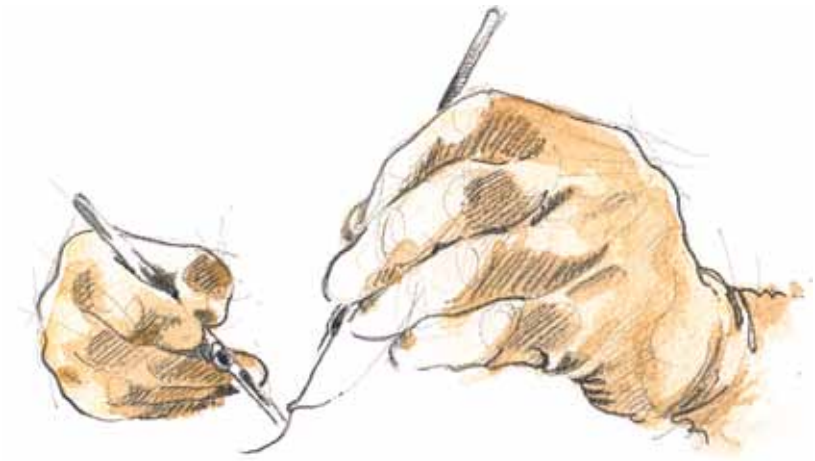
BAPRAS

British Association of Plastic
Reconstructive and Aesthetic Surgeons



Summer Scientific Meeting

The Sage
Newcastle upon Tyne
11–13 July 2012

Contents

Council 2012

PRESIDENT'S FOREWORD

Dear Members and Guests,

It is a great honour to welcome the Association back to Newcastle upon Tyne. The Newcastle upon Tyne unit was established by Fenton Braithwaite in the roll-out of plastic surgery services after the Second World War. He and those who followed established a reputation for excellence which we can only try to emulate.

In choosing a theme for the meeting I have considered medicine as the last great renaissance subject in which the knowledge of both science and art are the keystones to a well-rounded education. Where else other than in plastic surgery do we see these twin disciplines so obviously displayed? There is no doubt that excellence in reconstructive surgery requires a sound knowledge and appreciation of each discipline.

During our meeting we will explore these twin aspects. It is entirely appropriate that the Wednesday evening reception is to take place in the Laing Art Gallery, with an opportunity to view the collection of mostly 19th and early 20th century works. The Association dinner is being held in the spectacular top floor restaurant of the BALTIC Centre for Contemporary Art. The two themes will continue to interweave throughout the meeting with critical analysis of the aesthetic quality of reconstructive surgery as well as a scientific analysis of results. We will have a lecture by an art historian dealing with the critical analysis of paintings. The artists' decision processes whilst unfamiliar in their use of terms are in reality similar to those we use in assessing the quality of surgical reconstruction.

The meeting will be a high point this summer for aesthetic surgery with symposia on rhinoplasty and breast augmentation, with invited national and international speakers. There will also be a comprehensive update concerning PIP implants and thoughts on the regulatory process.

This year sees the inaugural symposium endowed by John Potter, a late Newcastle colleague, in which we will explore the management of children with cleft lip and palate.

There are, in addition to the invited keynote speakers an impressive array of free papers. They will cover all aspects of plastic surgery in presentations which I am sure will be both thought provoking and entertaining.

The summer meeting has an entirely different flavour to our other scientific meetings. It is about education in the broader sense and about meeting colleagues and friends in a stimulating location. Social activities are for many an important part of the summer meeting in order to renew acquaintanceships and to meet new colleagues. This atmosphere I am sure will only enhance our enjoyment of the scientific programme.

Richard Milner
President

OUTLINE PROGRAMME

WEDNESDAY 11 JULY 2012

09:00 Registration and refreshments

09:55 Welcome by the President

10:00 The history of the Newcastle upon Tyne hospitals and plastic surgery unit
Dr G Enever

John Potter Symposium

10:20 Welcome
Professor T Lennard

10:25 Cleft lip repair: Anatomical subunit concept
Dr D Fisher

10:55 Cleft palate repair
Dr D Fisher

11:15 Adult cleft surgery
Mr P Hodgkinson

11:35 Management of the cleft lip nasal deformity
Dr D Fisher

11:55 Discussion

12:05 Autologous ear reconstruction
Dr L Kasrai

12:30 Lunch and exhibitions

13:15 Free Papers: Parallel Sessions
- Cleft, Craniofacial, Head and Neck, Facial Aesthetics (Northern Rock Foundation Hall)
- Skin Malignancy and Burns (Hall Two)

15:35 Refreshments and exhibitions

15:55 Free Papers: Parallel Sessions
- Education, Service Provision and Overseas (Northern Rock Foundation Hall)
- Breast (Hall Two)

17:35 Close

18:30 Drinks reception (The Laing Art Gallery)

Unless otherwise stated, all sessions take place in Hall Two

THURSDAY 12 JULY 2012

08:15 Registration and refreshments

08:15 BAPRAS EGM, open to BAPRAS members

09:00 Genetics and plastic surgery
Professor Sir John Burn

Rhinoplasty Symposium

09:30 My approach to primary rhinoplasty
Dr M Constantian

10:00 My approach to open rhinoplasty
Mr C East

10:30 Patient selection
Dr M Constantian

10:50 Surgery of the nasal septum
Mr C East

11:20 Refreshments and exhibitions

11:45 The short nose and tip problems
Dr R Warren

12:15 Secondary rhinoplasty
Dr M Constantian

12:45 Secondary rhinoplasty
Dr C East

13:15 Round table

13:30 Lunch and exhibitions

13:50 Body Contouring Special Interest Group (Hall Two)

Continuing education/Social programme

14:30 Workforce and planning
Mr E Freedlander

14:50 The final years curriculum: What you need to know
Miss V C Lees

15:10 Discussion

15:25 Biofilms and breast implants
Dr R Wixtrom

15:55 Refreshments and exhibitions

16:15 Radiotherapy and the plastic surgeon
Mr C Kelly

16:45 Art and plastic surgery
Dr S Moonie

17:15 Wrist surgery
Mr P Stuart

17:45 Close

19:30 Association Dinner (Six Restaurant, the BALTIC Centre for Contemporary Art)

OUTLINE PROGRAMME

FRIDAY 13 JULY 2012

Industry sponsored symposium

07:30 Innovations in plastic surgery
Sponsored by Baxter

08:00 Registration and refreshments

Breast Augmentation Symposium

08:45 Choosing the correct plane for augmentation
Dr R Warren

09:15 My approach to mastopexy and augmentation
Mr N Collis

09:35 Complications and revision in breast augmentation
Mr J Scott

10:00 Capsular contracture
Dr R Wixtrom

10:30 Revisional surgery in breast augmentation
Dr R Warren

11:00 Refreshments and exhibitions

PIP implants: Where are we now?

11:30 Breast implants: progress, perils and PIPs
Mr C T K Khoo

12:00 Where are we now clinically?
Mr J O'Donoghue

12:15 Regulatory aspect
Dr S Ludgate

12:30 The Australian experience and thoughts on an implant register
Mr R Cooter

12:45 Legal aspect
Dr G Panting

13:00 Discussion

13:15 Lunch and exhibitions

13:30 Head and Neck Special Interest Group

14:00 Complementary medicine
Mr C Kelly

14:40 Free Papers: Parallel Sessions
- Upper and Lower Limbs (Hall Two)
- Flaps, Urogenital and Vascular (Northern Rock Foundation Hall)

16:40 Close

GUEST SPEAKERS

Professor Sir John Burn Kt MD FRCP FRCPE FRCPCH FRCOG FMedSci

Professor of Clinical Genetics, Newcastle University

Sir John was knighted in the 2010 New Year's Honours list for services to medicine and healthcare. He became Director of the Institute of Human Genetics (IHG) from 2005-10 during which time the tenured staff rose to 33, 18 of them professors, and a 3rd place behind Oxford and Cambridge for quality in the 2008 research assessment.

He conceived and helped bring to fruition the Millennium Landmark Centre for Life in Newcastle opened by the Queen in 2000. In addition to housing the IHG and the region's fertility and genetics services, the Centre attracts a quarter of a million paying visitors to its science centre and provides practical science education to 40,000 schoolchildren per annum.

In 2008 he was appointed Chair of the newly created Clinical Genetics Specialty Group of the National Institute of Health Research. In 2009 he became Director of the national collaborative group on Genetics in Healthcare and lead clinician for the NHS in the North East of England.

In 2010 he was appointed to chair the Innovation strand of the new UK Human Genomics Steering Group. He is Chair of the British Society for Human Genetics.

Extensive media involvement includes being scientific advisor and participant in the BBC/ Discovery series 'How to Build a Human' in 2001.
Sir John is an author on over 250 peer reviewed articles. He leads the international CAPP consortium investigating cancer prevention in those at high genetic risk

Speaking in:
Genetics and plastic surgery, Wednesday 11 July

GUEST SPEAKERS

Mr Nicholas Collis, FRCS(Plast)
Consultant Plastic Surgeon, Royal Victoria Infirmary, Newcastle upon Tyne

Nick Collis has been a consultant plastic surgeon at the Royal Victoria Infirmary, Newcastle upon Tyne since 2004. He has a special interest in breast reconstruction for congenital, weight loss and cancer including oncoplastic breast surgery and microvascular breast reconstruction. He trained in Yorkshire and obtained a Masters in Philosophy from the University of Bradford from which several papers were published surrounding the use of silicone breast implants.

Speaking in:
Breast augmentation symposium, Friday 13 July

Dr Mark Constantian, MD FACS
Plastic Surgeon, New Hampshire, USA

Dr Constantian has been in private practice of plastic surgery for thirty-three years, has previously held academic appointments at Harvard Medical School and Dartmouth Medical School and is currently Clinical Assistant Professor, Department of Surgery, Division of Plastic and Reconstructive Surgery at the University of Wisconsin School of Medicine, Madison, Wisconsin. He was born in Massachusetts, where his father and great grandfather were both physicians. Dr Constantian was educated at Columbia College, Dartmouth Medical School, and The University of Virginia School of Medicine. He served his general surgery residency at Boston University Medical Center, where he was also National Institutes of Graduate Medical Sciences Fellow in academic surgery. He spent five years in immunology research during his general surgery and plastic surgery training. He completed a plastic surgery fellowship at The Medical College of Virginia.

Dr Constantian has served as Associate Editor of Annals of Plastic Surgery and Plastic and Reconstructive Surgery. He is Past President of the New England Society of Plastic and Reconstructive Surgeons, The Northeastern Society of Plastic Surgeons, The Rhinoplasty Society, and has been a member of the Board of Directors of the American Society of Plastic Surgeons. He is the author of 24 textbook chapters, 60 refereed papers, and the author of two books. His most recent publication, Rhinoplasty: Craft and Magic, was published in May, 2009.

Speaking in:
Rhinoplasty symposium, Thursday 12 July

Mr Rod Cooter
MD(Adel) FRACS (Plast), President, Australian Society of Plastic Surgeons

Rod Cooter is an Australian plastic surgeon who trained in Adelaide and Leeds. His main clinical interest is in breast surgery, both reconstructive and aesthetic. Over the past two years he has developed an opt-out Breast Device Registry. Currently he is President of the Australian Society of Plastic Surgeons; formerly he was Director of Plastic Surgery at the Royal Adelaide Hospital. He has a Doctorate of Medicine and is an Associate Professor at the University of Adelaide.

Speaking in: PIP Implants- Where are we now?, Friday 13th July

Mr Charles East FRCS
Consultant ENT Surgeon, London

Charles is a consultant surgeon at University College Hospitals NHS Trust and has a private practice at 150 Harley Street offering state of the art services in a purpose designed house.

His area of expertise is in facial plastic surgery and particularly in rhinoplasty surgery including the latest endoscopic techniques. He is part of the craniofacial service at UCLH.

Charles trained in Oxford, London, and had a fellowship in Seattle in facial plastics. His extensive clinical and teaching role within UCL, where he

GUEST SPEAKERS

runs the main London rhinoplasty and facial plastic course, has involved him lecturing and performing surgery internationally. This year he has been a principle speaker at IMCAS, 3rd Bergamo external rhinoplasty course, and the International Federation of Facial Plastic Surgical Societies in Rome.
Charles is a member of BAAPS, current chairman of Facial Plastic Surgery UK, a member of the European Academy of Facial Plastic Surgery and on the executive board of the Rhinoplasty Society of Europe.

Speaking in:
Rhinoplasty symposium, Thursday 12 July

Dr Gary Enever, MA FRCA
Consultant Anaesthetist, Royal Victoria Infirmary, Newcastle upon Tyne

Speaking in:
The history of the Newcastle upon Tyne hospitals and plastic surgery unit, Wednesday 11 July

Dr David Fisher
Associate Professor, Hospital for Sick Children, Toronto, Canada

David Fisher received his Medical Degree from the Royal College of Surgeons in Ireland in 1990. He completed residencies in general surgery and plastic surgery in Grand Rapids, Michigan and received American Board of Surgery Accreditation in General Surgery in 1997 and American Board of Plastic Surgery Accreditation in 2001. He became a Fellow of the Royal College of Surgeons of Canada in 1998. He undertook Fellowship training in Paris with Dr Daniel Marchac, in Taiwan with D Samuel Noordhoff and Dr Yu-Ray Chen, and in Toronto at The Hospital for Sick Children, Toronto. Dr Fisher is the Medical Director of the Cleft Lip and Palate Program at The Hospital for Sick Children, Toronto. His practice is entirely paediatric with a focus in cleft lip and palate and ear reconstruction.

Speaking in:
The John Potter Symposium (cleft lip and palate surgery and ear reconstruction), Wednesday 11 July

Mr Eric Freedlander FRCS(Plast)
Consultant Plastic Surgeon, Royal Hallamshire Hospital, Sheffield

Eric Freedlander was President of BAPRAS in 2010. During his presidency, he set up the BAPRAS Workforce Planning Survey, which he has continued to work on until the present.

He has been a full member of BAPRAS since 1986. Eric's interest in plastic surgery training has also led him to becoming the Chairman of the Intercollegiate Specialty Board in Plastic Surgery (2003-7) as well as sitting as Chairman of the Royal College of Surgeons of England's Specialist Advisory Committee in Plastic Surgery (2007-2009).

Speaking in:
Continuing Education, Thursday 12 July

Mr Peter Hodgkinson FRCS(Plast)
Consultant Plastic Surgeon, Royal Victoria Infirmary, Newcastle upon Tyne

Speaking in:
The John Potter Symposium (cleft lip and palate surgery and ear reconstruction), Wednesday 11 July

Dr Leila Kasrai
Chief of Plastic Surgery, St Joseph's Health Centre, Toronto, Canada

Dr Leila Kasrai received her MD degree with honours from the University of Western Ontario in 1994. In 1999, she became a Fellow of the Royal Collage of Surgeons (Canada) following completion of residency at the University of Toronto. She subsequently attended Harvard University to obtain a Masters in Public Health with specific interest in International Health. She received her training in ear reconstruction from Dr Saturo Nagata in Tokyo, Japan.

She is currently the Chief of Plastic Surgery at St Joseph's Health Centre. Her areas of clinical interest span both paediatric and adult plastic surgery,

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specifically, pediatric congenital anomalies, hand, breast and facial reconstruction. Since 2006 she and Dr K Wanzel, have taken on Dr Manktelow's practice in adult facial reanimation.

The recent donation made by the mining company, IAMGOLD, to the University Of Toronto Division Of Plastic Surgery has allowed her to reengage her passion for international health. Since February of this year, Dr Kasrai has been working with the biggest NGO in Africa (AMREF) towards developing burn prevention programs in Kenya.

Speaking in:
The John Potter Symposium (cleft lip and palate surgery and ear reconstruction), Wednesday 11 July

Dr Charles Kelly FRCP FRCR DMRT
Clinical Consultant Oncologist, Northern Centre for Cancer Care, Newcastle upon Tyne

Speaking in:
Continuing Education, Thursday 12 July
Complementary Medicine, Friday 13 July

Mr Chris Khoo FRCS
Consultant Plastic Surgeon

Chris Khoo received his medical education at Cambridge and St. Mary's Hospital, London. He is now in independent practice after 25 years as a consultant plastic surgeon at Stoke Mandeville Hospital, Aylesbury and Wexham Park Hospital, Slough, with main interests in hand surgery and breast surgery.

He is a former president of BAPRAS (then BAPS), and was Chair of the Intercollegiate Board in Plastic Surgery. He chaired the BASO/BAPRAS Interface Committee in Breast Surgery, and remains involved with the JCST Training Interface Groups in the Breast and Reconstructive Cosmetic Surgery Advanced Training Fellowships.

He is on the Executive Committee of the European Board of Plastic Surgery and is an examiner for the EBOPRAS examination. He is Chair of the organising committee for the 12th European Congress of ESPRAS, to be held in Edinburgh in 2014. He is Chairman of ABCP, the Academy of British Cosmetic Practice.

Speaking in:
PIP Implants- Where are we now?, Friday 13 July

Miss Vivien Lees FRCS(Plast)
Consultant Plastic Surgeon, Wythenshawe Hospital, Manchester

Vivien Lees is Chair of the Specialist Advisory Committee (SAC) in Plastic Surgery overseeing plastic surgery training in the UK and Republic of Ireland. She is current Lead for the ISCP Curriculum in plastic surgery. As SAC Chair she represents plastic surgery on the Joint Committee of Surgical Training (JCST) of the combined Royal Colleges of Surgeons. She sits on the various Training Interface Groups (TIGs) working with other specialties and has particular interest in developing the later years training programmes. She has previously been Council member of both BAAPS and BSSH taking a lead role in developing the Postgraduate Diploma in Hand Surgery of BSSH/ University of Manchester

Speaking in:
Continuing Education, Thursday 12 July

Professor Tom Lennard FRCS
Professor of Breast and Endochrine Surgery, University of Newcastle

Tom Lennard is Professor of Surgery and Chair of the Professional Standards Review Committee at Newcastle University. He qualified from Newcastle in 1977 with Honours and a Hare-Philipson Scholarship. In the same year he was awarded the Handcock Prize by The Royal College of Surgeons of England in the National LRCP MRCS Examination.

During his research under the supervision of Ross Taylor, John Farndon and Ivan Johnston he was

GUEST SPEAKERS

awarded the Patey Prize by the Surgical Research Society, the Moynihan Prize by the ASGBI and a Hunterian Professorship by The Royal College of Surgeons of England. His MD was awarded with Commendation in 1986. He was appointed Consultant Surgeon and Senior Lecturer in 1988 to the Royal Victoria Infirmary in Newcastle. In 1992 he was a James IV Surgical Traveller and was elected as a Member of the James IV Association of Surgeons in 1996.

His research interests include chemokines and signalling in breast cancer cells, androgen receptors in breast cancers, oestrogen regulated genes and stem cells in breast tumours, thyroid tumours and phaeochromocytoma.

In 2007 he became the President of the British Association of Endocrine and Thyroid Surgeons, and was elected to the Intercollegiate Examiners Court.

Chairing:
The John Potter Symposium (cleft lip and palate surgery and ear reconstruction), Wednesday 11 July

Dr Susanne Ludgate
Medical Director of Devices, MHRA

Dr Susanne Ludgate qualified in medicine from Edinburgh University, subsequently specialising in radiation oncology and was appointed a consultant at the Western General Hospital, Edinburgh in 1979.

She subsequently took up a consultant post in radiation oncology at Westmead Hospital in Sydney and at the Peter McCallum Hospital in Melbourne, publishing and lecturing widely.

She was appointed Medical Director of the Medical Devices Agency in 1993. She has been responsible for the setting up and management of the clinical investigation system of new medical devices under the provisions of the Medical Devices Regulations. She is a member of the European Commission's Clinical Evaluation Task Force on Clinical Investigations, Chairman of the Global Harmonisation Task Force on Clinical Evaluation, and has helped to write both the CEN and ISO Standards relating to clinical investigations of medical devices.

She is a member of the NICE Advisory Committee on Interventional Procedures, a member of the NICE Medical Technology Advisory Committee, and a member of the Health Technology Assessment Diagnostic and Screening Panel. She has published extensively on the Medical Devices Regulations, the handling of clinical investigations and the reporting and handling of device related adverse events.

As part of the new MHRA structure, Susanne now holds the position of Devices Clinical Director and is a member of the MHRA's Executive Board.

Speaking in:
PIP Implants- Where are we now?, Friday 13 July

Dr Stephen Moonie MA PhD
Teaching Fellow in Art History, University of Newcastle

Dr. Stephen Moonie is Teaching Fellow in Art History at the Department of Fine Art, Newcastle University. He graduated in Art History from the University of St Andrews in 2003. He received his MA from the University of Essex in 2005, where he subsequently completed his PhD, entitled 'Criticism and Painting: Modernism in the USA c.1958-63' (2009). He has taught in the History of Art department at the University of Warwick, and has conducted research at the Getty Research Institute in Los Angeles. He recently contributed to the catalogue for the recent exhibition The Indiscipline of Painting, held at Tate St Ives and Warwick Arts Centre (2011). His research interests include post-war art and theory in the US, the 'crisis' of painting, and the problem of value judgments in contemporary art criticism.

Speaking in:
Continuing Education, Thursday 12 July

GUEST SPEAKERS

Mr Joe O'Donoghue, FRCS(Plast)
Consultant Plastic Surgeon, Royal Victoria Infirmary, Newcastle upon Tyne

Joe O'Donoghue is a plastic surgeon with a special interest in microvascular breast reconstruction and oncoplastic breast surgery. He works at the Newcastle upon Tyne NHS Trust in the UK. He completed a Masters degree in breast cancer immunology before embarking on his plastic surgery training which he completed with a fellowship in oncoplastic breast surgery at the Institut Marie Curie, Paris in 1998 under the direction of Krishna Clough. He has published several papers in breast reconstruction outcomes and continues with clinical based research in oncoplastic breast surgery. He has co-authored the UK national lipomodelling guidelines and is a member of the National Oncoplastic Breast Surgery guidelines writing group.

He is currently the BAPRAS Honorary Secretary, and also acts as plastic surgery editor for ISCP and has written the plastic surgery advanced years curriculum in oncoplastic breast surgery which is under review by the GMC. He is the BAPRAS Champion for the plastic surgery e-learning project (eLPRAS), and he is also a member of the Breast Oncoplastic Training Interface Group. He is a non executive director of the Plastic Reconstructive and Aesthetic Surgeons Indemnity Scheme.

Speaking in:
PIP Implants- Where are we now?, Friday 13 July

Dr Gerard Panting MA, MBBS, FFFLM, FRCGP,DMJ,
Medicolegal Advisor, PRASIS

Qualified in medicine and with a Masters degree in Medical Law and Ethics, Gerard has 25 years experience in clinical negligence litigation, complaints procedures, disciplinary processes and medical regulation in the UK and a special interest in developing practical risk management solutions. Gerard spent 20 years at the Medical Protection Society where he held the posts of Head of UK Medical Services and Communications and Policy Director. Gerard is a Foundation Fellow of the Faculty of Forensic and Legal Medicine of the Royal College of Physicians

Speaking in:
PIP Implants- Where are we now?, Friday 13 July

Mr John Scott, FRCS(Plast)
Consultant Plastic Surgeon, Canniesburn Unit, Glasgow

Mr John Scott was appointed Consultant Plastic and Reconstructive Surgeon at the Canniesburn Unit in 2001. His special interests include breast reconstruction, skin cancer and male genitourinary reconstruction.

He has been an examiner for the FRCS(Plast) exam since 2007 and chairs the FRCS(Plast) MCQ Examination Writing and Standard Setting groups. In 2012 he was appointed BAPRAS/RCPSG National Plastic Surgery Tutor for Scotland and the North of England.

Speaking in:
Breast augmentation symposium, Friday 13 July

Mr Paul Stuart, FRCS FRCSEd
Consultant Orthopaedic Surgeon, Freeman Hospital, Newcastle upon Tyne

Paul Stuart was appointed Consultant Orthopaedic Surgeon in 1994, a year in which he also won the Pulvertaft Prize. Following medical school in Newcastle, he undertook an RAF short service commission before continuing with specialist training in the Northern region, fellowship at the Mayo Clinic, Rochester, Minnesota and interface fellowships in Nottingham and Derby. He is currently hand surgery examiner for the Intercollegiate Board and tutor for the Hand Diploma. His special interests include wrist injury/ degeneration, rheumatoid UL disease and UL arthroplasty

GUEST SPEAKERS

Speaking in:
Continuing education, Thursday 12 July

Dr Richard Warren

Clinical Professor, Vancouver General Hospital, Vancouver, Canada

Dr Richard Warren completed his basic medical training at the University of British Columbia. He interned in the San Francisco Bay area, and then returned to British Columbia to complete specialty training in plastic surgery. Following his residency, he pursued fellowship training in Los Angeles, California and Norfolk, Virginia before returning to Vancouver to join the Department of Surgery at the University of British Columbia.

He is Past President of the Northwest Society of Plastic Surgeons and past president of the Canadian Society for Aesthetic Plastic Surgery.

As Chairman of the Royal College Specialty Committee for Plastic Surgery, Dr Warren is currently Chairman of the Canadian Board of Plastic Surgery. He is the former Chief Examiner for Plastic Surgery in Canada, the former Chairman of the Division of Plastic Surgery at the University of British Columbia and the former Head of Plastic Surgery at the Vancouver General and the University of BC Hospitals. He remains on active staff at these hospitals and holds an appointment as Clinical Professor at the University of British Columbia.

In 2003, Dr Warren relocated his private practice to the Vancouver Plastic Surgery Center– now the oldest private surgical facility in Vancouver, which he originally founded in 1989. Dr Warren continues as the Medical Director of this facility where his practice is based. His clinical interests are in plastic surgery of the face and breast.

Speaking in:
Rhinoplasty symposium, Thursday 12 July
Breast augmentation symposium, Friday 13 July

Dr Roger Wixtrom

Dr Wixtrom is an internationally recognised expert and author of publications on biofilms and breast implants. He is a Board-certified toxicologist with PhD in Pharmacology and Toxicology. Dr Wixtrom has more than 21 years first-hand experience with safety evaluation of Mentor breast implants with extremely in-depth knowledge of breast implant information, including biomaterials, preclinical and clinical testing design and data analysis, critical review of the published literature and unpublished studies, attendance and testimony at FDA and Health Canada advisory panels and expert panels on breast implants, and nearly 20 years attendance at plastic and reconstructive surgery national meetings. He has presented professional education and CME lectures nationally and internationally (in more than 20 countries) to thousands of surgeons on a range of medical device related topics, including biomaterials safety, biofilms and surgical infections.

Speaking in:
Continuing Education, Thursday 12 July
Breast augmentation symposium, Friday 13 July

WEDNESDAY 11 JULY 2012

09:00 – 13:15

09:00 **Registration and refreshments**

09:55 **Welcome by the President**

10:00 **The history of the Newcastle upon Tyne hospitals and plastic surgery unit**
Dr G Enever

John Potter Symposium

10:20 **Welcome**
Professor T Lennard

10:25 **Cleft lip repair- Anatomical subunit concept**
Dr D Fisher

10:55 **Cleft palate repair**
Dr D Fisher

11:15 **Adult cleft surgery**
Mr P Hodgkinson

11:35 **Management of the cleft lip nasal deformity**
Dr D Fisher

11:55 **Discussion**

12:05 **Autologous ear reconstruction**
Dr L Kasrai

12:30 **Lunch and exhibitions**

13:15 **Free Papers: Parallel Sessions**

Cleft, Craniofacial, Head and Neck, Facial Aesthetics
Chairs: Ms F Mehendale and Mr O Ahmed

Skin Malignancy and Burns – go to page 22
Chairs: Mr P Brackley and Mr S Varma

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Parallel Session: Cleft, Craniofacial, Head and Neck, Facial Aesthetics

Chairs: Ms F Mehendale and Mr O Ahmed

13:15 **Outcomes following Adult Revisional Unilateral Cleft Lip Repair**

Mr D Sainsbury, Dr S Butterworth, Mr W Hodgkinson, Mr P Hodgkinson (Newcastle upon Tyne)

Introduction: We present our outcomes following revision surgery for adult unilateral cleft lip using panel assessment and SymNose (providing quantitative measurement of symmetry).

Methods: Thirty-eight consecutive patients (19 females, 19 males) with a mean age of 23.9 years (range 16.7-51.5) underwent revision surgery for unilateral cleft lip from 1998 to 2010. Twenty-three patients with pre-operative and post-operative digitised photographs were assessed by a layperson, junior and senior medical staff, using the Asher-McDade index, an overall score and SymNose.

Results: All assessors' scores (overall, lip, nose, scar) improved or remained the same. Scores showing significant improvement were observed for the lip ($p=0.005$) and nose ($p=0.008$) following layperson assessment and overall ($p=0.0004$) and lip scores ($p=0.01$) as assessed by senior medical staff. No significant difference in pre-operative and post-operative scores for any parameters using SymNose was seen. When assessing pre-operative photographs SymNose and junior medical staff scores and SymNose and senior medical staff scores demonstrated correlation ($p=0.03$). The post-operative scores showed correlation between SymNose and senior medical assessment ($p=0.005$).

Conclusions: Adult cleft lip revision appears to facilitate improvement in a number of parameters when evaluated by panel assessment. Some correlation in panel and SymNose scores was observed in pre-operative and post-operative assessments.

13:22 **Questions**

13:25 **Open Structural Cleft Rhinoplasty: Our Experience in Asian Noses**

Dr A Ooi, Dr C Wong, Professor S Lee (Singapore)

This study was performed to evaluate the anatomy of the Asian cleft nose and to document our experience in performing the rhinoplasty using an open structural approach.

Material and Methods: Twenty-five consecutive cleft patients underwent open rhinoplasties. Of these, 20 were unilateral and 5 were bilateral clefts. In addition to the septum, conchal and rib cartilages were used as indicated. Spreader grafts were used in all patients. In patients that required nasal lengthening, the extender spreaders could be used for

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this purpose. A collumella strut was used in all patients to achieve the desired tip projection and to unify the repositioned medial crura. In cases of severe displacement of the lateral crura on the cleft side, this was dissected off the vestibular side and transected laterally. It was then reconstructed with the lateral crural strut graft. Diced cartilage wrapped in deep temporal fascia was used for dorsal augmentation.

Results: The majority of patients were very satisfied with their outcome (22/25). The re-operation rate was 4% (1/25).

Conclusion: This approach, while more aggressive in nature, is a significant advancement as it is able to achieve a level of result that is unattainable by more conservative approaches to Asian cleft rhinoplasty.

13:32 Questions

13:35 Lengthening Temporalis Myoplasty - Evolution of a single stage technique for facial reanimation.
Mr K Sorensen, Miss S Stevenson, Miss R Taghizadeh, Mr M Ragbir, Mr O Ahmed (Newcastle upon Tyne)

Introduction: Lengthening temporalis myoplasty has been performed in Newcastle since 2009. The access incision and dissection have been simplified from the original description. This dynamic reanimation procedure has been performed in a wide range of patients including children and the elderly. Our continued experience is presented.

Methods: Retrospective and prospective clinical data were collected over a two year period. Serial photography, videos and Sunnybrook scores were utilised to document results.

Results: 41 patients have been treated (M:F ratio 1:1.3) with a median age of 59 (range 11-89 years). Common indications for treating facial palsy patients included acoustic neuroma resection, Bell's palsy and ablative cancer surgery. The procedure was performed at the time of cancer ablation in 2 patients and 16 patients had other procedures performed at the same operation. Early complications included one infection and one tendon avulsion. The majority of patients had improved resting and dynamic scores following the procedure.

Discussion: Lengthening temporalis myoplasty is an established technique in facial reanimation surgery and provides a relatively quick, beneficial outcome for a variety of facial paralysis patients. Cancer patients and the elderly provide a greater challenge but may especially benefit from this procedure.

13:42 Questions

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13:45 **Dynamic Facial Reanimation: The Chelmsford Experience**
Mr R Y Kannan, Mr B Klass, Ms K Tzafetta (Chelmsford)

In a retrospective review of 36 patients over a 32-month period undertaken between 2009 and 2011 at the Department of Plastic Surgery at Broomfield Hospital, we performed 29 dynamic transfers. Of these, there were 11 cases of free functional muscle transfers (FFMTs) namely 10 free gracilis flaps and one latissimus dorsi flap, 11 cases of mini-temporalis lifts and 7 cases of anterior belly digastric transfer (single- or double-staged). In addition, there were 3 cases of direct coaptation for traumatic defects, 4 cases of primary nerve grafting and one case of mini XII-VII nerve transfer.

Aetiologies included acoustic neuromas, parotid tumours, Bell's palsy, developmental and traumatic. The commonest extra-cranial facial nerve branch involved was marginal mandibular (36%) followed by the frontal branch (21%). The mean time since palsy onset was 13.6 years (range: 0 to 59 years). Follow-up post-operatively, ranged from 4 to 30 months. Surgical outcome was assessed using photography and video analysis with the Terzis' scoring system being employed for objective assessment (assessed by independent observers).

Approaching the face in thirds; upper, middle and lower and then applying dynamic facial reanimation as appropriate, provides an excellent foundation on which to start their management. Better results, hence allow for increasing cross-specialty referrals for facial nerve management.

13:52 **Questions**

Bell Session Papers

13:55 **Identifying Variables that Influence Outcomes in Cleft Care**
Mr R Choa, Miss R Slator (Birmingham)

Introduction: Outcome measures are increasingly required to compare quality of care between centres. It is well recognised that outcomes of medical care may be affected by factors affecting the individual patients as well as by differences in the care delivered.

The aim of this study was to examine whether demographic factors and/or the severity of the cleft might be confounding variables when comparing measures of outcome specific to cleft care.

Methods: 300 patients from three regional cleft centres born in 2004 with a cleft lip and/or palate were reviewed. Demographic data including ethnic origin and level of deprivation were collected in addition to cleft

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outcome measures. Differences in demographic data between centres and the effect of these factors on cleft outcomes were analysed.

Results: Significant differences in level of deprivation and ethnicity were found between centres. Ethnicity and deprivation were found to significantly affect dental outcomes, but not speech outcomes. Cleft severity significantly affected speech outcomes, and a trend of worsening dental outcomes with more severe clefting was found.

Conclusions: Variables other than the specialist centre affect outcome; these variables may differ between centres. Inter-regional variation in patient demographics should be considered when comparing the performance of regional cleft centres.

13:57 Prevalence of Dysphonia in the West of Scotland Cleft Population: Associations with Cleft Type, Velo-Pharyngeal Dysfunction and Socio-Economic Deprivation

Mr C Russell, Miss S Chen, Miss L Crampin, Miss L Campbell, Mr M Devlin, Mr A Ray, Mr D Wynne (Glasgow)

Cleft speech issues including velo-pharyngeal dysfunction (VPD) and articulation errors are well recognised and researched. In contrast, voice issues (dysphonias) have received much less attention. This study describes the extent of this problem in the West of Scotland cleft population and investigates potential causal associations.

Retrospective analysis of consensus reported (Cleft Audit Protocol for Speech – Augmented) speech samples of all patients audited between 2007 and 2010 were undertaken. Demographics, diagnosis and treatments were obtained from hospital notes. Individual scores for the Scottish Index of Multiple Deprivations were obtained on the basis of patient postcode.

Adequate speech samples were available in 154/172 (89.5%) patients. Overall prevalence of dysphonia was 10.3%. Age (5:17.4% 10: 7.1% and 15: 8.1%) and sex (male: 7.2%, female: 14.1%) differences were not significant. Isolated cleft palate (p=0.04), VPD (p=0.008) and socio-economic deprivation (p=0.002) demonstrate significant associations with dysphonia.

While current theories of dysphonia pathogenesis in cleft patients suggest increased use of glottal stops to compensate for VPD, no previous studies have been able to demonstrate a link. This study is the first such demonstration, however these data suggests a more complex causality. Dysphonia has significant psychological impact in children as well as potential long-term sequelae. This under-recognised problem deserves further attention.

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13:59 **Optimising Iliac Donor Site Pain Relief in Paediatric Cleft Patients Undergoing Alveolar Bone Grafting (The West of Scotland Experience 2006-2010)**

Mr C Russell, Miss R Howarth, Dr T Moores, Mr T Gilgrass, Mr D Wynne, Mr A Ray, Mr M Devlin (Glasgow)

Historically, iliac crest donor sites used for alveolar cleft bone grafting have been associated with significant morbidity. To reduce post-op pain, increase early mobilisation and facilitate early discharge a standardised post-operative analgaesic protocol was introduced. Independent pain practitioners manage a protocol involving oral paracetamol/ibuprofen and donor site local anaesthetic wound infusions. This study aimed to assess clinical effectiveness.

A retrospective review of 92 consecutive patients treated between 2006 and 2010 was undertaken. 65 patients with full nursing, anaesthetic and surgical records form the basis of this report. Data were analysed using Microsoft Excel.

No patients required IV opiate, 5 patients required short duration oral opiate (codeine) as an alternate to NSAID for clinical reasons. Between 2006 and 2010 significant reductions in both duration of local anaesthetic infusion (42.5 vs 22.7 hours, p=0.02) and hospital stay (3.16 vs. 1.63 days, p=0.001) were achieved.

Data indicate a learning curve in use of local anaesthetic wound infusions. Overall the protocol described results in lower opiate use and shorter inpatient stays than that reported in published literature. This experience demonstrates that use of dedicated independent pain practitioners and local anaesthetic wound infusions optimises both patient experience and facilitates earlier discharge reducing both burden of care and costs.

14:01 **Objective Analysis of Cosmetic Results of Metopic Synostosis: Concordance and Inter Observer Variability**

Mr A Anand, Mr N Campion, Mr J Cheshire, Mr T Haigh, Mr J Leckenby, Mr H Nishikawa, Mr N White (Birmingham)

Introduction: Metopic synostosis is managed by frontal orbital advancement and remodelling (FOAR) to prevent deformity and raised intracranial pressure. Our outcomes were assessed and the observer technique used underwent statistical analysis.

Methods: Photographs of twenty consecutive patients with metopic synostosis were assessed at four time points. Each was analysed by two pairs of trained, rotating observers and reviewed by the fifth member who acted as a referee. Where disagreement arose in the initial findings, the 'referee' came to a final decision. The severity of trigonocephaly, temporal hollowing, ear asymmetry, hypotelorism, orbital asymmetry,

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epicanthic folds, deformational plagiocephaly and scarring was assessed. Kappa analysis was used to determine the validity of observer concordance.

Results: There was an overall trend of aesthetic improvement; however 12% had some persistence of trigoncephaly. Kappa statistics varied according to the feature assessed. The greatest concordance was for improvement of epicanthic folds and trigoncephaly with 84.1% and 82.6% observer agreement, respectively. There was least concordance for scarring, ear asymmetry and co-existing deformational plagiocephaly.

Conclusion: Observer analysis of photographic records is a valid outcome measure for cosmesis though it yields variable inter-observer concordance according to the feature assessed.

14:03 Questions

14:05 Should All Patients with Hypopharyngeal Cancers Receive Total Pharyngolaryngo-oesophagectomy? A Single Centre Review
Miss S Sinha, Miss E Gathura, Mr M Liddington (Leeds)

Introduction and Aims: The goal of hypopharyngeal cancer management is to achieve locoregional control whilst maintaining acceptable function. This study assesses whether organ preserving partial pharyngectomy and total laryngectomy (PPTL) leads to comparable local control and preservation of function compared to total pharyngolaryngo-oesophagectomy (TPLO).

Methods: A retrospective case note analysis of 82 patients between 2001 and 2011 was performed. 24 patients received PPTL and 58 patients received TPLO. Treatment, speech and swallowing outcome was assessed. Statistical difference was assessed using chi-squared test.

Results: Advanced stage (III/IV) disease made up 91% of the PPTL group and 81% of the TPLO group. Complete excision rate was higher in the PPTL group (83% vs 64%; $p \rightarrow 0.05$). Post-operative radiotherapy was given to 79% of the PPTL group and 57% of TPLO patients but the latter had higher rates of pre-operative radiotherapy. Local and nodal recurrence rates did not differ significantly (38% for PPTL vs 34% in TPLO). Intelligible speech in the TPLO group was achieved using an electrolarynx in 19% and a valve in 24% compared to 25% with an electrolarynx and 29% with a valve in the PPTL group. Normal swallow was achieved in 70% of TPLO cases compared to 83% of PPTL cases. A significantly higher proportion of PPTL patients achieved soft or full diet at 1 year (83% vs 55%; $p \leftarrow 0.05$).

Conclusions: PPTL can achieve satisfactory disease control whilst providing good functional outcome.

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14:12 **Questions**

14:15 **The Use of a Free Gracilis Muscle Flap in the Prophylactic Treatment of Pharyngocutaneous Fistula Following Salvage Laryngectomy- A Comparative Study with the Pedicled Pectoralis Major Flap**
Miss S S Jing, Mr J Kim, Mr J Clibbon (Norwich)

Background: Pectoralis major (PMF) is the flap of choice in the prevention and/or treatment of pharyngocutaneous fistula (PCF) following total salvage laryngectomy (SLR). The aim of this study was to compare the efficacy of a prophylactic free gracilis flap (GFF), against the PMF, to prevent PCF following total laryngectomy.

Methods: Patient demographics, co-morbidities, previous chemoradiotherapy, cancer staging, fistulation and complication rates of patients undergoing salvage laryngectomy at a tertiary head and neck centre between May 1999 and March 2011 were collected and analysed. The primary outcome measure was presence of a fistula either clinically or radiologically on contrast swallow test.

Results: Of the 49 patients, 22 received GFMF and 27 received PMMF reconstructions. Fistula rate was 63.0% in the PMMF group and 50.0% in the GFMF group (p=0.38). 9/17 (23.5%) and 2/11 (18.2%) fistulas in the PMMF group and GFMF group required further surgery, respectively. Other complications in the PMMF group were wound healing related (22.2%). In the GFMF group, there was one flap loss and one patient had surgical emphysema, wound dehiscence and neopharynx perforation.

Conclusions: Preliminary results support the novel use of GFMF over PMMF in the prophylactic treatment of PCF following SLR in selected patients.

14:22 **Questions**

14:25 **Outcomes Following Free Tissue Reconstruction of Pharyngolaryngo-oesophageal Defects After Tumour Resection.**
Miss E Gathura, Miss S Sinha, Mr M Liddington (Leeds)

Introduction: The management of pharyngolaryngo-oesophageal defects with an aim to restore function following tumour resection is often a challenge. We present an institutional experience of management of pharygolaryngo-oesophageal defects.

Methods: We present a retrospective study of 86 cases managed between 2002 and 2011. Post-operative complication rates and functional outcome at an average of 6 months post-operatively was analysed. Satisfactory swallowing was assessed. Speech outcome was assessed in terms of

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the ability to achieve intelligible speech by use of either voice prosthesis following tracheo-oesophageal puncture, or by use of an electrolarynx.

Key Results: The mean age was 62 years. 75 % of the patients were male. 61% of the patients underwent total pharyngolaryngo-oesophagectomies (PLO). The remainder had partial pharyngectomy. The anterolateral thigh flap (ALT) was used in 44% of the cases, whilst free jejunal transfer was carried out in 30% of the cases. Other flaps used included the pectoralis major myocutaneous flap, scapular flap, radial forearm flap and the vertical rectus abdominis myocutaneous flap (VRAM). Fistulas were encountered in 15.1% of the patients and strictures in 24.4 % of the patients. Flap failure was encountered in 3 cases (3.5%) and wound problems in 11.9% of the cases. Satisfactory speech outcome was achieved in 39% of the patients. 45% of the patients achieved a satisfactory swallowing outcome.

Conclusion: Despite the challenges of increased morbidity, pharyngolaryngo-oesophagectomies and free tissue reconstruction can be carried out with reasonable complication rates and fair functional outcomes.

14:32 Questions

14:35 Free Chimeric Fibular Flap Reconstructions for Complex Orofacial Defects

Mr R Y Kannan, Mr B Mathur, Ms K Tzafetta (Chelfmsford)

Introduction: Since first described in 1975 by Taylor et al, the fibular flap has gradually evolved into the workhorse flap for bony reconstruction of the mandibular/maxillary region with osseo-cutaneous variants, described in the 1980s.

Patients and Methods: In a retrospective case review of free fibular flap reconstructions at our institution from 2009-2011, there were 31 cases of free fibular flap reconstruction, of which 9 patients had chimeric free fibular flaps (flaps with two or more tissue components or perforators from a single vascular source). Of these six were osseo-myo-cutaneous flaps, with soleus muscle perforators.

Results: In our series, we had an 89% flap survival rate in chimeric fibular flaps versus a 100% flap survival rate for conventional fibular flaps. Unpaired students' t-test showed no significant statistical difference between the two groups.

Discussion: When raising chimeric flaps, it is important to note the tension on each leaf of the chimera as well as its length, as there is a tendency for pedicle torsion ('puppeteer' effect). In summary, this is a versatile tool for complex orofacial defects with the ability to provide

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soft tissue cover, volume replacement and skeletal support with a single flap.

14:42 Questions

14:45 A Six Year Retrospective Review of Distant Free Tissue Flap Reconstructions in a Regional Maxillofacial Unit
Dr S Patel, Dr L Low, Mr B Visavadia (Harrow)

Aims: To determine predictive factors of success, complication and survival rates of commonly used donor flaps in head and neck reconstruction.

Methods: A review of 116 flaps- 66 radial forearm free flaps (RFFF), 31 fibular free flaps (FFF) and 19 anterolateral thigh (ALT) flaps was performed. Patients' age, American Society of Anesthesiologists (ASA) status, creatinine (Cr) and haemoglobin (Hb) levels, operative duration, hospital and intensive care unit (ITU) admission duration were recorded.

Results: Results show success rates of 94% for RFFF (n=62); 90% for FFF (n=28) and 89.5% for ALT-flaps (n=17). 33% and 32% of RFFF and FFF patients were over 65. Patients had 4.4 days longer average admissions following FFF with shorter ITU admission (22% vs 26.5% of hospital stay). Cr and Hb fall was greatest following ALT flaps, 41.7umol/L and 3.83g/dL respectively. Hb reduction following RFFF was 3.6g/dL; 3.2g/dL following FFF. RFFF and FFF intra-operative times were similar at 9 hours 54 minutes and 10 hours 12 minutes respectively, with ALT-flaps taking longer at 10 hours 42 minutes. 55% and 56% of patients undergoing FFF and RFFF respectively had an ASA-II status and 67.7% of ALT-flap patients were ASA-I.

Conclusion: Complication rates of RFFF and FFF are comparable; however, RFFF offers 4% greater success with faster post-operative recovery. 34.5% were over 65 and no significant differences between pre and post-operative Hb or Cr levels were found in this age group (p=0.245). Age did not influence flap selection. FFF caused least blood loss, therefore is more favourable in haematologically compromised patients.

14:52 Questions

14:55 Superficial Circumflex Iliac Perforator (SCIP) Flaps in Head and Neck Reconstruction
Mr K Rahman, Mr R Green, Mr O Ahmed, Mr M Ragbir (Newcastle upon Tyne)

Introduction: The SCIP flap is a modification of the groin flap utilising perforators of the superficial circumflex iliac artery (SCIA). It has mainly

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been used in lower limb reconstruction with no descriptions in the literature of its use in intra-oral head and neck reconstruction. This paper reports the initial Newcastle experience.

Material and Methods: Data was gathered prospectively for all head and neck patients having SCIP flap reconstruction. All patients had a visual analog scar assessment and speech and swallowing assessment.

Results: A SCIP flap was used following the resection for 4 intra-oral SCCs and 1 pharyngeal SCC. There were no complications and excellent functional outcome. Donor site morbidity was minimal with direct closure achieved in each case leaving a scar easily concealed in the groin crease.

Conclusions: Overall the results both at the primary and donor sites in our first five cases have been aesthetically and functionally excellent. The flap pedicle easily reached the common recipient vessels in the neck. The vessels can be of smaller calibre but well within the scope of the microsurgeon. The SCIP flap appears to offer a thin, pliable, reliable flap with an excellent donor site.

15:02 **Questions**

15:05 **5 Year Experience of Free Tissue Transfer in the Elderly**
Mr A Nawar, Mr A Sierakowski, Mr B Mathur (Chelmsford)

Introduction and Aim: An increasing number of elderly patients are undergoing free tissue transfer. We reviewed our experience of this technique in patients aged 70 years or older, in order to ascertain its safety and efficacy.

Materials and Methods: A retrospective case note review of all free flaps performed at St Andrews' over a 5 year period in patients aged 70 years or older was carried out.

Results: Eighty-one free flaps were performed in 81 patients ranging from 70 to 92 years of age. The majority (81%) were for head and neck cancer reconstruction, followed by limb defects. Ninety-one percent of patients had pre-existing co-morbidities.

Flaps utilised included ALT, radial forearm, groin, fibular, parascapular and DIEP/TRAM. Overall flap survival rate was 94%. Forty-one percent developed significant medical complications post-operatively. Only one patient died within 30 days of surgery. The rate of surgical site complications was 21%.

Conclusions: Free tissue transfer may be performed in patients over the age of 70 with a high degree of technical success and low mortality.

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However, clinicians should be alert to the relatively high risk of post-operative medical complications, and patients counselled accordingly.

15:12 Questions

15:15 Modification of the Lower Eyelid Blepheroplasty Technique Combined with Cheek Lift for Patients with Hypoplastic Malar Prominences

Mr M Khan, Mr M Gorman, Mr M Riaz (Hull)

Introduction: We present a modified technique for lower-lid blepharoplasty and cheek lift for patients with hypoplastic soft tissue of cheeks. The senior author introduced the modification discussed after noting prominent lower orbital rims in patients with flat malar prominences.

Methods: The orbital fat is redraped over the lower orbital margin and a simultaneous SOOF lift is also performed fat to "double-breast" the lower orbital margin. This is combined with a standard canthopexy and cheek-lift for rejuvination of the mid face. We collected data from a retrospective review of notes, theatre logs and images from both private and National Health Service records.

Results: Our proposed technique achieved a smooth and youthful appearance of the cheek without recurrence of the V-deformity. The results were maintained at 13 month follow-up. Patient selection criteria were important with the technique deemed suitable in a total of 16 out of 75 cases operated on by the senior author over the last year.

Discussion: We present our data and have selected cases to illustrate the surgical technique used. The technique is valuable for patients with flat malar prominences and shall benefit plastic surgeons when making management decisions in this patient cohort.

15:22 Questions

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Parallel Session: Skin Malignancy and Burns

Chairs: Mr P Brackley and Mr S Varma

13:15 **The Kinetics of Wound Healing Following Free Flap Transfer in a Rat Model: Implications for Delivering Gene Therapy Across the Flap-Bed Interface**

Mr R Seth, Mr T Pencavel, Mr A Khan, Mr P Harris, Mr D Mansfield, Miss V Roulstone, Dr K Harrington (East Grinstead)

Introduction: Therapeutic free flaps represent a novel approach to reducing the risk of recurrence at a resected tumour bed. The potential to target adjuvant gene therapy directly to the tumour bed exists but the question of how expression of a therapeutic gene in the non-malignant, normal tissues of the flap might be translated into anti-tumour efficacy at the tumour bed has not been addressed in previous studies. Following surgery, the flap-bed interface represents a healing wound and the kinetics of the healing process will have a significant influence on the efficacy of gene therapy exported from the flap to the tumour bed.

Materials and Methods: The Superficial Inferior Epigastric Artery flap (SIEA) in F344 adult male rats (n=18) was used. Fibroblasts and neutrophils were differentiated on H&E staining (a total of 324 cell counts were carried out; 162 per cell type). The density of neutrophils, macrophages, fibroblasts and T cells was confirmed using immunohistological staining with a total of 648 cell counts carried out (162 per cell type). The interface thickness and degree of angiogenesis was also assessed.

Results and Conclusion: Healing at the flap-bed interface followed the normal cascade of events seen with other wound healing models. The results shown here will be useful in determining the optimum times to institute the various cancer gene therapy modalities.

13:22 **Questions**

13:25 **Microcarrier Beads Delivering Autologous Keratinocytes and Fibroblasts on Integra Reduce Wound Contraction in an In-Vivo Porcine Wound Model**

Mr M Eldardiri, Dr Y Martin, Ms J Roxburgh, Professor D Lawrence-Watt, Dr J Sharpe (East Grinstead)

Introduction: Full-thickness skin injuries lead to formation of scars and contractures. Wound contraction can be reduced using skin grafts or dermal substitutes, particularly in combination with autologous keratinocytes (AK) or fibroblasts (AF). Biodegradable gelatin Cultisphere™-G microcarriers can be used to expand and deliver cells.

Our in vivo study investigated wound healing and contraction following treatment with the dermal substitute Integra™ in combination with

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ultra-thin skin graft (uSTSG), sprayed autologous keratinocytes (SAK), and lastly, either autologous keratinocytes alone (MCAK) or a mixture of autologous keratinocytes and autologous fibroblast (MCAK/AF) on Cultisphere™-G microcarriers. Histological assessment and wound contraction were measured over 21 days.

Methods: Twenty-four 4cm² full thickness wounds in white pigs were treated with Integra™, followed by uSTSG, SAK, MCAK or MCAK/AF. Contraction was measured using Visitrak™. Wounds were excised for histological analysis.

Results: A comparable quality of epithelial repair in all treatment groups was shown using H&E staining and markers for basal keratinocytes and basement membrane. Contraction was significantly reduced using SAK, MCAK and MCAK/AF compared to uSTSG.

Discussion and Conclusion: The reduction in wound contraction observed in this study shows great potential for clinical benefit in the treatment of full thickness burn injuries and trauma.

13:32 Questions

13:35 Findings of Computed Tomography in Stage IIB and IIC Melanoma: A Six Year Retrospective Regional Study

Dr J Mennie, Mr G Orfaniotis, Mr N Fairbairn, Mr M Butterworth (Edinburgh)

Introduction and Aim: Revised BAD/BAPRAS 2010 guidelines for the management of melanoma recommend that staging CT is no longer indicated for AJCC IIB and IIC disease unless the patient is symptomatic. New guidelines also now recommend performing head CT. Our aim was to investigate regional CT findings in patients diagnosed with AJCC IIB and IIC disease and establish whether our findings affirmed new guidelines.

Methods: A retrospective review was conducted on all cases of AJCC IIB and IIC disease (172 patients) referred to our regional melanoma service between January 2004 and January 2010.

Results: Initial staging CT scanning was performed in 75 patients and detected one (1.3%) occult melanoma metastasis. Follow-up scanning was performed in 82 patients and detecting 32 (39%) patients with metastasis leading to a change in management in 29 (35%) patients. Two of the 32 patients had occult disease. Symptomatic patients had statistically significant more metastatic disease diagnosed than asymptomatic patients p←0.0001. Head CT detected 15/56 (27%) of all metastasis.

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Conclusion: CT scanning should only be performed in AJCC IIB and IIC melanoma patients if symptoms of clinical metastatic disease are present. Head CT should be included in the staging process. Our regional results concur with new BAD/BAPRAS guidelines.

13:42 **Questions**

13:45 **The Impact of PETCT on Clinical Decision Making in Melanoma**
Miss L Highton, Miss L Touil, Mr C Ekwobi, Mr J Srinivasan, Mr J Coffey, Professor J Hill (Preston)

Aims: To determine the impact of PETCT on clinical decision making for patients with melanoma.

Method: A retrospective comprehensive case note review was undertaken for fifty consecutive patients undergoing PETCT for melanoma from 2008–2010.

Results: Fifty PETCT scans were performed for patients with melanoma. Indications included loco-regional recurrence, melanoma of unknown primary and the suspicion of stage III/IV disease on conventional imaging.

Following PETCT there was significant stage migration, with twenty-one patients upstaged and seven patients downstaged. In thirty-three cases there was a change in management as a direct result of the PETCT findings.

Of note, three patients were found to have isolated lung metastases and underwent metastasectomy. Two patients underwent resection of PETCT detected second primary cancers. Seven patients suspected to have distant metastases were found to have localised disease and proceeded to nodal dissection. Two patients underwent limited debulking surgery and ten patients were referred to oncology for palliation due to the presence of stage IV disease on PETCT. There was one false positive PETCT, which detected second primary cancer.

Conclusion: We have found PETCT to be a useful staging tool for selected melanoma patients where diagnostic uncertainty exists. PETCT has had a high impact on decision making in the setting of a specialist skin cancer MDT.

13:52 **Questions**

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13:55 **Is Superficial Inguinal Node Dissection Adequate for Regional Control of Malignant Melanoma in Patients with N1 Disease?**
Mr O Smith, Mr S Rimouche, Dr P Lorigan, Mr D Oudit, Mr D Mowatt, Mr G Ross (Manchester)

Introduction: The optimum extent of surgery for inguinal nodal metastases due to melanoma remains controversial. Recent UK guidance suggests that patients with a single positive inguinal node should be treated with superficial groin dissection (SGD).

Aim: To evaluate patients with N1 disease treated with SGD to determine the recurrence rates and to evaluate whether SGD was adequate for regional tumour control in these patients.

Materials and Methods: Patients undergoing SGD between April 2005 and December 2010 were retrospectively analysed from a prospectively collected database.

Results: 47 patients were treated by SGD of which 33 had palpable disease and 14 had a positive sentinel node. Overall median follow up was 21 months (range 2 - 73). One patient (2.1%) had groin recurrence following SGD. This patient had palpable disease and recurred within the site of surgery; there was no pelvic recurrence. Distant recurrence occurred in 21 patients, with 20 of these patients coming from the palpable disease group and one from the sentinel node group. This difference was statistically significant ($p \leftarrow 0.05$). Overall survival at 5 years was 56.1%. Survival at 5 years in the palpable disease group was 46.1% and in the sentinel node group it was 87.5%, this difference was approaching significance ($p = 0.055$).

Conclusion: SGD appears adequate for local disease control in patients with N1 sentinel node positive disease. Longer term follow up for N1 palpable disease is required to determine the suitability of SGD for this group of patients.

14:02 **Questions**

14:05 **Foot Melanoma: Do We Need a New Surgical Paradigm?**
Mr Y Sheena, Miss N Patel, Dr S Murphy, Dr A Martin-Clavijo, Dr J Marsden, Mr N White (Birmingham)

Introductions and Aims: Melanoma of the foot and ankle is rare, but has a worse prognosis than cutaneous melanoma arising in other parts of the body, yet it is currently treated under the same paradigm. Our study aims to assess outcomes in patients treated for foot and ankle melanoma at our hospital with a view to clarifying the surgical management protocol.

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Materials and Methods: We retrospectively identified and analysed all patients with foot and ankle melanoma from our hospital's electronic, clinical and histology records between 2000 and 2009.

Results and Statistics: We identified 34 patients. 2 were excluded due to insufficient clinical data. The mean patient age at diagnosis was 67 years with a follow up of 44 months. 13 had a recurrence, 13 did not, and 6 were unknown (lost to follow up to peripheral hospitals). In those with a recurrence compared to those that did not the mean Breslow thickness was 5.05mm vs 1.75mm, the lateral margins were 18mm vs 14.5mm, and the deep margins were 8mm vs 13.5mm.

Conclusions: Our findings show that a larger Breslow thickness and closer deep margins correlated with recurrence implying the possibility of under treatment. We are currently investigating whether a more radical surgical approach would yield lower recurrence rates at our hospital.

14:12 Questions

14:15 Early Discharge Protocol for Regional Node Dissections for Skin Cancer-The Bristol Algorithm

Mr G Shehata, Mr G Filobbos, Mr W Bhat, Mr A Orlando (Bristol)

Introduction: It is common practice to keep patients in hospital following regional lymph-node dissection until drains are removed. At Frenchay Hospital, Bristol, we developed a protocol for management of patients requiring neck, axillary and groin dissections aiming at discharge within 72 hours post-operatively. The algorithm presented includes management from the initial clinic consultation, peri and post-operative management to discharge and regular follow-up clinic.

Methods: Prospective data of 50 patients was collected including demographics, management, date of surgery, complications, length of hospital stay and discharge. This was compared to 50 patients managed in our department prior to the introduction of the presented protocol. The main change was the discharge of patients with drains in situ, managed as outpatients by a clinical nurse specialist.

Results: We demonstrated patients had a much shorter hospital stay, higher patient satisfaction and fewer complication rates than the control group.

Patients following axillary dissection were discharged between 6 and 48 hours following surgery, following groin dissection between 24 and 48 hours and following neck dissection between 24 and 72 hours post-operatively.

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Conclusion: The presented algorithm has proved to be an efficient and safe streamlined pathway from consultation to safe discharge with the advantage of a shorter hospital stay and a reduction of cost of prolonged inpatient stay.

14:23 **Questions**

14:25 **Outpatient Drain Service for Patients With Groin and Axillary Dissection for Metastatic Melanoma**

Dr M Szmidt, Miss D Beck, Miss J Goodenough, Mr S Sofos, Mr P Brackley (Liverpool)

Introduction: Groin and axillary node dissections are procedures performed for melanoma patients who have metastasis to loco-regioal lymphatic basins. This procedure often requires extended hospital stay as the patients require drains to remain in situ for many days. The results of this pilot study demonstrate that patients can be safely discharged from hospital earlier with their drains in situ and with fewer complications by use of an outreach service. In addition, significant savings can be achieved for the NHS.

Methods: A retrospective case study. We compared patients who underwent dissections and analysed their complication rates.

Results: A total of 42 patients underwent groin or axillary dissection of which all had surgical drains placed. Three patients had immediate complications (haematoma, cellulitis). Six patients had delayed complications (seroma post drain removal). By having the outreach drain service, 167 in hospital days were saved, giving monetary savings of £50,100.

Conclusion: The use of an outreach service reduced the complication rate for groin and axillary dissections. Centres that perform these procedures should be encouraged to set up their own drain service to improve quality of care to patients, reduce complications and reduce costs to the NHS by permitting early discharge of patients from hospital.

14:32 **Questions**

14:35 **The Management of Solitary Fibrous Tumours: A Retrospective Review and Suggestions for Improvement**

Miss C Lipede, Mr K Rahman, Dr I King, Mr C Gerrand, Mr M Ragbir (Newcastle upon Tyne)

Introduction and Aims: Solitary fibrous tumours (SFT) are rare soft tissue sarcomas. Challenges in management include variation in anatomical location and uncertain malignant potential. We retrospectively reviewed our experience aiming to formulate guidelines on appropriate treatment.

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Methods: An electronic database identified patients with SFT presenting between 2003 and 2011. Clinical records were reviewed.

Results: 23 patients were identified. Mean age was 50.6 years (12 – 77 years). The anatomic location was lower limb in 8, upper limb 4, intrathoracic 3, retroperitoneal 3, buttock and perianal regions 2, pelvis 1, thoracic spine 1 and brain 1. 10 cases were histologically benign, 5 had malignant potential and 8 were malignant.

In 12 cases there was complete surgical resection. In 6 cases there were positive margins or piecemeal excisions. There were 4 local recurrences and 5 patients had metastases. Completeness of record keeping varied with times and surgical speciality.

Conclusions: SFTs occur infrequently, are difficult to diagnose, have an unpredictable course and present to a variety of surgical specialists. In order to improve outcomes, we recommend accurate recording and audit of surgical and histological margins, whatever surgical specialty leads the surgery, ideally within a sarcoma MDT and complete resection at first attempt is the goal.

14:42 Questions

Bell Session Papers

14:45 Are Non-Melanoma Skin Cancer Incomplete Excision Rates Different Between Grades of Plastic Surgeons?

Mr K Y Wong, Mr O Gilleard, Mr R Price (Cambridge)

Introduction: In an era where demand is increasing on limited resources and risk-adjusted clinical performance data is used to allocate funding to departments and trusts, significant differences in non-melanoma skin cancer incomplete excision rates between grades of surgeons may have a significant bearing on future skin cancer service provision. In a retrospective study we compared non-melanoma skin cancer incomplete excision rates of consultants versus trainees for procedures performed in the outpatient clinic.

Methods: We analysed 889 histopathologically confirmed basal cell carcinoma or squamous cell carcinoma excisions performed from 1 January 2009 to 31 December 2009 at the plastic surgery departments of a district general hospital, Peterborough City Hospital and a teaching hospital, Cambridge University Hospitals NHS Foundation Trust.

Results: There was a significant difference ($p \leftarrow 0.05$) in the rate of incomplete non-melanoma skin cancer excisions between consultants (4.1%) and trainees (8.7%). Subgrouping lesions according to anatomical

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site showed that the difference in incomplete excision rates was most marked for those lesions arising in the head and neck region.

Conclusion: In order to reduce incomplete excision rates in a feasible and cost effective manner we suggest that lesions arising in these anatomical sites are excised by consultants or under close consultant supervision.

14:47 The Psychological Impact of Facial Skin Cancer

Miss J Caddick, Dr J Stephenson, Mrs L Green, Mr G Spyrou (Wakefield)

Introduction and Aims: Patients presenting with low risk cutaneous malignancies are rarely offered formal support or counselling. Nonetheless 80% of non-melanoma skin cancers occur in the head and neck rendering the tumour and surgical scarring clearly visible. This study was designed to quantify the social and emotional impact of facial skin malignancies before and after surgery irrespective of tumour severity.

Materials and Methods: Fifty three patients with facial skin malignancies were prospectively evaluated before and three months after surgery using the Skin Cancer Index (SCI). This validated, disease-specific assessment tool measures three distinct subscales: emotion, social and appearance. Higher scores reflect improvement in quality of life (QOL).

Results: Excision led to a significant increase in SCI ($p \leftarrow 0.001$). Patients with squamous cell carcinomas reported significantly greater improvements than those with basal cell carcinomas ($p=0.016$). Women had lower pre and post-operative scores, but greater improvement in the emotional and appearance subscales, while men showed greater improvement in the social sub-scale. Increasing age correlated with greater improvement in QOL following surgery.

Conclusion: Lower pre-operative SCI scores confirm the presence of anxiety among patients with cutaneous facial malignancies. Surgical excision improves social, emotional and cosmetic wellbeing, particularly in patients with squamous cell carcinomas. Female and younger patients appear most vulnerable to QOL anxieties pre-operatively.

14:49 Necrotising Fasciitis - Can We Use a Scoring System?

Miss R Swain, Dr J Hatcher, Dr B Azadian, Dr N Soni, Ms B De Souza (London)

Introduction and Aims: Necrotising fasciitis is a life-threatening illness that can be difficult to diagnose and requires urgent surgical debridement and antibiotic therapy. With few UK case series studies, the aim of this study was to identify the characteristics of presentation

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of necrotising fasciitis and the subsequent management with a view to finding a scoring system.

Material and Methods: A retrospective analysis of patient records of the cases of necrotising fasciitis admitted to Chelsea and Westminster Hospital over a period of 5 years (2006–2011) was undertaken. Patient demographics were recorded as well as comorbidities. The organisms isolated were recorded and the surgical management.

Results: 15 patients were identified. The median age of patients was 51.0 years and the most commonly affected area was the leg. Three patients died. Monomicrobial Group A streptococcus was the most common infective microorganism, seen in 60% of cases. 9/15 patients received surgical debridement within 24 hours of admission, with patients requiring a median of 3.5 surgeries.

Conclusion: The LRINEC scoring system (Wong et al. 2004) showed little sensitivity for diagnosis in this case series. We advocate a scoring system that encompasses biological markers, age and comorbidities.

A multidisciplinary approach is vital when treating this disease in order to ensure prompt diagnosis and treatment.

14:51 Lenth of Stay for 10-20% Body Surface Area Scalds in Children
Dr T Walker, Mr W Bhat, Dr A Young (Bristol)

Introduction and aims: Current paediatric burn fluid resuscitation regimes advise resuscitating burns of → 10% body surface area (BSA) at 4mls/kg/%BSA. In our Bristol centre, fluid resuscitation is started at 10% and 15% BSA for flame and scalds respectively with volume calculated at 2ml/kg/%burn. We evaluated our guideline to determine its effects on patient outcome and length of stay.

Material and Methods: We performed a retrospective study of children who sustained 10-25% BSA burns between January 2007 and December 2011 inclusive. Demographics, aetiology, management and outcome of all burns were reviewed.

Key Results: Results were obtained for 33 children, 25 boys and 8 girls with a median age of 16.5 months (range 5 months to 16 years). Scalds accounted for 29 cases and flame the remainder. The mean burn BSA was 13%.

Using our service guideline, ten patients required resuscitation. Neither renal impairment nor signs of dehydration, determined by laboratory tests, occurred in any patient. High Dependency care as per service protocol was required in 9 patients (27%) (Mean stay of 8 hours 30 minutes). Average hospital stay per %BSA was 0.45 days.

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Conclusion: Our conservative approach to fluid resuscitation does not appear to have a negative impact on patient outcome, in fact, the length of stay per percentage burn in our unit is well below the national average.

14:53 **Questions**

14:55 **Facial Burn Excision and Grafting: A Novel Intra-Operative Prosthetic Aid**

Mr S Sofos, Mr H Tehrani, Mrs J McPhail, Mr K Shokrollahi, Mr M James (Liverpool)

Introduction: We describe the McPhail-James Buccal Prosthesis (MJB), an intra-oral silicon based device that was designed in our prosthetic department with a four-fold purpose during the intra-operative and early post-operative period.

Materials and Methods: The MJBs act as a commissural and circumoral retractor. This provides for both counter-pressure when excising burns of the cheeks and when applying graft dressings. The device allows for easy maintenance of oral hygiene and maintains the perioral tissue in a desirable "stretched" position until grafts have fully "taken".

Key results: We found that all four purposes were achieved by the use of the MJBs. Particularly oral hygiene was maintained to a high standard without disruption to the patient or jeopardizing the grafts by using large hindering devices. We also found that the "ballooning" of the cheeks via the MJBs provided a firm base for the facial grafts whilst providing circumoral tension in order to prevent microstomia.

Conclusion: We have found the custom-made MJBs to be a useful adjunct in the management of perioral and facial burns requiring surgical management, and we encourage their use in the management of such patients.

15:02 **Questions**

15:05 **Should We Rethink the Severity of Non-Severe Burn Injury? Mechanisms and Mediators Involved in the Systemic Response to Non-Severe Burn Injury**

Dr E O'Halloran, Dr T O'Neill, Dr M Fear, Dr G Pinninger, Dr T Bakker, Professor S Rea (Perth)

Introduction: The term Non-Severe Burn Injury (NSBI) is misleading. NSBI accounts for 90% of the clinical case load in the UK, USA and Australia. NSBI has been shown to induce systemic changes in non-injured organs, in particular skeletal muscle, cardiac muscle and cutaneous innervation. Skeletal muscle deficit is the most common reason cited by burns patients as preventing return to work and is

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therefore of acute interest. Whilst systemic changes in response to NSBI have been demonstrated, to date, little is known about the underlying mechanism. Here, we have investigated if the immune response is key to skeletal muscle changes after NSBI.

Methods: Serum collected from burn injured mice that demonstrated loss of skeletal muscle force after NSBI was analysed for cytokine profiles to identify possible mediators of the systemic muscle changes observed. Subsequently, 9 week old female C57BL/6 mice received a full-thickness contact burn of approximately 8% TBSA. In–situ isometric contractile properties are measured on the Extensor Digitorum Longus (EDL) and Soleus (Sol) muscles following direct muscle stimulation at day 28 (as previously described). The immune response was moderated using specific reagents including Cyclosporin A, Fucoidan and anti-TNF monoclonal antibodies to determine if these reagents could reduce or negate loss of skeletal muscle force in this model.

Results: Our data has shown prolonged loss of skeletal muscle force at day 28 post-injury which persists at 12 weeks post-injury. There is hypertrophy of the cardiac muscle in the posterior wall and inter-ventricular septum at day 28 which is maintained at 12 weeks post-injury. Cytokine profiles at day 28 and 84 did not indicate long-term elevation of the immune response. The impact of immune modulation is currently being assessed.

Conclusion: NSBI leads to long term systemic changes, and the impact of these injuries may be more extensive and long-lasting than previously thought. The mechanism by which NSBI leads to systemic change is key to future therapeutic intervention to reduce the impact of NSBI.

15:12 Questions

15:15 Evidence Based Management for Paediatric Burn Injury: Has Our New Approach Improved Scar Outcomes?
Miss L Kishikova, Mr M Smith, Ms T Cubison (East Grinstead)

Introduction: Evidence shows the formation of hypertrophic scarring is related to healing time, with durations under 21 days associated with improved scar outcome. Over the last few years we have introduced advances such as LDI and biological dressings at Queen Victoria Hospital, East Grinstead, forming a structured approach to management. We compared the outcome of a recent cohort of children treated at our burns centre to those treated previously.

Materials and Methods: Our study was a retrospective cross-sectional case note study, with demographic, treatment and outcome information collected. Each case was assessed to ensure correct management was

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given, and outcomes for these patients compared against a similar cohort from 2006.

Results: 181 cases of children treated for burn injuries, over a 6 month period were analysed, compared to 337 from the previously published cohort. Comparison of patients between cohorts showed a far greater rate of wound healing in less than 21 days (75.1% compared to 62.0% previously), particularly for under 10 days (28.2% vs 16.3%), and a lesser incidence of healing times greater than 30 days (11.6% vs 24.8%).

Conclusion: The use of a modern, structured management approach for paediatric burn injury has improved treatment, leading to a better scar outcome.

15:22 Questions

15:25 The Ongoing Implications of Using a Treatment Protocol for Toxic Shock Syndrome in Paediatric Burns

Mr J Paget, Mr G Shehata, Miss S Sepehripour, Dr A Young, Mr I Mackie (Bristol)

Introduction: Toxic shock syndrome (TSS) is a recognised and potentially serious complication of paediatric burn injuries. We have used a protocol for recognition and treatment of TSS based on the Cole and Shakespeare criteria since 2001. We present a review of our cases of TSS from 2007-2010.

Methods: A retrospective analysis of notes and contemporary pathology results was performed for any patient returning unwell to the burn unit.

Inclusion criteria: documented diagnosis of TSS.

Results:

- 32 cases of TSS (incidence 1.23%)
- Average patient developing TSS is 2.2 years old, weighs 12.9kg, has a 6.3% scald burn, presents at post burn day 4 and is healed by day 11.
- 0% mortality

Protocol criteria sensitivity

Temperature →39°C	Rash	Irritability	Diarrhoea/ vomiting	Hypotensive shock	Lymphopaenia
50%	46.9%	25%	28.1%	9.4%	46.9%

Sensitivity of other measures

Elevated CRP	Hyponataemia
90.6%	6.2%

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Conclusions: Low protocol criteria sensitivity could be a result of early treatment or over-diagnosis, however its use in our unit achieved low morbidity and no deaths. Whilst over-diagnosis of TSS remains a concern, our incidence has fallen with experience.

A raised CRP is a sensitive measure for potential TSS suspects and should be included in the work up of these patients.

15:33 **Questions**

15:35 **Refreshments and exhibitions**

15:55 **Free Papers: Parallel Sessions**

Education, Service Provision and Overseas
Chair: Miss B Jemec

Breast - go to page 43
Chair: Ms S O'Ceallaigh

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WEDNESDAY 11 JULY 2012

Parallel Session: Education, service provision and overseas
15:55 – 16:05

Parallel session: Education, service provision and overseas
Chair: Miss B Jemec

15:55 **Major Trauma Centres: the Impact on Plastic Surgery Manpower and Implications for the Future**
Mr J Henton, Mr J Simmons, Mr A Jain, Mr S Hettiaratchy (London)

Introduction: The London Major Trauma Centres (MTCs) were the first trauma networks to go live. No provision has been made in the MTC designation criteria for plastic surgery. We report our department's experience of providing plastics support to an off-site MTC and the implications for service provision.

Methods: Prospective data collection was undertaken over 6 months following MTC opening using an internet database to log calls, ward reviews and operations alongside time spent in theatre and on the wards. Workload was compared to pre-MTC levels.

Key Results: Servicing the MTC has increased our department's workload dramatically. 76 trauma cases were performed at the MTC; 62% attended by 1 consultant, 10% required 2 consultants. Up to 21 hours per week were spent operating or waiting to operate and additional manpower was required for ward cover. There were 133 lower limb trauma cases referred to our unit in the first year of the MTC, compared to 61 in the preceding year, presenting a significant logistical challenge to ensure BOAST standard compliance.

Conclusion: Plastic surgery is integral to modern trauma management. Any plastic surgery department that is considering being linked to a new MTC must be prepared for a major increase in activity and should plan accordingly.

16:02 **Questions**

16:05 **Plastics Trauma Clinic in Frenchay Hospital- A One Year Experience of 4000 Patients**
Mr G Filobbos, Mr D Izadi, Mr W Eljabu, Mr S Wilson, Mr S Lee (Bristol)

Introduction: Plastic surgery trauma comprises of a diverse range of problems. The caseload of plastics trauma has been increasing and reported to take up over 25% of the work of plastics units. The increased workload places a burden on bed occupancy, operating time and personnel. At Frenchay Hospital we established a daily plastic surgery trauma clinic since 2008 to streamline increased referrals.

This study aims to assess the impact of the triage of plastic surgery trauma patients, presenting through a trauma clinic, on the service provision and management outcomes.

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Materials and Methods: A retrospective collection of data from January 2009 to January 2010 was undertaken, using the coding sheets filled out on over 4000 patients. We recorded demographics, geographic site of referral, subdivision of patient injuries and outcome measures.

Results and Statistics: We present 12 months of data and statistical analysis of our data.

Conclusions: Accurate triage within a specialist trauma clinic setting reduces the number of inappropriate referrals and unplanned overnight admissions. Decisions are made by more senior doctors with early definitive management, reducing delays and improving efficiency. This enabled us to optimise resource allocation and increased revenue for the department through a more accurate auditing and coding of trauma patients.

16:12 Questions

16:15 Microsurgical Skill Acquisition Learning Curves and Implications for Postgraduate Career Selection and Surgical Training Curriculum Design

Miss S Ramachandran, Mr A Ghanem, Professor S Myers (London)

Introduction: For surgical educators to develop a competency based curriculum in microsurgery, the following poorly defined aspects of microsurgery training need addressing: training duration, frequency, outcome measures and establishment of safe clinical thresholds. Answers lie in the understanding of microsurgical skill acquisition and the construction of standardised learning curves specific to the stage of training. The paucity of literature in these aspects of curriculum development has inspired this study.

Methodology: At the London deanery Microvascular Anastomosis Simulation Hub, a group of surgical trainees are studied. A standard simulated microsurgical procedure is performed, recorded and blindly analysed using modified global rating scales (GRS). The group is followed through with serial exercises to investigate a learning curve. Skill acquisition is compared to experts.

Results: 43 participants were analysed and demonstrated significant increase in mean GRS scores and decrease in time taken to complete the procedure for all the cohorts except the experts. Average GRSs of the trainees demonstrated normal distribution.

Conclusion: Learning curves of normal distribution exist in skill acquisition for undergraduate and postgraduate trainees. Standardising these curves will enable us to identify the percentile in which a trainee is in and individualise training and serve as career guidance for individuals

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below safe clinical thresholds. These learning curves highlight the possibility of establishing safe clinical thresholds, which could better inform curriculum design in microsurgery.

16:22 Questions

16:25 An Audit of Free Free Flaps- Do Plastic Surgeons Get Their Just Rewards?
Mr M Pass, Mr A Blackburn, Mr M Ragbir (Newcastle upon Tyne)

Background: Plastic surgical reconstructions facilitate ablations of otherwise inoperable tumours. In many hospitals the tariff for the reconstructive surgery is allocated to the admitting ablative surgeon. The plastics department is not remunerated for its role in multidisciplinary care.

Aims: To investigate the accuracy of the coding of combined specialty procedures and the loss of potential income to the plastic surgery department.

Method: Patients were identified using a single consultant plastic surgeon's operative logbook. Inclusion criteria were all patients who had plastic reconstructive surgery whilst formally under the care of another speciality over 2 years around Newcastle. National tariffs were used to calculate loss of income.

Results: OPCS codes only correctly identified 3/23 procedures that were known to have been performed. A total of 38 reconstructions had been performed. The hospital billed £205,042 for the entirety of the 38 operations. Accurate costings for the reconstructive element alone were £373,071.

Conclusion: There are considerable problems with clinical coding. The coding department were unable to identify 20/23 procedures performed. The total billed amount for the entirety of the operations was £168,029 less than the reconstruction alone should have cost.

16:32 Questions

16:35 The Impact of the PLCP Policy on 'Potentially Cosmetic' Referrals to Plastic Surgery at Alder Hey Children's Hospital
Mr J Howie, Ms S Falder (Liverpool)

Introduction: In August 2010, Merseyside Primary Care Trusts (PCTs) identified procedures of low clinical priority (PLCP), listing interventions deemed to be "potentially cosmetic" to no longer be funded without prior approval by the PCT. Many were common general paediatric plastic surgery conditions. We questioned the term "potentially cosmetic" and

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negotiated an amendment clause reflecting psychological importance of such conditions in children.

Aim: To study the effect of this policy on referrals to plastic surgery in Alder Hey.

Method and Materials: A list of referrals to plastic surgery between January 2010 and June 2011 was collated retrospectively. These were categorised into "purely cosmetic", "restoration to normal" and "functional reconstruction" groups. Trends were analysed.

Results and Analysis: There were 4159 referrals; 40% were cosmetic, 45% were restorative and 15% were functional. Referral rates peaked in June 2010 (307 cases). Post-policy, referrals declined reaching a low of 155 in December 2010. The main impact was in "cosmetic" and "restorative" conditions. A subsequent increase in referrals has yet to reach pre-PLCP levels.

Conclusions: 85% of paediatric referrals were affected by the PLCP policy which continues to affect our workload despite an amendment. Our specialty needs clearer definitions of our workload in order to justify threatened clinical activity.

16:42 Questions

Bell Session Papers

16:45 Dissection of Microsurgical Skill by Simulated Anastomosis Training
Mr A Ghanem, Miss S Ramchandran, Ms S Shurey, Professor S Myers, (London)

Introduction: Assessment of microsurgical competency and understanding skill acquisition in microsurgery is essential in producing safe and competent surgeons. Objective assessments and simulation are revolutionising surgical training. This paper examines the role of objective assessment in a simulated training environment in delineating reliable indicators of skill acquisition in microsurgery.

Methods: A total of 55 candidates completing a 5-session basic microsurgical training course were assessed by a 16-component modified global rating scale (GRS) at the end of each session. All assessments were recorded, randomly and blindly analysed. Using Analysis of covariance (ANCOVA) model the component with the most contribution to the GRS total score was identified.

Results: Scores from each of the 16 components of the GRS were statistically correlated to that of the total global rating score. "Guiding

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needle through vessel wall" was found to be the component with the highest regression coefficient.

Discussion and Conclusion: A multi-component objective GRS has construct validity. It is able to distinguish between different levels of surgical training and also to identify sensitive indicators of skill acquisition. Each of the 16 components is important for assessment of competency and should be emphasised during training.

16:47 **Integration of Plastic Surgery into the Undergraduate Medical Curriculum- The Norwich Model and Experience**

Miss A C Y Au, Mr J Kim (Chelmsford)

Introduction and Aims: Plastic surgery is not incorporated in most medical curriculum in the United Kingdom. This has led to the development of self-funding, commercial courses and conferences to learn about plastic surgery. With the current direction of early specialisation and focused training, it is essential to include plastic surgery into undergraduate teaching to provide a clear identity of the specialty as well as hands-on training.

Methods: The Academic Plastic Surgical Unit developed at the University of East Anglia (UEA), and the Norfolk and Norwich University Hospital have successfully integrated plastic surgery into two existing modules: Blood & Skin, and Reproduction within the 5-year programme.

Student Survey Results: The student evaluation found 78.0% of students wanted formal plastic surgery teaching and 60% of students felt less competent without formal teaching. One student's comment was: 'The extra theatre time made me realise what plastic surgery was!'. Less than 5% of students found plastic surgery interesting but irrelevant as it was not examined in their examination.

Conclusion: We present our successful experience on the integration of plastic surgery throughout the UEA undergraduate medical curriculum. Further integration into other modules is in progress. We hope this will enlighten medical faculties in other medical schools worldwide to consider encompassing plastic surgery into their curriculum.

16:49 **The Impact of Prophylactic Mastectomy on UK Breast Reconstructive Services**

Miss A Murray, Dr P Webster, Mr R Thethi, Mr D Ali, Miss O Austin (Leeds)

Introduction: It is established that BRCA-positive women have a high risk of breast malignancy. Improved genetic counselling and UK guidelines recommending prophylactic mastectomy in this group of women have resulted in an increase in mastectomy rates and breast reconstruction.

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Methods and Results: We looked at the prophylactic mastectomy rate in the Mid-Yorkshire Trust between 2008 and 2011, finding an average 5% per annum. Within this period there was however, an increasing trend.

Three subsets of patients were identified within the prophylactic group:

- BRCA1/2 gene +ve (52%),
- Strong family history but no genetic markers (14%)
- Previous contra-lateral breast malignancy or DCIS (34%)

We also carried out a regional survey of current practice, finding an inter-trust variability in management options presented to these three patient subsets. In addition, the majority of women within this group had a breast reconstructive procedure (90%).

Conclusion: The rate of prophylactic mastectomy is increasing. This is relevant to the reconstructive surgeon and future service provision as most patients within this group request reconstruction. In addition, we discuss a subset of women in which prophylactic mastectomy offers little oncological advantage and argue UK guidelines should also be inclusive of all these patients to ensure national standards of care.

16:51 **Questions**

16:55 **Update on BFIRST- The British Foundation for International Reconstructive Surgery Training**
Miss B Jemec, Chair, BAPRAS Overseas Service and Training Committee

17:05 **Facing the World: Audit of Activity 2002 to 2010**
Dr N Hachach-Haram, Mrs S Benyon, Mr S Eccles, Mr N Kirkpatrick, Mr M Kelly, Mr N Waterhouse (London)

Background: Craniofacial anomalies, although uncommon, can have considerable effects on the individual, their family and society [1-4]. They carry with them a large morbidity and require a highly specialised, multidisciplinary approach to treatment [5]. Facing the World (FTW), was founded in 2002, to offer facial reconstructive surgery to children with complex, craniofacial anomalies with no prospect of local treatment, from developing countries anywhere in the world.

Methods: We present an 8 year audit of the cases treated by FTW, where children are brought from their own countries to the UK for treatment. Patient selection takes place prior to their arrival in the UK by a multidisciplinary team. Specifically the condition has to be correctable to a degree that justifies the risks involved with the surgery, and the disruption to the child and their family.

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Results: Since inception, FTW has evaluated more than 300 cases and provided treatment in the UK for over 24 cases from 18 different countries. We present our range of cases and complications. We discuss our complication rate of 28% and mortality rate of 4% (1 case).

Conclusions: Key to the sustainability of FTW is the development of local healthcare infrastructure within the developing countries to facilitate eventual local management of the more straightforward cases and follow up of these patients by well-trained medical staff. By establishing these programs, FTW aims to not only change these children's lives but to raise awareness, and help to expand the global craniofacial network whereby in the future, satellite partners will be present to help manage these conditions locally.

17:12 Questions

17:15 Addressing the Global Burden of Reconstructive Surgical Disease - Is There a Role for Trainees?
Mr D Saleh, Mr S Majumder, Mr K Mizen, Mr L Fourie, (Wakefield)

Recently the World Health Organisation (WHO) has attempted to quantify the extent of surgical disease and its impact on the economy and populations in developing regions. It is estimated over 10% of worldwide disability adjusted life years (DALYs) are secondary to surgical disease. Moreover, 66% of these are related to congenital, neoplastic and traumatic disability; the standard diet for a plastic and reconstructive surgeon. Plastic surgeons have been at the forefront of developing links in Africa and this is likely to expand as the true volume of plastic surgical disease becomes apparent.

The provision of care by trained senior plastic surgeons and their teams from the developed world is increasing and there is debate as to whether trainees should be included. The era of trainees working in unsupervised conditions in the developing world is hopefully confined to the past. We believe the varied case-load, constant consultant supervision, surgical planning, logistics and exchange of information with local surgeons provides an excellent global experience for registrars. We believe missions do not detract from the objectives outlined with educational mentors, rather, provide a continuum for achievement. The experience of one registrar who undertook two missions with senior surgeons to the east and west Africa are quantified and the argument for trainees attending are given.

17:22 Questions

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Parallel Session: Breast
15:55 – 16:05

Parallel Session: Breast
Chair: Ms S O'Ceallaigh

15:55 **Retrospective Review of 251 Cases of Therapeutic Mammaplasty for Breast Cancer from a Multidisciplinary Unit in South Africa: Oncological and Aesthetic Outcomes**
Dr A Grubnik, Dr G Edwards, Dr C Benn (Johannesburg)

Therapeutic Mammaplasty (TM) for breast cancer is a widely practiced oncoplastic technique. Patient selection criteria are not clearly established. The aim of our review was to analyse oncological and aesthetic outcomes over a 7 year period.

A retrospective review of 251 breast cancer patients that underwent TM from 2002 to 2009 was undertaken. Primary chemotherapy was used to downsize large tumours. Intra-operative margin assessment was performed. Statistical analysis was performed using Kaplan-Meier estimates. Cosmetic outcomes were assessed by an independent panel on photographic material. Patient satisfaction was assessed using a questionnaire.

Mean tumour size was 15.4mm. Mean resection weight was 237g. 64 (25.5%) patients received primary chemotherapy. Mean margin taken was 15mm. Reoperation rate was 2%. Contralateral occult disease was identified in six cases. Early complication rate (←2 months) was 3.2%. Late complications related to adjuvant radiotherapy were 20.7%. Mean follow-up was 50 months. Local recurrence rate was 2.2%. Overall survival was 96.4% and metastasis-free survival was 94.6%. Acceptable cosmesis was achieved in 96% of patients. Patient satisfaction was 85%.

Primary chemotherapy allowed for TM in patients with large tumours. Intraoperative margin assessment decreased reoperation rate. Contralateral matching procedures resulted in histological detection of occult disease. TM is an oncologically appropriate and cosmetically favourable technique.

16:02 **Questions**

16:05 **Effect of Perforator Number and Location on the Total Pedicle Flow and the Perfusion of Zone 4 Fat and Skin of DIEP Flaps**
Miss H Douglas, Mr I Mackay (Glasgow)

Introduction: Many surgeons routinely discard Z4 of DIEP flaps, limiting transferrable tissue. We investigated the effect of altering number and location of perforators supplying the flap on total pedicle flow and perfusion of skin and fat of Z4.

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Methods: 20 cranially-based abdominal epigastric-perforator flaps were raised in Wistar rats on two perforators, which were sequentially clamped/released in a randomised order and total pedicle flow measured on the following perforator combinations.

- P1 (Superior perforator)
- P2 (Inferior perforator)
- P1+2 (Both perforators)

12 DIEP flaps were raised in breast reconstruction patients on two perforators, which were clamped/released on identical perforator combinations described above. Perfusion of Z4 skin and fat was measured using Laser Doppler Imaging and SPY indocyanine-green-fluorescence-angiography scans.

Results: Data was analysed using 2-way-ANOVA revealed vascular flow and Z4 skin and fat perfusion was significantly ($p \leftarrow 0.0001$) greater when a single perforator was used.

Conclusions: Our data suggests total pedicle flow and Z4 skin/fat perfusion is significantly higher on a single perforator. Possible reasons for this could be due to changing pressure gradients across an area of the flap prone to venous congestion.

16:12 Questions

16:15 Accurately Costing Unilateral Delayed DIEP Flap Breast Reconstruction

Mr J Paget, Miss K Young, Mr S Wilson (Bristol)

Background: The short term cost of breast reconstructions with DIEP flaps has potentially affected the availability of this procedure across the UK. Reports of costs vary and recent studies have relied on data from hospital financial services which use average theatre costs per minute as a basis for their calculations.

Aims:

- Investigate the income versus cost for delayed unilateral DIEP breast reconstruction;
- Assess the adequacy of the financial coding estimates.

Methods: We collected absolute costs for 10 consecutive unilateral DIEP breast reconstructions from August 2011. This figure included all consumables, re-useable materials, staff and structural running costs. Comparison was made to the financial data collected in the 2010 fiscal year comprising 27 similar cases. We used a non-paired student t-test for statistical analysis.

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Results:
Average absolute cost: £7628.34/case.
Average financial estimated cost: £8,072.23/case.
Average tariff: £8,792.21/case
Average income: £719.98/case

Conclusions: The estimated cost is not statistically different from the absolute cost (p=0.27) and therefore is a reliable estimate of costing for these procedures. In our unit, delayed unilateral DIEP flap breast reconstruction is an income producing procedure for the trust. Cost vs tariff implications should not limit access to this type of breast reconstruction.

16:22 Questions

16:25 Evaluation of the Impact of Autologous Fat Grafting in Breast Reconstruction: A 7 Years Single Center Experience
Dr K Seretis, Mr J Staiano, Mr S Soumian, Mr G Sterne, Mr F Fatah (Birmingham)

Introduction: Autologous fat grafting is increasingly being used in breast reconstruction. The aim of the study is to evaluate the impact of lipomodelling in breast reconstruction, following its use since 2005.

Material and Methods: A retrospective review was performed on all patients with a history of breast cancer, who underwent reconstruction since 2003. Data on patient demographics, indications and type of reconstruction were collected. We analysed the subgroup of patients on whom lipomodelling was performed.

Results: Breast reconstruction was performed in 640 patients. 249 sessions of lipomodelling were performed in 154 patients, secondary to reconstruction with extended latissimus dorsi (ELD) flap with or without implant (n= 31, 45, respectively), abdominal flaps (TRAM, n=27, DIEP, n=8), implants (n=18), or after breast conservation therapy (n=17) or mastectomy defects (n=8). 40% of patients had repeated sessions (mean=2.5, range: 2-6). A significant decrease in the use of implants with ELD flaps was identified, since the implementation of fat grafting.

Conclusions: Lipomodelling is effective in improving breast contour, volume and symmetry following breast reconstruction. It is also useful in avoiding implants or contralateral matching procedures, and treating implant-related complications. In our practice lipomodelling has become an indispensable adjunct of breast reconstruction.

16:32 Questions

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16:35 **Implant Augmentation vs. Autologous Fat Grafting in Free Flap Breast Reconstruction Patients**

Miss G Oni, Mr C Lakhiani, Dr K Narasimhah, Dr A Cheng, Dr M Saint-Cyr (Dallas)

Introduction and Aims: Autologous breast reconstruction is now widely sought post mastectomy, however, there are often instances where the volume of autologous tissue from the patient is not sufficient for symmetric reconstruction. In these cases, flaps can be augmented either with implants, and/or autologous fat injections to achieve the desirable volume, shape, symmetry, and contour of the breast.

Materials and Methods: A retrospective chart review was performed on patients who underwent secondary augmentation post breast reconstruction using autologous fat grafting or implants over a 3 year period. Outcomes measured included complications with reconstruction or augmentation, and need for re-operative intervention.

Results: Twenty-four patients (41 breasts) received were included in this study. Sixteen (26 breasts) had fat graft augmentation, four (8 breasts) had implant augmentation only, and four (7 breasts) had both procedures. Re-operation rates were once for the fat grafting group for partial flap loss, however, the re-operation rate in the implant group was higher: implant infection (2), fat necrosis (2), capsular contracture (2), and implant malpositioning (1). The difference between the groups was significant (p=0.002).

Conclusions: Autologous fat grafting provides the ability to selectively augment areas of hollowness to improve contour and maximise symmetry post breast reconstruction. Moreover, it results in significantly fewer complications than implant augmentation.

16:42 **Questions**

16:45 **Use of Progressive Tension Barbed Sutures in DIEP Flap Donor Site Closure**

Miss G Oni, Dr P Nagarkar, Mr C Lakhiani, Dr A Cheng, Dr M Saint-Cyr (Dallas)

Introduction and Aims: The use of progressive tension sutures has been shown to be comparable to the use of abdominal drains in abdominoplasty and LD donor sites. However, the use of barbed sutures with a progressive tension technique in deep inferior epigastric artery perforator (DIEP) flap donor site closure has not been investigated.

Material and Methods: A retrospective chart review was performed on 47 patients with DIEP flap reconstruction in a 3 year period at a single institution. Three groups of patients were compared: Group A (n=11) had

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progressive tension barbed sutures without drain placement. Group B (n=17) had running progressive tension closure with drain placement. Group C (n=19) had traditional closure with drain placement only.

Results: Seroma: Group A=9.1%, Group B=5.9%, Group C=0%. Wound dehiscence: Group A=0%, Group B=5.9%, Group C=21%. Umbilical necrosis and severe post-operative pain: Group A=0%, Group B=0%, Group C=5.3%. There was no significant difference in complication rates between the groups ($p \rightarrow 0.05$).

Conclusions: Use of barbed progressive tension sutures for abdominal closure after DIEP flap harvest reduces post-operative pain and wound dehiscence. Complication rates following this technique are not significantly different from closure using progressive tension sutures and abdominal drain placement. However, the absence of abdominal drains can promote early patient mobility and thus reduce morbidity.

16:52 Questions

16:55 A New Technique Combining Central Mound Pedicle, Dermal Wings and Plication of Infra-Nipple Dermal Flap for Breast Reconstruction and Mastopexy

Mr M Khan, Mr M Gorman, Mr M Riaz (Newcastle upon Tyne)

Introduction: We present a modification of breast reduction and mastopexy techniques by employing a central mound pedicle, dermal wings, fixation of breast tissue to pectoral fascia and plication of dermis of the infra-nipple area to achieve a youthful breast.

Methods: The senior author introduced the modification discussed for mastopexy in post-bariatric surgery patients with marked ptosis where preservation of dermal wings with the central mound pedicle conserves breast tissue for contouring. The procedure was later modified for routine large breast reductions. Plication of the infra-nipple area reduced post-operative pseudoptosis. These internal mastoplasty steps result in a stable breast mound without relying on tight closure of skin flaps. We collected data from a retrospective review of notes, theatre logs and images of private and NHS patients.

Results: There were 35 cases performed in total in 1 year. All patients had bilateral procedures except 2 patients who had unilateral procedures for symmetrisation. The median age was 39 with an age range of 28 to 67. The post-operative results were maintained at 1 year with improved breast on chest position and reduced risk of pseudoptosis.

Discussion: For the purposes of this presentation we have selected cases to illustrate the surgical technique and our long term results.

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17:02 **Questions**

17:05 **There is a National Variation in Peri-Operative Anaesthetic Technique for Breast Free Flap Reconstruction in the UK: Should We Be Concerned?**

Mr H Sadideen, Mr J Birch, Dr J Griffiths (Oxford)

Introduction: Peri-operative anaesthetic techniques are important in maximising microsurgical success and analgesic delivery. The National Mastectomy and Breast Reconstruction Audit (NMBRA) highlighted a variation in breast free flap reconstruction (BFFR) success. As current UK peri-operative anaesthetic practice is unknown, a national survey was conducted.

Methods: A link to an online questionnaire was sent to consultant anaesthetists in every UK centre undertaking BFFR. Data was collected on important aspects of peri-operative anaesthetic technique which included fluid therapy, haemodynamic monitoring, analgesic strategy and transfusion practice.

Results: The response rate was 80%. Twice as many centres undertook DIEP-BFFR compared with TRAM-BFFR. Peri-operative fluid therapy was not goal-directed (70%) and was mainly liberal (70%), not restrictive. The intra-operative haemodynamic monitor of choice was continuous iABP, not oesophageal doppler. 25% of respondents employed a regional analgesic strategy, with TAP and rectus sheath blocks the commonest (61% and 38%). Transfusion practice varied within and between all units.

Conclusions: There is wide national variation in peri-operative anaesthetic technique for BFFR. In light of recent literature and the NMBRA results, further research is recommended to confirm whether this translates into varied clinical outcomes, and whether these clinical outcomes can be improved by the development of a best-practice approach.

17:12 **Questions**

17:15 **Peri-operative Transversus Abdominis Plane (TAP) Block in DIEP Breast Reconstruction**

Mr G Wheble, Mr E Tan, Dr M Turner, Mr S Heppell (Portsmouth)

Introduction and Aims: Peri-operative transversus abdominis plane (TAP) block has been described in literature to manage post-operative pain in gynaecological and general surgery. The senior author started performing ultrasound-guided TAP block peri-operatively in DIEP patients in January 2011.

We would like to investigate the role of surgeon-administered TAP block in abdominal based breast reconstruction surgery in terms of its efficacy,

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safety, ease of administration and impact on opioid-related usage and side effects profile.

Methods: A retrospective analysis of 27 DIEP cases was conducted. Student t-test was used to analyse significance of results.

Key Results: All TAP blocks were administered by the senior author under ultrasound guidance prior to abdominal closure.

	TAP Block Group (n=12)	Control Group (n=15)	P values (t-test)
Length of stay (days)	4.75	7.00	0.002
Total amount of morphine used (mg)	15.4	71.4	0.005
Nausea and vomiting	1	6	0.03
Antiemetic usage	1.92	3.07	0.35
Time taken to open bowels	3.5	3.9	0.04

Conclusion: Peri-operative ultrasound guided TAP block is an effective, cost effective and safe technique for post-operative pain management in abdominal based breast reconstruction.

In accordance with the 2010 Cochrane review's recommendations, we are investigating the role of rectus sheath block vs TAP block in DIEP patients.

17:22 **Questions**

17:25 **An Enhanced Recovery Programme for Deep Inferior Epigastric Artery Perforator (DIEAP) Flap Breast Reconstruction- The Salisbury Experience**

Mr U Sarwar, Mr M Nicolaou, Sister K Edwards, Sister K Sainsbury, Miss A Crick (Salisbury)

Introduction: Enhanced Recovery Programme (ERP) is a protocol of pre, intra and post-operative care, which aims to optimise the patients' recovery. It has gained in popularity in recent years amongst other specialties, with demonstrable improvement in length of stay, patient satisfaction and outcome.

We present our experience of designing and implementing an ERP for patients undergoing delayed unilateral DIEAP flap breast reconstruction.

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Methods: A retrospective analysis of patients undergoing delayed unilateral DIEAP flap breast reconstruction with a conventional regime (pre-ERP group) (12 months) was compared prospectively to patients entered into a newly introduced ERP (12 months). Data collection included a number of pre, intra and post-operative indices, variables and complications.

Results: The pre-ERP group of 35 patients (mean age 49.8) was compared to 39 patients (mean age 51.9) in the ERP group. The median length of stay in the ERP group was shorter (7 vs 8 days, $p \leftarrow 0.05$) and mobilising in this group was earlier (2 vs 3 days, $p \leftarrow 0.05$). There was no difference in the complication rate.

Conclusion: This pilot study demonstrates that an ERP for delayed unilateral DIEAP flap breast reconstruction is safe and has reduced length of stay and time to mobilise. It may be applicable to other plastic surgical procedures.

17:32 **Questions**

17:35 **Close**

18:30 **Drinks reception- The Laing Art Gallery**
Opening welcome- Ashley Winter OBE, High Sheriff of the County of Tyne and Wear

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THURSDAY 12 JULY 2012

08:15 – 15:10

08:15 **Registration and refreshments**

08:15 **BAPRAS EGM, open to BAPRAS Members**

09:00 **Genetics and plastic surgery - Professor Sir John Burn**

Rhinoplasty Symposium
Chair: Mr M Kernohan

09:30 **My approach to primary rhinoplasty**
Dr M Constantian

10:00 **My approach to open rhinoplasty**
Mr C East

10:30 **Patient selection**
Dr M Constantian

10:50 **Surgery of the nasal septum**
Mr C East

11:20 **Refreshments and exhibitions**

11:45 **The short nose and tip problems**
Dr R Warren

12:15 **Secondary rhinoplasty**
Dr M Constantian

12:45 **Secondary rhinoplasty**
Mr C East

13:15 **Round table**

13:30 **Lunch and exhibitions**

13:50 **Body Contouring Special Interest Group**

Continuing education/ Social programme
Chair: Mr R H Milner

14:30 **Workforce and planning**
Mr E Freedlander

14:50 **The final years curriculum: What you need to know**
Miss V C Lees

15:10 **Discussion**

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THURSDAY 12 JULY 2012

15:25 – 19:30

15:25 **Biofilms and breast implants**
Dr R Wixtrom

15:55 **Refreshments and exhibitions**

16:15 **Radiotherapy and the plastic surgeon**
Mr C Kelly

16:45 **Art and plastic surgery**
Dr S Moonie

17:15 **Wrist surgery**
Mr P Stuart

17:45 **Close**

19:30 **Association Dinner – Six Restaurant, the BALTIC Centre for Contemporary Art**

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FRIDAY 13 JULY 2012

07:30 – 12:45

Industry sponsored symposium

07:30 **Innovations in plastic surgery**
Sponsored by Baxter
Chair: Mr P Hodgkinson
- Benefits of slow-setting fibrin sealants
- Use of slow-setting fibrin sealants in reconstructive surgery

08:00 **Registration and refreshments**

Breast Augmentation Symposium

Chair: Mr C T K Khoo

08:45 **Choosing the correct plane for augmentation**
Dr R Warren

09:15 **My approach to mastopexy and augmentation**
Mr N Collis

09:35 **Complications and revision in breast augmentation**
Mr J Scott

10:00 **Capsular contracture**
Dr R Wixtrom

10:30 **Revisional surgery in breast augmentation**
Dr R Warren

11:00 **Refreshments and exhibitions**

PIP Implants: where are we now?

Chairs: Mr R H Milner and Dr S Williams

11:30 **Breast implants: progress, perils and PIPs**
Mr C T K Khoo

12:00 **Where are we now clinically?**
Mr J O'Donoghue

12:15 **Regulatory aspect**
Dr S Ludgate

12:30 **The Australian experience and thoughts on an implant register**
Mr R Cooter

12:45 **Legal aspect**
Dr G Panting

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FRIDAY 13 JULY 2012

13:00 – 14:00

13:00 **Discussion**

13:15 **Lunch and exhibitions**

13:30 **Head and Neck Special Interest Group**

14:00 **Complimentary Medicine**
Mr C Kelly

14:40 **Free Papers: Parallel Sessions**

Upper and Lower Limbs
Chairs: Mr H Lewis and Mr M Schenker

Flaps, Urogenital and Vascular – go to page 66
Chairs: Mr M Ragbir and Mr J Scott

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Parallel session: Upper and lower limbs
Chair: Mr H Lewis and Mr M Schenker

14:40 **Lower Limb Trauma and Post Traumatic Stress Disorder-The Bristol Experience**

Mr W Bhat, Mr S Marlino, Mr S Khan, Mr U Khan (Bristol)

Introduction: Lower limb injuries result in considerable physical and psychological consequences. A substantial proportion of patients will report serious psychological distress.

Aim: To demonstrate that patients with limb threatening injuries undergoing complex reconstructive procedures experienced psychological impact from trauma and increased incidence of post-traumatic stress disorder. (PTSD).

Materials and Methods: Retrospective and prospective data were collected from the database of patients treated at one unit, with a prospective follow-up. Demographics, etiology, additional injuries, orthoplastic reconstruction, co-morbidities, complications, outcomes and post-traumatic stress disorder check list score-S (PCL-S) were recorded at 2 and again at 4 month follow-up.

Results: 42 patients were included. Age ranged from 13 to 82 years old. Causes were road traffic accidents, crush injuries, high energy falls, burns and attempted suicide.

Correlations between injury severity, reconstruction management, complications, outcomes, PCL-S scores and time to recovery were made.

Patients (aged →55) had statistically lower PCL-S scores than younger patients. Subsequent scores at 4 month follow-up were lower.

Conclusion: There was a proportionate correlation between increased PCL–S scores, injury severity, co-morbidities, operation complexity, and duration of hospital stay. Similar correlation with incidence, PCL-S scores, surgical complications and lack of social support was found. With this cohort of patients, early psychiatric and psychological support is required to prevent the progression to PTSD.

14:47 **Questions**

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14:50 – 15:00

14:50 **Aggressive Soft Tissue Infections and Amputation Levels in Military Trauma Patients**

Surg Lt Cdr A Fries, Surg Lt Cdr J Penn-Barwell, Surg Lt P Bennett, Gp Capt I Sargeant, Prof Sir K Porter (Plymouth)

Introduction: Traditionally unsalvageable combat lower limb injuries were managed by two-stage amputation. The injury pattern of massive contamination and soft tissue destruction produced by the blast weapons used in recent conflicts have required a re-appraisal of this strategy. Atypical and virulent micro-organisms have posed a particular problem.

Management requires balancing the meticulous surgical treatment of infection whilst enabling subsequent reconstruction and maximising residual limb function.

Materials and Methods: The UK military trauma registry was reviewed for all patients sustaining lower limb amputation between April 2006 and September 2009. Principle outcomes were number of debridements and presence of infection.

Results: 51 patients were identified with 70 lower limb amputations. All were injured by blast weapons. Mean injury severity score was 23.5. 24 of 70 amputated limbs had either H aeromonas and/or Zycomycetes detectible in their wounds. Patients with H aeromonas in their residual limb wound required significantly more debridements (p=0.0474) and were significantly more likely to undergo a rise in amputation level (p=0.0038).

Conclusions: Understanding of the microbiological status of a wound is essential. This study describes the significant impact of certain atypical infections. Strategies to combat this include meticulous debridement, and the use of appropriate antibiotics and anti-fungal medications.

14:57 **Questions**

15:00 **Out on a Limb: The Financial Costs of Limb Salvage Versus Below Knee Amputation**

Mr P Vermaak, Mr A Trevatt, Mr U Khan (Bristol)

Aim: We compared the long-term financial costs of free-flap lower limb salvage with below knee amputation (BKA) when managing severe open tibial fractures.

Methods: We performed a retrospective analysis of the acute costs of BKA performed on trauma patients under 65 years of age between 2009 and 2011. In addition, recurring costs were calculated by our local limb prosthesis service. Acute and yearly recurring costs were added to calculate the long-term financial cost for BKA based on life expectancy

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as per UK national statistics. These costs were compared with findings from a previous study by this unit that evaluated the costs of free-flap reconstruction for lower limb salvage.

Results: The initial cost of free-flap reconstruction for limb salvage is higher than that of BKA. Long-term costs of BKA are, however, significantly higher than lifetime costs associated with limb salvage.

Conclusions: The decision to manage a patient with an open tibial fracture with either limb salvage or BKA is primarily clinical. In our healthcare system, we cannot, however, be ignorant of the financial implications of our decisions. This study demonstrates the clear long-term financial advantage of limb salvage over BKA for the management of open tibial fractures (excluding any taxation advantage).

15:07 Questions

15:10 Donor Site Morbidity of the Medial Plantar Artery Flap Studied with Gait and Pressure Analysis

Mr J Paget, Mr D Izadi, Mr M Haj-Basheer, Dr S Barnett, Mr U Khan (Bristol)

Introduction: The medial plantar artery flap (MPA) allows transfer of glaborous sensate tissue. It has been suggested that the non-weight bearing instep area generates minimal donor morbidity. However the abductor hallucis muscle and plantar fascia are dissected during flap harvesting.

Methods: We included patients who had undergone MPA flap reconstruction and were walking unaided. The contralateral limb was used as a control. Gait and pressure analysis were performed 5 times for each patient's donor and control sides using a 10 Qualisys camera system and a Kistler force plate for gait and a Footscan3D 0.5mm plate for pressure analysis. A paired student t-test was used for statistical comparison.

Results: Our study included 6 patients (M:F=1:2) with 5 chronic wounds (4 ipsilateral, 1 contralateral) and 1 traumatic ankle defect, mean age was 61.3 (range 38–82).

Gait analysis demonstrated no significant differences.

Pressure analysis: the donor site group had significantly less power in the great toe (3.81n/cm^2 vs 7.81 n/cm^2 p=0.013), significantly slower transition through the midfoot (445.2ms vs 352.07ms p=0.016) and slower loading of the heel (0.31N/cm^2 vs 1.17n/cm^2 p=0.038).

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Conclusions: This study demonstrated statistically significant difference in the donor site side suggesting that MPA harvest affects the intrinsic mechanical properties of the foot.

15:17 Questions

Bell Session Papers

15:20 Is the Injury Severity Score (ISS) Relevant in Complex Lower Limb Trauma?
Mr G Filobbos, Mr F Salim, Mr U Khan (Bristol)

Introduction: Injury Severity Score (ISS) is an anatomical scoring system that provides an overall score for patients with multiple injuries. Major trauma is defined as ISS score equal or more than 16.

Our aim was to study the relationship between ISS and return of limb function after open fractures of the lower limb when treated in a specialist centre.

Methods: A retrospective case note analysis of fifty patients with lower limb trauma requiring free flap coverage was undertaken. We examined age, mechanism of injury, type of fracture, Gustilo classification, ISS score, hospital stay, complications and Enneking score to measure outcome.

Results: The mean age of patients at time of surgery was 44.1 years (range 5-90). 38% of patients had road traffic accidents, 30% had a fall.

52% had Gustilo 3B fractures while 26% had closed fractures initially. We had 2 flap failures. The average ISS score was 8.3 (range: 1 to 26).

Conclusion: Mean ISS for patients with severe complex lower limb trauma was 8.3. These patients would not have been referred to a major trauma centre based on the ISS; however, they are best treated in a specialist centre, which indicates that a specialist ortho-plastic centre is integral to a major trauma centre.

15:22 How are we Managing Limb Fasciotomy Wounds in Trauma Patients?
Miss V Fung (Newcastle upon Tyne)

Aims: Acute compartment syndrome following limb trauma threatens viability and outcome of that limb. Prompt fasciotomy is essential if the limb is to be salvaged, but fasciotomy wounds themselves can have long-term morbidities, whether they are closed primarily or with split-skin grafting.

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This service evaluation aims to identify frequency of limb fasciotomies for trauma, choice of management, and subsequent prognosis.

Methods: A retrospective evaluation of one acute NHS trust was performed. Adult patients who had undergone emergency limb fasciotomies for trauma between 2008 and 2011 were identified. Case notes were reviewed to identify which specialties had performed and subsequently closed the fasciotomies, and the techniques that were used.

Results: 27 cases were identified in the 3 years. Cases were split evenly between upper versus lower limb, and orthopaedic versus plastic surgery as the main surgical team. No patients were under the care of the vascular surgeons. 7 cases (26%) underwent skin grafting, with mean length of hospital stay being 12 days. Mean length of stay in patients with delayed primary closure was 9 days (range 1-51).

Conclusions: Management of limb fasciotomies is an important part of orthopaedic and plastic surgical care. Immediate split-skin grafting is not first-line management, despite current guidelines, although this may not impact on recovery and prognosis.

15:24 PIPJ Dorsal Fracture Subluxation: A Retrospective Study of Outcomes

Mr M Singh, Mr P Loughenbury, Mr D Nikkah, Mr J Rodrigues, Mr R Pinder, Mr W De Jager (Bradford)

Introduction: Dorsal fracture subluxation of the proximal interphlangeal joint (PIPJ) is a rare injury with limited reports of outcomes. Treatment options include open reduction internal fixation (ORIF), k-wire immobilisation and dynamic external fixation. We provide a review of outcomes in our unit using all three strategies.

Methods: A retrospective review over a 2 year period noting method of fixation, and post-operative course was undertaken. Final range of movement (ROM) and fixed flexion deformity (FFD) were the main outcome measures.

Results: Eleven patients (9 male, 2 female) included: 4 dynamic external fixation, 3 immobilisation with k-wires, 3 ORIF and 1 elected for conservative treatment (excluded from results). Mean age was 37 years (17-58). Median follow-up was 2 months, and time in external fixation 28 days (27-31). No complications were reported. Median final ROM was 85° (70-100°) for k-wire immobilisation, 70° (62-80°) for ORIF and 30° (27-38°) for dynamic external fixation. Median FFD was 0° for k-wire immobilisation, 15° (10-33°) for dynamic external fixation and 40° (28-50°) for ORIF.

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Conclusions: Results were in line with those published in the literature. In our unit, immobilisation with k-wires appeared to provide the best results, but suggests there is a need for a future randomised controlled trial.

15:26 The Atasoy Flap: Patient vs Surgeon Perception of Outcome

Mr A Sadri, Mr M Chowdhry, Mr J Patel, Mr J May, Mr G Moir (London)

Introduction: The Atasoy flap is commonly used to reconstruct transverse and dorsal oblique finger-tip amputations.[1] Although several series have reported their experience with the Atasoy flap,[2,3] aesthetic and functional outcome has been from the surgeons perspective only. We compared patient with surgeon reported outcomes to see if patients in reality consider this a worthwhile procedure.

Methods: Patients with Atasoy flap reconstruction were evaluated using the Disabilities of the Arm, Shoulder and Hand (DASH) Questionnaire, Dermatology Life Quality Index (DLQI), Derriford Appearance Scale (DAS-24), and Manchester Scar Scale (MSS). Finally our own aesthetic outcome questionnaire was given to patients and 3 surgeons.

Results: Thirty-two patients underwent Atasoy flap reconstruction between 2002 and 2010. Our results show that the Atasoy flap has a negative impact on the patients' perceived psychological and functional impairment following the surgery. Our own assessment tool revealed that there was a discrepancy regarding aesthetic outcome reported from patients and surgeons, with surgeons scoring aesthetic outcome higher than patients.

Conclusion: Our results show that surgeons believe this is a reasonable reconstructive option, but there is considerable associated morbidity from the patients' perspective. Pre-operative counselling on long-term outcome will likely to lead to improved satisfaction as patient expectations are better managed.

References

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3. Tezel E, Numanoğlu A. A new swing of the atasoy volar V-Y flap. *Ann Plast Surg* 2001; **47:** 70-71.

15:28 Questions

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15:30 **Sibling Recurrence Risk in Dupuytren's Disease**

Mr T Bragg, Mr R Capstick, Mr H Giele, Mr D Furniss (Oxford)

Background: Dupuytren's Disease (DD) is a complex disease, with both genetic and environmental factors contributing to aetiology. We aimed to quantify the extent to which genetic factors predispose an individual to DD, through the calculation of sibling recurrence risk (λS), a standard measure of heritability risk. Furthermore, the influence of age and gender on λS was examined.

Methods: 562 index patients from the BSSH Genetics of Dupuytren's Disease (BSSH-GODD) database were contacted. 174 had siblings who agreed to take part in the study. We randomly selected 100 siblings, each from an independent index case, in order to reduce ascertainment bias. Each sibling was examined for DD– defined as the presence of a palmar nodule, cord or contracture- by a surgeon with over 5 years' experience in diagnosing and treating DD. Controls were recruited from a non-diabetic ophthalmology outpatient clinic.

Result: There were no statistically significant differences in baseline characteristics, including diabetes mellitus, between the cases and controls. In siblings, 47.00% had DD, compared with 10.48% of controls (p=1.006x10-9), giving a λS of 4.48 (95% confidence interval 2.57-7.81). We found a higher λS for sisters of index patients compared to female controls, and also for siblings of younger index patients.

Conclusions: DD was significantly more common in the sibling group than in the control group. Our data accurately quantifies the magnitude of the genetic predisposition to DD. Further molecular studies are required to reveal the full genetic architecture of DD, which in turn may lead to new therapies.

Group	Number of case group pts with DD	Number of control group pts with DD	Sibling Recurrence Risk	Confidence Interval 95%
Overall	47/100	13/124	4.48	2.57-7.81
Brothers	23/40	9/61	3.40	2.02-7.54
Sisters	24/60	4/63	6.30	2.32-17.09
Age 61-70	22/36	2/32	9.78	2.49-38.36
Age 71-80	13/28	3/38	5.89	1.85-18.70
Age 81-90	8/13	7/27	2.37	1.10-5.12

15:37 **Questions**

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15:40 **Re-operation After Open Fasciotomy For Dupuytren's Disease: Review Of 1114 Consecutive Cases**

Miss C Stewart, Mr I Ahmed, Mr L Suleman-Verjee, Mr G Hooper, Ms D Davidson (Edinburgh)

Introduction: There is current interest in needle fasciotomy in the treatment of Dupuytren's disease, but little in treatment by open fasciotomy. We have reviewed a series of 1114 open fasciotomies, with the objectives of ascertaining re-operation rate and of studying the results of secondary surgery.

Methods: Theatre coding data allowed identification of all open fasciotomies performed by a single consultant between January 2000 and January 2005. Hospital records were reviewed for patients undergoing re-operation before 2010.

Results: 1077 patients underwent open fasciotomies, with 115 (10.3%) undergoing re-operation. Review of hospital records was possible for 97 patients (144 digits), with mean follow-up 7.2 years (range 5-10 years). Re-operations included open fasciotomy (n=19), fasciectomy (n=47) and dermofasciectomy (n=78). Mean time to re-operation was 44.5 months (range 8-99 months). Mean pre-operative total extension deficit was 88 degrees (range 30-180 degrees) with intra-operative correction to a mean of 9.5 degrees (range 0-45 degrees).

Conclusion: There is no standard definition for recurrence after Dupuytren's surgery. We have looked at the rate of revision surgery after open fasciotomy, in a population serviced over a 10 year period by a single hand surgeon. A low re-operation rate has been identified, with good intra-operative correction achieved by secondary surgery.

15:47 **Questions**

15:50 **Review of the Surgical Management of Dupuytren's Contracture and the Potential Role of Collagenase Therapy- The Newcastle Experience**

Dr T Crowley, Mr D Sainsbury, Mr R Milner, (Newcastle upon Tyne)

Introduction: Collagenase clostridium histolyticum is an out-patient based, minimally invasive, non-surgical treatment for advanced Dupuytren's disease. We review our experience and outcomes following the surgical management of Dupuytren's contracture. This information was used to assess the potential role of collagenase therapy within our practice.

Methods: A retrospective analysis of all patients operated on for Dupuytren's contracture in our department between January 2010 and September 2011 was performed. Demographic details and range

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of movement pre-operatively and at discharge from physiotherapy was recorded.

Results: Patients with single digit/palmar cord disease were identified (n=83). Of these, 73 patients (88%) fulfilled the critieria for collagenase injection (20-100° of metacarpophalangeal joint or 20-80° of proximal-interphalangeal joint contracture) as determined by the CORD I phase 3 clinical trial (Hurst et al. 2009). The mean age was 64 years (±9.6). The male:female ratio was 5:1. The mean MCPJ (38.8° to 3.7°) and PIPJ (27.6° to 7.1°) flexion deformities showed significant improvement following surgery (p=←0.0001). The mean duration of physiotherapy was 4.8 months (±3).

Conclusions: We suggest that collagenase therapy was an alternative management option in 88% patients with single digit/palmar cord disease operated on in our unit. These findings may lead to changes in the management of this condition.

15:57 Questions

16:00 Change in Operative Workload for Rheumatoid Disease of the Hand: 1,109 Procedures Over 13 Years

Mr M Dafydd, Mr I Whitaker, Mr M Murison, Mr D Boyce (Swansea)

Introduction: Orthopaedic literature regarding lower limb joints reports a decline in operative management of rheumatoid arthritis since the 1980s. We investigated whether the demand for hand surgery for rheumatoid disease had changed over the last 13 years in our unit.

Methods: Data for all patients undergoing operative treatment for rheumatoid arthritis of the hand and wrist over a 13 year period were analysed. The procedures included in our study were arthroplasty, arthrodesis, synovectomy, tendon transfer, flexor and extensor tendon reconstructions.

Linear regression analysis was used to identify trends in the number of operative procedures in each subgroup over the 13 year period.

Results: Hand surgery procedures were performed on 1,069 patients with rheumatoid disease between 1996 and 2009. Eighty-three percent of the patients were women. There was a statistically significant decrease in the number of synovectomies (p=0.0027), arthroplasties (p=0.0019) and arthrodeses (p=0.0001) carried out between 1996 and 2009 for rheumatoid disease of the hand. We found no decrease in the number of tendon procedures (p=0.34).

Discussion: We explore possible factors responsible for this change in operative workload, including improved medical management and

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referral patterns, changing incidence and possible milder form of the disease.

16:07 Questions

16:10 Review of Treatment of Giant Cell Tumour of Bone of the Forearm
Mr K Rahman, Dr R Sinha, Dr P Dildey, Miss S Murray, Mr R Milner, Mr C Gerrand, Mr M Ragbir (Newcastle upon Tyne)

Introduction: Giant cell tumour of bone is an aggressive, potentially malignant tumour of the metaphyseal/epiphyseal region of bone. The distal radius is the 3rd most common site and is associated with greater level of recurrences.

Methods: A retrospective audit using the local pathology database yielded eleven patients with tumours in the distal forearm between 2002 and 2009. A case note review was then performed.

Results: One patient was excluded as notes were missing. There were 5 males and 5 females, with a median age of 37.3 (range 19–75). 8 were initially treated with local excision, curettage and adjuvant with 5 cases recurring, and 2 initially with a radical enbloc resection with no recurrence. 4 of the recurrences underwent curettage at least twice before enbloc excision with no further recurrence. The 5th case underwent enbloc resection on first recurrence with no subsequent disease. Metastatic disease was only seen following recurrence, in 2 of 5 patients with 1 death.

Conclusions: Curettage +/- adjuvant has high levels of recurrence but is least destructive. Early enbloc resection should be considered as definitive treatment for Campanacci Grade 3 tumours or recurrent disease. A vascularised fibula flap is an effective reconstruction tool.

16:17 Questions

16:20 'Thumbs Up' for Arthrodesis of the First Metacarpophalangeal Joint using Coughlin Cup and Cone Reamers.
Dr R Dolan, Dr P McKenna, Dr J Butler, Mr J O'Beirne (Dublin)

Introduction: Stability of the metacarpophalangeal joint of the thumb is more important than its mobility. We describe a method of 'cup and cone' arthrodesis of the first metacarpophalangeal joint using Coughlin cup and cone reamers with lag screw fixation.

Patients and Methods: Twelve consecutive patients (n=12) underwent arthrodesis of the first metacarpophalangeal joint from November 2003 to June 2011. Primary outcomes measures included clinical and radiological evidence of joint fusion. Secondary outcome measures

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included post-operative hand functionality and pain scores, assessed using the Michigan Hand Outcome Questionnaire (MHQ) and Pain Visual Analogue Scale (pVAS), respectively.

Results: The mean age of our cohort (n=12) was 44.2 years with a male preponderance (M:F=3:1). The mean follow-up period was 39.8 months. Indications for the procedure included traumatic injury in 75% of cases and arthritis in 25% of cases. At latest follow-up, clinical and radiographic evaluation revealed primary bone union in all cases. The mean post-operative MHQ score was 86 (range, 68-95) and pVAS score was 19mm (range, 0-35mm).

Conclusions: Arthrodesis of the first metacarpophalangeal joint using Coughlin cup and cone reamers gives a high rate of union and a reliable position at the site of fusion with good functionality.

16:27 Questions

16:30 Functional Outcomes Following the Use of an Inexpensive Mini-external Fixator Device for Phalangeal Fractures

Miss S Thomson, Dr D Howarth, Dr L Ng, Mr M Coutinho, Mr S Rannan-Eliya (Newcastle upon Tyne)

Introduction: Complex phalangeal fractures are often stabilised using commercial external fixators, which are costly and require familiarity. Here we describe our positive experience using a simple fixator constructed using readily available materials.

Methods: Patients who had phalangeal external fixation by a single operator, over a five year period were identified from theatre logbooks. Data was obtained retrospectively on aetiology, fracture configuration, operative details, complications and post-operative function using Total Active Movement (TAM) scores.

Results: Outcome measurements were retrieved in 26 of 38 patients identified. Injuries were sustained through altercation (n=6), crush (n=7) or fall onto hand (n=17). The majority affected the little finger (n=15) and the proximal phalanx (n=19) was most commonly fractured. One fracture was open. All achieved bone union. No secondary procedures were required. Complications occurred in 9: unexpected stiffness (n=1), unexpected swelling (n=4) and pin-site infection (n=4). At four months the functional outcome was good (%TAM→80%) or excellent (%TAM → 85%) in all patients with a mean TAM of 230°.

Conclusion: This external fixator provides a reliable and cost-effective method of complex fracture fixation. The post-operative complications are acceptable and functional outcomes highly favourable when compared to other methods of phalangeal fracture fixation.

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FRIDAY 13 JULY 2012

Parallel Session: Upper and lower limbs
16:37 – 16:37

16:37 Questions

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Parallel session: Flaps, urogenital and vascular
Chairs: Mr M Ragbir and Mr J Scott

14:40 **Radiation Induced Sarcoma- The Nottingham Experience**
Miss I Teo, Ms V Toh, Mr T McCulloch, Miss A Raurell, Mr A G B Perks, Mr R Ashford (Nottingham)

Aims: To evaluate the incidence, patient demographics, primary tumour characteristics and treatment modalities of patients with radiation induced sarcoma (RIS) presenting to the East Midlands Sarcoma Service at Nottingham City Hospital.

Methods: All consecutive patients with histologically proven RIS were entered into our database. Case notes were retrospectively analysed to identify patient demographics, oncological features and treatment outcome.

Results: From 1998 to 2011, 24 patients were identified to have RIS. 17 were female, 7 male. The mean age at time of diagnosis was 67 years (range 40-85). The average latency period was 12.8 years (range 1-50). The two most common primary oncological diagnoses were breast carcinoma (11, 45.8%) and endometrial carcinoma (3, 12.5%). The sarcoma subtypes were 9 angiosarcomas (37.5%), 7 pleomorphic sarcomas (29.1%), 3 leiomyosarcomas (12.5%), 2 myofibroblastic sarcomas (8.4%), 1 MPNST (4.2%) and 1 myxoid liposarcoma (4.2%). At the time of this study, 7 patients were deceased, 3 undergoing active treatment, 12 under surveillance, 1 palliative and 1 discharged from follow-up.

Conclusions: RIS are rare and we present our 13 year experience in the management of these tumours. We plan to continue to monitor the outcome in these patients.

14:47 **Questions**

14:50 **Flap Reconstruction in Sarcoma Patients**
Miss R Morhij, Mr M Jane, Professor A Hart (Glasgow)

Introduction: Sarcoma management has recently moved towards limb sparing surgery, facilitated by flap reconstruction and radiotherapy. The impact upon tumour recurrence rates remains unclear.

Methods: The Canniesburn Unit provides soft tissue reconstruction to the largest sarcoma service in Scotland. All patients undergoing excision and major flap reconstruction between June 2008 and February 2011 were identified (Group 1). Regional and systemic recurrence, survival, demographic, and tumour data were compared against tumour-matched patients with directly closed wounds (Group 2).

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Results: Group demographics (Group 1: n=30, mean age 63±19, 20 males/10 females; Group 2: n=28 mean age 56±14, 19 males/9 females), mean tumour diameter (Group 1= 9cm±5; Group2= 11cm±5), and recurrence rates (local: Group 1= 16%, Group 2= 14%; systemic: Group 1= 6%, Group 2= 4%) were not statistically different. Mortality was higher in Group 1 (20% vs Group 2= 4%), none peri-operative. Complete excision was afforded in Group 1-28/30 vs Group 2- 28/28 cases. Flap complications arose in 3/30 (delayed healing or infection); no flap loss occurred. Reconstruction was by 17 free and 13 pedicled flaps (ALT/LD etc).

Discussion: Illustrative cases are presented. Mortality reflects tumour biology, not surgical margin. Flap reconstruction permits limb and functionally sparing surgery even for large, high-grade tumours, without significantly increased local recurrence.

14:57 **Questions**

15:00 **Vascular Anatomy and Clinical Applications of the Free Descending Branch Muscle Sparing Latissimus Dorsi Flap and Comparison with the Transverse Branch**

Dr M Saint-Cyr, Dr S Colohanm Dr C Wong, Mr C Lakhianim, Dr D Graham, Dr M Maia, Dr M Saint-Cyr (Dallas)

Introduction and Aims: Increasing focus on reducing the morbidity of the workhorse latissimus dorsi (LD) flap has led to the evolution of muscle-sparing variants and perforator-based flaps. The aim of this anatomic and clinical study was to investigate the vascular anatomy of the muscle-sparing (MS-LD) variant and describe its application as a free flap based on the descending branch of the thoracodorsal artery.

Methods and Materials: 12 fresh cadavers underwent angiographic injection studies of the thoracodorsal artery (TDA) system. The vascular territory of the descending and transverse branches to the LD muscle was identified, as well as the musculocutaneous territory of each. In our clinical study, 5 patients underwent reconstruction of a variety of defects using the free MS-LD flap based on this descending branch.

Results: 3-D angiography demonstrated perfusion of the LD muscle by the transverse and descending branches, with overlap of vascular territories via cross linking vessels. The descending branch supplied a greater cutaneous area overlying the muscle. In our clinical study, the free MS-LD flap provided excellent coverage with no incidence of flap complications or seroma.

Conclusions: The free MS-LD flap based on the descending branch of the TDA covers a greater musculocutaneous territory and provides a valuable option for the reconstruction of smaller defects.

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Parallel Session: Flaps, urogenital and vascular
15:07 – 15:20

15:07 **Questions**

15:10 **A Modified Bipedicled Fasciocutaneous Advancement Flap Based on the Design of the Keystone Flap**
Mr S Rimouche, Mr D Taylor, Mr K Gajanan, Mr G Ross, Mr D Mowatt, Mr D Oudit (Manchester)

Background: Keystone perforator island flaps have gained popularity. We propose a simple, safe modification of a bipedicled advancement flap where the secondary defect is closed directly based on the original design of the keystone flap. No perforators are identified pre-operatively.

Method: We report our experience with 24 patients who underwent reconstruction of soft tissue defects with this flap developed by the senior author.

Results: 24 flaps were performed over a 5-month period. 71% of these were performed on the leg, 17% on the thigh, 8% on the forearm and 4% on the back. 71% of the cases were malignant melanoma, 17% BCCs, 8% sarcomas and 4% SCCs. 41% of the cases were performed under LA and 59% under GA as in-patient procedures due to sentinel lymph node biopsy. There was no flap loss. All flaps healed well by two weeks. There was one case of mild wound infection.

Conclusion: The bipedicled fasciocutaneous keystone flap is technically easy to perform, versatile and reliable. The aesthetic result is excellent and far superior to skin graft. It is technically less demanding than the original keystone design and more reliable.

15:17 **Questions**

15:20 **Micro-Fenestrated Split Thickness Skin Graft for Penile Reconstruction**
Mr J Wokes, Mr A Ali-Khan, Professor D Green (Durham)

Introduction: Surgical management of penile cancer involves lesion excision and neo-glans reconstruction. Unsatisfactory aesthetic appearance with sexual and urinary dysfunction is common post-operatively. Reconstruction using meshed or sheet split thickness skin grafts (SSG) has been described, each with advantages and disadvantages. Our technique of micro-fenestration exploits the advantages of both graft types.

Materials and Methods: Since 2010, twenty-one patients have undergone penile reconstruction with micro-fenestrated SSG. The described technique produces uniform micro-fenestrations less than 200 micrometres in length.

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Results: All patients successfully healed within one month of surgery.

Conclusions: Micro-fenestrated skin grafts allow free drainage of fluid from the penile wound surface without compromising the final aesthetic appearance of the neo-glans. Hand fenestration could create similarly small spaces but can result in uneven fenestrations and can tear the graft. The reported method is superior as it is an easily reproducible technique generating uniform micro-fenestrations with all of the inherent benefits of both meshed and sheet grafts.

15:27 Questions

15:30 Sclerotherapy: A Novel Treatment for High and Low Flow Vascular Malformations

Mr C Powell, Mr O Sawyer, Professor A Watkinson, Mr V Devaraj (Exeter)

Introduction and Aims: The surgical management of vascular malformations achieves varying degrees of success. Injection sclerotherapy has long been a mainstay treatment of varicose veins. We looked to assess the efficacy and safety of this technique as a novel treatment for vascular malformations.

Material and Methods: We reviewed the case notes, radiological imaging and clinical photography of all patients receiving injection sclerotherapy for vascular malformations in our unit since the introduction of the technique.

Results: 36 patients received 41 treatments from 2007 to 2011 for high flow (8) and low flow (33) vascular malformations. Sites treated included the lower limb (21), upper limb (14), trunk (3) and head and neck (3). Sclerosant used was either sodium tetradecyl sulphate or ethanol. This was injected under image guidance. Improvement in pain was reported in 88.8% (32/36) of patients. Improvement in appearance was reported in 88.8% (32/36) of patients. There was one significant complication in the series (digital ischaemia) and 3 recurrences requiring further treatment.

Conclusion: Injection sclerotherapy, as an alternative to surgery, is a novel, safe and effective method of treating low and high flow vascular malformations. We present our case series, outlining the technique including demonstration of the aesthetic results.

15:37 Questions

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15:40 **Primary Thinning of the Anterolateral Thigh Flap in Caucasians**
Dr N Karmiris, Mr M Nicolaou, Mr M Khan (Salisbury)

Introduction and Aims: The anterolateral thigh (ALT) perforator flap is a well-described and versatile flap, regularly used for resurfacing and reconstructing soft tissue defects but it is often too bulky to produce an aesthetically satisfactory result. Although primary thinning of the ALT has been successful in Eastern populations, studies have demonstrated that this may be inadvisable in Caucasians. This study presents our experience in primary thinning of ALT flaps.

Materials and Methods: A retrospective analysis was performed between January 2009 and August 2011 on 56 patients (mean age 44) undergoing ALT free flap reconstruction by three surgeons.

They were all thinned via sharp dissection using loupe magnification except for 1-2cm around the perforator by removing the larger fat globules of deep fascia, and preserving the superficial fat layer. The resultant flap thickness was approximately 5mm.

Results: In 79% of cases the flap was used for lower limb, 14% for upper limb, 7% for head and neck reconstruction. The mean flap surface area was 124cm^2. There was one flap loss (1.8%) and 3 flaps returned to theatre for perioperative complications. No flaps had partial necrosis.

Conclusions: Careful primary thinning of ALT flaps is safe in Caucasian populations and can achieve improved cosmetic results.

15:47 **Questions**

15:50 **Can We Distinguish Septocutaneous from Intramuscular Perforators Prior to Flap Selection in Anterolateral Thigh Perforator Flaps**
Mr N Viswanathan, Mr R Dasgupta (Coventry)

Perforators of the anterolateral thigh flap are predominantly intramuscular however 20% will have a septo-cutaneous perforator. This may render flap harvest and selection more efficient.

It may be possible to estimate whether a perforator has an intramuscular or septo-cutaneous course by using a simple hand held Doppler. This was done in 10 patients and 10 healthy volunteers who tightened their quadricep muscle (by straight leg raising) while measuring the Doppler signal. When intramuscular, the audible Doppler signal decreases. When septocutaneous there is little change in the audible signal.

In the volunteers and the patients the perforators were now imaged with a colour Doppler scanner and the course of the perforators and the flow velocity was noted. The test was performed again with the colour

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Doppler probe in situ. It was possible to identify a reduction in the calibre of the vessels and a decrease in the flow rate if the perforator was intramuscular. In the patients the findings were correlated with intra-operative findings of the chosen perforator.

We have shown that it is possible to determine whether a perforator is intramuscular or septo-cutaneous with the standard hand held Doppler by performing a simple bedside manoeuvre. This may influence decisions with regard to flap selection.

15:57 **Questions**

16:00 **'Male Genital Mutilation' - An East African Problem**
Miss R Lester, Dr R Suleiman (Birmingham/Zanzibar)

Introduction: Three consecutive 2 week missions to a government hospital in Zanzibar revealed a large number of post circumcision fistulae and circumcised children with complex hypospadias. Discussions with the government health department are underway regarding the development of a project to try and prevent this problem.

Material and Methods: At the first visit in 2010, 12 cases of urethral fistula and 14 cases of hypospadias were operated on over a period of 2 weeks. At the second visit, 12 months later, some cases were reviewed and a further 18 cases of urethral fistulae and 31 cases of hypospadias were operated on. A third visit will be undertaken in February of 2012.

Results: This unique series of patients will be presented along with the complications and technical problems associated with these reconstructions.

Conclusion: This is a large unique series of patients with problems arising from both poorly delivered religious circumcision, poor assessment of suitability of children for circumcision and the subsequent problems associated with the reconstruction. An approach to prevention of the problem will be discussed.

16:07 **Questions**

16:40 **Close**

NOTES

1. Bilateral Supraclavicular Swelling - an unusual presentation of ruptured PIP breast implants

Mr T Manickavasagar, Mr A Morritt, Mr G Offer (Leicester)

Introduction: Breast implants manufactured by the French company Poly Implant Prosthese (PIP) have gained notoriety in the international media since the realisation that non approved silicone was used in their manufacture and the resulting sequelae. At present, there are an estimated 40,000 women in the UK with PIP implants.

Case report: A 39 year old woman presented with bilateral supraclavicular fullness 11 years following pre-pectoral breast augmentation with PIP implants. A breast examination revealed bilateral Baker grade 2 capsule formation but was otherwise unremarkable. She underwent a preoperative MRI scan which revealed bilateral axillary lymphadenopathy with multiple large lymph nodes and also noted bilateral breast implant rupture. The implants were removed and she underwent bilateral capsulectomies and axillary lymphadenectomies (levels 1-3). Histology showed reactive lymphadenopathy, presumed to be secondary to silicone. The post-operative course was uneventful and she was well at 3 month review.

Conclusion: We report this case to highlight an atypical presentation of PIP implant rupture in a patient whose breast examination was otherwise unremarkable.

2. The Body Contouring MDT: Our experience of a new streamlined referral and assessment process at University Hospital Birmingham

Mr A Harb, Mr A Allouni, Miss H Julian, Miss K Dhaliwal, Mr R Papini, Mr S Azad, Mr D Lewis (Birmingham)

Introduction: Body contouring procedures following massive weight loss are in increasing demand, yet NHS funding criteria are tight and spending is closely scrutinised. The West Midlands aesthetic surgery guidelines have strict criteria for these procedures and a specialised MDT was set up at University Hospital Birmingham to oversee implementation of these guidelines.

Methods: We performed a prospective audit between January and December 2011 to evaluate MDT throughput, results and adherence to regional guidelines.

Results: The overall number of body contouring procedures performed at Queen Elizabeth Hospital Birmingham was 68. 33 procedures in 25 patients were accepted at the MDT. The average waiting time from referral to operation was 26.5 weeks (6-88). Hospital stay ranged from 2 to 9 days. Four immediate and early complications were seen in the 33 procedures.

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Conclusion: Our body contouring MDT allows all members, including clinical, clerical and managerial staff to be involved in a rapid decision making process and provides support for the responsible surgeon when a consensus decision is made to accept or refuse a procedure. It has also improved consistency in the implementation of guidelines and this leads to fairness in health services provision.

3. Gynaecomastia Correction: A Review of Our Experience

Mr A Mohan, Mr M Khan, Mr K Srinivasan, Mr J Roberts (Stoke on Trent)

Despite various surgical techniques for gynaecomastia, none have gained universal acceptance. We reviewed all patients operated on by one consultant over a 7 year period to assess morbidity and complication rates associated with the procedure.

Clinical notes and outpatient records were retrospectively reviewed. A modified version of the Breast Evaluation Questionnaire was used to assess patients' satisfaction with the procedure.

Twenty-nine patients and a total of 53 breasts were operated on during the study period. Patients underwent liposuction (11.3%), excision (69.8%) or excision and liposuction (18.9%). Complications included seroma, superficial wound dehiscence and haematoma. No cases of wound infection or revision surgery were encountered.

Grade III patients experienced the highest complication rate (35.7%), followed by grade II (22.7%) and grade I (17.6%). Overall complication rates among the excision only group was the highest (29.8%) followed by the liposuction only group (16.7%) and the liposuction and excision group (10.0%). There were high satisfaction rates amongst both patients and surgeon. 37.9% had their outcome classified as 'excellent' by the operating surgeon and 55.2% as 'good'.

Gynaecomastia poses a significant challenge to the plastic surgeon. Despite the possible complications, our series demonstrates that outcomes can be favourable and yield high levels of satisfaction.

4. Cancer Recurrence after Breast Reconstruction: Results from a single institution with four year follow up

Mr S Soumian, Dr A Thaithongchai, Dr K Seretis, Mr R Boca, Miss V Rusius, Mrs L Vishwanath, Mr G Sterne (Birmingham)

Aim: Breast reconstruction is currently a part of standard treatment for breast cancer. Although literature endorses the oncological safety of reconstructive procedures, concerns remain with regard to cancer recurrence. Being the regional referral centre, we wanted to assess

local and distant recurrence rates in immediate (IBR) and delayed breast (DBR) reconstruction in our institution.

Methods: A retrospective analysis of all IBR and DBRs from 2000 to 2007 with four year follow up was performed specifically assessing demographics, reconstruction procedures, local and distant recurrences and mortality.

Results: Out of 211 procedures, there were 108 IBR and 103 DBRs. There was a trend towards higher local recurrence rate in the IBR group although it did not achieve statistical significance: 8 (7.4%) IBR vs 3 (2.9%) DBR. However the rates of distant metastases were significantly higher in the DBR group: 12 (11.6%) vs 5 (4.6%) (p=0.012). Eighty percent of distant metastases were diagnosed within an average of two years after reconstructive surgery. Four year mortality was 2.7% and 5.8% in the IBR and DBR group respectively.

Conclusion: The significant increase in the rates of distant metastatic disease in the DBR group probably reflects the relatively advanced stage of the primary pathology. Pre-reconstruction staging investigations in the DBR group may be beneficial.

5. Totally Autologous Latissimus Dorsi Flap Immediate Reconstruction in the Thin, Small Breasted Woman - Should it be given more thought?

Miss R Ching, Mr C Malata (Cambridge)

Introduction and Aims: Totally autologous immediate breast reconstruction can take many different forms but in the thin patient these techniques are restricted, due to lack of excess tissue providing a reconstruction of inadequate volume. However, the Latissimus dorsi (LD) flap in its extended form increases the available reconstructive volume by utilising scapular, parascapular and lumbar fat. There is little literature on the use of this in thin, small-breasted patients and we feel that it is perhaps an underused option in our reconstructive armamentarium.

Materials and Methods: Four patients, with a normal or low BMI, underwent a totally autologous LD reconstruction and the outcome was assessed objectively by whether the patient underwent any additional symmetrising interventions, and subjectively by the surgeon using patients' photographical records.

Key Results: Our results show that no patient had any form of revision of the reconstructed breast or balancing surgery to the other, indicating satisfaction with the cosmetic outcome. The subjective assessment also demonstrated no significant difference between the two sides. No patient suffered complications.

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Conclusion: Whilst totally autologous reconstruction in the thin patient could be considered a contradiction, our results support the extended LD flap as a cosmetically acceptable, as well as a safe and viable treatment option that should be given more consideration.

6. The 'Lobule' Nipple and an Advanced Algorithm for Nipple Reconstruction

Mr A Shah, Mr N Patel, Miss E Sassoon (Cambridge)

Introduction: The formation of a nipple provides the finishing touch to the process of breast reconstruction. The goal is symmetry of the nipples as well as the breasts. Numerous techniques are described and often used indiscriminately. We describe a technique for nipple reconstruction using tissue from the ear lobule and present an advanced algorithm for nipple reconstruction.

Material and Methods: A full thickness wedge excision of the lobule at its junction with the cheek is harvested and sutured as a composite graft under a flap of skin on the breast. The donor site is closed directly.

Key results: The technique has been used in 30 nipple reconstructions in 21 patients to date with a follow up of 6 months to 5 years. Results were good to excellent with respect to preserved projection, minimal shrinkage and acceptable colour match in all but one patient, who needed additional tissue for symmetry. The donor site scar healed very well.

Conclusion: This technique is suitable for women with small to moderate sized nipples who have a favourable ear lobule and is particularly useful in cases of bilateral nipple reconstruction. Alternatives are discussed and an advanced algorithm proposed.

7. A Regional Burn Unit's Experience of Electrical Burns Following Actual or Suspected Copper Theft: Rise of incidence rate, severity of injuries and non-compliance

Mr S Sofos, Mr K Shokrollahi, Mr H Tehrani, Mr M James (Liverpool)

Introduction and Aims: The number of cases treated with electrical burns following copper theft has been increasing over the last few years. We note that this increase is directly proportional to the rise in copper value over the years and that this act of theft should be perhaps more strictly regulated as the nature of the injury is potentially fatal.

Material and Methods: We examined our case notes retrospectively spanning a period of 5 years. We compared our demographic results along with the nature and severity of the injuries sustained with existing literature. We looked at the treatment and the compliance to post-operative advice.

Key Results: There is a clear trend of increasing electrical burns following copper theft. Our results are consistent with current literature in the severity of the injuries sustained, although we have not reported any deaths due to this cause as seen in the literature. Most commonly affected areas are the upper limbs and the face and an operation is often required to restore healing and function.

Conclusion: Electrical injuries following copper theft involve high voltage and are potentially fatal. We note that there is an increase of such injuries directly proportional to the rise in the value of copper. We conclude that perhaps due to the severity of these injuries, areas where copper wire is available should be more strictly regulated and there should be a heightened awareness in regional burn units to prepare for such admissions.

8. Keeping NDM-1 at the Door

Mr J Paget, Mr R Seth, Mr T Burge (Bristol)

Introduction: New Delhi Metallo-Beta-lactamase 1 (NDM-1) is a transferrable plasmid that confers multi-drug antibiotic resistance (including against carbapenems) in gram negative bacteria. It has spread rapidly in the past few years and is now endemic in parts of the Indian sub-continent. We report a case of a patient with infected burns and NDM-1 bacteraemia treated in our unit contemporously photo-documented, and discussion of the implications.

Case Summary: A 49 year old man returned from India post burn day 5 after sustaining an electrical burn. Septic with NDM-1 bacteraemia on admission and with a gangrenous left hand he required urgent surgery and had a protracted stay in isolation. He was discharged at day 95.

Discussion: Colistin used to treat his bacteraemia may have contributed to renal failure and isolation resulted in increased morbidity and delayed rehabilitation. Infective control policies were effective in preventing further dissemination of NDM-1 but required an interim closure of the burns ward.

Conclusions:

- NDM-1 represents further progression in bacterial multi-drug resistance.
- It is regularly sensitive to only colistin and tigacycline. This limits treatment options and may affect morbidity.
- Transferrable between gram negative bacteria, it has important implications for infection control policy in burn units.

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9. Uses of Intravascular Warming in Burns Patients

Miss V Fung, Mr R L Chalmers, Dr C Woods, Mrs S Pape, Mr S Varma (Newcastle upon Tyne)

Hypothermia can be a difficult problem to correct in patients with large burns. Despite increasing ambient temperature, use of forced air patient warming devices, overhead warmers and warmed intravenous fluids, core temperatures can still drop, resulting in further peripheral vasoconstriction, reduced oxygen delivery and worsening coagulopathy.

Intravascular catheters have been developed for cooling patients with hyperthermia, and more recently have been used for increasing core temperatures in hypothermic, cardiac surgical, and burns patients. Core warming can be achieved in a controlled fashion, set to within 0.01°C, without the need for altering the ambient temperature which can be quite uncomfortable for health professionals providing care.

We present a series of 4 adult patients with large burns who have recently received intravascular warming to treat hypothermia in the intensive care and intra-operative settings. Their core temperatures have been maintained successfully during substantial operative procedures with significant exposure of the body surface to the cooler theatre environment.

None of the patients developed complications as a result of the device, and all went on to make good recoveries. We believe that the intravascular temperature-controlling device is a useful tool in the armoury of burns surgeons.

10. The Psychiatric and Surgical Profile of Patients who Self-Harm by Burning in a Scottish Regional Burns Unit from 2002-2011

Mr J Littlechild, Miss S Conlin, Dr H Aditya, Mr H Bahia (Edinburgh)

Introduction: Individuals who deliberately self-harm by burning (DSHB) have high rates of psychiatric comorbidity and frequent reattendance. To guide future management, DSHB patients were compared with patients who accidentally burnt themselves.

Material and methods: Between 2002 and 2010, 50 DSHB patients were admitted to the regional burns unit in Livingston, Scotland. Epidemiological, surgical and psychiatric data were extracted from the 44 case notes available and compared to 49 accidental burns patients.

Results: Compared with controls, the DSHB patients were significantly more likely to be younger (42 and 33 years respectively, $p \leftarrow 0.01$), female ($p \leftarrow 0.01$) and live alone ($p \leftarrow 0.05$). DSHB patients had more extensive burns ($p \leftarrow 0.01$) and the commonest causative agent was flammable liquid, compared with scalds in controls.

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DSHB patients had a significantly longer mean hospital stay (p←0.05). There were no inhalation injuries leading to intensive treatment unit (ITU) admissions in the control group, compared with 20% (9/44) of DSHB patients (p←0.01).

Psychiatric disorders were present in 90.1% of DSHB patients, most commonly mood disorder (20/44, 45.5%). Features associated with DSHB included previous psychiatric referral, previous self-harm/burn injury and previous attempted suicide.

Conclusions: We propose that burns units maximise psychiatric assessment and follow-up to improve care and reduce reattendance.

11. Rectus Diastasis Repair: A Minimally Invasive Technique

Mr A Sadri, Miss H Lloyd-Hughes, Mr D Nott (London)

Background: Plication of the rectus sheath is indicated in patients with musculofascial laxity such as divarication of the recti. Vertical plication of the rectus sheath during abdminoplasty is commonly performed. Some patient do not require or want abdominoplasty but still wish to address the diastasis of the rectus. We describe a new minimally invasive technique of rectus plication and report our clinical outcomes and experience.

Methods: A retrospective analysis of the postoperative results of patients undergoing minimally invasive repair of divarication of recti was carried out. Primary outcome measures were post-operative patient satisfaction and recurrence. Pain and wound infection were recorded as secondary end-points.

Results: 34 patients underwent plication of the rectus diastasis using a minimally invasive supra-umbilical approach. At a mean follow-up of 16.8 months (range 9 to 36 months), there was no incidence of recurrence, no infection. Mean level of pain following surgery was 0.7 out of 10 (range 0 to 3, median 1). Mean patient satisfaction score was 8.05 out of 10 (range 6 to 10).

Conclusions: In selected patients minimally invasive correction of rectus diastasis can eliminate abdominal wall laxity and can improve abdominal wall contour. This repair eliminates many of the risks and complications associated with standard mesh and abdominoplasty techniques.

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12. The Use of Ligamentum Teres to Prevent Gastrointestinal Herniation into the Chest Following Omental Transposition for Chest Wall Reconstruction

Miss T Win, Mr D Collins, Mr N El-Muttardi (Chelmsford)

Introduction: The greater omentum is commonly used in the chest wall reconstruction. Transposition of omentum into the anterior mediastinum can be achieved through an incision in anterior diaphragm, but this approach has recognised complications including gastrointestinal herniation into the chest. We developed a simple modification where ligamentum teres was used to reduce this.

Operative Technique and Results: The greater omentum was harvested through an upper midline laparotomy incision and pedicled on the right gastroepiploic artery. Ligamentum teres was divided at its umbilical attachment, and dissected from the parietal peritoneum down to the hepatic fissure. The omental flap was transposed into the thorax using transdiaphragmatic incision. Ligamentum teres was wrapped around the omental flap pedicle immediately inferior to the diaphragmatic defect, and sutured to both edges of the diaphragmatic opening and the omental flap.

Between 2002 and 2006, this technique was used in 8 patients (mean age 67±6.4 years) who required omental flap reconstruction for management of infected median sternotomy wounds following coronary artery bypass grafting. The procedure was carried out without any peri-operative complications in follow up of up to 6 months.

Conclusion: We developed a simple modification in omentoplasty for chest wall reconstruction to reduce the risk of intrathoracic gastrointestinal herniation.

13. Back to Basics: A Case Series of Angular Dermoid Cyst excision

Dr N Hachach-Haram, Mrs S Benyon, Mr K Shanmugarajah, Mr N Kirkpatrick (London)

Angular dermoid cysts are common peri-orbital tumours in children. Characteristically benign and slow growing, they are tumours of embryonic origin that arise along bony sutures as a result of abnormal ectodermal sequestration during development. Early surgical excision is recommended and performed in the majority of cases particularly to restore facial cosmesis.

We present a review of over 20 cases managed by our unit over the past 9 years. All patients underwent surgical excision by a single-stage procedure utilising the superior eyelid crease approach only. We show that despite the evolution of many techniques, including endoscopy, the superior eyelid crease is still far superior, affording simple complete

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excision and a well-concealed scar. Therefore we recommend this technique as the safest and most optimal technique for lateral eyebrow dermoid cyst excision.

14. Objective Assessment of Initial Visual Examination in Patients with Mid-Face Injury

Mr K Shanmugarajah, Dr S Sabah, Mr T Welman, Dr S Westley, Dr N Hachach-Haram, Mr N Segaren, Miss R Skinner, Mr J Collier (London)

Introduction and Aims: One fifth of patients with severe facial trauma suffer ophthalmic injury. We aimed to objectively evaluate the quality of the initial visual examinations in patients with mid-face injuries and to determine whether poor early examination was associated with suboptimal management.

Methods: Patients (n=197) were retrospectively and prospectively recruited from two tertiary craniofacial centres. Initial visual examinations were scored objectively against published gold-standards.

Results: 162 patients met inclusion criteria. Complete visual examination was performed in one patient (0.6%). Soft tissue injury was the most frequently assessed parameter (n=123, 74.5%). Pupil position was the most poorly assessed parameter (n=10, 6.1%). Visual acuity was assessed in 32 patients (19.4%). Visual complications included peripheral field loss, reduced acuity, residual ptosis, diplopia and epiphoria. Patients who were seen by the ophthalmologist within one day had a significantly ($p \leftarrow 0.05$) more comprehensive initial eye examination.

Conclusion: Early visual examination in patients with mid-face injuries was poorly performed. Importantly, visual acuity was performed in a minority of cases. More comprehensive initial eye examination was associated with prompt ophthalmology assessment. We propose the development of a standardised proforma for eye examination in patients with mid-face injury to ensure expeditious management of ocular injury.

15. Publication Practices of Consultant Plastic Surgeons in PubMed-indexed Journals over a 2-year Period

Mr S Hindocha, Mr N Mabvuure, Dr M Griffin (Liverpool)

Aim: To characterise the publication practices of consultant plastic surgeons, who are full members of the British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS), over a 2-year period.

Method: Surgeons were identified from the BAPRAS website and their sex and highest academic degrees were recorded. PubMed was searched for each surgeon between 2009/11/29 and 2011/11/28 e.g. Joe Another Bloggs FRCS(Plast) would be searched as: "Bloggs,Joe+A OR Bloggs+Joe+A", "Bloggs,JA AND Bloggs+JA" and "Bloggs,J AND

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Bloggs+J" or "Bloggs" if no results returned. The type of article, whether clinical or basic scientific and the surgeon's author rank were recorded. The search procedure was repeated on 3 separate occasions.

Results: Out of 741 articles, 46.4% were research articles and experience or outcome analyses; 26.2% were case reports/series; 19.6% were letters/comment/technique articles; 6.9% were reviews; 0.7% were audits and 0.3% were editorials. The ratio of clinical to science studies was 15:1. The surgeon was the first author on 6.2% of publications and last author on 62.2%. Males and females published equally (p=0.859). Surgeons with higher academic degrees were more likely to have published (p=0.001).

Conclusions: Outcome analyses, case reviews and letters on technique or comment remain popular methods of communicating and disseminating knowledge. However, more audits and science papers are needed. More work is required to compare these data to other countries and specialties.

16. Organising Cleft Lip and Palate Surgery Mission trips to China - A trainee's perspective

Dr C Loh, Mr P Lim, Mr A Loh, Professor S T Lee (Sheffield)

Introduction: Cleft lip and palate surgery is commonly performed by plastic surgeons in austere conditions around the world. As a trainee, taking part and learning how to organise such a trip can prove invaluable and diversifies our training experience.

Methods: A strong emphasis on the multidisciplinary aspect of cleft lip and palate surgery is paramount. Under the guidance of Emeritus Professor S T Lee, we describe the process of starting up a mission trip to Hainan, China.

The involvement of health professionals including plastic surgeons, anaesthetists, scrub and ward nurses, orthodontists and speech and language therapists are key to a successful mission trip.

Results: Having participated in two consecutive years, each yearly mission trip was a success. In total, 46 patients were screened and 31 of those (ages 4 months to 27 years of age) were operated on.

A total of 19 patients were referred for speech and language evaluation and therapy. A total of 7 patients had dental procedures done.

Conclusion: As a trainee, I believe that such trips provide a learning opportunity to work in an environment different from that in the UK. It also concentrates learning and broadens our exposure to cleft lip and palate surgery.

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17. Free Tissue Transfer of a Transduced Flap as a Vehicle for Gene and Viral Therapy of Cancer

Mr R Seth, Mr A Khan, Mr T Pencavel, Mr D Mansfield, Miss V Roulstone, Mr P Harris, Dr K Harrington (East Grinstead)

Introduction: Free flap reconstruction is an integral part of the surgical management of cancer, but serves no direct function in treating the malignant disease. However, the field of gene therapy has opened up the possibility of genetically modifying free flaps while they are detached from the patient (ex-vivo period).

Aim: To establish a working tumour model, in Fischer 344 adult male rats, assessing the ability to treat microscopic residual disease (MRD), following cancer resection.

Materials and Methods: The superficial inferior epigastric artery (SIEA) flap was used in adult male F344 rats. A reliable tumour cell line (rat glioma) was established in an isolated vascular territory (IVT) and also to mimic MRD. Adenovirus encoding a thymidine kinase gene was transduced into the flap and ganciclovir (50 mg/ml) was given systemically. Therapeutic efficacy was determined by the level of tumour growth/ regression that occurred.

Results: This study demonstrated a significant delay in tumour growth, within the IVT ($p=0.004$) and in MRD model ($p=0.0005$); a significant increase in survival ($p=0.0010$) and a siginificant difference in time to reach measureable tumour growth ($p=0.0001$).

Conclusion: Free flaps can be used as vehicles to transmit gene therapy onto a resected tumour bed, thereby treating MRD.

18. Fast-Track Pathway to Manage Patients with Pretibial Lacerations

Mr N Kain, Miss C Defty, Miss S McNally, Mr R Drabu, Mr A Iqbal, (Liverpool)

Introduction: Pretibial lacerations aren't always managed with urgency. This is often due to an elderly patient population. Delays to treatment and discharge occur due to comorbidities, lack of theatre space, poor discharge planning and psychosocial issues. Hospital acquired infections and immobility related complications can result in prolonging hospital stay, increasing resource consumption and worsening quality of life.

Aims: The aim was to assess the management of patients with pretibial injuries in Whiston Hospital plastic surgery unit and formulate a fast-track pathway involving an MDT.

Methods: A retrospective case note analysis was conducted of all pretibial lacerations presenting over a four-year period.

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Results: 91 patients were admitted with pretibial lacerations, with a mean age of 73 years. Most patients were independently mobile pre-admission (65%). 81% patients underwent surgery. Delay in treatment included lack of theatre space (21%), awaiting anaesthetic review (12%), awaiting medical registrar review (5%). Mean time from injury to surgery 12.96 days. Statistical analysis didn't show correlation between injury depth, co-morbidities, medication or graft take with length of inpatient stay (average 7.01days). 83% patients mobilised within 48 hours post-operatively and had better graft take than those with longer bed-rest (p $\leftarrow$ 0.05).

Conclusion: We propose a fast-track pathway (similar to neck of femur fractures) to help reduce delays and optimise treatment.

19. Butterfly Excision: A Single Stage Treatment for Cutis Verticis Gyrata

Mr H Taha, Mr A Orlando (Exeter)

Cutis verticis gyrata (CVG) is well documented in the literature as an idiopathic benign distinctive folding condition of the scalp. Garden and Robinson's modified classification in 1984, described primary essential, primary non-essential and secondary forms 1. Primary essential CVG is the isolated manifestation whilst primary non-essential forms are associated with neuropsychiatric conditions such as mental retardation, cerebral palsy and epilepsy. Secondary forms are the result of skin changes through a multitude of underlying systemic, endocrinological or acquired aetiologies such as acromegaly, diabetes mellitus, Noonan syndrome and trauma 1-3.

Surgery has often been advocated, where appropriate, requiring small elliptical or serial excisions combined with tissue expansion 4-7. We present here a single-stage technique that employs a 'butterfly'-shaped excision design and scalp relaxation incisions addressing all the required areas.

20. Purpura Fulminans in Childhood Meningococcal Septicaemia

Mr R Fuller, Miss S Falder, Mr R Nassab (Liverpool)

Introduction: Purpura fulminans (PF) is a devastating complication of meningococcal septicaemia, being associated with mortality, deformity and amputation. Fasciotomies are controversial.

Aims:

1. Audit meningococcal septicaemia and PF in a children's hospital
2. Identify factors that may assist early diagnosis of PF and/or predict likelihood of amputation

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Methods: A retrospective case note review of all patients admitted with suspected meningococcal septicaemia between 1st January 2007 and 31st May 2011 was undertaken.

Results: 125 patients had suspected meningococcal sepsis. Overall mortality rate was 3.2%. 15 patients (12%) developed PF; of whom seven (47%) required an amputation with 5 (33% of PF patients) losing at least one major limb. No patients had fasciotomy.

In PF patients, mean day 1 platelet count was 104.1 compared to 244.3 in non-PF patients ($p \leftarrow 0.005$). Patients requiring amputation also had lower platelet counts ($p=0.02$). APTT and INR were higher in patients developing PF and undergoing amputations ($p \leftarrow 0.05$).

Discussion: Patients with low admission platelet count or increased APTT / INR were more likely to develop PF and require amputation. These findings may be useful in identifying patients at high risk of PF and/or amputation, who may respond to an early intervention or be suitable for future prospective study.

21. The Scrotal Sling - Point of Technique for Complex Scrotal Wall Reconstruction

Mr J Coelho, Mr D Izadi, Mr F Salim, Mr T Burge (Plymouth)

Introduction and Aims: Reconstruction of significant skin loss of the scrotal wall, following debridement for Fournier's gangrene or skin cancer, is a difficult challenge for the plastic surgeon. We demonstrate a simple and elegant technique of using one long strip of meshed split skin graft to drape around the exposed testes as a scrotal sling.

Materials and Methods: Initially harvest a 30cm length split skin graft using a four inch (10.2cm) guard air dermatome. Mesh this single strip in a 1-1.5 ratio.

Secure the skin graft just below the inguinal ligament near the testes using staples. Drape the skin graft over the anterior left testicle and secure with staples. Carefully fold the free edge of the skin graft and drape the posterior contour of the left testicle and again secure with staples.

With the remainder of the skin graft sandwich the lower anterior and posterior half of the right testicle and secure with staples.

Finally drape back and fold the remainder of the skin graft over the right testicle and staple to the base of the penis.

Conclusions: This simple one-stage procedure can provide skin coverage to the exposed tunica vaginalis of the testes, giving excellent aesthetic and functional results.

22. The Role of Spectrophotometric Intracutaneous Analysis (SIAscopy) in Predicting T-Junction Wound Breakdown in Reduction Mammaplasty

Mr A Magdum, Dr A Law, Mr H Tehrani, Mr P Vaiude, Mr M Dalal (Norwich)

Introduction: Wound breakdown at the T-junction is a common complication following Wise pattern reduction mammaplasty. This study assessed the use of SIAscopy to evaluate T-junction skin vascularity and its clinical application in predicting T-junction wound breakdown.

Methods: SIAscope readings of 29 individual breast reductions (14 bilateral and 1 unilateral) were taken pre-operatively and at the operating table post-operatively. T-junction breakdown was clinically assessed at 2 weeks and correlations were made with the SIA scans.

Results: All 13 breast reductions which had wound breakdown demonstrated decreased vascularity on post-operative SIA scans. There was no wound breakdown in the 11 breast reductions with normal SIA scans. The relationship of wound breakdown and SIA scan pickup was significant ($p \leq 0.002$) with a sensitivity of 100% and a specificity of 69%.

Conclusion: Reduced vascularity leads to wound breakdown. The aetiology is multi-factorial with wound tension, co-morbidities and smoking being well documented. The non-contact SIAscope offers rapid, non-invasive and economical prediction of T-junction wound breakdown. The SIAscope could be used as a surgical training and assessment tool to show up vascularity problems intra-operatively. This should allow the surgeon to undertake immediate appropriate adjustments so that wound healing is optimised.

23. Care of the Elderly in Plastic Surgery- What do we know?

Mr M Davies, Ms B De Souza (London)

Introduction: The NCEPOD report on elective and emergency surgery in the elderly in 2010 made specific recommendations for care of elderly patients. However, the epidemiology and nature of in-patient referrals of elderly patients particularly in plastic surgery remains poorly documented.

Methods: A retrospective review of all in-patient referrals to the plastic surgery service over a six month period was performed. Patient demographic data, purpose for referral and subsequent management were analysed.

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Results: Seventy-nine in-house referrals with an age range from 0-101 (median 54 years), with 24% →70 years old. The majority (74%) of elderly in-patient referrals were received from medical specialties. Common reasons for referral included limb haematomas 27%, cellulitis 16% and pretibial lacerations 11%. The majority of cases (63%) were managed with review and conservative treatment; however 37% of patients required operative surgery. Mean in-patient stay after referral was 8 days for conservative and 24 days for operative treatment. We also present adherence to NCEPOD recommendations.

Conclusion: Plastic surgeons provide expert opinion to in-patients in other specialties, particularly in the young and elderly. This impacts on service provision and finances. There is therefore need for education and training in wound management to be offered to other specialties to improve patient care.

24. Management and Outcomes of Patients with Melanocytic Lesions of Uncertain Malignant Potential

Mr R Green, Miss R Taghizadeh, Mrs C Goodhead, Mr S Veeramani, Mr O Ahmed (Newcastle upon Tyne)

Introduction and Aims: Melanocytic lesions of unknown malignant potential (MELTUMPS) are lesions arising in the dermis where histological and clinical classification as malignant or benign is not possible.

We aimed to review all the cases diagnosed as MELTUMPS in out unit.

Material and Methods: The skin cancer database was used to identify all patients diagnosed and treated as MELTUMPS between 2005 and 2011 at the Royal Victoria Infirmary, Newcastle-upon-Tyne.

Key results and Statistics: We identified 42 patients with an average age of 50.6 years, and equal sex distribution.

The average Breslow thickness was 0.85mm, 2/42 had a Breslow thickness of over 2mm, neither of these were excised with 2cm margins. Three patients had in-situ lesion with 1cm excision margins.

In patients with completed follow up (22/42), the average follow up period was 23 months (range 2-48 months).

Local recurrence occurred in one patient (2.7%). One patient had regional metastasis and another developed distant metastasis resulting in death 18 months after diagnosis.

Conclusions: There is little published data on MELTUMPS for comparison. Our data indicates the malignant and metastatic potential

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of these lesions, in keeping with current consensus that they should be treated aggressively as melanomas of similar thickness.

25. Sun Related Skin Cancers in Veterans- Don't Ask, Don't Tell?

Miss S Butcher, Miss C McArdle, Mr T McKinnell, Mr H Siddiqui (Newcastle upon Tyne)

Introduction: Since 1919, British servicemen have been involved in over 25 wars, including service in areas with high sun exposure. Sunscreen was not issued prior to approximately 1980. The Service Personnel and Veteran's Agency (SPVA) exists to provide compensation for veterans, including those developing skin malignancies attributable to foreign service.

Methods: A Freedom of Information Act (FIA) request was sent to the Veteran's Agency regarding uptake of compensation for skin cancer. A telephone and e-mail survey of awareness amongst staff of plastic surgery units was performed.

Results: The FIA Request showed 1960 veterans in receipt of an ongoing pension for sun related skin malignancies from the SPVA. This varied, by region, from 0.28 to 5.98 per 100,000 population. The telephone survey did not correlate significantly with these findings, due to a lack of knowledge of the SPVA amongst junior plastic surgical staff (33% awareness amongst registrars, 14% amongst SHOs). Consultant knowledge appears better, but certainty is hindered by a poor response rate.

Conclusions: Knowledge of the compensation provided by the SPVA is poor amongst plastic surgeons and varied widely. A greater knowledge about this scheme will enable better service to our patients, many of whom may be in financial difficulties.

26. Pregnancy and Sentinel Lymph Node Biopsy for Melanoma - Considerations for pregnant patients and pregnant members of staff. A review of current guidelines and practices across the UK.

Miss J Sarginson, Miss E Bovill, Mr A Wilson (Exeter)

Introduction: The potential effects of radiation exposure and blue dye on the foetus, has led to concerns over the use of Sentinel Lymph Node Biopsy (SLNBx) in pregnant patients. There are UK guidelines regarding the use of SLNBx for breast cancer in pregnancy, but none exist for melanoma, though the issue is discussed in a number of papers.

Method: A survey was sent to all units across the UK who routinely perform SLNBx for melanoma, looking at use of dye, radioactive tracer and procedural differences for pregnant patients. It also included questions on policies regarding pregnant members of staff.

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Results: More than half the units who replied stated they had no written guidelines or protocols for SLNBx in pregnancy. However, they all modified their practice to some degree, with details regarding radiation dose, use of dye, and date for surgery varying considerably. Policy relating to pregnant staff members varied from no restrictions to exclusion from theatre.

Conclusion: No consensus of opinion exists in the UK with regard to SLNBx for melanoma in pregnancy. We review current UK practices, and recommendations for SLNBx in other branches of surgery, to identify the risks and discuss potential management strategies.

27. Radiotherapy as Primary Treatment for Giant BCCs

Mr N Viswanathan, Professor I Brown, Mr E Eltigani (Coventry)

Giant BCCs are defined as a tumours larger than 5cm. Radical resection of tumour and neighbouring vital structures and complex reconstruction is often required for lesions in the periorbital region. We report a case where megavoltage radiotherapy was used as the only modality of treatment for a giant BCC with complete regression of the tumour in a man who refused to undergo surgery.

A 71 year old farmer presented with a neglected large ulcerating BCC on the left temple and periorbital region. The tumour extended into the orbit, left upper eyelid and was fixed to bone and imaging confirmed bony destruction and involvement of lateral rectus muscle. Surgical excision would have required resection with orbital exenteration and free flap reconstruction. The patient refused surgery as he did not want to lose his eye, hence primary radical megamortis radiation therapy was planned and delivered.

There was a dramatic regression of the tumour within 2 months. He remains well and disease free three years following treatment.

Giant BCCs are generally aggressive and radiotherapy is generally not the first treatment option. It is usually a palliative measure when surgery is not possible. However, radiotherapy offers an advantage in treating large lesions as it allows tissue preservation in cases where the tumour is infiltrative. In this case primary radiotherapy enabled complete regression of the tumour with preservation of normal anatomy and function.

28. Melanoma in the Ethnic Minority in Bradford, West Yorkshire

Mr Z Shariff, Miss M Mughal, Dr A Wright, Mr S Al-Ghazal (Bradford)

Malignant Melanoma (MM) incidence continues to increase in whites, but little is known about melanoma in the ethnic minority (British Asian)

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population in the United Kingdom. We have studied the incidence and epidemiology of melanoma patients from an ethnic background in Bradford.

Methods: We undertook a retrospective data analysis of patients diagnosed with MM in the city of Bradford from January 2008 to date, belonging to an ethnic minority. Data was obtained from the St Luke's Hospital melanoma cancer registry. Relevant patient and tumour details were extracted. Patients' stay abroad and time of migration to UK were noted.

Results: 4 patients were treated with melanoma (3 females and 1 male). One of the patients had xeroderma pigmentosum. All the patients were born and brought up in the UK. The thickness of melanomas were in situ to 1.5mm BT thickness. 1 patient had metastasis.

Conclusions: Melanoma is a public health concern for all ethnic populations. Understanding melanoma in minority populations may lead to early detection and treatment. High index of suspicion of melanoma in suspected lesions even in patients from ethnic minorities should be noted. Melanoma campaigns should include messages that incorporate the unique features of melanoma in minorities.

29. Lipomodelling: A Modified Technique in Autologous Fat Harvest

Miss C McArdle, Mr A Tahir, Mr K Allison (Middlesbrough)

Introduction: Lipomodelling is the process by which harvested autologous fat is transferred in order to change the shape, volume, consistency and profile of tissue.[1] The standardised technique for harvesting autologous fat was previously described by Coleman, which sees 10cc leur-lock syringes being used for the aspiration of small volumes of fat cells.[2].

Methods and Materials: Here we describe a novel method for fat collection using the MicroAire® power assisted liposuction device in conjunction with a modification in the sterile collection device, the Ellik evacuator, which is more commonly used in urological procedures.

Results: This high volume fat transfer method, similar to the technique described by Roger Khouri, has not shown to affect the viability of harvested adipose cells. Cost comparisons of our combined device with the commercially available Clover-Leaf system has shown savings of approximately £165 per case. A retrospective review of all patients who underwent lipoaspiration using the Ellik combined system showed 92% patient satisfaction with cosmetic result.

Conclusion: We conclude that use of this combined system has shown to be not only reliable and cost efficient, but also allows for the harvesting of large volumes of lipoaspirate.

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References:

1. Lipomodelling Guidelines for Breast Surgery. www.bapras.org.uk
2. Coleman SR. Structural fat grafts: the ideal filler? *Clin Plast Surg* 2001; **28:** 111–119.

30. Diagnosis and Treatment of Neonatal Ischaemia of the Upper Limb

Miss R Khundkar, Miss C McGuiness (Salisbury)

Introduction: Neonatal ischaemia of the upper limb is a rare condition with serious complications. Correct diagnosis and treatment early in the condition can prevent development of Volkmann's ischaemic contracture resulting in severe disability. The resulting deformity is difficult to correct and requires multi-staged reconstruction and rehabilitation.

Methods: A review of the literature of all reported cases of neonatal ischaemia and/or ischaemic contracture was performed. This information was combined with the senior author's personal experience to produce a management plan.

Results: The management strategy reported in the literature appears variable and includes conservative treatment, vessel dilating agents, surgical release, thrombectomy, interposition grafts and thrombolysis. Most papers advocate early treatment, and quoted misdiagnosis as a common reason for delayed treatment. Surgeons report referrals for established contractures where the condition had not been recognised by attending teams.

Conclusion: Full recovery of growth and function can be gained if intervention is performed at the correct time. Our recommended interventions include application of a vasodilating agent (to reduce vessel spasm) or excision of the spasmodic vessel segment and interposition grafting (+/-thrombectomy). The method chosen depends on the time delay between the causative event and presentation for treatment.

To encourage early identification and diagnosis of this treatable condition we have developed a management protocol that can be widely distributed to staff in multiple specialties including midwives, neonatologists, paediatricians, anaesthetists, intensive care specialists and plastic surgeons.

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31. The Simple TIP (Transverse Intraosseous Phalangeal) Suture to Reinsert FDP in Zone-1

Mr D Markeson, Mr I Basu, Mr E Evgeniou, Mr S Iyer (Slough)

Background: Zone 1 Flexor digitorum profundus (FDP) injury often precludes the use of a simple core suture due to a short distal remnant. We describe a novel technique of FDP repair and compare results against current techniques including the button-over-nail, Mitek anchor and other internalised repair techniques.

Methods: A half-Bruner incision is extended into the pulp and a two-strand repair anchored to the distal phalanx by inserting a 3-0 polypropylene suture through a hypodermic needle which has been drilled through the base of the distal phalanx using a k-wire driver. This provides an intraosseous, stable, internalised fixation allowing an early active mobilisation regime. We present a 12 patient case series together with a video, illustrations and clinical photos of the technique.

Results: 2 patients had excellent results and 10 good in terms of DIPJ range of movement (mean= 57 degrees; range= 51-80) and quick dash scores (mean= 12; range= 0 to 31.8). There were no reported tendon ruptures (range 6 to 37 months following operation). These results compare favourably with existing methods of repair.

Conclusions: The authors present a novel, fast, easily learnt technique for zone 1 FDP repair which produces excellent clinical results with minimal associated morbidity to surrounding fingertip structures. We strongly recommend this technique for similar injuries.

32. Breathing New Life in Tissue Engineering: Pro-Angiogenic Scaffold Approaches

Mr D Nikkhah, Mr C Nayar, Mr J Rodrigues, Mr S Rizvi, Mr H Lakhani, Dr G Jell (London)

Introduction: Tissue engineering aims to generate functional tissues for transplantation in clinical situations resulting in tissue loss. A major hurdle in establishing a viable construct is development of functional vasculature through the 3D scaffold. We review the recent literature describing vascularisation strategies.

Methods: OVIDMedline and Web of Science were searched for keywords 'vascularisation', 'tissue scaffold' or 'angiogenesis'. Abstracts were reviewed to find articles discussing in vivo or in vitro strategies to enhance angiogenesis in scaffolds. 39 articles were identified, obtained and read.

Results: Strategies investigated have included:

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1. The delivery of pro-angiogenic growth factors sequestered to peptides, encapsulated in microspheres, or coated in bioresorbable polymers.
2. Attempting to upregulate hypoxia-induced factor 1 (HIF-1) activity in the hypoxia pathway via gene therapy. HIF-1 mediates angiogenesis through a structured and sequential pathway, thus preventing disordered vessel growth and maturation.

Discussion: Whilst the generation of new vessels in complex organs remains elusive, using basic science knowledge to develop practical strategies to promote organised and functional vascularisation of scaffolds is a critical step that is being tackled. Clinical challenges, such as patient co-morbidities that hinder angiogenesis, will then need to be overcome. A combination of the techniques discussed might provide a solution.

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MEETING INFORMATION

Venue details

Venue

The BAPRAS Summer Scientific Meeting 2012 is taking place at the Sage Gateshead

The Sage Gateshead
St Mary's Square
Gateshead Quays
Newcastle/Gateshead
NE8 2JR

0191 443 4666

Car parking

The Sage Gateshead has its own car park with lift access situated directly behind the building. From 06.00-17.00 charges are £1.50 per hour, paid for on exit only. From 5pm there is a pre-pay discounted rate available at a fixed charge of £4.00 for the whole evening.

Further car parking is available within two to fifteen minutes walking distance from The Sage Gateshead, in Gateshead and Newcastle centres.

Registration and enquiry desk

The Registration and Enquiry Desk will be situated in the Entrance Hall and will be open at the following times:

- Wednesday 09:00–17:30
- Thursday 08:15–17:30
- Friday 08:30–14:00

The telephone number of the registration and enquiry desk during the meeting is:
07582 277 707 (BAPRAS mobile telephone)

Presenter information

Projection facilities

Slide previewing is available in the Squires Seminar Room, on the Ground Floor.

e-Poster viewing stations

e-poster viewing stations can be found in the Barbour Room and the Hall 2 Foyer.

MEETING INFORMATION

Location map

1	The Sage Gateshead	Conference venue
2	The BALTIC Centre	Association dinner
3	Newcastle Central Station	
4	The Laing Art Gallery	Drinks reception

MEETING INFORMATION

Registration and programme

Registration fees

For delegates registering on the day of the conference, fees are as follows:

	One Day	Three Days
BAPRAS Members (full, allied, overseas, professional)	230	640
BAPRAS Trainees and Juniors	120	295
Trainees (Non BAPRAS members)	220	600
Consultants (Non BAPRAS members)	280	770
BAPRAS Honoraries and Seniors	35	105
Researchers or scientists (No access to study leave)	35	105

Doctors or Scientists engaged in research are entitled to a reduced registration fee on the day that you present, if you can confirm in writing that you have no access to study leave expenses. We charge only for the cost of refreshments and lunch on the day you attend.

Honorary and Senior Members are entitled to free attendance at Scientific Meetings and pay only for refreshments/lunch and social functions where applicable. Application for social function tickets should have been made on the online registration form.

Extrordinary general meeting

This will be held on Thursday 12th July from 08:15. The meeting will only be open to Honorary Members (who have been Full Members), Senior Members, Full Members and Trainee Members of the Association.

Refreshments and lunches

All refreshments will be served in The Barbour Room.

Lunchtime meetings

The following meetings will commence 15 minutes after the start of the lunch break

Thursday 12 July 2012
Body Contouring Special Interest Group (Hall Two)

Friday 13 July 2012
Head and Neck Special Interest Group (Hall Two)

Industry sponsored seminars

Friday 13 July 2012
07:45–08:30 Breakfast symposium, sponsored by Baxter

Innovations in Plastic Surgery
Chair: Mr P Hodgkinson

- Benefits of slow-setting fibrin sealants
- Use of slow-setting fibrin sealants in reconstructive surgery

Light refreshments will be provided.

MEETING INFORMATION

Registration and programme

Social programme

A number of activities have been arranged in and around Newcastle and Gateshead on Thursday afternoon, running alongside the conference programme. Activities are mainly free for those who wish to attend, however as availability is limited, booking should have been made prior to the conference, via the online booking system

Visitor information desk

Staffed by knowledgeable local staff, the visitor information desk is the best place to find out how to get around, where to eat, shop and what to explore

The visitor information desk will be open at the following times:

- Wednesday 09:00–10:00
- Thursday 08:15–09:00; 10:50–11:15; 13:30–14:30

Wednesday 11 July

Drinks Reception

At the close of the first day of the conference, we invite you to a drinks reception at the Laing Art Gallery

Join us from 18:30 for drinks and canapes in the Atrium.
Cost: One ticket is included in your registration fee. Additional tickets are available, at £30.
Address: New Bridge Street, Newcastle upon Tyne, NE1 8AG

Thursday 12 July

Alongside a programme of presentations from guest speakers on a range of topics, we have arranged a small number of social trips for delegates to attend if they wish

Golf

BAPRAS' annual golf tournament is taking place at Close House, a PGA standard course, just outside the city, where Lee Westwood is the Associate Professional.
Tee times have been booked from 12:30.

Alnwick Castle and Gardens

An hour outside of Newcastle city centre, Alnwick castle, the residence of the Duke of Northumberland, was built following the Norman conquest and will appeal to medievalists, Harry Potter fans (being the filming location for Hogwarts School) and gardeners (the castle gardens are the only public gardens designed by celebrated international garden designers Jaques and Peter Wirtz). Finish your afternoon with afternoon tea in the treehouse restaurant (quite literally a restaurant in a tree!)

Entry fees and refreshments will be payable by individuals. Transport will be provided free of charge

City Centre Walking Tour

More information is available from the registration desk

If you would like to attend any of the above social activities, this should have been indicated on your online registration form, however one or two spaces may still be available- Visit the registration desk for further information.

MEETING INFORMATION

Registration and programme

Association Dinner

Join us on Thursday 12 July for the BAPRAS Association Dinner, which this year is taking place at Six restaurant, on the sixth floor of the BALTIC Centre for Contemporary Arts, with views out over the River Tyne.

- Drinks reception 19:30
- Dinner 20:00

Tickets

Tickets should have been purchased through the online registration system, however one or two may still be available. Visit the registration desk for further information.

Location

The BALTIC Centre is located on the south bank of the River Tyne, close to the Millennium Bridge and a short walk from the Sage Centre, where the conference is being held.
Address: Gateshead Quays, Southshore Road, Gateshead, NE8 3BA

Dress Code

Black tie preferred

About the BALTIC Centre

Housed in a landmark industrial building on the south bank of the River Tyne, BALTIC is a major international centre for contemporary art. BALTIC has no permanent collection, providing instead an ever-changing calendar of exhibitions and events that give a unique and compelling insight into contemporary artistic practice. BALTIC's dynamic, diverse and international programme ranges from blockbuster exhibitions to innovative new work and projects created by artists working within the local community.

Future meetings in 2012 and 2013

- 4–7 December 2012 Royal College of Surgeons, London (including a one day joint meeting with the American Society of Plastic Surgeons)
- 19–21 June 2013 East Midlands Conference Centre, University of Nottingham
- 26–29 November 2013 The Convention Centre, Dublin

Continuing medical education (CME)

The following points have been awarded for each day:

- Wednesday 6.5
- Thursday 6.5
- Friday 6.5
- Total 19.5

EXHIBITION INFORMATION

Exhibitors

Allergan **Stand 10**
1st Floor, Marlow International, Parkway, Marlow, Bucks, SL7 1YL
Contact: Paula Hughes | hughes_paula@allergan.com | 01628 494 343

Angiotech **Stand 2**
Unit 3 Eastgate Business Centre, Eastern Avenue, Burton on Trent, DE13 0AT
Contact: Deborah Rizzi- drizzi@angio.com 07500 556 265

The Quill™ Knotless Tissue-Closure Device is indicated for soft tissue approximation. It is designed with barbs helically arrayed around a suture material, in opposing directions, on either side of a transitional segment. The device is double-armed with surgical needles and comes in both absorbable and non-absorbable materials.

The Quill™ device eliminates both the tying of knots to secure closure and the need for a third hand. Quill™ allows for a more even distribution of tension on the soft tissues as they are approximated, with tension distributed along the entire length of the wound.

Baxter Healthcare **Stand 12**
Wallingford Road, Compton, Newbury, RG20 7QW
Contact: Lee Thompson | lee_thompson@baxter.com | 01635 206 012

Baxter is a global, diversified healthcare company that develops products and therapies to make a meaningful difference in the lives of people with life-threatening conditions such as haemophilia, kidney disease immune disorders and other chronic and acute conditions.

The company operates in three areas: BioPharma develops recombinant and plasma-based proteins; other biopharmaceutical products, vaccines; regenerative medicine, and technologies used in adult stem cell therapies. Hospital Products provides intravenous solutions and speciality products used for fluid management, anesthesia, parenteral nutrition support, pain management, antibiotic therapy, chemotherapy and drug delivery systems along with a BioSurgery business. Renal develops products and provides services for renal replacement therapies for patients with kidney disease.

Chromogenx **Stand 18**
The Beacon, Llanelli Gate House, Heol Aur, Llanelli, SA14 8LQ
Contact: Jean-Luc Durand | jdurand@chromogenex.com | 07854 765 167

Cynosure UK Ltd **Stand 1**
The Old Barn Offices, Lower Mount Farm, Long Lane, Cookham, Berks, SL6 9EE
Contact: Ben Savigar-Jones | bsjones@cynosureuk.com | 01628 522 252

Cynosure UK Ltd's modular lasers are market leading products offering the ultimate technology for applications such as hair removal in all skin types, skin rejuvenation, tattoo removal, treatment of pigmented/vascular lesions including facial and leg veins, and non-invasive body-shaping treatment. Our range includes the more invasive treatments such as laser lipolysis, surgical cellulite clearance and fractional rejuvenation.

EXHIBITION INFORMATION

Exhibitors

e-LPRAS **Stand 19**

e-Learning for Plastic, Reconstructive and Aesthetic Surgery
Contact: elpras.project@googlemail.com

The British Association of Plastic, Reconstructive and Aesthetic Surgeons is working in partnership with e-Learning for Healthcare to develop an e-learning resource to support good clinical practice.
e-LPRAS will support the training programme for plastic, reconstructive and aesthetic surgery and is aimed at plastic surgery trainees from specialty training year 3 (ST3) onwards.

The e-learning will also appeal to consultants and non-consultant career grades who want to increase and update their knowledge base.

The Healing Foundation **Stand 20**

The Royal College of Surgeons of England, 35-43 Lincoln's Inn Fields, London WC2A 3PE
Contact: Brendan Ely | brendane@thehealingfoundation.org | 0207 869 6920

The Healing Foundation is a UK fundraising charity championing the cause of people living with disfigurement and visible loss of function by funding research into pioneering surgical and psychological healing techniques and, through research, raising awareness and providing information about the cause and sources of support.

Current Healing Foundation research priorities include The Healing Foundation Centre at the University of Manchester which is focussed on understanding wound healing and tissue regeneration processes at the cellular and embryological level. The Healing Foundation has also initiated The Cleft Collective, a £5 million multi-centre research programme dedicated to improving our understanding of, and improving the treatments for, cleft lip and palate. The Foundation is also investing more than £3 million in burns research in the UK with a major focus for clinically applied research in Birmingham and a Centre for children's burns research in Bristol. Other projects and fellowships are also under way across a broad range of wound healing, surgical and disfigurement issues.

The Healing Foundation relies upon voluntary donations to continue this vital work and, through the Principal Patron scheme, specifically encourages the support and involvement of plastic surgeons in this work.

IntegraLife **Stand 14**

Newbury Road, Andover, SP10 4DR
Contact: Leanne Gray | Leanne.gray@integralife.com | 01264 345 739

Integra Life is a market-leading, innovative medical device company focused on helping the medical professional enhance the standard of care for patients. Integra provides customers with clinically relevant, innovative and cost-effective products that improve the quality of life for patients.

- The Integra Dermal Regeneration Template or IDRT is a 3 dimensional porous matrix which via controlled pore size and defined degradation rate allows autologous collagen synthesis to occur in the most complex of Maxillo Facial applications.
- Available with or without a silicone layer.
- The silicone layer acts as a placebo epidermis.
- The IDRT facilitates wound healing without compromising skin elasticity or cosmetic outcome.
- The IDRT offers immediate wound closure to both chronic and acute wounds and can facilitate dermal regeneration over exposed bone and tendon.
- The IDRT has a series of documented cases and retrospective studies that has been collated over the past 20 years by surgeons illustrating its success.

EXHIBITION INFORMATION

Exhibitors

KCI Medical **Stand 11**
KCI House, Langford Locks, Oxford, OX5 1GF
Contact: Farrukh Saleem | fsaleem@kci-medical.com | 01865 840 637

Lifecell **Stand 3**
KCI House, Langford Locks, Oxford, OX5 1GF
Contact: Rita Dunseath | rdunseat@kci-medical.com | 01865 840 648

Since 1994, LifeCell TM has been a pioneer in the science of regenerative medicine. Our flagship product, AlloDerm® Regenerative Tissue Matrix, has been used successfully in more than one million grafts and implants to date. AlloDerm® Tissue Matrix and our next generation soft-tissue repair product, StratticeTM Reconstructive Tissue Matrix, are being used by an increasing number of surgeons for a range of surgical applications including hernia repair, breast reconstruction postmastectomy, breast plastic surgery (breast augmentation revisions) and other reconstructive applications.

After more than fifteen years of successful use, LifeCell's patented tissue matrix technology remains "first in class" - making LifeCellTM the leader in tissue regeneration
Lemonchase are the exclusive UK distributors of Designs for Vision loupes. Designs for Vision are the number one choice for surgeons worldwide (indeed, they are the choice of over 95% of surgeons in the US and UK).

Lemon Chase **Stand 17**
The Brewery, Bell Yew Green, Tunbridge Wells, Kent, TN3 9BD
Contact: Mark Chase | info@lemonchase.com | 01892 752 305

Whether you are contemplating your first pair or would like advice on any changes to your current pair, Nick Lemon & Mark Chase would be delighted to see you at their stand where they are also demonstrating Designs for Vision's outstandingly bright range of Lithium Ion, Battery powered LED lights, with up to 12 hours of continual use - and which allow you to move freely around the operating theatre. Come and see what you're missing!

Malosa Medical **Stand 15**
Ashday Works Business Park, Elland Road, Elland, West Yorkshire, HX5 9JB
Contact: Tim Stansfield | info@malosa.com | 0870 3000 555

Malosa Medical is a specialist manufacturer of over 300 high quality Single-Use surgical instruments and procedure packs. State of the art manufacturing facilities and automated systems provide capability to produce low volume solutions with "Just in Time" deliveries.

Malosa has developed a large range of generic procedure packs. Malosa specialises in producing new/revised instruments to your own design and will assemble them into procedure packs with consumable items, to provide complete bespoke solutions. Once produced, Malosa will keep stock to be delivered and invoiced when required.

Malosa accreditations include: ISO9001:2000; ISO13485:2003; MDD93/42EEC(CE Marking)

Mentor Medical **Stand 7**
Johnson & Johnson Medical Ltd, Pinewood Campus, Nine Mile Ride, Wokingham, Berks, RG40 3EW
Contact: Elin Gillard | egillard@its.jnj.com | 07867 525 869

EXHIBITION INFORMATION

Exhibitors

Northstar Orthopaedic **Stand 16**
26 Kingfisher Court, Hambridge Road, Newbury, Berks, RG14 5SJ
Contact: Richard Foster | Richard@northstar-ortho.co.uk | 01635 275 380

Northstar are your partners for the supply of the Synovis Coupler. Please visit the booth to see the latest development; Flow Coupler. Incorporating doppler technology into the ring this advance allows secure anastomosis and monitoring of the vein

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Pfizer **Stand 6**
Walton Oaks, Tadworth, Surrey, KT20 7NS
Contact: Alison Kirkwood | 07966 160 894 | alison.kirkwood@pfizer.com

At Pfizer, we apply science and our global resources to improve health and well-being at every stage of life. We strive to set the standard for quality, safety and value in the discovery, development and manufacturing of medicines for people and animals. Our diversified global health care portfolio includes human and animal biologic and small molecule medicines and vaccines, as well as nutritional products and many of the world's best-known consumer products.

In the UK, Pfizer has its business headquarters in Surrey and is the major supplier of medicines to the NHS. To learn more about our commitments, please visit us at www.pfizer.co.uk.

PRASIS **Stand 13**
The Garden House, Blackhall Lane, Sevenoaks, Kent, TN15 0HP
Contact: Sherry Williams | sherry.williams@twg.uk.net | 0845 519 4393

Established in 2010, PRASIS is now a leading provider of comprehensive professional indemnity exclusively for plastic surgeons. PRASIS is a not for profit company, owned and run by its members.

Schuco **Stand 8**
Challenge House, 1 Lyndhurst Avenue, London, N12 0NE
Contact: Wayne Hicks | 07817 746 394

Established in 1957 Schuco have a great heritage supplying high quality medical products throughout the medical industry, with a specialist interest and passion for skin. We regularly interact with GPs, dermatologists and plastic surgeons all over the UK and Europe to stay ahead of the market and to evaluate the latest technological advances. We offer our customers the unique opportunity to gain hands on experience of all of our latest products by meeting with our dedicated team on both a one-to-one basis and at the various industry events we support throughout the year. We have built an impressive product portfolio covering skin imaging, minor surgery, aesthetics and post surgical garments, including FotoFinder for total body mapping, DermLite dermatoscopes and high quality compression garments from Medical Z.

Smith & Nephew **Stand 4**
Healthcare House, 101 Hessle Road, Hull, HU3 2BN
Contact: Dawn Rush | dawn.rush@smith-nephew.com | 01482 222 211

Smith & Nephew Wound Management is world leader in advanced wound care; providing a range of treatments for the management of soft tissue injuries. We provide products which link into your pathways of care that enable you to enhance your outcomes with skin flaps, grafts and burns. We have a wide portfolio of products including VERSAJET Hydrosurgery system, RENASYS Negative Pressure Wound Therapy, ACTICOAT Antimicrobial dressing and PICO our

EXHIBITION INFORMATION

Exhibitors

new innovative, single use Negative Pressure Wound Therapy system. These products enable you to achieve the best and most cost effective outcomes available, supported by our comprehensive training and educational platforms.

SpePharm **Stand 5**

2B Bankside, Hanborough Business Park, Long Hanborough, Witney, OX29 8JN
Contact: Michelle Brocklebank | michelle.brocklebank@spepharm.com | 01993 883 405

SpePharm, founded in 2006, is a pan-European specialty pharmaceutical company focused on specialty medicines essentially for secondary care. SpePharm UK was established in 2008. Particular areas of therapeutic focus are oncology, critical and supportive care.

The product portfolio includes Savene® an antidote against anthracycline extravasation.

Savene® is the only treatment clinically proven and licensed for this condition. SpePharm provides two other important treatments in the management of oncology patients: MuGard® for the prevention and treatment of oral mucositis, and Xerotin® a saliva substitute for the management of xerostomia; both common and potentially devastating side effects of cancer therapy.

Synthes **Stand 9**

20 Tewin Road, Welwyn Garden City, Hertfordshire, AL7 1LG
Contact: Kerry Hill | hill.kerry@synthes.com | 01707 823 320

Synthes is a leading global medical device company with a 50 year history of working closely with surgeons to develop the best possible solutions for patient care.

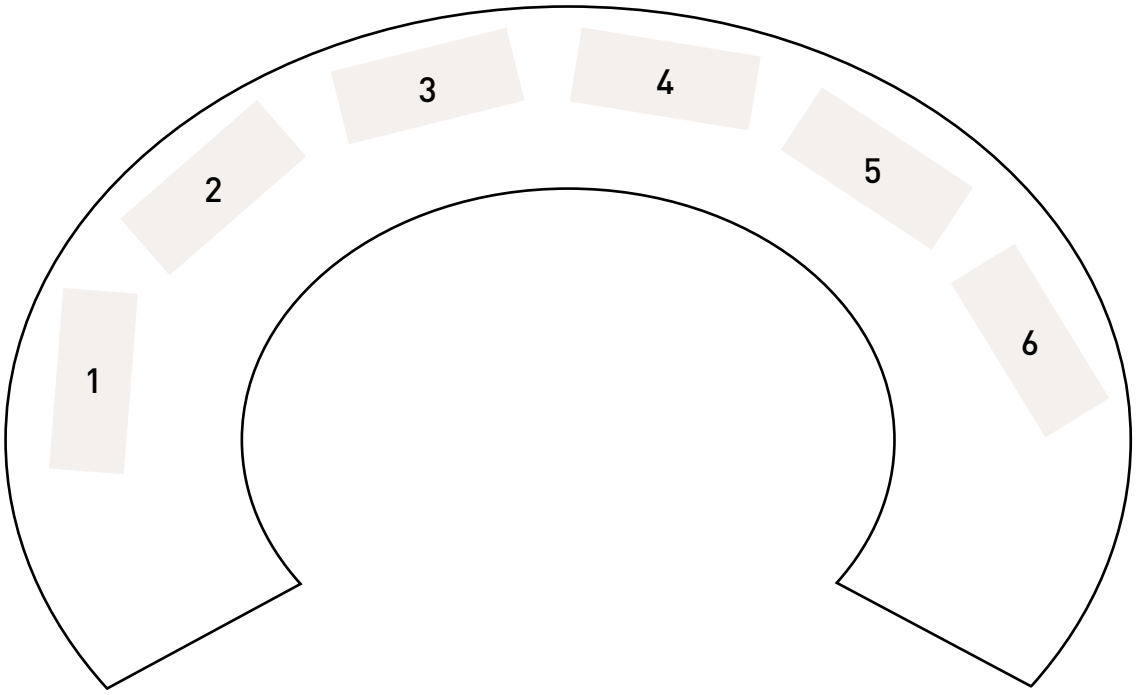
Synthes develop, produce and market instruments, implants and biomaterials for surgical fixation, correction and regeneration of the human skeleton and its soft tissues.

Synthes are a strong advocate of education for the application of appropriate surgical techniques best suited to the patient. Synthes also offer a broad range of solutions to support and enhance operating room efficiency.

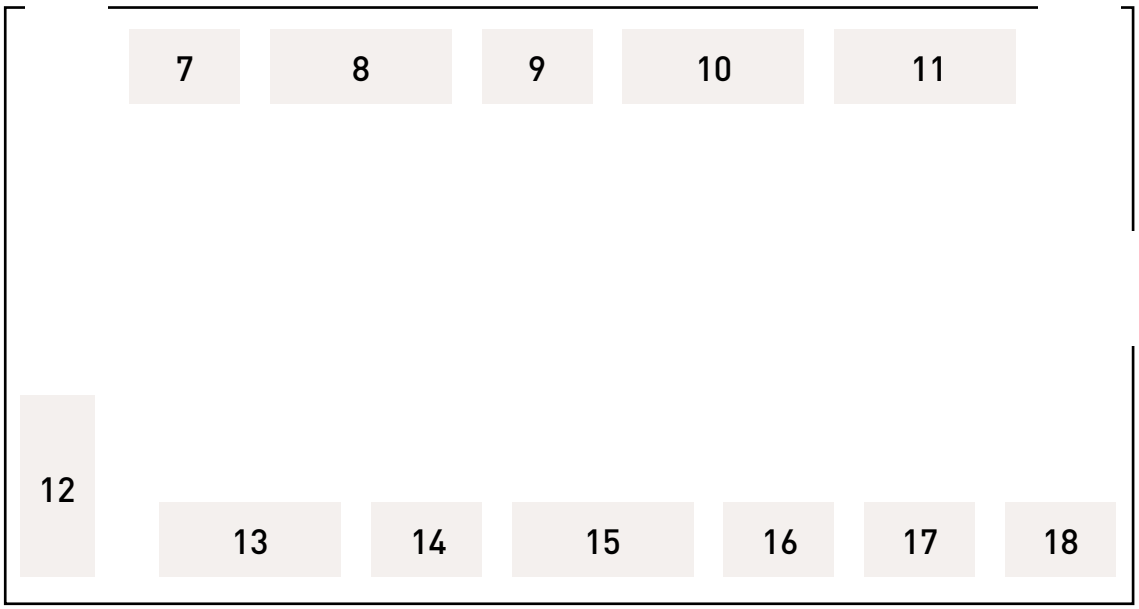
EXHIBITION INFORMATION

Exhibition floor plan

Hall 2 Foyer



Barbour Room



1 Cynosure
2 Angiotech
3 Lifecell
4 Smith & Nephew
5 Spepharm
6 Pfizer
7 Mentor Medical
8 Schuco
9 Synthes
10 Allergan
11 KCI Medical
12 Baxter Healthcare
13 PRASIS
14 Integralife
15 Malosa Medical
16 Northstar Orthopaedic
17 Lemon Chase
18 Chromogenx

THE HEALING FOUNDATION

Rebuilding the bodies, minds and lives of people with disfigurements

THE PLASTIC, RECONSTRUCTIVE AND AESTHETIC RESEARCH CHARITY

The Healing Foundation is the only charity in the UK and Ireland supporting a national strategy for research into disfigurement and visible loss of function to benefit surgeons, clinicians and their patients today and in the future.

Our ambition is to fund research in a wide range of areas – including aesthetic surgery, psychology and other therapies – that improve the quality of life for those affected by wounds, disfigurement and visible loss of function.

BREAKING NEW GROUND: OUR PRINCIPAL AREAS OF RESEARCH

The Healing Foundation Centre for Tissue Regeneration – £5 million.

Established in September 2006, the aim of this 25 year research investment is to deliver innovative regenerative and scar-free treatments through several studies on amphibians, mammals and humans. This work is already making a difference in the clinic and our recent discoverieshave enriched the global understanding of wounds and trauma which will, one day, translate to the clinic.

The Cleft Collective, a Healing Foundation initiative – £5 million

Cleft lip and palate affects one in every 600 to 700 children born in the UK. Our two new centres of research will house the first National Clinical Trials Unit for cleft lip and palate and establish the world's largest DNA biobank for cleft. Within a generation, this research will help to improve treatments and add significantly to our understanding of the causes of, and treatments for, cleft.

The Healing Foundation UK Centres for Burns Research – £3 million

Our two major centres for research in burns are being established in Birmingham and Bristol, with University and NHS Trust partners. Research will use insights from military experience to improve acute care, and study childhood burns to develop new, preventative interventions. Clinically driven research into all aspects of burn injury will deliver better prevention, improved treatments and effective long-term rehabilitation.

YOUR INVITATION TO BECOME A PRINCIPAL PATRON

To fund this research, the Healing Foundation is looking for remarkable individuals to help. Principal Patrons are the champions of new research in plastic and reconstructive surgery. They recognise its importance to a patient's physical and psychological recovery. Making a regular contribution to the work of the Healing Foundation, we will keep you closely in touch with our work with early notice of major publications and exclusive invitations to Healing Foundation events.

To find out more, please visit www.thehealingfoundation.org

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