scientific Paper
1810-1820	Dr Joseph Graiche	An Overview of Training Program
1820-1830	Dr Kurosh Parsi	An Overview of the Examination Process
1830-1845	Discussion	
	Dinner own arrangements	

Wed 19 September — Advanced Phlebology & Refresher Course (Phlebology Part II)

0700-1700	Registration	
0730-0740	Dr Kurosh Parsi	Conference Welcome
	BASIC SCIENCES	**Chair - Dr David Jenkins**
0740-0800	Dr Phillip Artemi	Pharmacology of Phlebology
0800-0820	Dr Mark Malouf	Anatomy and New Venous Terminology
0820-0850	Dr David Gibson	Overview of Ultrasound and Laser Physics
0850-0920	Prof. Andre van Rij	Assessment of Venous Function and Physiology
0920-0950	Prof. Hugo Partsch	Physics of Compression
0950-1000	Discussion	
1000-1030	Morning Tea	
	VENOUS INSUFFICIENCY	**Chair - Dr Gabrielle McMullin**
1030-1050	Dr Kurosh Parsi	Dermatologic Manifestations of Venous Disease
1050-1110	Prof. Hugo Partsch	Swollen Limb
1110-1130	Dr Phillip Artemi	Leg Ulcers
1130-1150	Dr Abdullah Omari	Medical Management of Leg Ulcers
1150-1200	Discussion	
1200-1300	Lunch	
	VENOUS THROMBOEMBOLISM	**Chair - Prof. Andre van Rij**
1300-1320	Mr David Connor	Haemostasis and Coagulation
1320-1340	Prof. Ken Myers	Ultrasound Assessment of Venous Thrombosis
1340-1400	Dr Abdullah Omari	Management of Superficial Thrombophlebitis
1400-1420	Dr Joanne Joseph	Management of Acute DVT
1420-1440	Prof. Lourens Bester	Thrombolysis and IVC Filters
1440-1500	Discussion	
1500-1530	Afternoon Tea	
	WIDER ASPECTS OF PHLEBOLOGY	**Chair - Dr Mark Elvy**
1530-1550	Dr Kurosh Parsi	Vascular Anomalies
1550-1610	Prof. Lourens Bester	Agents used in Treatment of Vascular Malformations and Pelvic Veins
1610-1630	Dr John Pereira	Treatment of Venous Malformations in Children
1630-1650	Prof. Neil Piller	Lymphoedema
1650-1710	Prof. Hugo Partsch	Lymphography and Lymphoscintography: Practical Aspects
1710-1730	Discussion	
1730-1745	Coffee Break	
	MANAGEMENT OF VENOUS INCOMPETENCE	**Chair - Dr Paul Thibault**
1745-1800	Prof. Lourens Bester	Pelvic Congestion Syndrome
1800-1815	Dr David Robinson	Surgery for Varicose Veins
1815-1830	Dr David Jenkins	Ultrsasound Guided Sclerotherpay
1830-1845	Prof. Lourens Bester	Radiofrequency Ablation
1845-1900	Prof. Ken Myers	Endovenous Laser Ablation
1900-1915	Discussion	
1930	Welcome Cocktail Function	

Thurs 20 September — Scientific Program

0700-1700	Registration	
0700-0750	Extravagant Breakfast with the Stars - "Phlebology Alabama Style" Guest Speaker: Dr John Kingsley - Vascular Surgeon	Scanmedics

EVLA SYMPOSIUM

Keynote Lecture — **Chair - Prof. Ken Myers, Dr Paul Thibault**

0800-0815	Prof. Ted King	Endovenous Laser Ablation: Does Fluence Make a Difference?
0815-0820	Discussion	

EVLA Expert Panel

0820-0835	Dr John Kingsley	American Experience with the 1320nm Cooltouch Laser: A Detailed Analysis of 1,000 cases
0835-0850	Prof. Ted King	American Experience with concomitant foam UGS and EVLA: A Series of 1,000 Consecutive Patients
0850-0905	Dr Louis Grondin	Canadian Experience with the 980 nm Biolitec Laser
0905-0920	Prof. Eberhard Rabe	German Experience with the 980 nm Biolitec Laser
0920-0935	Dr Robert Fris	New Zealand Experience with the 810 nm Diomed Laser
0935-0950	Prof. Ken Myers	Australian Experience with the 810 nm Diomed Laser
0950-1000	Discussion	

1000-1030 **Morning Tea**

Abstracts — **Chair - Prof. Ken Myers, Dr Paul Thibault**

1030-1040	Prof. Ted King	Progression and Recurrence of Vein Disease in Patients Treated with EVLA
1040-1050	Ms Angela Brown, Dr Peter Chapman-Smith	2 year prospective study of endovenous laser ablation with 1320 nm
1050-1100	Prof. Ted King	Endovenous Laser Ablation of the Small Saphenous Vein: Results

CONTROVERSIES IN PHLEBOLOGY

Case For Discussion

1100-1110	Dr John Barrett	Tongue of thrombus in the Common Femoral Vein and Pulmonary Embolism post-EVLA: Prophylactic Anticoagulant Protocols and Risk Factors

Expert Panel - Panel members have 1 minute each to answer each question

1) How common is post-EVLA venous thromboembolism in your practice?
2) What is your standard anticoagulation protocol?
3) Should LMWH anticoagulation be provided? If yes for whom and for how long? If not, why not?
4) For patients on warfarin, should that be continued? If not, why not?
5) Should patients on warfarin receive supplementary LMWH cover in the peri-operative period?

1110-1115	Prof. Ken Myers
1115-1120	Dr Louis Grondin
1120-1125	Prof. Eberhard Rabe
1125-1130	Dr John Kingsley
1130-1135	Dr Robert Fris
1135-1140	Prof. Ted King
1140-1200	Panel Discussion

1200-1300 **Lunch**

Thurs 20 September

CONCURRENT SESSIONS

STREAM A - CHRONIC VENOUS INSUFFICIENCY SYMPOSIUM

Keynote Lecture — Chair - Prof. Hugo Partsch, Dr Gabrielle McMullin

1300-1315	Prof. Eberhard Rabe	Prevalence and Risk Factors of Severe Chronic Venous Insufficiency Including Venous Ulcers: The Bonn Vein Study
1315-1320	Discussion	

Diagnostic Imaging Special Lecture

1320-1335	Dr Attilio Cavezzi	Colour-duplex Investigation in Venous Ulcers
1335-1340	Discussion	

Epidemiology Special Lecture

1340-1355	Prof. Eberhard Rabe	Symptoms and Signs of Chronic Venous Disorders: What Can We Learn from Epidemiologic Studies
1355-1400	Discussion	

Abstracts

1400-1410	Dr Michael Bruce	Autologous Platelet Gel in Treatment of Leg Ulcers
1410-1420	Dr John Kingsley	Venous Stasis Ulcers Successfully Treated with EVLA: The First Reported Series
1420-1430	Prof. Hugo Partsch	Can we rely on pressure values declared by producers of medical compression stockings
1430-1440	Prof. Neil Piller	Results of a single blinded placebo controlled trial of the Body-Flow Technique for the treatment of lymphoedema of the legs.
1440-1450	Dr Gabrielle McMullin	Skin Tension in Non-Healing Ulcers
1450-1500	Dr Abdullah Omari	Non-healing Ulcers: What Are We Doing Wrong?
1500-1530	Panel Discussion	

1300-1530 STREAM B - DIAGNOSTIC WORKSHOPS

Workshops run by experienced vascular sonographers.
Entry by registration only with tickets issued. Limited numbers. Fee $55 per person

DW 1 - Venous Incompetence Mapping
DW 2 - DVT Studies
DW 3 - Upper Limbs
DW 4 - Advanced ABI
DW 5 - Anatomy of the Popliteal Fossa and the Calf Veins

1530-1600 Afternoon Tea

Thurs 20 September

VENOUS THROMBOEMBOLISM SYMPOSIUM

Keynote Lecture — **Chair - Prof. David Ma, Prof. Andre van Rij**

1600-1615	A/Prof Allan Sturgess	An Update on Antiphospholid Syndrome
1615-1620	Discussion	

Diagnostic Imaging Special Lecture

1620-1635	Dr Ken Sesel	Advances in Vascular Imaging for VTE
1635-1640	Discussion	

VTE Special Lecture

1640-1655	Dr Joanne Joseph	New Anticoagulants
1655-1700	Discussion	

Coagulation Special Lecture

1700-1715	Dr Jennifer Curnow	Overall Haemostatic Potential
1715-1720	Discussion	

Updates and Abstracts

1720-1735	Dr Tom Exner	Coagulation Tests: What is New, What is Useful and What is Useless?
1735-1750	Dr Kerry Hitos, Prof. John Fletcher	Effect of Leg Exercise on Popliteal Venous Blood Flow During Prolonged Immobility of Seated Subjects: Implications for Prevention of Travel Related Deep Vein Thrombosis
1750-1805	Dr Abdullah Omari	Simple Cases of DVT: Is Management that Simple?
1805-1820	Prof. Hugo Partsch	Ambulation and Compression After Deep Vein Thrombosis: Dispelling Myths
1820-1830	Discussion	

Dinner own arrangements

Fri 21 September — Scientific Program

0700-1700	Registration	

FOAM SYMPOSIUM

Keynote Lecture — Chair - Dr Louis Grondin, Prof. Ken Myers

0800-0815	Dr Attilio Cavezzi	Outcomes of Foam Sclerotherapy: Literature Data and its Interpretation
0815-0820	Discussion	

Foam Symposium Special Lecture

0820-0835	Dr Attilio Cavezzi	Variables in Foam Sclerotherapy: Literature and Experimental Data
0835-0840	Discussion	

Abstracts

0840-0850	Dr Louis Grondin	Canadian Experience with Foam Sclerotherapy
0850-0900	Prof. Eberhard Rabe	Efficacy and Safety of Aethoxysklerol Foam in a Prospective Randomized Multicentre Trial (ESAF-Study) – Results of First Phase
0900-0910	Dr John Barrett	Foam Ultrasound Guided Sclerotherapy for Large Veins using Sodium Tetradecyl Sulphate
0910-0920	Dr Kurosh Parsi	Technique Alterations Including Leg Elevation, Immobility, Using Filters or CO2 Gas Do Not Prevent Bubbles from Reaching the Right Heart during Foam Sclerotherapy
0920-0930	Dr Attilio Cavezzi	Biocompatible Gases in Foam Sclerotherapy
0930-0940	Dr Kurosh Parsi	The Value of Ultrasonic Screening and D-dimer Testing in the Diagnosis of Post-ultra sound Guided Sclerotherapy Deep Vein Thrombosis and Deep Vein Sclerosis
0940-1000	Discussion	

1000-1030 Morning Tea

VENOUS DISEASE SYMPOSIUM

Keynote Lecture — Chair - Dr Ted King, Dr Attilio Cavezzi

1030-1045	Dr John Kingsley	Modern Treatment of Vein Disorders
1045-1050	Discussion	

Abstracts

1050-1100	Prof. Andre van Rij	Vs06 the Otago Varicose Veins Condition-Specific Questionnaire for Assessment of Quality of Life Following Surgery or Sclerotherapy
1100-1110	Dr David Jenkins	Persistent Sciatic Vein and Sciatic Nerve Varicosities
1110-1120	Dr Mark Elvy	May-Thurner Syndrome
1120-1130	Dr David Jenkins	Popliteal Vein Aneurysm
1130-1140	Prof. Andre van Rij	A Prospective Study of the Fate of Venous Leg Perforators after Varicose Vein Surgery
1140-1200	Discussion	

1200-1300 Lunch

1230-1400 **EXPERT WORKSHOPS**

Workshops run by the world experts.
Entry by registration only with tickets issued. Limited numbers. Fee $55 per person

Dr Attilio Cavezzi	EW 1 - Advanced Duplex Anatomy
Prof. Hugo Partsch	EW 2 - Secrets of Compression

Fri 21 September

BASIC SCIENCES AND CLINICAL RESEARCH

Keynote Lecture — Chair - Prof. David Ma, Prof. Andre van Rij

1400-1415	Prof. Andre van Rij	A Porcine Model for Venous Incompetence
1415-1420	Discussion	

Basic Sciences Lecture

1420-1435	Ms Andrea Herbert	A Review of Endothelial Progenitor Cells
1435-1440	Discussion	

Abstracts

1440-1450	Dr Tom Exner	Effects of Sclerosing Agents on Blood Cells
1450-1500	Dr Kurosh Parsi	Effects of Sclerosants on Antithrombotic Mechanisms and Fibrinolysis
1500-1510	Mr David Connor	Platelet Activation in Pulmonary Embolism
1510-1520	Dr Kurosh Parsi	Blood Flow, Fibrinolysis and Anti-Procoagulant Activity After Treatment with a Portable Electrostimulation Device (Bodyflow™) in Healthy Subjects
1520-1530	Discussion	

1530-1600 **Afternoon Tea**

DEEP VEIN INCOMPETENCE SYMPOSIUM

Keynote Lecture — Chair - Dr Attilio Cavezzi, Dr John Kingsley

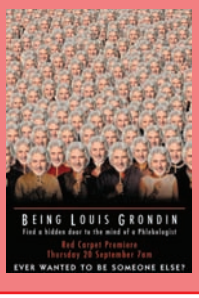
1600-1615	Dr John Kingsley	Restless Leg Syndrome
1615-1620	Discussion	

Abstracts

1620-1630	Dr Rod Lane	Ultrasonic Venous Valve Imaging – A Prerequisite for Existent Repair
1630-1640	Prof. Ramesh Tripathi	Deep Vein Valvular Reconstructions - How To Do It and Why?
1640-1650	Dr Rod Lane	Endovenous Valve Transfer Stent (EVTS) for the Treatment of Chronic Deep Venous Insufficiency
1650-1700	Prof. Ramesh Tripathi	Endovascular Valve Stents for Deep Vein Valvular Incompetence - Are we there yet?
1700-1710	Dr John Kingsley	Management of Incompetent Deep Veins: American Experience
1710-1730	Panel Discussion	

1900-late **SPECIAL EVENT**

Being Louis Grondin: A Hidden Doorway to the Mind of a Phlebologist



Cocktails, canapes, entertainment
Finish a week of hard work, lectures and workshops with an unforgettable evening of entertainment.

FEE: $55 per person

Sponsored by: Jacobs Medical Australia, bioLITEC

Based on 'Being John Malkovich' and 'The Affair of the Necklace'

SPECIAL EVENT

Sponsored by: Scanmedics

Extravagant Breakfast with the Stars

Guest Speaker: Dr John Kingsley - Vascular Surgeon

"Phlebology Alabama Style"

Thursday 20 September, The Crystal Room, Stamford Plaza from 7:00 - 7:50am

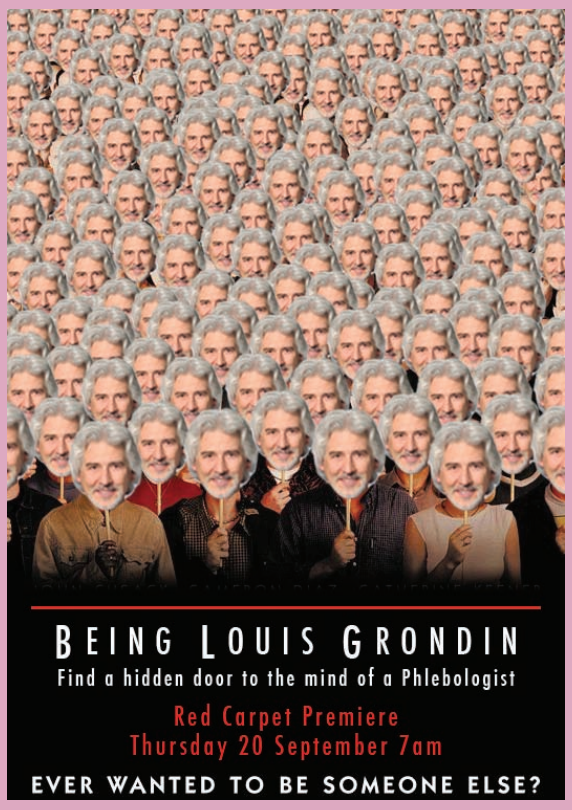
FEE $55 per person

SPECIAL EVENT

Sponsored by: Jacobs Medical Australia, Bio Litec

Being Louis Grondin

A Hidden Doorway to the Mind of a Phlebologist …
Friday 21 September, Crystal Room, Stamford Plaza, from 7:00pm until late



Cocktails, canapes, entertainment. Finish a week of hard work, lectures and workshops with an unforgettable evening of entertainment.

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FEE: $55 per person

INAUGURATION CEREMONY

The University of Sydney

The Australasian College of Phlebology will hold its Inauguration Ceremony on Saturday 22nd September, 2007. This important event marks a milestone in the history of our College. It has been the stated aim of the College to achieve recognition as an accredited medical specialty within Australia and New Zealand. The Australasian College of Phlebology runs an independent training program that has been training registrars (trainees) for the last few years. The 2007 College inauguration marks the graduation of our first group of advanced registrars (trainees) who have successfully completed the 4 year training program in phlebology.

The Inauguration Ceremony crystallizes the coming of age of the College. The path towards modernization and maturation of phlebology is well progressed, with the aim of culminating in specialty status. The ceremony will also celebrate notable achievements and contribution of individuals that have transformed the College into a dynamic and progressive organization.

The Australasian College of Phlebology will formally recognize the achievements and efforts of those who have significantly contributed to the science and practice of phlebology in Australasia. The presentation of Inaugural Awards and Medals of Excellence will honor these individuals and their achievements.

The academic achievements and scientific leadership of Professor Ken Myers, the Chancellor of the Australasian College of Phlebology, will be recognized through the inaugural Ken Myers Oration. The orator for the inaugural speech will be the charismatic Louis Grondin, MD. The Ken Myers Oration will be a feature of all future College meetings.

All Fellows of the College will formally receive their fellowship certificates in this ceremony.

This event promises to be a grand and formal occasion that should not be missed. All members and their partners, families and guests are invited to attend and be a part of a historic and memorable occasion.

Program

Guests will arrive to the gentle surrounds of the Quadrangle for light refreshments. The ceremony will then take place with the presentation of fellowships, medals and awards of excellence.

The ceremony will be followed by a glorious evening of celebrating with fine food and entertainment surrounded by the beautiful architecture of the Great Hall.

1545 Refreshments
Fellows to be fitted with their academic gowns
1630 Inauguration Ceremony & Conferring of Awards
1800 Cocktails
1900 Conference Dinner (Dress Code: Black Tie)

Awards

The Australasian College of Phlebology will bestow a number of individuals with important awards to recognize their significant contributions to the practice of Phlebology. The award types are:

Australasian College of Phlebology's Gold Medal for Outstanding Contributions to Australasian Phlebology
Award of Excellence in Industrial Design and Engineering in Phlebology
Award of Excellence in Clinical Research in Phlebology
Award of Excellence in Basic Science Research in Phlebology
Award of Excellence for Promotion of Phlebology in Australasia
Award of Excellence for Promotion of Australasian Phlebology on an International Level
Award of Excellence for Undergraduate Teaching of Phlebology
Award of Excellence for Postgraduate Teaching of Phlebology
Award of Excellence in Clinical Practice of Phlebology
Award of Excellence in Clinical Practice of Vascular Surgery as it relates to Phlebology
Award of Excellence in Clinical Practice of Vascular Medicine as it relates to Phlebology
Award of Excellence in Interventional Radiology as it relates to Phlebology
Award of Excellence in Public Education and Research in Management of Leg Ulcers
Award of Excellence in Public Education and Research in Wound Management
Award of Excellence in Public Education and Research in Vascular Ultrasound
Award of Excellence in Public Education and Research in Venous Thromboembolism

Nominations are sought from members of the ACP, ANZ Society of Phlebology and ANZ Society of Vascular Surgery. Please visit the website for a nomination form.

Venue

The Inauguration Ceremony is going to be held in the historic Great Hall at the University of Sydney. Proudly sponsored by the Office of the Dean of Graduate Studies.

Abstracts

Thursday 20 September 0700-0750 Dr John Kingsley

The Alabama Outlaw: Treatment Of Inoperable Patients With Endovenous Saphenous Ablation

John R. Kingsley, M.D., F.A.C.S., RVT

Alabama Vascular & Vein Center, Birmingham, Alabama, USA

Aim

To introduce methods of treatment for patients suffering from venous insufficiency and who previously were considered inoperable. To also introduce successful methods of treatment which might be considered heretical by the established phlebologist. Thus, the Alabama Outlaw.

Methods

This breakfast session termed "Phlebology Alabama Style" allows an informal presentation of our experience with over 4000 endovenous ablation operations. During this experience, we have encountered patients suffering from venous insufficiency who also have hypercoagulable syndromes. These patients and others with prosthetic heart valves, pacemakers, and other cardiac or metabolic abnormalities require indefinite anti-coagulation. Some patients have suffered previous deep vein thromboses, and have occluded deep veins or irregular and incompetent deep veins. When these patients also have saphenous vein incompetence which is the primary cause for symptoms, they are treated with endovenous saphenous ablation. Most continue their coumadin anti-coagulation medication. Other "heretical" methods are presented as well, such as the endovenous ablation and simultaneous femoral-popliteal arterial bypass in the patient with both arterial and venous insufficiency. Treating normal accessory veins to prevent recurrences. Asking patients to "not walk" on the day of the endovenous surgery, avoiding perforator vein catheters and lasers.

Results

These methods have been uniformly successful, and many patients have been spared the ravages of venous insufficiency when they would otherwise not be treated. All patients who continued coumadin enjoyed treatment success, including ablation of the incompetent saphenous vein.

Conclusion

Although some of these treatment methods may be in the "outlaw" category, they have proven successful over the past few years. More importantly, results have been excellent, and there have been no significant complications in this somewhat difficult patient population.

Thursday 20 September 0800-0815 Professor Ted King

Endovenous Laser Ablation: Does Fluence Make a Difference?

King JT[1]*
[1]Vein Clinics of America, Oak Brook, IL, USA

Aim
Despite the common practice of delivering more energy to larger vein segments during endovenous laser ablation (ELT), little has been written concerning the possible effect and predictive value of fluence (J/cm2) on the success of treatment with Endovenous Laser Treatment (ELT)

Methods
Four hundred thirty-five successive cases of ELT of the great and small saphenous veins (980 nm and 1320 nm) were evaluated for success of treatment at 1, 3, 6, and 12 months. Any reflux (> 0.5 sec.) at the sapheno-femoral junction (SFJ) or the sapheno-popliteal junction (SPJ), seen on Duplex ultrasound and pulsed color Doppler, was called treatment failure. Fluence was determined by dividing the energy delivered to the vein by a calculated estimate of the surface area of the treated segment of vein.

Results
240 cases treated with the 980 nm laser and 195 cases treated with the 1320 nm laser were evaluated. 20 cases treated with the 980 and 21 cases treated with the 1320 were called failures. The average energy delivered by the 980 laser in the successfully treated patient group was 55.0 J/cm while the energy delivered in the treatment failure group was 57.9 J/cm. At the same time, the fluence in the successfully treated group was 33.9 J/cm2 while the fluence delivered in the treatment failure group was 25.2 J/cm2. A similar picture was seen in the 1320 laser treated group. The successfully treated patients received an average of 66.9 J/cm while the treatment failure group received 64.9 J/cm. Nevertheless, the fluence received in the successfully treated patients was 45.4 J/cm2 while the treatment failure group received only 38.1 J/cm2.

Conclusion
There was no statistical difference in the overall failure rate between the 980 and 1320 lasers. This was true for treatment of the SFJ and the SPJ. Although worthwhile to assess, Age, CEAP and Venous Dysfunction Scoring do not appear to be reliable predictors of treatment outcome. Energy delivery (J/cm) does not appear to be as reliable a predictor of successful ELT as fluence (J/cm2). This is true for both the 980 ($P<0.005$) and the 1320 ($P<0.005$) lasers. Further statistical analysis and larger samples are needed.

Thursday 20 September 0820-0835 Dr John Kingsley

Endovenous Saphenous Ablation with the 1320 nm Cooltouch Laser: A detailed analysis of 1000 cases

John R. Kingsley, M.D., James H. Isobe, M.D., Sylvia A. Tadros, PA-C

Alabama Vascular & Vein Center, Birmingham, Alabama, USA

Aim

This study is to determine the effectiveness of the 1320 nm laser to treat the incompetent great and small saphenous veins for correction of venous insufficiency syndrome.

Methods

More than 2500 procedures have been performed with the 1320 nm laser to ablate the incompetent saphenous vein. Post-operatively, patients have been followed at 2 weeks, 6 months, and 1 year with duplex venous ultrasound and clinical examinations. More than 1000 patients have been followed for 6 months, and more than 500 patients have been followed for one year or longer. All patients were operated upon in a vein center facility, no hospitalization was required. 17 % of patients in this series underwent simultaneous high ligation of the great or small mega-saphenous vein. Nearly two thirds of patients were provided simultaneous micro-phlebectomy, and more than 20% of the patients received simultaneous ablation of the anterior accessory saphenous vein or duplicate vein. The small saphenous vein was ablated in 8 % of the patient series. Patients were studied to determine both clinical and ultrasound documented success of treatment as well as to determine patient satisfaction.

Results

98.7% of our patients enjoyed ultrasound proven complete ablation of the treated saphenous vein after the initial operation at 6 months follow-up. 98.5% of patients were proven to have complete ablation after 1 year. All patients enjoyed clinical success of treatment, with the majority enjoying resolution of ropy varicosities and relief of pain as well as relief of restless legs and night time cramps. 93% of patients with venous stasis ulcers completely healed the ulcers within 1 to 6 months, without recurrence during the follow-up interval. 40% of the CoolTouch patients reported having little to no post-operative discomfort during the first post-op week.

Conclusion

The 1320 nm CoolTouch laser has proven an excellent modality to treat the patient suffering from venous insufficiency due to saphenous vein incompetence. The wave length targets serum rather than hemoglobin, allowing a lower wattage to achieve endothelial damage. The excellent and durable success of treatment and the complimentary low patient pain profile are indicative of a superior technology.

Thursday 20 September 0835-0850 Professor Ted King

Preliminary Experience With Concomitant Ultrasound-guided Foam Sclerotherapy And Endovenous Laser Ablation: A series of 1000 consecutive cases

King JT[1]*
[1]Vein Clinics of America, Oak Brook, IL, USA

Aim

Endovenous laser ablation is known to be an effective treatment in Great and Small Saphenous reflux. Ultrasound-guided foam sclerotherapy is also becoming an increasingly accepted treatment for varicose vein disease. There is little information on the concomitant use of endovenous laser ablation with ultrasound-guided foam sclerotherapy

Methods

In this prospective, consecutive series of 1114 patients, either a 980 nm (8-15W) or a 1320 nm (5-8W) laser was used. After informed consent was obtained, endovenous laser ablation was performed on refluxing saphenous truncal and non-saphenous veins, including incompetent perforators. Ultrasound-guided foam sclerotherapy was provided during the same treatment session for varicose branches that were not amenable to endovenous laser treatment. Failed laser attempts occurred in six cases due to vein spasm (0.36%) or fiber malfunction (0.18%). These veins were successfully treated with ultrasound-guided foam sclerotherapy. All of the patients were CEAP Class 2-6. Quality of life (QoL) scoring was assessed. Ultrasound-guided foam sclerotherapy was given prior to tumescent anesthesia and then endovenous laser ablation was performed. All of the patients were strictly monitored and had Duplex ultrasound scanning to evaluate for DVT at 24-72 hours. Thorough duplex scanning was done at 1 week, 1 month, 3 months, 6 months, 12 months, and 24 months.

Results

At 1 month, there was continued reflux (> 0.5 seconds) in 30 (3.0%) junctions: 26 SFJ (3.0%), 4 SPJ (2.9%). At 3 months, 20 (2.0%) junctions: 15 SFJ (1.7%), 5 SPJ (3.7%). At 6 months, 14 (1.4%) junctions: 10 SFJ (1.2%), 4 SPJ (2.9%). At 12 months, 5 (0.5%) junctions: 4 SFJ (0.5%), 1 SPJ (0.7%). Further progressive and/or recurrent branch vein reflux seen on ultrasound at any follow-up was treated with ultrasound-guided foam sclerotherapy. Thirty-two patients (2.9%) complained of a small area of numbness at one month. This had resolved completely in 6 (18.8%) of the patients by 6 months. There were four cases of a localized cellulitis at laser venous access sites. This resolved uneventfully with oral antibiotics. There were also two skin reactions, with localized urticaria, due to dressing tape. These required no additional treatment. There were two cases of superficial phlebitis that resolved with continued compression and NSAIDs. There was one asymptomatic popliteal DVT and one uncomplicated superficial skin burn that both resolved uneventfully with no treatment other than observation. No PE, thrombophlebitis, or visual disturbance occurred. All presenting venous stasis ulcers were closed and all QoL indicators were substantially improved over time.

Conclusion

Ultrasound-guided sclerotherapy, given concomitantly with endovenous laser ablation, is safe and effective in treating the GSV, SSV, their tributaries, and non-saphenous veins. Further study with additional cases, more long-term follow-up, and supplementary in depth assessment of factors that may be related to treatment failure is under way.

Thursday 20 September 0850-0905 Dr Louis Grondin

Canadian Experience with the 980 nm Biolitec Laser

Louis Grondin MD MBA FACPh

Introduction

In Canada, as in most industrialized countries approximately one in three adult develops varicose veins. Conventional varicose vein surgery by stripping and high ligation, although still considered gold standard in some circles, carries a high recurrence rate and an unacceptable morbidity over time. In the past 10 years Endo-Venous Laser Ablative (EVLA) procedures have emerged as an alternative treatment. EVLA initially utilized diode lasers of 810 nm, 940 nm, and 980 nm; and later 1,320-nm Nd:YAG lasers were introduced. Some controversy arose regarding the ideal laser wavelength. A mathematical model comparing the 980 nm and the 1,320 nm lasers concluded that the 1,320 nm laser would require less energy to achieve venous wall damage; but within their respective parameters both lasers produce similar results and, side effects. Other studies comparing the 980 nm laser with the 810-nm have demonstrated similar effectiveness with no major complications and minimal adverse outcomes. We propose that the concomitant use of foam sclerotherapy with EVLA may maximize the laser energy delivery to the endovein (regardless of the wavelength) and reduce the post-operative treatment sessions, without significantly increasing the treatment risks.

Method

We utilize a biolitec (980 nm) laser and modified the procedure by delivering laser energy to a vein filled with foam. We present at this meeting a review of our first 200 patients. We position by ultrasound assistance a laser fiber percutaneously into an truncal varix (GSV, SSV, linear collateral veins). Foamed sclerosant (3-5cc) is injected via the catheters. We use medical grade CO2 gas, and 5-micron luer-lock filters to ensure microfoam creation. Following perivenous tumescent infiltration, thermal energy (10 Watts in continuous mode) is applied to the endo-vein. Our patients are examined 1 week, 1month, 6 months, and yearly following the procedure.

Results

Our overall closure rate is 98%. In the case of the GSV the average closure-distance to the femoral vein is 1.3 cms. The average treatment sessions, following the EVLA, to complete the elimination of truncal varices was 1.8 session/leg. Patient satisfaction by follow up survey is high (95%).

Complications

We had one systemic allergic reaction, (0.39%) that required resuscitation. This was likely due to the sclerosant. We observed no DVT and no thrombo-embolic event. We found two asymptomatic proximal greater saphenous thrombus protrusion into the femoral vein (0.78%). Superficial phlebitis and paresthesias were uncommon: 1.55% and 0.78% respectively. Matting and staining were also uncommon: (1.94% each) and self resolved within 12 months except in one case ((0.39%). We observed no cutaneous burn.

Conclusion

The combination of EVLA with surgical procedures has been described, but to date there has been no published report of EVLA in combination with microfoam sclerotherapy. Apart from the inherent advantages of the EVLA procedure, the adjunction of foam sclerosants may reduce the recurrence rate and the course of treatment, without significantly increasing the risk of thromboembolic events. Although in all GSV cases the laser tip was positioned at a distance of 3-5 cms from the SFJ, the average closure site was 1.3 cm from the femoral vein. In the case of the SSV and non-saphenous truncal varices, the laser tip was consistently kept

out of the popliteal fossa and at times at a considerable distance from the vein termination. Post-operative ultrasound showed consistent closure of multiple and complex proximal branches where laser energy was not delivered. The more serious complications of deep venous thrombosis or extension of thrombus into the femoral vein have been previously reported as 0% to 2.3% of limbs treated.

We observed no DVT or PE, which we attribute to our thrombo-prophylaxis protocol (given in 13 patients) (5%). In the two cases of thrombus protrusion: the pre-surgical diameter of the proximal saphenous vein exceeded 15mm, the protrusion was detected at 24 hours, and resolved without treatment in 2-3 weeks. Others have postulated that clot extension is related to proximal vein size. In the future we propose to evaluate the role of thromboprophylaxis in large diameter veins.

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Thursday 20 September 0905-0920 Professor Eberhard Rabe

German Experience with the 980 nm Biolitec Laser

E. Rabe, Felizitas Pannier

Klinik und Poliklinik für Dermatologie der Rheinischen Friedrich-Wilhelm-Universität Bonn, Sigmund-Freud Str. 25, 53105 Bonn, Germany

Introduction
Among the new aspects in the treatment of varicose veins, endovenous laser is one of the most promising. The treatment is based on the conversion of light into thermal energy through the absorption of laser-light by hemoglobine or water. Caused by the thermal energy there is a formation of steam bubbles in the treated vein causing a denaturation of tissue and a damage of the endothelial layer. As a secondary effect there is thrombotic occlusion and shrinkage of the vein. Most data was published concerning the treatment of the great saphenous vein.

Study design
To evaluate the endovenous laser in the treatment of saphenous veins the Bonn Study was performed as a prospective, open, not randomised study with a 980 nm laser. Pulsed pullback with 15 Watt and a pulstime of 1.5 seconds was used. All patients had compression therapy for three weeks and low molecular weight heparine prophylaxis for one week. After the intervention patients were controlled after 1 day, 8 days, 30 days, 180 days and 1 year.

Patients
89 patients, 27 male and 62 female, were included in the study. The mean age was 55 years, the mean weight 76 kg and mean height 171 cm. The body mass-index was 25,8 kg per m2.
According to the CEAP-Classification, 20,4 % belonged to stage C2, 41 % to C3, 19,3 % to C4, 2,4 % to C5 und 16,9 % to C6. Alltogether 79,6% of the patients had CVI and 38,6% had severe CVI (C4-C6). Many had concomittend diseases.

Results
The occlusion rate was 92%. No severe side effects occurred even in this group of severely ill patients. 14 of the 15 venous ulcer patients (C6) could be followed within one year. In 12 patients the ulcer healed completely. In one patient the treatment was only one week before and in one patient the ulcer size reduced by 90%.

Summary
Endovenous laser-treatment is a very suitable method to treat saphenous varicose veins. This is also true for patients with severe CVI and for patients with multiple concomittend diseases.

Thursday 20 September 0920-0935 Mr Robert Fris

New Zealand Experience with the 810 nm Diomed Laser

Not available at time of print

Thursday 20 September 0935-0950 Professor Ken Myers

Australian Experience With The 810nm Diomed Laser

Ken Myers

Many phlebologists in Australia are now adopting endovenous laser therapy (EVL) for saphenous reflux with varicose veins. The 810nm laser system (Diomed-EVLT) was the first introduced and remains favoured by many although no evidence to compare different systems under optimal conditions for each has yet been presented. A personal experience of 507 veins treated by EVLT since early 2002 shows primary success at 4 years determined by ultrasound surveillance and calculated by life table analysis of 75%. Most failures due to recanalisation occurred within the first 12 months but there were 3 late failures at 3-4 years that have reduced the late success rate. This supports a policy to maintain long-term surveillance in limbs where the vein has not disappeared on serial scans. Recurrences were successfully treated by ultrasound-guided sclerotherapy in all but 5 patients who declined because there was no clinical recurrence so that secondary success at 4 years was more than 90%. It is the practice now to apply more power with a slower probe withdrawal rate to attempt to avoid late recurrences. The complication rate remains very low with a 3% incidence of thromboembolic events most of which were asymptomatic and one partial sural nerve injury.

Thursday 20 September 1030-1040 Professor Ted King

Progression And Recurrence Of Vein Disease In Patients Treated With Endovenous Laser Ablation: One Year Experience

King JT[1]*
[1]Vein Clinics of America, Oak Brook, IL, USA

Aim
There is now abundant data regarding the incidence of recurrence of reflux at the SFJ and SPJ after endovenous laser treatment (ELT). Tracts of recurrent flow occur in veins that have been treated with laser at sites other than the junctions. There is little data concerning how often this occurs, when it occurs, and what causes it to occur.

Methods
A retrospective analysis of 96 cases (112 veins) treated with ELT (980 nm: 60 and 1320 nm: 48). Complete Duplex ultrasound scanning was done at 1, 3, 6, and 12 months and any reflux (>0.5 sec.) was noted. New vein disease (progression), recurrent or continued flow through a segment of previously lased vein (recurrence), and continued or new branch vein reflux seen on ultrasound at any follow-up evaluation was treated with ultrasound-guided foam sclerotherapy.

Results
Recurrence at one month was due to incompetent perforators in the thigh (IP1) 7 times, incompetent perforators in the calf (IP2) 7 times, the sapheno-femoral junction (SFJ) 14 times, the sapheno-popliteal junction (SPJ) 1 time, and antegrade flowing epifascial tributaries (BF) 38 times. At three months, the results were IP1: 8, IP2: 13, SFJ: 13, SPJ: 2, and BF: 24. At six months, the results were IP1: 5, IP2: 4, SFJ: 16 SPJ: 1, and BF: 12. At twelve months, the results were IP1: 3, IP2: 2, SFJ: 4, SPJ: 1, and BF: 6.

Progression at one month was not due to IP1, was due to IP2 five times, was not due to the SFJ, was due to the SPJ 1 time, and was due to antegrade flowing epifascial tributaries (BF) 2 times. At three months, the results were IP1: 1, IP2: 4, SFJ: 0, SPJ: 4, and BF: 4. At six months, the results were IP1: 0, IP2: 1, SFJ: 0 SPJ: 1, and BF: 1. At twelve months, there were no episodes of progression of vein disease as a result of any of these sources.

Conclusion

In the first year after endovenous laser ablation, recurrence of reflux in the treated vein occurs far more commonly than progression of new disease (171:23) but the incidence of both decreases over time. New incompetent perforators in the thigh and calf and new SFJ incompetence accounted for all of the progression of new vein disease seen in previously untreated veins. Progression of new disease was seen more commonly at three months of follow-up than at any other time. Incompetent perforators in the thigh (13.5%) and calf (15.2%) and antegrade flowing branch (feeder) veins (46.8%) are a greater source of recurrence in previously lased veins than failure to close or reopening of the SFJ (21.6%) or SPJ (2.9%). Assurance of long lasting treatment success will depend on careful Duplex ultrasound follow-up, especially at three months, looking for incompetent perforators and feeders along the course of the treated veins, as well as evaluation of the treated junctions.

Thursday 20 September 1040-1050 Ms Angela Browne

3 Years Prospective Study Of 1320nm Endovenous Laser "The Effect On Saphenous Junctions"

Dr Peter Chapman-Smith
Skin and Vein Clinic, Whangarei, New Zealand

Angela Browne DMU vascular sonographer
Vascular Ultrasound North, Whangarei, New Zealand

300 legs with varicose veins of all sizes (CEAP 1-6.) were studied prospectively to assess the efficacy of 1320nm CoolTouch Nd:YAG endovenous laser ablation. EVLA under tumescent anesthesia, combined with foam UGS, is an established safe non-surgical treatment with no downtime. Duplex assessment demonstrated vein closure and resultant haemodynamic changes at the saphenous junctions (SFJ and SPJ).

UGS was performed distally in trunks and tributaries. Serial ultrasound at 1, 3, 6 months and annually noted veins to be competent/ incompetent, open/closed, and recorded vein diameters.

Results

Patients returned to activity immediately. A single EVLA treatment and two-3 UGS treatments were required. All junctions reduced in size, 90% resuming normal function. Side effects were minor - no fatalities or DVT, and 1 case of pulmonary embolism.

Conclusion

1320nm endovenous laser ablation combined with UGS for distal varices is a very safe and effective treatment for any size of varicose vein Uniquely junctions in most cases became competent, with over 95% of saphenous veins obliterated.

Thursday 20 September 1050-1100 Professor Ted King

Endovenous Laser Ablation Of The Small Saphenous Vein: Results

King JT[1]*
[1]Vein Clinics of America, Oak Brook, IL, USA

Aim
To report intermediate term results of endovenous laser treatment (ELT) of sapheno-popliteal junction (SPJ) incompetence and small saphenous vein (SSV) reflux

Methods
One hundred thirty-six small saphenous veins were treated with ELT. Two (1.5%) were unable to be treated with laser due to vein spasm and were treated with ultrasound-guided foam sclerotherapy. Patients were evaluated clinically and Duplex ultrasound evaluation was performed at three days, one week, one month, three months, six months, and twelve months. The great saphenous vein (GSV) was also treated in the same session as the SSV in 82 (60.3%). All refluxing veins not amenable to treatment with ELT were injected the same day that ELT was done and then on follow up, as necessary.

Results
Successful occlusion of the SSV, as shown by lack of flow on Duplex ultrasound and pulsed color Doppler imaging, was demonstrated in all but four patients at one month, all but five patients at three months, all but four patients at six months, and all but one patient at one year. Observed recurrent flow at the SPJ was treated with ultrasound-guided foam sclerotherapy. No nerve injury, infection, superficial phlebitis, or skin burns occurred. There was one asymptomatic DVT. There were no pulmonary emboli. Patients experienced mild bruising, swelling, and discomfort but, otherwise, had no significant complications.

Conclusion
Short and intermediate term results of ELT of the small saphenous vein treatment showed that this technique is highly safe and effective in the elimination of small saphenous vein reflux. This is true, even when done in conjunction with concomitant ELT of GSV and ultrasound-guided foam sclerotherapy. Long term results, assessing success of treatment and effect on Quality of Life scoring, are underway.

Thursday 20 September 1100-1110 Dr John Barrett

Common Femoral Vein Extension following Endovenous Laser Ablation

A case of common femoral vein thrombus extension leading to pulmonary embolus following endovenous laser ablation is presented with general recommendations for thromboprophylaxis following EVLA.

Thursday 20 September 1110-1200 Expert Panel

Controversies in Phlebology - Panel members have 1 minute each to answer each question

1110-1115 Professor Ken Myers

1115-1120 Dr Louis Grondin

1120-1125 Professor Eberhard Rabe

1125-1130 Dr John Kingsley

1130-1135 Dr Robert Fris

1135-1140 Professor Ted King

1140-1200 Panel Discussion

CONTROVERSIES IN PHLEBOLOGY

1.) How common is post-EVLA venous thromboembolism in your practice?

2.) What is your standard anticoagulation protocol?

3.) Should LMWH anticoagulation be provided? If yes; whom/how long? If not, why not?

4.) For patients on warfarin, should that be continued? If not, why not?

5.) Should patients on warfarin get supplemantary LMWH cover in peri-operative period?

Thursday 20 September 1300-1315 Professor Eberhard Rabe

Prevalence and Risk Factors of Severe Chronic Venous Insufficiency Including Venous Ulcers: The Bonn Vein Study

E. Rabe

University of Bonn, Department of Dermatology, Bonn

Objective:

Chronic venous disorders are among the most common diseases in Germany. The German Society of Phlebology initiated an epidemiologic study to evaluate the prevalence and risk factors of chronic venous diseases in the general population. The study was supported by the Ministry of Health.

Methods

From October 2000 to March 2002, 3072 participants of the general population of the city of Bonn and two rural townships, aged 18-79 years were took part in this study (1350 men, 1722 women). Participants were selected via simple random sampling from the registries of residents. The participants answered a standardized questionnaire and were examined by clinical means and by duplex ultrasound.

Results

Results show a distribution in the CEAP classification with C0: 9.6%, C1: 59.0%, C2: 14.3%, C3: 13.4%, C4: 2.9%, C5: 0.6% and C6: 0.1%, when considering the highest class of each individual. Reflux in the superficial or deep venous system was discovered by duplex scan in 28% of the population. Main risk factors for varicose veins are: genetic predisposition, pregnancies, obesity, female gender and age. In CVI obesity is a higher risk factor and arterial hypertension, lower social class and living in the city are additional risks. 12.7% of the male and 31.0% of the female participants from the general population had some kind of specific phlebological treatment in the past. Venous surgery had previously been performed in 6.9% of participants and sclerotherapy in 5.5%. 14.6 % had worn compression stockings in the past. Prevalence of treatment in the higher C-classes was high up to 80% whereas in C2 and C3 it reached only 40%.

Summary

The results of this study indicate a high prevalence of chronic venous diseases in Germany. Risk factors for chronic venous diseases are different in varicose veins and in chronic venous insufficiency. Treatment of venous changes have a high prevalence in the general population.

Thursday 20 September 1320-1335 Dr Attilio Cavezzi

Colour-duplex Investigation in Venous Ulcers

A.Cavezzi
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S.Benedetto del Tronto , Italy

Venous ulcer (VU) of the lower limb is a complex disease, both from the clinical/social and from the pathophysiology point of view, which tends to recur and which requires a multifaceted treatment. A proper diagnostic approach is the fundamental basis to plan an adequate treatment and colour-duplex ultrasound (CDU) is the first choice tool to assess the ulcerated limb. CDU investigation should aim to detail the morphology and haemodynamics changes which are present in the deep, superficial and perforating veins, as well as CDU can highlight any concomitant arterial disease which may subside.

More in detail, multiple venous diseases of the lower limbs may be highlighted through CDU: post-thrombotic syndrome (PTS), primary or secondary varices, vascular angiodysplasias, primary deep vein incompetence, etc. According to literature data, 13-97% of the VUs of the lower limbs are caused by an incompetent superficial venous system and this great discrepancy of the data accounts for the necessity of a reappraisal of the CDU methodology and interpretation in these patients.

When a PTS is highlighted, patency and competence/incompetence of iliac-femoral-popliteal-tibial axes are highlighted, as well as complete obstruction (up to 8% in literature data) or residual trombi in one or more tracts can be visualised, together with dilated collateral pathways; in cases of primary or secondary varices CDU targets the main refluxes in the saphenous stems, as well as in the perforators. The majority of the VUs show an incompetent saphenous system as the predominant (combination of saphenous and deep vein reflux) or single cause of the microcirculatory stasis. Through CDU investigation a map of the refluxing axes can be drawn, which leads to a more targeted and conservative treatment.

The isolated primary deep vein insufficiency is much rarer, though reliable data are not available due to the inclusion in many clinical series of the "false" primary deep vein reflux in cases of primary varices. Finally the role of perforators in the VU is greatly debated as extremely contrasting findings and theoretical speculations are proposed in the international literature; as a matter of fact a minor role has been eventually recognised for the perforators in the latest diagnostic studies both in case of varicose veins of the lower limbs (with or without VU).

After DU exploration, still many patients with VU have no venous (or arterial) organic abnormality, which accounts for the relatively high proportion of these patients who exhibit a functional overloading (stasis) of the microvascular-tissue unit, caused mostly by the deficit of the muscular-vascular foot-calf pump (bone-joint-neurological abnormalities, etc.), the deficit of the abdominal-thoracic pump (obesity), by lymphatic drainage deficit and so on.

Thursday 20 September 1340-1355 Professor Eberhard Rabe

Symptoms and Signs of Chronic Venous Disorders: What Can We Learn from Epidemiologic Studies

E. Rabe, F. Pannier

University of Bonn, Department of Dermatology, Bonn

Objectives

Chronic venous disorders are among the most common diseases in Germany. The German Society of Phlebology initiated an epidemiologic study to evaluate the prevalence and risk factors of chronic venous diseases in the general population.

Methods

The study was supported by the Ministry of Health. From October 2000 to March 2002, 3072 members of the general population of the city of Bonn and two rural townships, aged 18-79 years were took part in this study (1350 men, 1722 women). Participants were selected via simple random sampling from the registries of residents. The participants answered a standardized questionnaire and were examined by clinical means and by duplex ultrasound.

Results

Results show a distribution in the CEAP classification with C0: 9.6%, C1: 59.0%, C2: 14.3%, C3: 13.4%, C4: 2.9%, C5: 0.6% and C6: 0.1%, when considering the highest class of each individual. Reflux in the superficial or deep venous system was discovered by duplex scan in 28% of the population. Main risk factors for varicose veins are: genetic predisposition, pregnancies, obesity, female gender and age. In CVI obesity is a higher risk factor and arterial hypertonus, lower social class and living in the city are additional risks.

Each clinical class is further characterized by a subscript for the presence of symptoms (S) or absence of symptoms (A). Symptoms include aching, pain, tightness, skin irritation, heaviness, muscle cramps, and other complaints attributable to venous dysfunction. In a multivariate analysis we evaluated which of these subjective symptoms are specifically attributable to venous dysfunction.

- Only advanced clinical stages of venous disorders are a significant risk factor for "venous symptoms".
- Obesity is an independant risk factor for "pain" only.
- Female gender is a risk for heaviness, tightness, feeling of swelling, pain and cramps.
- Age above 50 years is a risk for pain and cramps.
- The only risk factors for restless legs are age above 50 and female gender.
- Pregnancies and hormones are of no risk for symptoms.

Thursday 20 September 1400-1410 Dr Michael Bruce

Autologous Platelet Gel In The Management Of Recalcitrant Ulceration

Authors Mr. Michael Bruce F.R.A.C.S.
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Vic. Australia

Leg ulceration is a common and ubiquitous problem. Normally treating the underlying pathology correctly will result in wound healing. Occasionally however despite correction of the underlying pathology and the appropriate topical management, some ulcers still fail to heal.

Working in an integrated wound clinic for the past 13 years I have had the opportunity to trial and apply new technologies in the treatment of these somewhat difficult to heal ulcers. One of the newest and exciting prospects for the management of these recalcitrant ulcers has been the use of Autologous Platelet Gel. (APG) Platelets are rich in multiple growth factors required for wound healing. A concentrate of platelets has very high levels of these multiple growth factors

This technology has so far been reserved for the most difficult recalcitrant ulcers encountered in our practice. All ulcers had been present for at least six months
(Range 6 to 48 months).
Of the ulcers treated
48% were vasculitic in origin.
18% were diabetic and. in 11% of cases the aetiology was unknown

Patients were treated either in our clinic or on the ward.
100-150mls of blood, depending on the size of the ulcer, was extracted from the patient and placed in a small portable centrifuge (Magellan: Medtronic). 3mls on pure concentrated platelets would normally be produced per 50mls of blood used. Fibrin was then added to the platelet concentrate to form the gel which was then applied to the ulcer.
To date we have undertaken 41 applications in 33 patients. In slightly less than 50% of the patients, topical negative pressure dressing (VAC: KCI) was used for a significant period prior to the application of the gel.
With this technique we have been successful in healing all but three ulcers. Failure occurred in two due to severe non-reconstructable arterial insufficiency. The third failure occurred in the presence of sepsis with MRSA and pseudomonas. The ulcer however subsequently responded to a second application after appropriate antibiotic therapy

At the present time, whilst the results have been very impressive, the findings are anecdotal only. To determine the true efficacy of this treatment, a randomised prospective double blind trial is required. The implications of this and the physiology behind the use of the APG along with a comprehensive analysis of the results will be presented.

Thursday 20 September 1410-1420 Dr John Kingsley

Venous Stasis Ulcers Successfully Treated With Endovenous Saphenous Vein Ablation: The First Reported Series

John R. Kingsley, M.D., James H. Isobe, M.D., Sylvia A. Tadros, PA-C

Alabama Vascular & Vein Center, Birmingham, Alabama, USA

Aim

Other than anecdotal reports, there have been no studies to determine the success of endovenous saphenous vein ablation for treatment of venous stasis ulcers of the lower extremities. The purpose of this study is to determine the success or failure of this modality for treatment of these difficult ulcers.

Methods

75 patients with venous stasis ulcers of the medial or lateral malleolus underwent 82 saphenous vein ablation operations. The duration of ulcers was from 1 month to 40 years, and ulcer recurrence rate in these patients with conservative therapy was virtually 100%. All patients were found to have only saphenous vein incompetence, all deep veins proved to be normal. *74* procedures were performed on the great saphenous vein, and the remainder on the small saphenous vein. 22% of these patients underwent simultaneous high ligation and division of the great or small saphenous vein, and 61% were provided micro-phlebetomy. An additional 40% of these patients received ultrasound guided foamed sclerotherapy of perforator veins of the calf. The great saphenous veins were ablated from just above the ankle to the groin. *73* patients underwent treatment with the CoolTouch 1320 nm laser, *7* patients with radio-frequency, and 2 patients with the 940 nm diode laser.

Results

93% of these patients enjoyed complete healing of the ulcer within one to six months. An additional 3% enjoyed ulcer healing after subsequent ultrasound guided treatment of perforator veins around the ankle. The remaining patients did not heal their ulcer after the ablation operation. 4 % of patients suffered recurrent ulceration due to incompetent perforators, and were treated with foam sclerotherapy.

Conclusions

Endovenous saphenous ablation is an excellent modality for treatment of patients suffering from venous stasis ulcers of the lower extremities. Permanent ulcer healing occurs in nearly 90% of patients without additional treatment.

Thursday 20 September 1420-1430 Professor Hugo Partsch

Can We Rely On The Pressure Values Declared By Producers Of Medical Compression Stockings? Comparison Of In Vivo Versus In Vitro Measurements

Hugo Partsch, Bernhard Partsch, Walter Braun

Hugo Partsch,M.D., Professor of Dermatology andAngiology: Private practice
Bernard Partsch,M.D.: Private practice
Walter Braun: Salzmann Medico, Textile laboratory, St Gallen, Switzerland

Objective

To compare pressure and stiffness of ready made compression stockings (Venosan®,) of different classes, measured on the leg and by laboratory testing.

Materials and Methods

12 legs from healthy volunteers were fitted with ready made calf length compression stockings of the European classes I, II and III. Additionally two class I stockings were applied over each other.
The in vivo interface pressure was measured using the MST tester® and by Kikuhime®- transducers 10-15 cm proximal to the inner ankle (position B1). Stiffness defined by an increase of pressure due to an increase of stretch reflects the elastic property of the textile and was assessed by measuring the difference of interface pressure between supine and standing position at B1.

In the laboratory the pressure of these stockings was checked by MST® on wooden leg models. Then circular slices were cut out from the stockings at the B1 level and stretched by a Zwick® dynamometer in transverse direction. Force/extension curves were plotted from which pressure and stiffness of each individual stocking was calculated.

Results

The pressure profile measured on four positions along the leg by MST® showed an ideal degressive gradient on the wooden model but not on the human leg due to problems with in vivo measurements in the ankle region.

Pressure values measured by MST® on the leg correspond to the in vitro measurements calculated from the force/extension curve with a bias (difference of the means) of -2.1 + 4.1 mmHg. In 95% of the subjects the difference was between -10.1 and 5.8 mmHg.
(Bland Altman plot). The correlation between in vivo and in vitro measurement was highly significant (P<.0001, Spearman correlation coefficient r =.8161).
In vivo and in vitro-measurement shows an increase of stiffness with increasing compression classes. The highest values are found for two class I stockings applied over each other.

Conclusion

Pressure and stiffness can be measured in vivo, correlate well with laboratory findings and should be used in future studies, especially when different compression devices are to be compared.

Reference

Partsch H, Partsch B, Braun W. Interface pressure and stiffness of ready made compression stockings: Comparison of in vivo and in vitro measurements. J Vasc Surg 2006;44.809-14

Thursday 20 September 1430-1440 Professor Neil Piller

Results Of A Single Blinded Placebo Controlled Trial Of The Bodyflow™ Technique For The Treatment Of Lymphoedema Of The Legs

Neil Piller, Amanda Moseley, Beverley Heidenreich, Jan Douglass

Lymphoedema Assessment Clinic, Department of Surgery, School of Medicine,
Flinders University and Medical Centre, Bedford Park South Australia

Major lymph collectors are pulsatile and involve neurogenic and myogenic control: Higher rates and more forceful contraction mean higher flow volumes.

Bodyflow™ treatment involves mild electrical stimulation of the lymphatic. In this trial 30 patients with secondary lymphoedema were treated with placebo or active treatments 3-4 times per week for 4 weeks. Compression bandaging was applied between treatments and garments at the end of the treatment. 12 patients undertook self maintenance and represented the baseline. All patients were assessed prior to the trial, at each weeks end then at one month follow-up. Perometry, (limb volumes) bio-impedance (fluids) and tonometry (fibre) as well as subjective questionnaires were used.

There were statistically significant reductions in fluids in the active treatment group compared to the self maintenance group, with reductions averaging 30%. Total limb volumes reduced by over 15%. Tonometry showed significant reductions in the calf area, but these were similar in the placebo and active groups. Subjective comments showed statistically significant improvements for heaviness, tightness, range of movement and perception of leg size.

Reductions in all parameters and their significance were tempered by variations in treatment effectiveness. Case studies will be presented to show this effect. In some patients there were reductions in fluids and in others in tissue mass while in some, both reduced. One patient lost over 4000 gm of tissue mass - mostly fluid, another lost over 600 mls of fluid but showed increases in tissue mass – (muscle - associated with improved activity level). These are all positive outcomes, but variable, related to the stage of the lymphoedema.

Mild electrical stimulation of the lymphatic and skeletal musculature is an effective adjunct in the treatment of lymphoedema with outcomes dependent on the lymphoedema stage, indicating a need to target treatment to achieve either fluid or tissue volume changes. Irrespective of these, subjective improvements are consistent leading to improved quality of life and ability to undertake activities of daily living.

Thursday 20 September 1440-1450 Dr Gabrielle McMullin

Skin Tension in Non-Healing Ulcers

GM McMullin MCh FRCS FRACS
Sutherland Hospital Sydney.

There is a pervading belief that ulceration of the lower limb can be cured by application of a miraculous ointment of some kind. This belief is present not only in primitive societies but also in highly developed ones. In the past 20 years, billions of dollars have been spent in research aimed to find new substances that will improve the healing of wounds. Studies continue to show, however, that the only factor that increases healing rates of venous ulcers is compression bandaging despite the fact that the reason for the efficacy of compression bandaging is not clear.

A number of studies in the past have shown that the "distensibility" of human skin varies widely in different areas of the body.

Skin is least distensible in the pretibial area of the lower limb.
Skin in the lower leg is far less distensible that in the upper limb.
The skin of the abdomen is far more distensible than skin on the limbs.
In addition distensibility is altered by disease states.

Skin around joints is also subject to considerable motion and it is the constant wound disruption that prevents healing in these areas.

Conclusion: ulceration of the lower limb is common because of mechanical factors involving the skin rather than being due to a defective healing process. Successful healing of ulcers requires identification of the disruptive forces involved and treatment should be aimed at minimising these forces.

Thursday 20 September 1450-1500 Dr Abdullah Omari

Non-healing Ulcers: What Are We Doing Wrong?

Not available at time of print

Thursday 20 September 1600-1615 Professor Allan Sturgess

An Update on Antiphospholid Syndrome

Allan Sturgess
Director of Rheumatology and the ImmunoRheumatology Laboratory
St George Hospital, Sydney.

Over the last 5 years there has been progress in the understanding of the Antiphospholipid Syndrome (APS). This update will focus on some of those advances, particularly those having direct clinical significance.

Definition

The patient has to have at least one antiphospholipid antibody and at least one defined clinical event. The antibody can be (1) the lupus anticoagulant measured in a functional assay such as the kaolin clotting time or (2) an antibody such as anticardiolipin antibody measured in an ELISA or (3) the more recently developed anti- 2 glycoprotein 1 ELISAs. The clinical event can be any thrombosis or one of several closely defined pregnancy events.

Diagnosis

A recent change has been to require the aCL result be at least 40 GPL units which excludes many low level results. Furthermore, it has been demonstrated that the assays used to detect anticardiolipin antibodies are imprecise - a report of 50 GPL units really means that the 95% confidence intervals for that result are 35-65 GPL units.

Mechanisms for Thrombosis: Multiple mechanisms operate in APS patients that predispose them to thrombosis – interference with the anticoagulant properties of 2GP1, proteins C and S, activation of platelets and endothelium, and increased monocyte production of tissue factor. On top of this prothrombotic milieu, "second hit" events such as bed rest, pregnancy and malignancy lead to individual thrombotic events.

Treatment

Anticoagulants such as heparin and warfarin remain the basis of therapy. Recent changes include 1. reduction in target INR from >3 to 2-3, and less emphasis on lifelong treatment in individuals after a single provoked thrombotic event.

Thursday 20 September 1620-1635 Dr Ken Sesel

Diagnostic Imaging Special Lecture: Advances in Vascular Imaging for VTE

Dr Kenneth Sesel Interventional Radiologist
Staff Specialist St Vincents Medical Imaging
VMO North Shore Vein Centre
VMO Sydney Adventist Hospital
Managing radiologist Sydney Xray

Imaging advances over the past 20 years have resulted in the ability to see both normal and abnormal anatomy and assist the clinician with both diagnosis and treatment.

Ultrasound has become a clinical tool without which many of the current treatments of venouse disease wouldn't be feasible. It is used for both diagnosis and treatment guidance.

Unfortunately its limitation for diagnosis has always been its relatively small footprint and its user dependance. The ultrasound beam cuts a straight line only a few cm in length limited by the probe length . Yet veins particulary when diseased form a vast network of tortuouse interconnecting vascular channels from the toes to the heart.

This presentation will look at some of the advances in ultrasound and will highlight its current and projected future role including exciting future developments while also giving a peek at alternatives such as MRV and VR MDCT.

Thursday 20 September 1640-1655 Dr Joanne Joseph

VTE Special Lecture: New Anticoagulants

Dr Joanne Joseph
Department of Haematology
St Vincent's Hospital
Sydney, Australia

Traditional anticoagulant drugs including heparin and warfarin have several limitations related to their mode of administration, requirement for monitoring, potential to cause HIT, onset of action, variable dosing, and influence of dietary intake of vitamin K. New anticoagulants have been developed to overcome these problems and in general, target a single coagulation factor and have predictable dose-response relationships. Some have been approved for therapeutic use whilst others are in the process of phase II and III evaluation in clinical trials.

The new agents include:

- Fonaparinux – a synthetic pentasaccharide which binds to antithrombin and selectively inhibits factor Xa (indirectly)
- Lepirudin and Bivalirudin – parenteral direct thrombin inihibitors
- Rivoraxaban - oral direct factor Xa inhibitor (acts independently of antithrombin)
- Dabigatran – oral direct thrombin inhibitor
- Ximelegatran, an oral prodrug of the direct thrombin inhibitor melagatran, showed efficacy in the prevention and treatment of venous thromboembolism as well as stroke prevention in patients with atrial fibrillation. However, due to non-haematologic safety concerns, it did not receive FDA approval.

The current status of these new anticoagulants will be discussed along with other relevant issues related to their use.

Thursday 20 September 1700-1715 Dr Jennifer Curnow

Innovative Technologies: Thrombin Generation Versus The Overall Haemostatic Potential (OHP)

Curnow JL, Morel-Kopp M-C and Ward CM
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Current routine coagulation tests are based on the outdated coagulation cascade model and detect primarily hypocoagulable states. Hypercoagulable states, which may result in arterial or venous thromboembolism, are more common but there is no established routine test. Global haemostatic assays assess net haemostatic balance and thus may detect both prothrombotic and haemorrhagic risk. Thrombin generation assays (TGAs) measure the total potential enzymatic activity in plasma samples. Early TGAs were complex and expensive but automated standardised assays are now available in a research setting. Increased thrombin generation is seen in thrombophilias including antithrombin, PC and PS deficiency. The assays are also sensitive to anticoagulant therapies and may have a role in individual treatement optimisation. The OHP is a simple, inexpensive, 'in house' assay which measures fibrin clot formation and lysis. It has been shown to detect a variety of hypercoagulable states, including pregnancy, antiphospholipid syndrome and various thrombophilias in which both increased fibrin generation and reduced fibrinolysis are evident. The OHP shows sensitivity to heparins but in warfarinised patients, the majority do not show suppression of fibrin generation. We are currently conducting a longitudinal study of these patients to determine whether OHP results can predict recurrent VTE.

Thursday 20 September 1720-1735 Dr Tom Exner

Coagulation Tests - What's New, What's Useful And What Is Useless.

Thomas Exner, PhD
Haematology Dept.
St Vincents Hospital, Sydney.

Many laboratory test methods for diagnosing bleeding and clotting disorders have been described. Despite this clinicians rely on patient history rather than on screening tests. Indeed there is little logic to some of the tests in use. The skin bleeding time was the most widely used screening test until 10 years ago when a critical review showed it had no value in predicting blood loss after surgery. Popular tests such as the APTT and PT tests work well in vitro but are similarly not helpful. Tests for thrombotic risk such as APC resistance are popular but not useful. Individual defects in prothrombotic risk factors antithrombin III, protein C and protein S are rare and testing is expensive. It would be more logical to apply simple new tests such as the "ProC Global" test for all defects within the protein C pathway but this has not been adopted. The D-dimer test for FDPs was developed 20 years ago, yet it has only recently become accepted as a standard test for detecting activation of coagulation in many clinical circumstances. This presentation attempts to review what makes a coagulation test worthwhile and which tests should be more widely adopted.

Thursday 20 September 1735-1750 Dr Kerry Hitos

Effect of Leg Exercises on Popliteal Venous Blood Flow During Prolonged Immobility of Seated Subjects: Implications for Prevention of Travel Related Deep Vein Thrombosis

K Hitos, M Cannon, S Cannon, S Garth, JP Fletcher

Department of Surgery, University of Sydney and Westmead Hospital.

Introduction
Venous stasis is an important contributing factor in the development of travel related deep vein thrombosis. We examined factors affecting popliteal venous blood flow to determine the most effective exercise regimen to prevent venous stasis.

Methods
3,660 duplex ultrasound examinations were performed over a nine-week period in 21 young healthy subjects. Baseline measurements were obtained during the first three weeks with subjects sitting motionless for 90 minutes. During the following six weeks airline recommended foot exercises, foot exercises against moderate and foot exercises against strong resistance were performed to determine the most beneficial method for enhancing popliteal venous blood flow.

Results
Median age was 22.0 years (18.0-25.5 years) with male to female ratio of 1:1. Median BMI was 25.3 kg/m2 (23.2-26.3 kg/m2). Immobility of seated subjects was associated with a mean decrease in popliteal venous blood flow by almost 40%. Subjects with short legs showed a more than two fold decrease. Popliteal venous blood flow significantly improved with foot exercises, most marked with foot exercises against strong resistance ($p<0.001$).

Conclusion
Leg exercise regimens improved popliteal venous blood flow during prolonged immobility of seated subjects with greatest improvement for foot exercises against strong resistance causing maximal calf and foot muscle contraction.

Thursday 20 September 1750-1805 Dr Abdullah Omari

Simple Cases of DVT: Is Management that Simple?

Not available at time of print

Thursday 20 September 1805-1820 Professor Hugo Partsch

Sponsored by:

Ambulation And Compression After Dvt: Dispelling Myths

Hugo Partsch

The traditional dogma of putting mobile patients with acute deep vein thrombosis into bed for several days has been challenged by some studies that showed a better clinical outcome with walking exercises under good compression. Repeated lung scans did not show an increased risk of new pulmonary embolism. There was a faster and more intense reduction of pain and swelling and a clear quality-of-life benefit. Immediate ambulation with compression reduces the propagation of thrombi and has a positive impact regarding development of postthrombotic syndrome.

Patients selected for home therapy should not only be instructed how to inject their low-molecular-weight heparin but should also be educated to walk around with good compression. Until now the important principle of avoiding the venous stasis associated with bed rest has found broad acceptance in the field of primary prevention of venous thromboembolism. Modern antithrombotic management of mobile patients with acute venous thrombosis should include early ambulation in conjunction with appropriate compression therapy.

References

Partsch H. Therapy of deep vein thrombosis with low molecular weight heparin, leg compression and immediate ambulation. VASA 2001;30.195-204

Partsch H. Immediate ambulation and leg compression in the treatment of deep vein thrombosis. Dis Mon 2005;51:135-39

Partsch H. Ambulation and compression after deep vein thrombosis: Dispelling myths. Semin Vasc Surg 2005;18:148-52

Friday 21 September 0800-0815 Dr Attilio Cavezzi

Outcomes of Foam Sclerotherapy: Literature Data and its Interpretation

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Aims
Literature about foam sclerotherapy (FS) is still suboptimal in terms of scientific evidence, both due to the recent introduction of this therapy and due to the lack of a common standardisation about the treatment modalities and the assessment of its outcomes. A review of the literature data is aimed to highlight the most relevant findings concerning efficacy and safety of FS.

Methods
Literature data from Medline articles, NICE systematic review, Cochrane review, Embase were searched through internet and through consultation of those paper journals which were not included in this list, but which were considered important for this purpose (e.g. ANZJP, Phlébologie), including whatever article which dealt with FS; no abstract of congresses were generally included

Results
A great discrepancy among the several studies was encountered as to the methodology of foam production (which largely influences the resulting foam and probably the outcome/safety profile): Tessari method is largely the most used, followed by DSS, Turbofoam, Monfreux method; the drug/gas(air) ratio is mostly the one to four, but different ones have been used in a few relevant studies; sclerosant foam injection has been rarely performed through short and long catheters, while direct puncture is still the most used procedure; similarly multiple adjuvant measures were highlighted and differently included in the various studies.

The most relevant finding deals with the extreme variability in the assessment of the results: duplex criteria (morphology and haemodynamics of the treated vein/s) are not standardised, quality of life is rarely included in the outcomes, clinical outcomes are not always properly detailed. With reference to the type of the treated varices/saphenous veins (size in primis), there is a lack of details in the vast majority of the studies. Furthermore the duration of the follow-up of the reported data is still extremely variable and rarely overcomes 18 months. The cheapness of the method, which is intuitively one of the major advantages of FS, has not been assessed in depth. Finally the adverse events of FS have been rarely reported in details, though their rate seems to be in the average range of traditional sclerotherapy, with a tendency for a higher degree of thromboembolism. An improvement of the scientific evidence has been documented in the last two years' scientific production.

Conclusions
A strong demand for a more standardised method of foam production/delivery is evident, as well as a more agreeable form of assessment of the outcomes is strongly urged in within the scientific community. A proposal which has been agreed during the latest Tegernsee European Consensus meeting will be discussed.

Refer to course notes - Page 305

Friday 21 September 0820-0835 Dr Attilio Cavezzi

Variables in Foam Sclerotherapy: Literature and Experimental Data

L.Tessari*, A.Cavezzi**, M. Rosso***, A.Cabrera Garrido****
* Peschiera del Garda (VR), **S.Benedetto del Tronto (AP) , ***Padova, Italy, **** Granada, Spain

Aims
To assess the influence of a few variables in foam sclerotherapy through the evaluation of a few physical features of the microbubbles of the sclerosant foam (SF) which has been formed according to Tessari method (drug/gas ratio 1 to 4). Further experiments concerned SF obtained through DSS and Monfreux method.

Methods
In CUGAS laboratory of Padua University an experimental study was performed by means of some technical facilities: a pre-calibrated balance "Sartorius R200" was employed to assess density of SF, an electronic chronometer was used to assess SF half-life, finally an optical microscope and a dedicated computer software (Image-PRO plus ®) were used to assess microbubble sizes.
SF was obtained as a result of 3% Sodium Tetradecysulfate (STS) or 3% Polidocanol (POL), together with room air or CO2 and O2, as single or combined gases; different brands of syringes, different size of the hole inside the three way valve and different sizes of the needles were tested as well. A reproducibility test was also performed

Results
Density of Tessari SF resulted in a range of 0,16-0,20 g/l for STS foam and of 0,18-0,24 g/l for POL foam. Half life of SF was 150"-180" for STS SF and 180"-240" for POL SF. Measurement of bubble sizes gave variable results according to the kind of drug and gas which was used. At the 60" microscope evaluation the average bubble radius was 33 microns and 38 microns for STS and POL respectively, when air was employed. At 10"-30" assessment radius figures were about half of the ones at 60". When using CO2 alone radius was much smaller for both drugs (STS SF having smaller bubbles and POL having longer duration SF); when using a mixture of CO2 and O2, the resulting SF was more durable than the CO2 one and bubbles were slightly larger (but smaller than the bubbles of the room air-SF). The reproducibility test showed no significant differences in the resulting SF produced by 20 non-medical subjects as to density, half-life and bubble size parameters and the figures were in the range of the ones achieved by the main investigator (LT). Needle size influenced the bubble size and duration of SF only when very small needles (e.g. 27-30G) were used; slightly denser SF is obtained through a 30-50% reduction of the hole inside the three way-valve. A few syringe brands give clearly better quality foam than others.

Conclusions
The experimental data which were collected in this study clearly demonstrate a few facts: Tessari method has a good reproducibility as to SF quality; bubble size depend upon the type of drug and gas which are used, but the average size of the bubbles is consistent with the literature data. SF duration and density permit a good manageability of the injections in the first 10"-60"after the SF formation. Low-silicone syringes and large needles should be employed to form and inject SF.

Friday 21 September 0840-0850 Dr Louis Grondin

Canadian Experience with Foam Sclerotherapy.

Louis Grondin MD MBA FACPh

Introduction

Shortly after the introduction and worldwide dissemination of ultrasound guided foam sclerotherapy, the treatment of venous insufficiency has been revolutionized yet againiby the introduction of endovenous procedures. Today Foam Sclerotherapy competes for position with Endovenous Laser Ablation (EVLA) and Radiofrequency. Even at this late date several publicationsii iii iv v report successfully treating a variety of venous disorders (varicose veins, severe CVI, venous angiomata and Klippel-Trenaunay syndrome using foam sclerosants with minimal recovery time, and a low rate of adverse events. So one may legitimately ask: what is the place of Foam Sclerotherapy near the end of the first decade of the new millennium?

Methods

This report describes the outcome of 200 patients treated with foam sclerotherapy starting in January 2003 one year after the advent of EVLA at our centre. Sodium tetradecyl sulfate 1 % was the sclerosant used in well over 98% of treatments. The Tessari method was used to produce foam with medical grade CO2 gas and 5 micron filters. Catheter mediated UGS was used to access the veins, and foam infiltration was performed in Trendelenburg position. Foam volumes varied from 5 to 15 cc per leg (averaging 8cc). Compression consisted of an Unna paste bandage for 1 week and 30-40 mm hg support stocking for 3 weeks. We followed our thromboprophylaxis protocol previously described.vi

Results

The initial closure rate of GSV and SSV has not changed since treating saphenous trunks with diameters of 10 mm or greater with EVLA. Our incidence of staining, matting, and blood entrapment as well as our incidence of recurrence has reduced. We observed no cutaneous necrosis, no DVT, and no PE. Our incidence of dry cough, chest discomfort migraine, scotoma, and other visual disturbances has remained unchanged. We observed no Cerebro-vascular or ischemic cardiac events. We attribute our reduced rate of complications to the use of lesser volumes of foam and the routine use of 5-micron filters.

Conclusions

Foam Sclerotherapy remains at our center the treatment of choice for all incompetent perforator veins, non-saphenous varices, and incompetent saphenous trunks of less than 10 mm diameters.

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Friday 21 September 0850-0900 Professor Eberhard Rabe

Efficacy and Safety of Aethoxysklerol Foam in a Prospective Randomized Multicentre Trial (ESAF-Study) – Results of First Phase

Sponsored by: kreussler

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Aim
The aim of this study was to evaluate the efficacy and safety of polidocanol-foam (1.6 mL Aethoxysklerol® 3% + 7.6 mL sterile air, EasyFoam® kit) in ultrasound-guided sclerotherapy of incompetent great saphenous vein in a multicentre randomized trial.

Methods
To assess the efficacy of polidocanol foam in comparison to liquid polidocanol for treatment of incompetent great saphenous vein (GSV) the primary efficacy parameter elimination of pathological reflux was measured by duplex ultrasound 3 cm below the sapheno-femoral-junction 3 months after last injection. Patients with no reflux or a reflux < 0.5 sec were assessed as responders. Ultrasound images were re-evaluated by an independent quality board. Secondary efficacy parameters were reduction of reflux, occlusion of GSV, patient's and physician's satisfaction, and patient's quality of life. Number and type of adverse drug reactions, number of treatment sessions and injected volumes were also recorded.

Results
Three months after last injection 70% of patients treated with foam were assessed as responders whereas the responder rate in the liquid group was 31%. Reduction of reflux, occlusion of GSV, physician's satisfaction, patient's satisfaction, and quality of life were also statistically in favour of foam treatment. No differences in safety were detected between both treatment groups. Differences among study centres for foam treated patients were detected with 6 study centres achieving excellent results with a responder rate of 96% (27 foam-patients) and 4 centres being less successful with a responder rate of only 39% (23 foam-patients). The successful centres injected a mean volume of 4.2 mL foam in comparison to 3.2 mL foam of the other centres.

Conclusion
Treatment of incompetent GSV with standardized polidocanol foam achieved statistically significant better results as compared to liquid. Foam sclerotherapy under duplex ultrasound is an effective and safe technique. The chosen maximal injection volume should be slightly increased to achieve even better results.

Friday 21 September 0900-0910 Dr John Barrett

Foam Ultrasound Guided Sclerotherapy for Large Veins using Sodium Tetradecyl Sulphate

An overview of approach to foam UGS treatment of large varicose veins >10mm – a personal approach with reference to alternative international approaches

Friday 21 September 0910-0920 Dr Kurosh Parsi

Technique Alterations Including Leg Elevation, Immobility, Using Filters or CO2 Gas Do Not Prevent Bubbles from Reaching the Right Heart during Foam Sclerotherapy

Kurosh Parsi,[1] Thomas Exner [2]

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[2] Haematex Research Laboratory

Background
Air bubbles have been detected in the left carotid artery following foam sclerotherapy in a patient with a patent foramen ovale (PFO) who was diagnosed with a stroke. The eventual fate of the released bubbles from foam sclerosants is not well-understood. Certain maneuvers have been proposed to prevent the bubbles from reaching the central venous system.

Aims
The usefulness of filters to create denser foams, carbon dioxide (CO2) as a physiological gas, leg elevation to divert the bubbles distally and post-treatment immobility to prevent a cephalad ascent of the bubbles following ultrasound guided sclerotherapy was investigated.

Methods
Ultrasound guidance for sclerotherapy and concurrent echocardiography was performed.
1. Filtered foam preparation: A 0.5 micron filter (Acrodisc Syringe Filter, Pall Gelman Laboratory, USA) was connected to a 3-way stopcock at the end of a 1 ml syringe containing 0.8 ml of 3% sodium tetradecyl sulphate (STS). A second syringe containing 2.2ml of room air was connected to the other end of the 3 way stopcock. 3 ml of foam was created in a 1:3 liquid to air ratio using the Tessari technique. 2.5 ml of STS 3% was injected into the great saphenous vein (GSV) 5 cm away from the junction.
2. Non-filtered foam preparation: This was prepared as above except that no filter was used. 2.5 ml of STS 3% was injected into the GSV 5 cm away from the junction.
3. CO2 foam preparation: Normal saline was aspirated into a 3ml syringe and an aspirin tablet was inserted. A 1 ml syringe, containing 0.8 ml of 3% STS was attached. The dissolving aspirin released CO2. Foam containing CO2 was created using Tessari technique as above. 3 ml of STS 3% was injected into the small saphenous vein 5 cm away from the junction.
4. Leg elevation: The leg was immediately elevated after standard foam UGS.
5. Immobility: Subject 2 (see above) was kept immobile for 45 minutes after the first injection of filtered foam and monitored.

Results
All different techniques resulted in the same outcome with air bubbles reaching the right atrium within minutes of injection. The bubbles were seen in the heart in less than a minute from the initial injection. Immobility did not make a difference and bubbles were observed to enter the right heart for up to 30 minutes after the first injection.. Despite the visualisation of bubbles in the right heart, none of the subjects developed neurological or cardiac symptoms and the cardiac function was not affected.

Conclusion
The use of a 0.5 micron filter, CO2 as the foaming gas, leg elevation, or immobility following foam ultrasound guided sclerotherapy does not stop air bubbles from reaching the heart.

Friday 21 September 0920-0930 Dr Attilio Cavezzi

Biocompatible Gases in Foam Sclerotherapy

A.Cavezzi, L.Tessari *, A.CabreraGarrido**
S.Benedetto del Tronto (AP) , * Peschiera del Garda (VR), Italy; ** Granada (Spain)

Aims

To review indexed literature on the use of biocompatible gases (BG) (CO2 in primis) in cardiovascular medicine, with a major reference to sclerotherapy of varices. To assess in vitro the changes of the physical proprieties of sclerosant foam (SF) according to the type and concentration of different gases/air. Furthermore the authors wanted to assess safety and efficacy of foam sclerotherapy, using a SF which was obtained with a mixture of BG (CO2 and O2) together with STS or POL as drug.

Methods

An extensive review of all the medline literature has been performed; scientific material from some non-published experiments which were considered relevant to the subject were also reviewed. In 2005 a pilot study with BG in foam sclerotherapy was performed by the three authors; 60 patients (70 limbs) with varices and saphenous incompetence or with recurrent varices were included and foam sclerotherapy was performed according to the current practice of the authors (including injecting on a raised limb which is kept immobile for a few minutes); as to SF formation, a mixture of CO2 and O2 as gas vector and 1-3% POL or 0.5-3% STS as sclerosant drugs were used. Five-to-ten mls of SF were injected per session (1-3 sessions per limb); clinical and colour-duplex assessment was performed at short-term interval (1-3 months), as well as a detailed clinical and duplex observation of any adverse event was carried out.
An experimental study with optic microscope evaluation was performed to assess different parameters (half-life and bubble size in primis) of the resulting SF when combining the two drugs with air, CO2 or O2 (as single gas or in combination and in different proportions).

Results

Literature data show the diffused usage of BG in cardiology and peripheral arterial/venous diagnostics (angiography, MR, ultrasound) since 1984, mostly as a contrast agent to enhance ultrasound visualisation of cardiac defects or to perform a less invasive angiography; more recently BG have been proposed to form SF, to deliver (anti-cancer) drugs and genes. An overall good safety profile has been highlighted for BG in these fields. The short-term clinical and duplex ultrasound-derived results of our pilot study with BG were as follows: no visible varices on the treated limbs, 97% of the target veins were occluded and 3% had antegrade flow; with reference to the adverse events there were two varicophlebites and 3 hyperpigmentations, without any clinically detectable cardio-pulmonary or neurological symptoms. The experimental study showed a clear reduction of microbubble size when using CO2 at 10"-60" interval (30-50% of bubble size in the air-SF), but half-life of the resulting SF dramatically decreases for both drugs. If CO2 and O2 are combined, half-life of SF increases and bubble size is still significantly inferior to the one of the air SF.

Conclusions

The literature data, together with the preliminary data of our pilot-study show that BG may be an interesting option in vascular medicine both as a diagnostic tool and as a safe and efficacious vector in extemporary foam sclerotherapy. The experimental data which have been collected up to now show also interesting proprieties of BG in the formation of a dense and sufficiently durable SF.

Friday 21 September 0930-0940 Dr Kurosh Parsi

The Value of Ultrasonic Screening and D-dimer Testing in the Diagnosis of Post-ultrasound Guided Sclerotherapy Deep Vein Thrombosis and Deep Vein Sclerosis

Kurosh Parsi,[1, 2] David DF Ma,[1, 2] and Joanne E Joseph[1, 2]
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[2] University of New South Wales, Sydney

Aims

To investigate the incidence and risk factors of deep vein sclerosis (DVS) and deep vein thrombosis (DVT) following ultrasound guided sclerotherapy (UGS) and to investigate their long term outcome.

Methods

Patients undergoing routine sodium tetradecyl sulphate (STS) foam UGS for incompetent lower limb varicose veins were included. Pre-treatment venous mapping was performed in all patients. Patients were instructed to stop the oral contraceptive or hormone replacement therapy 1 month pre-treatment. Patients were also instructed not to travel >5 hours within a 4 week period prior or after their treatment. DVT was defined as a non-compressible hypo-echoic segment of a deep vein demonstrating a loose clot in association with an enlarged vessel diameter. DVS was defined as a non-compressible hyper-echoic segment of a deep vein demonstrating reduced diameter, endofibrosis and in association with a sclerosed perforator. Ultrasound DVT studies were performed within 1 week of the treatment by trained vascular sonograraphers. All deep veins at multiple levels were interrogated. Blood was taken at the time of the DVT study for sensitive d-Dimer ELISA analysis. Those patients willing to undergo further testing were investigated for thrombophilic abnormalities. Patients diagnosed with DVT were treated with subcutaneous enoxaparin and progress weekly scans were performed to assess the status of the thrombosed deep veins. Patients diagnosed with DVS did not receive anticoagulation but asked to maintain graduated compression stockings for 1 week. Follow-up ultrasound venous incompetence scans were done to assess the long term outcome of the thrombosed or sclerosed veins.

Results

2524 treatments were performed on 578 patients. None of the patients developed pulmonary embolism. 19/2524 (0.8%) DVT episodes were recorded in 17/578 (2.9%) patients, of which only 3 episodes were symptomatic. For DVS, 353/2524 (13.9%) episodes were reported in 256/578 (44.0%) patients, of which 25 episodes were symptomatic. 73% (11/15 screened) of DVT patients and 56% (30/53 screened) of DVS patients were found to have a thrombophilic abnormality. D-dimer testing demonstrated a trend towards 3 distinct sub-populations of patients with no DVT or DVS having a low d-dimer level of < 0.5 mg/L, patients with DVS having elevated d-dimer levels of 0.5-1 mg/L and patients with DVT showing higher d-dimer levels of >1 mg/L. The average ultrasound follow-up for DVS was 31 weeks (3-131 weeks), whilst for DVT was 16 weeks (3-38 weeks). On follow-up, 14/19 (74%) thrombosed deep veins were patent while 5/19 (26%) remained occluded. For the DVS groups, 194/487 (40%) veins were patent, 175/487 (36%) were occluded and 118/487 (24%) are yet to receive follow-up.

Conclusion

UGS using STS foam is associated with a small risk of DVT but a higher risk of DVS. On subsequent follow-up however, a large number of thombosed or sclerosed deep veins recanalised. D-dimer may be a useful tool to differentiate DVT from DVS when ultrasonic features are not conclusive. Since the vast majority of patients with DVT or DVS are asymptomatic, routine post-treatment screening of all patients undergoing UGS and in particular those with a known thrombophilia may be justifiable.

Friday 21 September 1030-1045 Dr John Kingsley

Modern Treatment of Vein Disorders

John R. Kingsley, M.D., F.A.C.S., RVT
Alabama Vascular & Vein Center, Birmingham, Alabama, USA

Aim

To present an overview of the tremendous advances for treatment of patients suffering from venous insufficiency syndromes.

Methods

This report is a detailed analysis of our experience treating patients with venous insufficiency. Historically, vein stripping and ligation with excisional phlebectomy and hypertonic saline sclerotherapy were the only options for treatment. Outcomes proved marginal, and the treatment methods were not popular with patients.
Within the last 10 years, ultrasound technology followed by laser and radio-frequency advances allowed the evolution of vastly improved methods of treatment. Endovenous thermal ablation, micro-phlebectomy, and foam sclerotherapy have now become the standard by which all other treatments must be measured. These modern methods are far more accurate, give better long term outcomes, are less painful for our patients, and can be performed in the physician office setting.

Our experience with over 4000 such treatments is presented as an overview. The best methods of treatment, the best treatment options, and the results of treatment are presented. In addition, some of the secrets of our successful efforts to develop a high quality and high volume phlebology practice are discussed. Our experience with endovenous ablation is reportedly the largest for a single center, and our patient and surgical volume are the largest in the world. We are pleased to share this experience with our Australian and New Zealand colleagues and with the attendees of the conference.

Results

The outcomes of our treatment options are reported, and comparisons are made of the endovenous procedures. Having performed over 1000 RF operations and over 450 diode laser procedures, we currently use primarily the CoolTouch 1320nm laser for our thermal ablations. We have now performed over 2500 endovenous saphenous ablations with the CoolTouch laser and report successful ultrasound documented ablation in over 98% of our patients.

Conclusions

Modern treatment of vein disorders represent some of the greatest advances in vascular therapy in the past 30 years. Quality of life is restored to a vast population, and our patients are eternally grateful.

Friday 21 September 1050-1100 Professor Andre van Rij

Vs06 the Otago Varicose Veins Condition-Specific Questionnaire for Assessment of Quality of Life Following Surgery or Sclerotherapy

Not available at time of print

Friday 21 September 1100-1110 Dr David Jenkins

Persistent Sciatic Veins and Varicosities of the Sciatic Nerve

David Jenkins, MB BS FACP, Phlebologist, Burwood NSW

There are relatively few articles discussing persistent sciatic vein (PSV) and varicosities of the sciatic nerve. The larger persistent sciatic veins are generally reported in conjunction with Klippel-Trenaunay syndrome. Smaller PSVs and varicosities of the sciatic nerve are occasionally seen as the proximal extension of superficial varicosities presenting on the lateral aspect of the calf below the popliteal crease. The varices may be traceable proximally and be seen to be intricately situated adjacent to, or within the sciatic nerve; while distally, they can be adjacent to or intertwined with the common peroneal nerve before branch varicosities run superficially to the skin.

These anatomical variants are reported as being rare. As clinicians and sonographers may not be routinely looking for these veins, the incidence of these variations could be significantly higher than is currently recognised. Looking for these veins should be included in the routine sonographic surveillance of the superficial and deep venous systems.

Friday 21 September 1110-1120 Dr Mark Elvy

May-Thurner Syndrome

Dr Mark Elvy

May-Thurner syndrome or left iliac vein compression syndrome is compression of the left iliac vein by the right common iliac artery. This is a presentation of two young patients who presented with chronic left iliac vein thrombosis. This condition was not obvious on routine duplex scanning and treatment of these patients with CVD will be discussed. Questions arising include the diagnostic sensitivity of ultrasound and how do we assess objectively outflow obstruction in our patients

Friday 21 September 1120-1130 Dr David Jenkins

Popliteal Vein Aneurysm - A Case Report and Discussion of the Literature.

David Jenkins, MB BS FACP, Phlebologist, Burwood

Popliteal vein aneurysm (PVA) is consistently reported in the medical literature as being rare and life threatening or potentially life threatening and the majority of reports relate to case studies of patients who have presented with pulmonary embolism. The search for a source of deep vein thrombosis (DVT) as the source of embolism has subsequently led to the discovery of a thrombosed PVA in a number of patients. There are relatively few reports of asymptomatic PVA, possibly because the sample of patients identified with PVA is skewed towards those who present with complications.

As the number of cases reported in the world literature is low, it is difficult for a clinician, or group of clinicians, to conduct a prospective trial to evaluate treatment protocols and assess their safety. Consequently much of the published work is based on experience and opinion rather than data and scientific fact. As the number of reported cases has grown in recent years, there are a few studies that report on tens of patients rather than individual cases, or a few cases. The investigation and identification of PVA is improving with greater awareness and widespread use of colour flow duplex scanning compared to the early case reports of some thirty years ago.

This case presentation is of an 82 year old female with bilateral PVA who is currently being managed conservatively. There have only been seven cases of bilateral PVA reported in the world literature.

Friday 21 September 1130-1140 Professor Andre van Rij

A Prospective Study of the Fate of Venous Leg Perforators after Varicose Vein Surgery

Not available at time of print

Friday 21 September 1400-1415 Professor Andre van Rij

A Porcine Model for Venous Incompetence

Not available at time of print

Friday 21 September 1420-1435 Ms Andrea Herbert

Endothelial Progenitor Cells: A Laboratory Perspective

Herbert A and Moore J
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A decade has passed since it was first reported an endogenous circulating population of putative endothelial progenitor cells (EPCs) could contribute to blood vessel formation in the adult, a process deemed to be post natal vasculogenesis. Interest in EPCs for vascular regeneration has since remained high and their true biological role and therapeutic value continue to be elucidated. Currently, EPCs remain poorly understood and it has recently become apparent that publications on "EPCs" in fact describe at least two distinct cell populations. We are currently investigating the function and characteristics of two types of EPCs, dubbed 'early' and 'late', in subjects with or without chronic ischemic heart disease.

This presentation will provide a brief summary of the field of EPC research with a focus on laboratory in vitro studies, by considering key findings from the past decade that have contributed to the current status of the field.

Friday 21 September 1440-1450 Dr Tom Exner

Effect Of Sclerosants On Blood Cells

Thomas Exner, PhD
Haematology Dept.
St Vincents Hospital, Sydney.

Detergent sclerosants are often described as having little or no haemolytic effect when used in sclerotherapy. We recently showed that even very low concentrations of sclerosants can cause complete haemolysis of washed red cells in saline and that plasma proteins, especially albumin are protective against haemolysis in vivo. We also found that sclerosants lysed platelets in blood at concentrations well below those necessary for haemolysis in whole blood. Sclerosants are mainly intended to strip away endothelial cells in vivo without affecting other cell types in blood yet it is known that platelets closely resemble endothelial cells.

Our aim was to assess the relative sensitivities of various blood cells to increasing concentrations of detergent sclerosants added to normal blood. We used a regular flow cytometer to count different cell types. Leukocytes were much more sensitive to lysis by sclerosants than erythrocytes. In general sodium tetradecyl sulphate was approximately twice as potent as Polidocanol in lysing white cells. Neutrophils appeared to be most sensitive to lysis but in general cell counts were unreliable, especially after Polidocanol treatment. The effect of sclerosants on platelet count in whole blood was not detectable probably because fragments from other cells interfered with the platelet counting channel.

Friday 21 September 1450-1500 Dr Kurosh Parsi

Effects of Sclerosants on Antithrombotic Mechanisms and Fibrinolysis

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[2] University of New South Wales, Sydney

Background
Ultrasound monitoring demonstrates the inadvertent entry of sclerosants into the deep veins via perforators and junctions during sclerotherapy. However, clinically detectable deep vein thrombosis remains a rare complication of sclerotherapy.

Aims
To determine the interactions of Sodium Tetradecyl Sulphate (STS) and Polidocanol (POL) with major antithrombotic pathways, fibrinolysis and heparinoid anticoagulant activity.

Methods
1. Effects on Protein C activation. Factor Xa Clotting Time (XACT) was measured with sclerosants in plasma with and without Agkistrodon Contortrix Mokasin snake venom (ACMV), a non-physiologic activator of protein C. 2. Interactions with activated protein C (APC) and heparin. Increasing levels of sclerosants in plasma were tested with and without APC or heparin to detect changes in APTT. 3. Effects on Factor X activity, haparinoids (heparin/clexane) and AT III. Plasmas containing heparinoid/ no heparinoid or AT III/ no ATIII were mixed with sclerosants and chromogenic substrate for factor Xa to assess the residual FXa activity. 4. Interactions with TPA & Clot Lysis Time. Dilute TPA was mixed with increasing concentrations of sclerosants in plasma. Thrombin was added and the mixtures were allowed to clot and clot lysis checked.

Results
1. Both agents were found to have an inhibitory effect on protein C activation. 2. Once activated, STS enhanced the anticoagulant effects of activated protein C. It also enhanced the anticoagulant effects of heparin in prolonging APTT while POL shortened the APTT and reduced the apparent effects of heparin. 3. STS at concentrations above 0.32 reduced the effectiveness of heparinoids probably due to loss of ATIII. 0.1 % POL had a small enhancing effect on ATIII activity peaking at approximately 0.5%. 4. Both agents induced a shortening of clot lysis times with STS being more powerful than POL. Both sclerosants appeared to increase the fibrinolytic activity of TPA in these tests, though the mechanism is not clear. It may have been due to increased activation of plasminogen by TPA, increased plasmin activity, reduced inhibitory effects or even weaker fibrin clots more susceptible to lysis.

Conclusion
STS and POL have complex and differing effects on antithrombotic mechanisms. STS appears to have more anticoagulant properties when compared with POL.

Friday 21 September 1500-1510 Mr David Connor

Platelet Activation in Pulmonary Embolism

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Objective
To investigate the natural history of platelet activation in pulmonary embolism (PE) and associated markers of inflammation, thrombosis and cardiac dysfunction.

Methods
35 consecutive patients with acute PE were prospectively enrolled and followed for 6 months. Platelet activation was assessed by flow cytometry (platelet P-selectin, PAC-1 and platelet–leukocyte complex formation) and by plasma soluble P-selectin. Platelet activation, right ventricular (RV) function (RV-ejection area by transthoracic echocardiography), D-dimer and C-reactive protein (hs-CRP) were measured at presentation and repeated over 6 months.

Results
Soluble P-selectin (56±19ng/mL) and PAC-1 (1.5±1.8%) were mildly but significantly increased in patients with acute PE relative to healthy young men (33±13ng/mL, $p<0.001$ and 0.5±0.6%, $p<0.01$ respectively) and age-matched controls (31±9ng/mL, $p<0.001$ and 0.4±0.4%, $p<0.05$ respectively). Platelet P-selectin and platelet–leukocyte complexes were not increased during acute PE. RV-ejection area correlated inversely with soluble P-selectin ($r=-0.47$, $p=0.007$) and positively with platelet P-selectin ($r=0.49$, $p=0.0007$), suggesting P-selectin is shed from platelets in proportion to the severity of RV-dysfunction. Elevated soluble P-selectin, D-dimer and hs-CRP demonstrated a time-dependent return to normal during 6 months.

Conclusion
Platelet activation is evident after acute PE. Platelet activation correlates with the severity of RV-dysfunction, and can persist for several months after acute PE.

Friday 21 September 1510-1520 Dr Kurosh Parsi

Blood Flow, Fibrinolysis and Anti-Procoagulant Activity After Treatment with a Portable Electrostimulation Device (Bodyflow™) in Healthy Subjects

Kurosh Parsi,[1,2] Thomas Exner,[1] David Connor,[1,2] Shane Whittaker,[1] Joanne E Joseph,[1,2] and David DF Ma,[1,2]
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[2] University of New South Wales, Sydney

Background
There is documented evidence that the application of low intensity electric fields not only stimulates smooth muscle contraction and facilitates venous flow but also enhances adrenergic responses which may lead to the release of components of the fibrinolytic mechanism and activation of clotting factors.

Aims
To investigate the effect of a portable electrostimulation device (Bodyflow™) designed primarily to enhance lymphatic flow, on venous tone and haemostatic factors with a particular emphasis on fibrinolysis.

Methods
Bodyflow™ electrodes generating a low intensity 50Hz electrical field were applied for 45 minutes to 23 healthy volunteers (M:F ? 1:1). Blood samples were collected immediately before and after the procedure, at 2 and 6 hours later. Ultrasound was used to assess venous parameters such as vessel diameter, velocity of blood flow and overall venous flow. Coagulation assays and plasma viscosity tests were carried out for each time point. ELISA assays were used to determine proteins of thrombosis and fibrinolysis including tissue plasminogen activator (t-PA), plasminogen activator inhibitor 1 (PAI-1) and soluble P-Selectin.

Results
Individual variation in response to the Bodyflow™ device and no adverse side effects to the procedure were noted. Following treatment there was a tendency towards higher blood flow velocities (24.2% increase) and volume flow (19.5% increase) in the common femoral vein. An increase in euglobulin clot lysis (ECL) activity was observed directly after electrostimulation, 2 hours and 6 hours afterwards in 44%, 77.8% and 83.3% of subjects respectively indicating enhanced fibrinolysis. A similar trend was observed for t-PA. Plasma levels of PAI-1 were lower in 68.4% of the subjects immediately after treatment and continued to decrease at 2h and 6h in 78.9% and 88.8% of subjects respectively. However, these changes were not significantly different from those obtained from the placebo group i.e. the same subjects without Bodyflow™ treatment (n=5), indicating these changes are likely the result of natural diurnal rhythm. Soluble P-Selectin was significantly lower immediately following treatment (15.9% decrease, p value = 0.006). This occurred in conjunction with a decrease in procoagulant phosopholipid activity in 66.9% of subjects as measured the XACT assay. There were no significant changes in FDP D-dimer and factor V and VIII levels.

Summary
Bodyflow™ has a tendency to increase venous velocity and blood flow in deep veins of some normal individuals tested. The treatment appeared to enhance fibrinolysis, but the difference could be due to circadian variation. A significant decrease in soluble P-Selectin in conjunction with a decrease in phosopholipid activity may indicate reduced platelet activation and procoagulant microparticle activity.

Friday 21 September 1600-1615 Dr John Kingsley

Restless Leg Syndrome And Venous Insufficiency

John R. Kingsley, M.D., F.A.C.S., RVT & Clint A. Hayes, M.D., F.A.C.S., RVT

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Aim
To present evidence that many patients suffering from restless leg syndrome have developed this malady as a result of venous insufficiency. In addition, these symptomatic patients respond rather dramatically to correction by the endovenous saphenous laser ablation operation.

Methods
Thirty five patients with moderate to severe RLS, and duplex ultrasound proven superficial venous insufficiency, completed an International RLS rating scale questionnaire. They were separated into operative and non-operative cohorts. The operative cohort of patients were treated with endovenous saphenous laser ablation using the CoolTouch 1320 nm laser, and ultrasound guided sclerotherapy of perforator veins and varicosities. All patients then completed a follow-up IRLS questionnaire. The baseline and follow-up IRLS scores were compared.

Results
Operative correction of superficial venous insufficiency decreased the mean IRLS score by 21.4 points, from 26.9 to 5.5. This represented an average of 80% improvement in symptoms. In the non-operative cohort, the mean IRLS score actually increased slightly from 26.8 to 28.4. 89% of operative patients enjoyed a decrease in their IRLS score of 15 points or more. 53% of these patients had a final score of 5 or less, indicating their RLS symptoms had been essentially alleviated.

Conclusions
Endovenous saphenous laser ablation with the CoolTouch 1320 nm laser effectively treats patients suffering from venous insufficiency, and eliminates the symptoms of restless leg syndrome in the majority of these patients.

Friday 21 September 1620-1630 Dr Rod Lane

Ultrasonic Venous Valve Imaging – A Prerequisite for Existent Repair

Not available at time of print

Friday 21 September 1630-1640 Professor Ramesh Tripathi

Deep Vein Valvular Reconstructions - How To Do It and Why?

Introduction

Venous ulceration in the gaiter area of legs occurs as a consequence of unabated, persistent chronic venous insufficiency. This is due to valvular deficiency of superficial, perforator or deep veins alone or in combination. Most venous ulcers heal rapidly after superficial vein surgery if the deep venous system is not involved. However, the results are not good when deep veins are involved [3, 25]. Treatment options to correct deep venous insufficiency, then, have to be looked at. There is evidence that surgical treatment of deep vein valvular reflux leading to severe chronic venous insufficiency provides long-term relief of symptoms and heals venous leg ulcers in 65 - 80 % of patients at 5 years post-operation.[1, 2, 3, 4] Venous valve reconstruction for chronic venous insufficiency was introduced by Kistner as early as in 1968 [6].

However, deep venous valvular reconstructions have not become popular and maintain an aura of controversy due to a lack of comparative studies between conservative and surgical therapy. Furthermore, previous studies have included patients with valvular surgery performed with additional superficial and perforator vein surgery making it difficult to assess whether the benefits of such therapies were due to valve repairs or superficial / perforator surgery. This study was undertaken to further justify the role of deep venous valvular reconstructions in chronic venous insufficiency, in patients who had recalcitrant non-healing leg ulcer as a 'last resort treatment', despite multiple superficial/perforator vein surgeries, compression therapy and medical management.

Refer to course notes - Page 307

Friday 21 September 1640-1650 Dr Rod Lane

Endovenous Valve Transfer Stent (EVTS) for the Treatment of Chronic Deep Venous Insufficiency

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Friday 21 September 1650-1700 Professor Ramesh Tripathi

Impact Of Venous Hemodynamics On Development Of Endovascular Stent-Vein Valves

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Aim
To describe the haemodynamics of venous blood flow across deep vein valve stations in normal, refluxive, surgically corrected, valve-stented and stent supported vein valve transplanted veins and how biomechanical factors impact on stent-vein valve design.

Material and Methods
Using Computational fluid dynamics using zero dimensional, lumped-parameter network models combined with 3-D finite element meshed models of sheep internal jugular vein, the Blood flow across the valve station was mapped in experimental (a) normal, (b) refluxive, (c) surgically corrected vein valve (trapdoor valvuloplasty) and (d) valve stented (externally nitinol supported valve stations) and (e) stent supported valve transplanted (vein valve segment with outer nitinol stents at ends) veins. Flow rates (antegrade and refluxed), shear stress distribution and changes in geometric and fluid dynamics parameters eg. (velocities, stagnation and boundary layering effects) were recorded, analysed and compared between the five groups using non-linear (FEA) and CAD, motion and structural (MayaTM) software and Valve leaflet integrity was assessed by histopathological examination at 6 months post implantation.

Results
Normal valves show four phases of the valve cycle that represent the" forward-flow loop" propulsion. Incompetent valves have loss of valve equilibrium or "holding"phase before the valves attempt to close, leading to reflux. Their cusps and vein walls below the valve station also have areas of low shear that may predispose to thrombosis and inability for antegrade propulsion. These areas were seen to develop excessive thickening of vein wall adjacent to the valve station with valve stiffening. Surgically corrected refluxive valves behave haemodynamically like normal valves but have stagnation and secondary vortical turbulence loops that increase the propensity for eventual valve station dilatation and reflux. Valve stented veins show loss of complete valvular opening phase resulting in altered geometry and boundary layering at the valve stent level resulting in severe pressure differential possibly leading to micro fractures of valve leaflets observed. Stent supported vein wall transplants closely modelled along normal flow haemodynamics with least stagnation, boundary effects, valve immobility, vein wall thickening and valve leaflet fractures. Low shear areas were transferred to pre-stent locations and didn't affect vein valve leaflet function.

Conclusions
Development of Vein Valve stents is in its infancy. Lessons learnt from our study are in favour of stent supported vein valve transplantation. Further research is needed to clarify the future role of endovascular valves in the treatment of deep venous valvular insufficiency.

Friday 21 September 1700-1710 Dr John Kingsley

Management Of Incompetent Deep Veins: American Experience

John R. Kingsley, M.D., F.A.C.S., RVT

Alabama Vascular & Vein Center, Birmingham, Alabama, USA

Aim

To present our somewhat unusual approach to management of the patient with venous insufficiency, secondary to saphenous vein incompetence while also having incompetent or obstructive deep veins.

Methods

Patients who have chronic or acute deep vein disease, and who are suffering from venous insufficiency syndrome, are referred each week to our practice. In some cases, the deep vein disease is so severe as to prevent any treatment other than long term compression therapy. However, in many instances, deep vein disorders in concert with saphenous vein incompetence do not represent contraindications to treatment, even if the patient is on long term anti-coagulation. This report is a presentation of some of these cases as examples of our management of this problem. More importantly, this report describes our successful treatment of these patients who have been considered inoperable, and who otherwise would suffer the ravages of progressive venous incompetence.

Results

Examples of such patients are these. A patient with complete occlusion of the ipsilateral iliac vein system and with saphenous vein incompetence undergoes successful endovenous saphenous ablation with complete restoration of her leg. A young protein C hypercoagulable female with chronic deep femoral vein thrombosis and partial recanalization, and with saphenous vein incompetence, suffers significant unilateral leg swelling. She too is treated successfully with endovenous saphenous vein ablation. Several patients with deep vein and superficial vein incompetence, and venous stasis ulceration, are successfully treated with saphenous vein ablation and healed ulcers.

Conclusions

Patients with incompetent and/or occluded deep veins, and with superficial saphenous vein incompetence, are primarily affected by the superficial vein disorder. Collateralization around the occluded deep veins virtually replaces deep vein blood flow such that treatment can be rendered in standard fashion. Skin disorders such as ulceration are primarily a result of superficial vein disease, and often heal or improve substantially when the superficial incompetence is corrected.

Speakers & Sessions

Cross Referenced Index of Speakers

Refer to Course Notes Book

Dr Joseph Graiche

Tues 18 Sept	0845-0905	Doppler Principles and the Applications of CW-Doppler	9
	1130-1150	Interpreting Duplex Reports	45
	1545-1600	Overview of Complications of Sclerotherapy	69
	1810-1820	An Overview of Training Program	115

Dr Louis Grondin

Thurs 20 Sept	0850-0905	Canadian Experience with the 980 nm Biolitec Laser	24
	1115-1120	Controversies in Phlebology	30
Fri 21 Sept	0840-0850	Canadian Experience with Foam Sclerotherapy	47
	1900-late	SPECIAL EVENT - Being Louis Grondin:	16

Ms Andrea Herbert

Fri 21 Sept	1420-1435	A Review of Endothelial Progenitor Cells	55

Dr Kerry Hitos, Professor John Fletcher

Thurs 20 Sept	1735-1750	Effect of Leg Exercise on Popliteal Venous Blood Flow During Prolonged Immobility of Seated Subjects: Implications for Prevention of Travel Related Deep Vein Thrombosis	43

Dr David Jenkins

Tues 18 Sept	1320-1340	Techniques of Sclerotherapy	55
	1420-1440	Sclerotherapy of Non-Leg Veins	63
Wed 19 Sept	1815-1830	Ultrsasound Guided Sclerotherpay	295
Fri 21 Sept	1100-1110	Persistent Sciatic Vein and Sciatic Nerve Varicosities	53
	1120-1130	Popliteal Vein Aneurysm	54

Dr Joanne Joseph

Wed 19 Sept	1400-1420	Management of Acute DVT	239
Thurs 20 Sept	1640-1655	New Anticoagulants	41

Professor Ted King

Thurs 20 Sept	0800-0815	Endovenous Laser Ablation: Does Fluence Make a Difference	21
	0835-0850	Preliminary Experience with concomitant foam UGS and EVLA: A Series of 1,000 Consecutive Patients	23
	1030-1040	Progression and Recurrence of Vein Disease in Patients Treated with EVLA	27
	1050-1100	Endovenous Laser Ablation of the Small Saphenous Vein: Results	29
	1135-1140	Controversies in Phlebology	30

Dr John Kingsley

Thurs 20 Sept	0700-0750	Phlebology Alabama Style - The Alabama Outlaw	20
Thurs 20 Sept	0820-0835	Endovenous Saphenous Ablation with the 1320nm Cooltouch Laser: A Detailed Analysis of 1,000 cases	22
	1125-1130	Controversies in Phlebology	30
	1410-1420	Venous Stasis Ulcers Successfully Treated with EVLA: The First Reported Series	35
Fri 21 Sept	1030-1045	Modern Treatment of Vein Disorders	52
	1600-1615	Restless Leg Syndrome	59
	1700-1710	Management of Incompetent Deep Veins: American Experience	62

Dr Rod Lane

Fri 21 Sept	1620-1630	Ultrasonic Venous Valve Imaging – A Prerequisite for Existent Repair	59
	1640-1650	Endovenous Valve Transfer Stent (EVTS) for the Treatment of Chronic Deep Venous Insufficiency	60

Dr Chris Lekich

Tues 18 Sept	1730-1745	Medicolegal Issues	93

Dr Adrian Lim

Tues 18 Sept	1530-1545	Absolute and Relative Contraindications of Sclerotherapy	65
	1615-1630	Anaphylaxis, Anaphylactoid and Allergies	85

Dr Louis Loizou

Tues 18 Sept	0825-0845	Patient Assessment	3
	0925-0945	Review of CEAP Classification	29

Dr Mark Malouf

Wed 19 Sept	0800-0820	Anatomy and New Venous Terminology	145

Dr Robert McDonald

Tues 18 Sept	0905-0925	Thrombophilia and Hypercoagulable States	18

Dr Gabrielle McMullin

Thurs 20 Sept	1440-1450	Skin Tension in Non-Healing Ulcers	38

Professor Ken Myers

Wed 19 Sept	1320-1340	Ultrasound Assessment of Venous Thrombosis	235
	1845-1900	Endovenous Laser Ablation	301
Thurs 20 Sept	0935-0950	Australian Experience with the 810 nm Diomed Laser	27
	1110-1115	Controversies in Phlebology	30

Dr Abdullah Omari

Tues 18 Sept	0805-0825	An Overview of Venous Disease	1
Wed 19 Sept	1130-1150	Medical Management of Leg Ulcers	231
	1340-1400	Management of Superficial Thrombophlebitis	237
Thurs 20 Sept	1450-1500	Non-healing Ulcers: What Are We Doing Wrong?	38
	1750-1805	Simple Cases of DVT: Is Management that Simple?	43

Dr Peter Paraskevas

Tues 18 Sept	1030-1050	Anatomy and Physiology of the Venous System	33

Dr Kurosh Parsi

Tues 18 Sept	1600-1615	Post-Sclerotherapy Ulcers	83
	1630-1645	Post-Sclerotherapy DVT and DVS	89
	1800-1810	Certificate of Ultrasound in Phlebology	113
	1820-1830	An Overview of the Examination Process	123
Wed 19 Sept	1030-1050	Dermatologic Manifestations of Venous Diseases	213
	1530-1550	Vascular Anomalies	251
Fri 21 Sept	0910-0920	Technique Alterations Including Leg Elevation, Immobility, Using Filters or CO2 Gas Do Not Prevent Bubbles from Reaching the Right Heart during Foam Sclerotherapyt	49
	0930-0940	The Value of Ultrasonic Screening and D-dimer Testing in the Diagnosis of Post-ultrasound Guided Sclerotherapy Deep Vein Thrombosis and Deep Vein Sclerosis	51
	1450-1500	Effects of Detergent Sclerosants on Antithrombotic Mechanisms and Fibrinolysis in vitro	56
	1510-1520	Blood Flow, Fibrinolysis and Anti-Procoagulant Activity After Treatment with a Portable Electrostimulation Device (Bodyflow™) in Healthy Subjects	58

Professor Hugo Partsch

Wed 19 Sept	0920-0950	Physics of Compression	205
	1050-1110	Swollen Limb	223
	1650-1710	Lymphography and Lymphoscintography: Practical Aspects	285

Professor Hugo Partsch (Cont.)

Dr John Pereira

Professor Neil Piller

Professor Eberhard Rabe

Dr David Robinson

Dr Ken Sesel

Professor Allan Sturgess

Dr Andrew Stirling

Dr Paul Thibault

Professor Ramesh Tripathi

Professor Andre van Rij

NOTES

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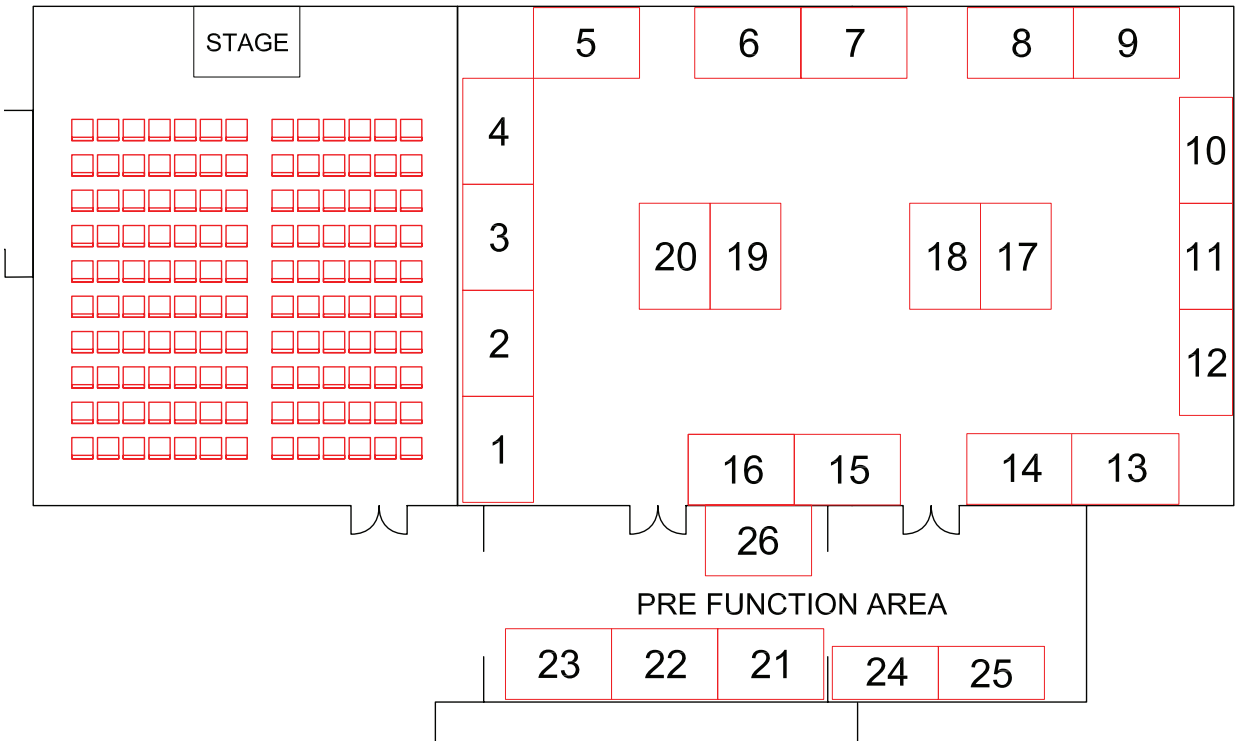

Exhibitor Listing

AinsCorp Pty. Ltd 9
Andrew Ainsworth

AllVascular 23
Mr Gabriel Jakob
Mr David Lane

Australian Medical & Scientific 2
Jeannie Devereaux
Alex Koulaouzos
Jane McNaughton
Christine Merrell
Angelique de Jong
Bill Woodward

BBY Limited 24
Glenn Rosewall
Ian Templeton
Emma Bell

Bodyflow™ International 15/16
Nick Barty
Joe Di Santo
Miyo Fallshaw
Peter Higgins
Tom Small

Candela 22
Keith Alden
Mr Mark Stewart

Cosmac Surgical 3
Alessandro Peroschi
Barry Robertson

Device Consulting 5
Mr Gavin Dimitri
Ms Magalie Terry

GE Healthcare 26
Andrea Packer
Michelle Yan

Focus Medical Technologies 8
Laurence Heron
Janine Lister

Jacobs Medical/ BioLitec 19/20
Mr Ng Cho Hoo
Ms Catherine Ng
Amanda Punch

Medfin Australia 25
Mr John Dyer

Medical Stockings 12
Bob Chaffe

Medtel 1
Kylee Hoskins
Therese Turner
Spencer Roeck

Reis Orthopaedic 10
Helmuth Reis
Sue Reis

Royal Soc. of Medicine Press 21
Ms Kristen Boyton

Scanmedics 17/18
Mr Brendan Coady
David Gibson
MaryAnne Taylor

Smith & Nephew Pty Ltd 13/14
David Blair

SonoSite 11
Mr Anthony Robinson

Toshiba 4
Andrea Larecy
Amanda Ghebar

Venosan (Biomet) 6/7
Mr Paul Grove
Marianne Hensler
Mrs Jane Young

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Also available are OESCH® Vein instruments and Swisslastic® compression bandages.
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exclusive distributor of Biolitec ELVeS Laser

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THE PHLEBOLOGY VALUE PACKAGE

including the **Biolitec ELVeS laser** and the **Esaote MyLab 25 Portable Ultrasound System**

The Esaote MyLab 25 includes a dual frequency linear probe and vascular software. The latest ELVeS+ Laser Fibre kits featuring fully marked, echogenic tip introducer are now available at a **special** price.

Hurry! This strictly limited offer represents a **30% saving** on normal pricing.

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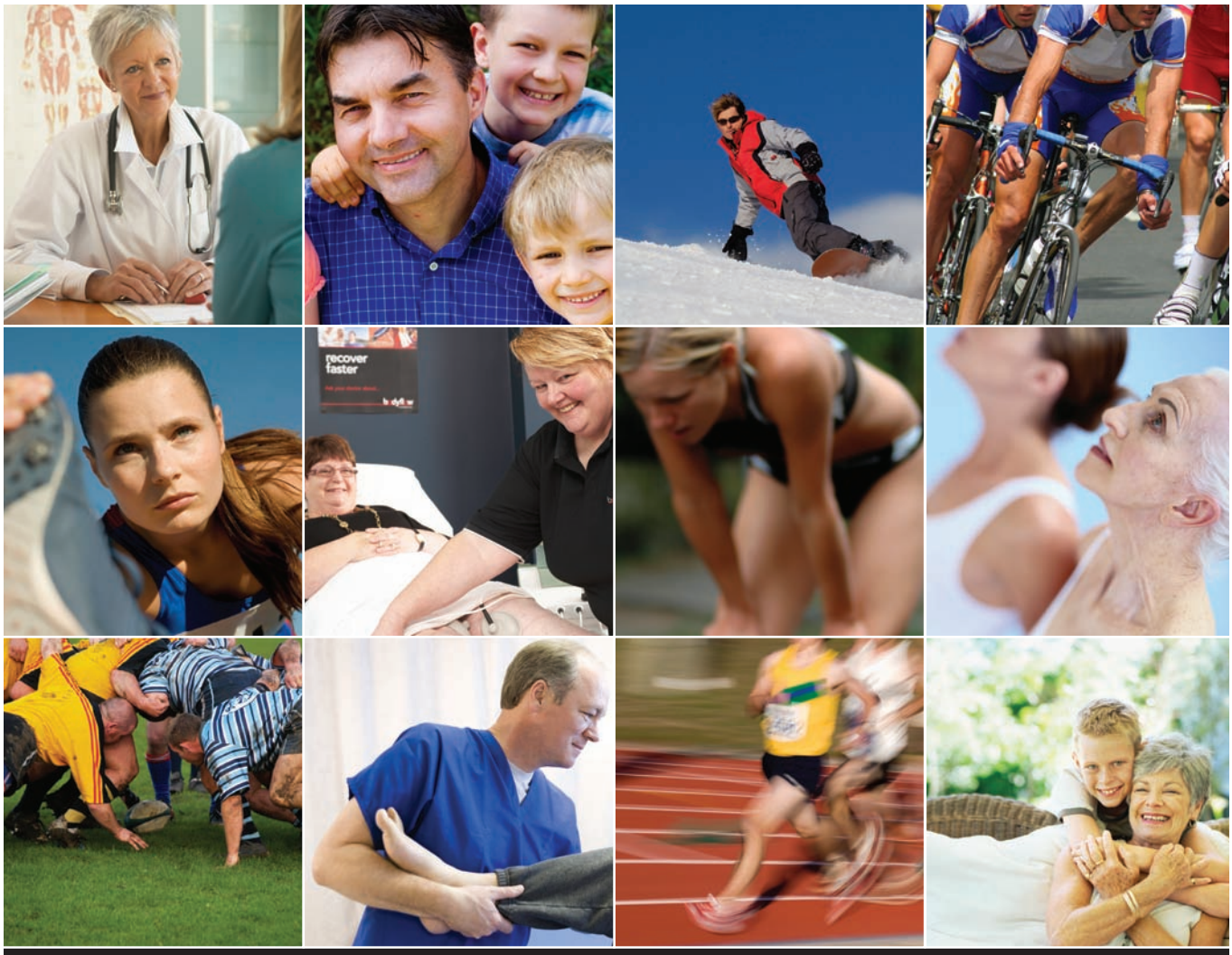

recover faster

- World-first patented Bodyflow™ technology designed to specifically stimulate smooth muscle.
- Increases circulation and lymphatic drainage accelerating patient recovery.
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  - Bodyflow™ Electrostimulation in Management of Lymphoedema, Professor Neil Piller
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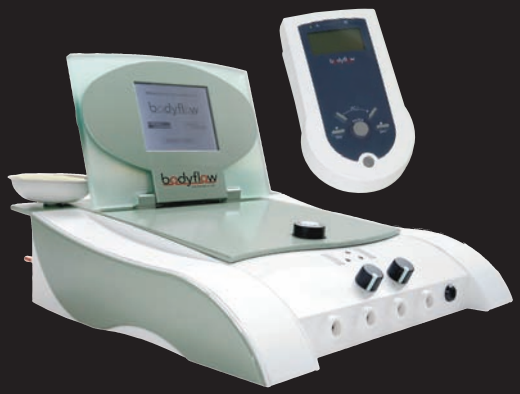

If you're interested in this world-first technology and how it may assist with the growth of your business, contact:
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The CTEV continues to be the best system available for the treatment of Varicose Veins. Did you know you can now purchase a combined system with the new CoolTouch CoolLipo for laser Lipolysis treatments?

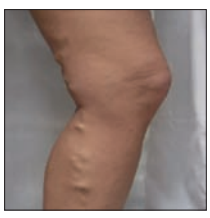
COOLTOUCH CTEV™

1320 nm wavelenths targets water in the vessel wall.

More comfortable treatment for patients

Little to no post-op brusing, swelling or pain.

Unique automated fibre Pull-Back Device



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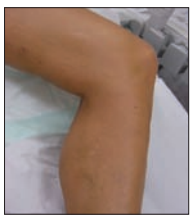

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unretouched photos courtesy of Robert Weiss, MD

COOL LIPO™

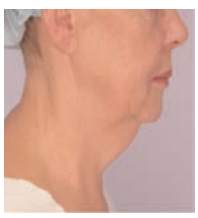
The NEW CoolLipo from Scanmedics is ideal for fat removal in areas such as the chin, neck, under arms, inner thighs and others.

Photoacoustic ablation of fat cells

An Adjunct to conventional liposuction

Safer with shorter procedure times and minimal downtime

Significant contraction of collagen improves cosmesis



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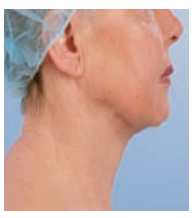

AFTER

Photos courtesy of Charles Mok, D.O

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Booking Conditions

1. Accommodation can be booked through Conference Matters (CM) at the group discount rates. Rooms are single/twin use. More than two people may incur extra bed charges. Space is limited and rooms will be allocated as registrations are received. Breakfasts not inclusive.
2. Dress is smart casual during the conference.
3. CM is responsible for all monies paid which will be receipted.
4. The academic programme may be altered by the conveners at any time.
5. Cancellations can only be received in writing, and incur a loss of 50% of registration fees up until Friday 27 July 2007. Later cancellations forfeit registration fees paid. Any other refunds are at the discretion of the organisers.
6. CM will not be responsible for delays or non-provision of travel services as airlines or travel agents.

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