



Australasian Breast Congress

9-11 October 2014

SURFERS PARADISE MARRIOTT RESORT, GOLD COAST

AND

Level II Oncoplastic Surgery Cadaveric Workshop

8-9 October 2014

MERF AND HOLY SPIRIT NORTHSIDE PRIVATE HOSPITAL,
BRISBANE, AUSTRALIA.

HOSTED IN PARTNERSHIP BY



Australasian
Society for
Breast Disease



Breast Surgeons
of Australia & New Zealand

HANDBOOK AND ABSTRACTS



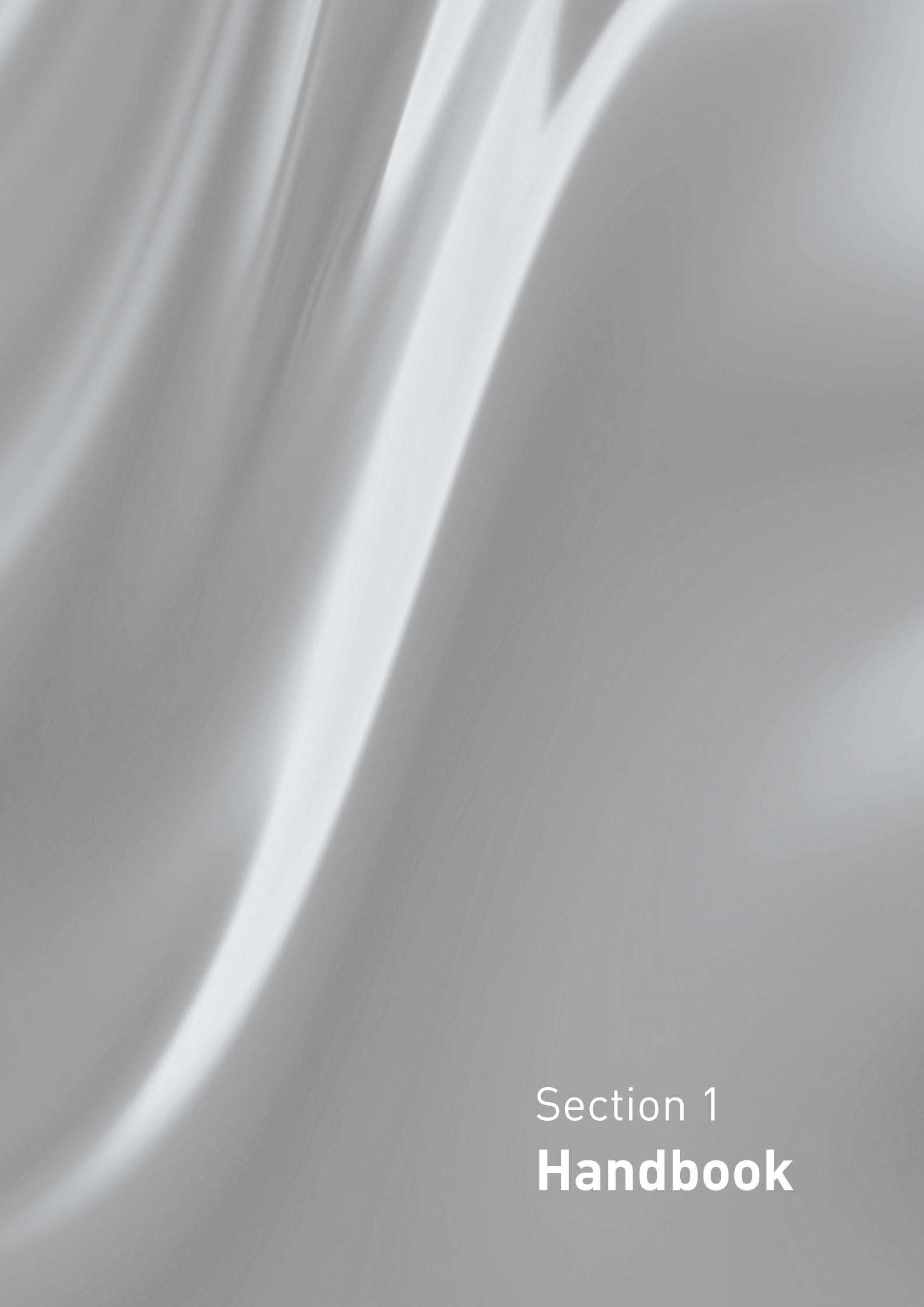
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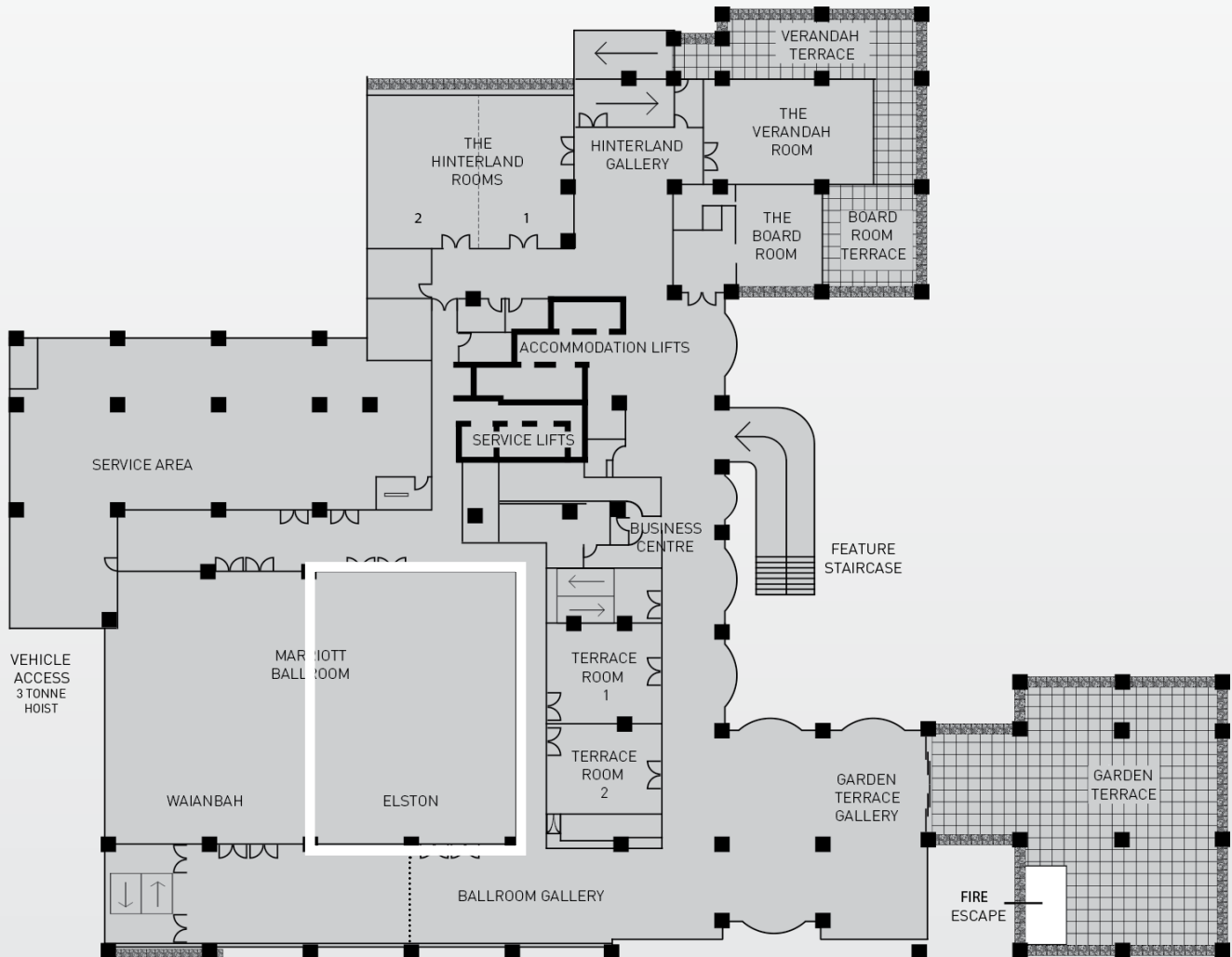
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Section 1
Handbook

SURFERS PARADISE MARRIOTT RESORT - FLOOR PLAN



PLENARY SESSIONS
(ELSTON ROOM)

WELCOME

On behalf of Australasian Society for Breast Disease and BreastSurgANZ, we warmly welcome you to the Australasian Breast Congress.

The Congress will have an emphasis on the role of loco-regional therapy in providing optimal breast cancer treatment. The program includes two communication workshops and an income maximisation workshop, with session topics covering areas such as oncoplastic surgery, immediate breast reconstruction, partial radiotherapy, axilla management and neoadjuvant treatment. The noted international speakers and local expert faculty will together provide plenty of interest and whilst the slant is largely surgical, the Congress will be of great value to all disciplines.

The Level II Oncoplastic Surgery Cadaveric Workshop will be held at the Holy Spirit Northside Private Hospital Education Centre and Medical Engineering Research Facility (MERF) in Brisbane. Miss Anne Tansley and Mr Richard Sutton from the UK will run the workshop assisted by local faculty.

Our sincere thanks go to our sponsors Johnson & Johnson Medical, Device Technologies, Allergan, Roche Products, AstraZeneca Oncology, Medical Specialties Australia, Specialised Therapeutics, Bongiorno National Network and the National Breast Cancer Foundation. We also thank all the trade exhibitors for their support. It would not be possible to hold this Congress without this support. Thus, it is important for you all to take time to meet with the representatives of the participating companies.

To help us in our future planning, we would greatly appreciate it if you took the time to complete the brief questionnaire provided in your satchel and drop it into the box placed in the Congress Office.

We hope you will enjoy the program as well as the social interaction with your colleagues.

Yours sincerely

Daniel de Viana
President
Australasian Society for
Breast Disease

Andrew Spillane
President
BreastSurgANZ

ORGANISING COMMITTEE

Dr David Littlejohn
Dr Daniel de Viana
Dr Yvonne Zissiadis

Dr Christopher Pyke
Mr David Walters
Ms Solei Gibbs

ABOUT THE AUSTRALASIAN SOCIETY FOR BREAST DISEASE

The Australasian Society for Breast Disease was constituted in 1997. Its primary goal is to promote multidisciplinary understanding and practice in the prevention, detection, diagnosis and management of breast disease and research into this area of medicine. The Society's Executive provides for broad multidisciplinary representation.

The Society thanks current members for their support and involvement and welcomes new members from all disciplines involved in the area of breast disease. You can download a membership application form from our website: www.asbd.org.au or contact the Secretariat.

CONTACT DETAILS

Australasian Society for Breast Disease

PO Box 1124,
Coorparoo DC Qld 4151
T: +61 7 3847 1946
F: +61 7 3847 7563
E: info@asbd.org.au
W: www.asbd.org.au

ABOUT BREASTSURGANZ

Breast Surgeons of Australia and New Zealand Incorporated (BreastSurgANZ) is the primary group of surgeons treating patients with breast disease, benign and malignant, in Australia and New Zealand. The care provided by our members is totally patient centred. The Society is committed to improving patient care through teaching, research, and the development of evidence-based strategies. Individual members' surgical performance and outcomes is continuously monitored through assessment via the BreastSurgANZ Quality Audit (formerly the National Breast Cancer Audit.)

CONTACT DETAILS

BreastSurgANZ

PO Box 1207
Randwick NSW 2031
E: media@breastsurganz.com
E: members@breastsurganz.com
E: partners@breastsurganz.com
W: www.breastsurganz.com

SPONSORS

Thank you to all the sponsors and exhibitors for their support.



TRADE EXHIBITION

Booth no. Company

1	AstraZeneca Oncology
2	GE Healthcare
3	Specialised Therapeutics
4	Cook Medical
5	Aurora Bioscience
6	Sonologic
7 & 8	Medical Specialties Australia
9 & 10	Roche
11	ZEISS Australia
12 & 13	Device Technologies
14 & 15	Johnson & Johnson Medical
16	Fujifilm SonoSite
17	Allergan
18	Bongiorno National Network
19	Matrix Surgical
20	Bard
21	Covidien
22	Novartis Oncology
23	Medtronic
24	Mammagard
25	Riancorp

USEFUL INFORMATION

VENUE

Surfers Paradise Marriott Resort & Spa

158 Ferny Avenue
Surfers Paradise Qld 4217
Australia
T: +61 7 5592 9800
F: +61 7 5592 9888

CONGRESS OFFICE

The Congress Office will be open during the following times:

Thursday 9 October 2014	08:00 - 19:00 hours
Friday 10 October 2014	07:30 - 17:30 hours
Saturday 11 October 2014	07:30 - 15:00 hours

SPEAKERS' AUDIOVISUAL TESTING ROOM

Speakers' Audiovisual Testing will be available in Terrace room 2 during the following times:

Thursday 9 October 2014	15:00 - 18:30 hours
Friday 10 October 2014	08:00 - 16:00 hours
Saturday 11 October 2014	08:00 - 13:00 hours

NAMEBADGES

Please wear your namebadge at all times. It is your admission pass to sessions and morning and afternoon teas. If you misplace your namebadge, please contact the Congress Office.

TICKETS

Attendance at workshops and social functions is by ticket only. Tickets are enclosed in your registration envelope with your namebadge, according to your attendance indication on the registration form. If you misplace any tickets or do not have tickets to the activities you wish to attend, please contact the Congress Office.

SPECIAL DIETS

If you have made a special dietary request, please identify yourself to serving staff at functions.

MESSAGES

A message board is located near the Congress office. Please advise potential callers to contact Surfers Paradise Marriott Resort (see details above) and ask for the Australasian Breast Congress Office. Please check the board for messages as personal delivery of messages cannot be guaranteed.

DRESS

Smart casual attire is appropriate for Congress and workshop sessions. A jacket may be needed for air conditioned meeting rooms. Dress for Congress dinner is cocktail (with some sparkle!).

SOCIAL PROGRAM

LUNCHESES

Lunches will be served in the Garden Terrace Room and Trade Exhibition area. Lunch service is by ticket only. Please ensure you have the correct tickets. Additional tickets are available at \$45 per person.

WELCOME RECEPTION

Thursday 9 October 2014, 18:00 - 19:30 hours

Meet your fellow delegates for drinks by the Marriott pool. Included for fulltime delegates and registered partners. Additional tickets cost \$60 per person.

NETWORKING DRINKS

Friday 10 October 2014, 17:00 - 18:00 hours

Following the last session for the day, catch up with your colleagues at drinks in the Trade Exhibition area. Included for fulltime and Friday delegates and registered partners only. No additional tickets.

MEETING DINNER

Saturday 11 October 2014, 19:30 - 23:00 hours

Be transported to an evening of sparkle and glamour as fine bubbles meld with crystal bling together to make the perfect cocktail! Dinner will include pre dinner refreshments, dinner and drinks, and entertainment. Included for full time delegates and registered partners. Additional tickets: \$130 per person.

ANNUAL GENERAL MEETING

The Annual General Meeting of the Australasian Society for Breast Disease will be held at 7.30am on Saturday 11 October 2014. As breakfast will be served during the Meeting, please confirm your attendance/non attendance. Admission is free to members only.

CONTINUING PROFESSIONAL DEVELOPMENT

RACS

This educational activity has been submitted to the Royal Australasian College of Surgeons' Continuing Professional Development (CPD) Program (1 point per hour, Category 4: Maintenance of Clinical Knowledge and Skills towards 2014 CPD totals).

RANZCR

The allocation of points in Royal Australian and New Zealand College of Radiologists Continuing Professional Development (CPD) Program as follows:

- **6 points** may be claimed for attendance at the "Australasian Breast Congress" to be held on 10 October 2014.
- **6 points** may be claimed for attendance at the "Australasian Breast Congress" to be held on 11 October 2014.
- **A total of 12 points** may be claimed for attendance at the "Australasian Breast Congress" to be held from 9 to 11 October 2014.
- **A total of 3.25 points** may be claimed for attendance at the "Communications Workshop" to be held on 9 October 2014.
- For anyone who attends only part of this meeting, points may be claimed pro rata at **1 point per hour**.

RACGP

Breast Physicians and General Practitioners can access the RACGP website www.racgp.org.au to determine the QA points on an individual basis (Category 2) for Meeting attendance.

The Foundation for Breast Cancer Care is being launched on 10 October 2014. The foundation was recently established by senior breast surgeons and policy makers in this arena. Its aim is to partner with the BreastSurgANZ society to develop strategies and programs for implementing breast cancer education, training, research, development, management and prevention. It has a unique focus for innovation in breast cancer treatment, by promoting excellence in breast surgery and research. BreastSurgANZ already has a strong track record in quantifying its work. Working to identify and support marginalised communities, the Foundation intends to focus on closing the gap in breast cancer care. For further enquiries or to join us on the 10th (tickets are still available) at the launch dinner, please contact, Karen Littlejohn - breastcancercarefoundation@gmail.com.

FACULTY MEMBERS

LEVEL II ONCOPLASTIC SURGERY CADAVERIC WORKSHOP

**8-9 October 2014,
Merf And Holy Spirit Northside Education Centre,
Brisbane**

UK Faculty: Anne Tansley
Richard Sutton

Australasian Faculty: David Littlejohn
James Kollias
Elisabeth Elder
Richard Martin
Daniel de Viana
James French
Melissa Bochner
Cindy Mak
Andrew Spillane
Lee Jackson

KEYNOTE SPEAKERS

Prof Hiram (Chip) S. Cody III

MD, FACS

Hiram Cody is a graduate of Dartmouth College and the Columbia University College of Physicians and Surgeons. He completed Surgical Residency at The Roosevelt Hospital in New York, and a Surgical Oncology Fellowship at Memorial Sloan-Kettering Cancer Center, where he is currently Attending Surgeon (Breast Service, Department of Surgery), Member (Memorial Hospital), and Professor of Clinical Surgery (Weill Cornell Medical College). His clinical research over the last 15 years has focused on sentinel lymph node biopsy. He is President of the American Society of Breast Surgeons, and is Past-President of the New York Metropolitan Breast Cancer Group. He is Editor of the journal *Breast Diseases* and the multi-author textbook *Sentinel Lymph Node Biopsy*. He serves on numerous editorial boards, reviews and lectures widely, and is the author of more than 200 peer-reviewed papers, editorials, book chapters and reviews.

Mr Richard Sutton

MBBS, FRCS, FRCS

Richard Sutton is a Consultant General Surgeon with a special interest in Breast Surgery, in particular cosmetic, oncoplastic and breast reconstructive surgery. He is the Director of the Breast Unit at the Royal United hospital in Bath, UK.

The UK is fortunate in having a very well developed training programme in oncoplastic and reconstructive breast surgery. Mr Sutton is actively involved in this training programme being the Director for the Specialty Skills Course in Breast Surgery (Principles in Breast Reconstruction - level1) at the Royal College of Surgeons of England as well as a tutor and examiner for the UK National Masters of Surgery course in Oncoplastic Breast Surgery.

Miss Anne Tansley

MBChB, FRCS(Ed), FRCS

Anne Tansley has been a Specialist Consultant Breast Surgeon at The Royal Liverpool University Hospital since 2006. After qualifying in 1992 at the Liverpool Medical School she spent time training at Concord Hospital Sydney, Australia, completing her training in the Mersey Region until taking up specialist breast practice as a consultant surgeon. She was later appointed to the National Oncoplastic Fellowship Training program and spent a year working in the Whiston NHS Plastics Unit and the Royal Liverpool University Hospital as the Breast Fellow working out of the Linda McCartney Breast Unit. As the RCS Breast Tutor she is involved in organising a successful National Teaching Program for surgeons and trainees. Miss Tansley's special clinical interests include diagnostic aspects such as breast assessment clinics and surgical management in Breast Screening; all aspects of oncoplastic breast surgery including therapeutic mammoplasty, implant based breast reconstruction and use of Acellular Dermal Matrices; and symmetrization techniques including breast augmentation; breast lift and reduction. Her research interests are: lumpectomy (breast conserving surgery including breast reduction surgery for breast cancer treatment and surgical training in the specialty of breast surgery.



MENTOR is proud to be
a Major Sponsor of the
Australasian Breast
Congress 2014.

We welcome you to come visit us on **Stand 14 & 15** to learn more
about our product range for reconstructive breast surgery.

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LOCAL FACULTY

Dr Melissa Bochner

FRACS, MS, MBBS

Melissa Bochner trained in General Surgery in NSW and attained her FRACS in 1995. She has a Master of Surgery from the University of Sydney and completed post Fellowship training in Breast and Endocrine Surgery at the Royal Adelaide Hospital and the Edinburgh Breast Unit. Dr Bochner has appointments as a Breast and Endocrine Surgeon at the Royal Adelaide Hospital, St Andrews Private Hospital, and at the Women's and Children's Hospital, and is a clinical titleholder at the University of Adelaide.

Dr Meagan Brennan

BMed, FRACGP, FASBP

Meagan Brennan is a Staff Specialist Breast Physician at the Westmead Breast Cancer Institute and she works in private practice at the Poche Centre in North Sydney. Her clinical interests include the management of women at high genetic risk of cancer and the management of benign breast disease. Dr Brennan is currently involved in research projects in the areas of survivorship care planning, breast MRI and factors affecting the choice of breast reconstruction in women with breast cancer. She is a Clinical Senior Lecturer at Sydney Medical School, University of Sydney where she teaches evidence based medicine and clinical skills to students at the Northern and Western Clinical Schools.

Dr Elisabeth E Elder

MBBS, PhD, FRACS

Elisabeth Elder graduated from the Karolinska Institute in Stockholm, Sweden in 1992, where she also completed her surgical training together with a PhD in tumour biology in 2002. She gained her Australian FRACS in 2008 and is now a staff specialist in breast surgery at the Westmead Breast Cancer Institute and clinical senior lecturer at the University of Sydney. She is the incoming chair of the oncoplastic subcommittee of BreastSurgANZ.

Dr Marie-Frances Burke

MBBS, FRANZCR

Marie Burke is the Director of Medical Services at Genesis CancerCare Queensland (formerly Premion), the largest provider of private Radiation Oncology services in the state. She qualified in medicine from the University of Queensland in 1982, and was awarded the Fellowship of the Royal Australian and New Zealand College of Radiologists in 1989. Dr Burke commenced in private practice in radiation oncology at the Wesley in 1995 and now consults there, as well as at the Genesis CancerCare

Queensland's Chermside and Nambour centres. Her specialties include breast cancer, gynaecologic cancer and skin cancer. She is currently on the RANZCR Faculty of Radiation Oncology Council, and the RANZCR Economics and Workforce Committee, is a past Secretary/Treasurer for the Australasian Society of Breast Disease and is on the board of the Breast and Prostate Cancer Association of Queensland. She has recently chaired the national committee on "Guidelines for Hypofractionated Breast Radiation" for Cancer Australia.

A/Prof Gelarah Fashid

MBBS, MD, MPH, FRCPA, FFSc(RCPA)

Gelareh Farshid serves as the Clinical Director of BreastScreen South Australia and as a senior consultant pathologist at SA Pathology. She has a long standing professional and research interest in the diseases of the breast. Breast cancer screening and breast pathology are among her areas of expertise. Among her various contributions, Dr Farshid is the secretary of the International Society of Breast Pathology, and Chair of the Australasian Breast Pathology Quality Assurance Program. She represents the Royal College of Pathologists of Australasia on the BreastScreen Australia National Quality Management Committee.

Dr Susan Fraser

MBBS, FASBP

Susan Fraser has worked as a Breast Physician for 24 years. She has worked in roles including diagnostic breast assessment, BreastScreen reading and assessment, breast surgical assisting and post cancer follow up care. She is the current President of the Australasian Society of Breast Physicians. Dr Fraser currently works between Cairns, her home and Breastcare on the Gold Coast and continues to read and assess for BreastScreen Queensland and NSW.

Dr Michael Gattas

MBBS, FRACP

Michael Gattas is a graduate of Sydney University. He is a Physician who works full time as a Clinical Geneticist in Brisbane. He has been a staff specialist at the Queensland Clinical Genetics Service since 1996. Dr Gattas was mainly responsible for familial cancer patients in this service until he started his private practice in 2004. He is a regular attendee at the multidisciplinary breast cancer meeting held at the Wesley Hospital in Brisbane. He has an active interest in delivering clinical genetics services by videoconference technology. Dr Gattas has previously been a member of the Ethics Committee of the Royal Children's Hospital in Brisbane.

A/Professor Bruno Giuffrè

MBBS, FRANZCR

Associate Professor Bruno Giuffrè is a Senior Staff Specialist Radiologist in Radiology Department at Royal North Shore Hospital and North Shore Private Hospital. His areas of clinical and research interest are Breast and Musculoskeletal Imaging and he has been instrumental in developing and supervising techniques and protocols for these disciplines at RNSH. He is also involved in many aspects of medical Informatics. His current projects include correlation of histopathology with MRI abnormalities of breast lesions and the correlation between MRI and Ultrasound abnormalities of joints with operative findings. He has extensive teaching experience with a wide variety of audiences from medical students to clinical colleagues.

Dr Janet Gray

MBBS, FRANZCR

Janet Gray is a graduate of University of Qld who trained in Radiology at Royal Brisbane Hospital. She was a partner in Drs Masel and Casey and then QDI for many years, specialising in Women's imaging. During this period BreastScreen Australia began a pilot study at Royal Women's Hospital and Dr Gray was a member of this successful trial. She continued working in BreastScreen and the private sector until 2013. Since that time she has worked for The Qld Health department as the State Radiologist for the BreastScreen Programme.

A/Prof Sandi Hayes

PhD

Sandi Hayes is an Exercise Physiologist, Principal Research Fellow and co-leader of a cancer survivorship research program (*ihop*) within the Institute of Health and Biomedical Innovation, Queensland University of Technology, Australia. Her program of research draws on experiences and training in exercise science, epidemiology and public health and focuses on understanding the physical and psychosocial concerns faced following cancer and the role of exercise in cancer recovery. Her work has involved the development, conduct and successful completion of randomised, controlled trials as well as population-based, prospective, longitudinal cohort studies that have included over 1,000 cancer survivors.

Dr Brigid Hickey

MBBS, RANZCR

Brigid Hickey is a University of Queensland medical graduate who trained in Radiation Oncology in Brisbane. She was the 1997 Windeyer Fellow (Mt Vernon UK) and has worked in Townsville and Christchurch, New Zealand before settling in Brisbane. She is the Acting Director of Radiation

Oncology, Mater Service. She has truly returned to her roots; her office is directly across the road from where she was born! Dr Hickey has had a long association with the Cochrane Collaboration, publishing her first Cochrane Systematic review in 2000. She is currently a Cochrane Breast Cancer Group Editor and has published Cochrane systematic reviews on colorectal and prostate cancer.

Dr James Kollias

MD, FRACS, MBBS

James Kollias is a specialist breast surgeon at the Royal Adelaide Hospital and at Breastscreen SA. He is a past Executive Member of ASBD, past Chairman of the RACS Breast Section, Founding President of BreastSurgANZ and past Chairman of the BreastSurgANZ Breast Quality Audit. He has served as an adviser for a number of breast cancer working parties for Cancer Australia / National Breast and Ovarian Cancer Centre. Dr Kollias has published over 90 manuscripts in refereed scientific journals and is a senior lecturer with the University of Adelaide Department of Surgery.

A/Prof Margo Lehman

MBBS, FRANZCR, GDP

Margot Lehman is a graduate of the University of Queensland. She is currently working as a Senior Staff Specialist in the Department of Radiation Oncology Princess Alexandra Hospital where she is a member of the breast cancer multi-disciplinary team. She is the co-author of Cochrane systematic reviews evaluating accelerated partial breast irradiation, radiation fraction size, the sequencing of chemotherapy and radiation therapy and the role of regional nodal irradiation in breast cancer management.

Dr David Littlejohn

MBBS, FRACS

David Littlejohn is a specialist breast oncoplastic surgeon performing the full range of breast cancer surgery including breast oncoplastic procedures such as latissimus dorsi miniflap and therapeutic mammoplasty as well as immediate and delayed breast reconstruction utilising TRAM and LD flaps. Dr Littlejohn has been practising oncoplastic breast surgery in Wagga Wagga for 14 years and is the secretary and treasurer of the Breast Section of the Royal Australian College of Surgeons and a founding member of Breast Surgeons NSW and BreastSurgANZ and is the outgoing chairman of the oncoplastic committee.

Prof Bruce Mann

MBBS, PhD, FRACS

Bruce Mann is Director of The Breast Service at the Royal Melbourne and Royal Women's Hospital in Melbourne. He completed Surgical training at The Royal Melbourne

Hospital and Fellowship training at Memorial Sloan Kettering Cancer Centre. He has been involved in many clinical trials and much clinical and translational research, with his main research interest being tailoring treatment to the disease and the patient.

Dr Kerry McMahon

MBBS, FRANZCR

Kerry McMahon is a radiologist with Queensland X-Ray in Brisbane where she has a special interest in Women's imaging. This includes mammography and Breast MRI, obstetric and gynaecologic ultrasound and bone mineral densitometry, and Pelvic/Gynaecology MRI. She is a graduate from the University of Qld, completing her radiology training at the Royal Brisbane Hospital and a fellowship year in Women's Imaging at the Edinburgh Royal Infirmary, Scotland. She has currently been in private practice with Qld X-Ray since 1999, and is a visiting consultant to BreastScreen Qld.

The Hon Maxine Morand

BA, MA Prelim

Maxine Morand has a background in health, research and politics. She began her career as a general nurse then completed an Arts Degree and a Masters Preliminary in Sociology, which led to a research role at the Centre for Behavioural Research in Cancer at Cancer Council Victoria. Ms Morand worked as an advisor to the Victorian Minister for Health before being elected to the Victorian Legislative Assembly in 2002. An eight year career in Parliament included senior government appointments of Parliamentary Secretary for Health and Minister for Children and Early Childhood Development, and Minister for Women's Affairs. Maxine Morand is currently CEO of Breast Cancer Network Australia and is on the Cancer Australia Breast Cancer Advisory Group. She was diagnosed with breast cancer in 2010.

Dr M Teresa Nano

MBBS, FRACS

Teresa Nano graduated from Queensland University and gained her FRACS with the Australasian College of Surgeons in 1999. She subsequently completed a two year Breast and Endocrine Surgical Fellowship at the Royal Adelaide with research work in breast reconstruction. Dr Nano currently works at Greenslopes Private Hospital, BreastScreen Queensland and Wesley Breast Clinic.

A/Prof Nirmala Pathmanathan

BScMed, MBBS, FRCPA, MIAC

Nirmala Pathmanathan is the Executive Director of the Westmead Breast Cancer Institute in Sydney, and a Senior Staff Specialist, Anatomical Pathologist, at the Institute of Clinical Pathology and Medical Research at Westmead

Hospital. She has also worked as a Senior Research Fellow at Westmead Millennium Institute in Breast Cancer Research. She is the Designated/Lead Pathologist for BreastScreen, Sydney West. Dr Pathmanathan has lectured extensively locally and internationally in the field of breast cancer and has published a number of articles in peer-reviewed journals. She is the recipient and chief investigator in several grant funded research projects including the Breast Cancer Tumour Bank in Sydney. She is a Member of NBOCC Sentinel Node Biopsy Subgroup and was involved in the development of recommendations for use of Sentinel Node Biopsy in Breast Cancer. Recently, she has been a steering committee member in the development and presentation of breast cancer workshops aimed at improving the quality of breast cancer pathology and HER2 testing in several countries across the Asia Pacific Region.

A/Prof Christopher Pyke

MBBS, FRACS, FACS, PhD

Chris Pyke is an Associate Professor in Surgery at the University of Queensland, the Chairman of the Foundation for Breast Cancer Care and the Immediate Past President of BreastSurgANZ. After completing his surgical training at Mater, Dr Pyke undertook surgical fellowships at the Nottingham Breast Unit in the United Kingdom and the Mayo Clinic in the United States of America. On his return to Australia, Dr Pyke took up a position as senior lecturer at the Mater Hospital in Brisbane and completed a PhD in breast cancer risk quantification.

Winthrop Prof Christobel Saunders

MBBS (Lond), FRCS, FRACS

Christobel Saunders is Winthrop Professor of Surgical Oncology (since 2002), academic surgeon, cancer researcher and teacher of surgery at the School of Surgery, The University of Western Australia. She has been closely involved in strategic planning and management of health cancer services in Australia for the last decade as Board member and Advisory Council member of Cancer Australia, past President of the Cancer Council WA (2009-2013), and locally as author of the WA Health Cancer Services Framework (www.clinicalnetworks.health.wa.gov.au/cancer/docs) and first A/Director State-wide Cancer and Palliative Care Network. She has substantially contributed to many clinical aspects of breast cancer research including clinical trials of new treatments, psychosocial, translational and health services research. Winthrop Professor Christobel Saunders is active in several areas of surgical oncology cancer research, with a particular emphasis on breast cancer. Areas of current research focus include: Minimally invasive diagnosis and treatment of breast cancer; Translational cancer research; Familial breast cancer; Endocrine

treatments in breast cancer; Exogenous and endogenous hormones and breast cancer; Cancer service research and Psycho-oncology.

Dr Raja Sawhney

Raja Sawhney was born in London, UK and attained his primary medical degree from Guy's & St. Thomas' Hospitals in London. He moved to Australia in 1998 and pursued his career in surgical specialties before commencing advanced training in Plastic & Reconstructive Surgery predominantly in Queensland. Since completing his advanced training, he has been working as a full-time staff specialist in the Gold Coast Health district expanding public reconstructive services, especially for breast reconstruction. He works in close collaboration with the Oncologic and Oncoplastic Breast surgeons within the public and private sectors here in the Gold Coast. He is the Director of Plastic and Reconstructive Surgery at Gold Coast University and Robina Hospitals.

Dr Catherine Shannon

MBBS (Hons), FRACP

Catherine Shannon is director of Medical Oncology at the Mater Adult Hospital Brisbane. She is a member of the executive of the Australasian Society for Breast Disease and the breast cancer advisory committee for Cancer Australia. She has a special interest in breast and gynecological malignancy. She is the director of the oncology trials unit for Mater Health Services and honorary senior investigator for Mater Research. She is the principal investigator on a number of clinical trials in breast and gynecological malignancy and a member of the Australasian collaborative research groups for Breast, gynecological and lung malignancies. Catherine has extensive experience with clinical trials of new drugs for the treatment of malignancy. Her special interests include the management of breast cancer in young women and pregnant women and she has published in this field.

Ms Vicki Shepherd

Vicki Shepherd has been a BCNA Consumer Representative since 2006. She was diagnosed with early breast cancer in 2003 and underwent a lumpectomy, followed by chemotherapy, radiotherapy and hormone therapy. Since undergoing BCNA's Science and Advocacy Training, Ms Shepherd has provided consumer input on a variety of committees and research projects, including a study looking at the surgical outcomes in Australia for women diagnosed with early breast cancer. She was also the BCNA Consumer Representative on the Cancer Australia working group developing a resource on issues of sexuality for women with breast cancer. She lives in Brisbane and is passionate about improving outcomes for women diagnosed with breast cancer.

A/Prof Andrew Spillane

MD, FRACS, BMBS

Andrew Spillane is the President of BreastSurgANZ. He is Associate Professor of Surgical Oncology at The University of Sydney, Northern Clinical School. He specialises in the surgical management of melanoma, breast cancer and soft tissue tumours. Dr Spillane is currently a senior surgeon with Melanoma Institute Australia (MIA), and a VMO at the Mater, Royal North Shore and North Shore Private Hospitals.

A/Prof Donna Taylor

MBBS, FRANZCR, FRCP(C)

Donna Taylor is a Consultant Radiologist at the Royal Perth Hospital, Screen Reader at BreastScreen Western Australia and Clinical Associate Professor at the School of Surgery, University of Western Australia. She has extensive experience in breast imaging and intervention and is a passionate advocate for multidisciplinary breast cancer research. Her current projects include an RCT comparing low dose iodine 125 seeds with hook-wires for localisation of breast cancers, use of sonographically visible breast biopsy markers, quantifying breast tissue composition with non-contrast breast MRI and a non-inferiority trial comparing contrast enhanced mammography with MRI for breast cancer staging. Dr Taylor is a FRANZCR part 2 examiner, a member of the RANZCR Radiology and Radiation Oncology Research Committees and an Associate Editor for the *Journal of Medical Imaging and Radiation Oncology*.

A/Prof Jane Turner

MBBS, FRANZCP, PhD

Jane Turner is a consultation-liaison psychiatrist who has worked for 25 years in Oncology. She has been extensively involved in the development of clinical practice guidelines, including psychosocial clinical practice guidelines, and has experience in communication skills training for health professionals from a range of clinical disciplines. She is currently engaged in research evaluating a structured intervention for fear of cancer recurrence in women with breast cancer, and is leading a trial of a nurse-delivered survivorship intervention for patients who have completed treatment for head and neck cancer.

Dr Daniel de Viana

MBBS, FRACS

Daniel de Viana is a medical graduate from the Queensland University, who completed his general surgery training through Princess Alexandra Hospital, Brisbane. He undertook postgraduate training in breast surgery and cancer management in the United Kingdom. He settled on the Gold Coast in 1999, initially working as Staff Breast Surgeon at the Gold Coast Hospital, and commenced

private practice in 2000. Dr de Viana is a consultant at BreastScreen Southport, member of surgical review panel of BreastScreen Queensland, President of the Australasian Society for Breast Disease, member of Royal Australasian College of Surgeons Breast Section, and member of the International Society of Breast Disease.

Mr David Walters

MBBS (Adel), FRACS, DDU, GIACD

David Walters is a Senior Consultant Breast and Endocrine Surgeon at The Queen Elizabeth Hospital and Senior Lecturer with the University of Adelaide. He is also Visiting Consultant Surgeon at BreastScreen SA and Founding and current executive member BreastSurgANZ. Mr Walters is Chair of BreastSurgANZ Quality Audit Steering Committee, Vice Chair of SA State Committee for RACS, and Director at St. Andrews Hospital.

Dr Yvonne Zissiadis

MBBS, FRANZCR

Yvonne Zissiadis is a Radiation Oncologist with a special interest in breast cancer. She completed her Radiation Oncology training at Peter MacCallum Cancer Institute following which she took up a Research Fellowship at the Breast Cancer Institute in NSW. Following that Dr Zissiadis was appointed Consultant Radiation Oncologist at the Prince of Wales Hospital, Sydney. She then undertook a second fellowship at the Massachusetts General Hospital, Boston before returning to her home state of Perth to take up a Radiation Oncology consultant position at Royal Perth Hospital. She now works for Genesiscancercare, both privately and at Royal Perth Hospital. Dr Zissiadis has been an active member of the Trans Tasman Radiation Oncology Group participating in many of their breast cancer trials. She is currently the Chair of the WA GCC Research committee as well as a member of the Breast Cancer Research Centre's research committee. In addition, she has a lectureship at Edith Cowen University and the University of WA, with whom she is collaborating on exercise in breast cancer trials.

PRESENTERS - PROFFERED PAPERS

Dr Verity Ahern

FRANZCR

Director, Sydney West Radiation Oncology Network, Crown Princess Mary Cancer Centre, Westmead Hospital, Sydney

Dr Su Ang

MBBS

Breast registrar, Royal Prince Alfred Hospital, Sydney

A/Prof Peter Graham

MBBS, FRANZCR, Cert Bioeth, GradDipMedStat

Acting Director Radiation Oncology, Director Clinical Trials Unit, Cancer Care Centre, St George Hospital, Sydney

Ms Louise Koelmeyer

B. App Sc

Occupational therapist; Development Manager, Life After Cancer Experience (LACE)

Macquarie University Cancer Institute, Sydney

Dr Caitlin Lim

MBBS FRACS

Senior Surgical Registrar, Bankstown Hospital

Dr Farid Meybodi

MBBS, FRACS

Staff Specialist, Westmead Breast Cancer Institute, Sydney

Dr Kowski Murugappan

FRACS

Breast and Endocrine Surgical Fellow

Christchurch Hospital

A/Prof Donna Taylor

MBBS, FRANZCR, FRCP(C)

Consultant Radiologist, Royal Perth Hospital; Screen Reader, BreastScreen Western Australia

Clinical Associate Professor, School of Surgery, University of Western Australia

VENUES

LEVEL II ONCOPLASTIC SURGERY CADAVERIC WORKSHOP

8-9 October 2014, MERF and Holy Spirit Northside Education Centre, Brisbane

THURSDAY 9 OCTOBER 2014

08:00 - 18:00 **Registration**
Venue: Congress Office, Terrace Room 1

18:00 - 19:00 **Speakers' audiovisual testing**
Venue: Terrace Room 2

09:00 - 12:30 **Workshop: Communication**
Venue: Hinterland Room 1

12:30 - 16:30 **Workshop: Maximising Your Earnings in Private Practice**
Venue: Hinterland Room 2

14:30 - 18:00 **Workshop: Communication**
Venue: Venue: Hinterland Room 1

18:00 - 19:30 **Welcome reception**
Venue: Marriott pool side

FRIDAY 10 OCTOBER 2014

07.30 - 17.30 **Registration**
Venue: Congress Office, Terrace Room 1

07:00 - 08:45 **Educational Breakfast: Gene Expression Assays for Breast Cancer and Their Use in The "Real" World**
Venue: Hinterland Room

07:30 - 16:00 **Speakers' audiovisual testing**
Venue: Terrace Room 2

17:00 - 18:00 **Networking drinks**
Trade Exhibition area

SATURDAY 11 OCTOBER 2014

07:30 - 15:00 **Registration**
Venue: Congress Office, Terrace Room 1

07:30 - 08:45 **Australasian Society for Breast Disease Annual General Meeting**
Venue: Verandah Room

07:30 - 13:00 **Speakers' audiovisual testing**
Venue: Terrace Room 2

19:30 - 23:00 **Meeting dinner**
Venue: Marriott Ballroom

The venue for all scientific program plenary sessions is the Elston Room.



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PROGRAM

Please note that the program is subject to change.

THURSDAY 9 OCTOBER 2014		
08:00 - 18:00	Registration	
09:00 - 12:30	Workshop: Communication	Jane Turner
10:00 - 12:00	Workshop: Maximising Your Earnings in Private Practice <i>Sponsored by Bongiorno National Network</i>	Michael Waycott and Simon Farmer
14:00 - 17:30	Workshop: Communication	Jane Turner
18:00 - 19:30	Welcome reception	

FRIDAY 10 OCTOBER 2014		
07:00 - 08:45	Educational breakfast session: Gene Expression Assays for Breast Cancer and Their Use in the 'Real' World <i>Sponsored by Specialised Therapeutics</i>	Richard de Boer and Bruce Mann
09:00 - 10:30	Session 1: Screening and Diagnostics Chair: Janet Gray and Maxine Morand	
	Welcome	Daniel de Viana and Andrew Spillane
	Advances in Breast Imaging	Kerry McMahon
	What's wrong with BreastScreen screening? (and what's right?)	Meagan Brennan
	Expanding the indications for MRI: What is best practice?	Christobel Saunders
	Confessions of a MRI sceptic	Hiram Cody
	Discussion / questions	Faculty
10:30 - 11:00	Morning break	
11:00 - 12:30	Session 2: Oncoplastic Techniques <i>Sponsored by Allergan</i> Chair: Daniel de Viana	
	Single stage reconstruction	Anne Tansley
	Breast cancer localisation, a 2014 update	Donna Taylor
	New techniques and technologies in reconstruction	Raja Sawhney
	Therapeutic mammoplasty	Richard Sutton
	Discussion / questions	Faculty

FRIDAY 10 OCTOBER 2014 - CONTINUED12:30 - 13:30 **Lunch****13:30 - 15:00 Session 3: Axillary Surgery and Proffered Papers**

Chair: Andrew Spillane

Keynote: The management of the axilla post Z0011 Hiram Cody

Discussion / questions

Liposuction for advanced - Impact of liposuction on limb volumes.

Surgical treatment results from Australia

Louise Koelmeyer

What should be used for lower pole coverage in immediate two-stage expander / implant based breast reconstruction?

Farid Meybodi

Can the content of seroma fluid from mastectomy or axillary clearance wounds predict clinical course?

Caitlin Lim

Positive anterior margins in breast conserving surgery:

Does it matter? A systematic review – the literature

Su Ang

"ROLLIS" Radioguided Occult Lesion Localisation using

Iodine-125 (I-125) Seeds for removal of impalpable breast lesions:

first Australian results

Donna Taylor

15:00 - 15:30 **Afternoon break****15:30 - 17:00 Session 4A: Radiotherapy and Reconstruction**

Chair: Yvonne Zissiadis

Accelerated partial breast irradiation – Cochrane review

Brigid Hickey

Partial breast irradiation: MSKCC experience

Hiram Cody

Issues in treating patients with reconstruction

Marie Burke

Reconstructive options in the high risk patient

Raja Sawhney

Discussion / questions

Faculty

15:30 - 17:00 Session 4B: Survivorship: Optimising Life After Breast Cancer

Chair: Christobel Saunders

Physical health and quality of life in breast cancer survivors

Sandi Hayes

Psychosexual health

Jane Turner

An interactive panel Q & A session addressing the important issues facing breast cancer survivors

Panel

Surgeon: Melissa Bochner

Breast physician: Susan Fraser

Geneticist: Michael Gattas

Medical oncologist: Catherine Shannon

BCNA representative: Vicki Shepherd

Breast Care Nurse: TBA

17:00 - 18:00 **Networking drinks**

SATURDAY 11 OCTOBER 2014

07:30 - 08:45 **ASBD Annual General Meeting**

09:00 - 10:30 **Session 5: Neoadjuvant Therapy Update**

Sponsored by Roche

Chair: Bruce Mann

Neoadjuvant chemotherapy – expanding the indications	Andrew Spillane
Neoadjuvant therapy and axillary staging	Hiram Cody
Interpreting pathology during and after neoadjuvant therapy	Gelarah Fashid
Neoadjuvant therapy for breast cancer – current trials and future directions	Catherine Shannon
Discussion / questions	Faculty

10:30 - 11:00 **Morning break**

11:00 - 12:30 **Session 6: Genetics Keynote and Proffered Papers**

Sponsored by AstraZeneca Oncology

Chair: David Walters

Breast cancer biology: Prognostic and predictive factors in current clinical practice	Nirmala Pathmanathan
Discussion	
Comparative evaluation of Contrast Enhanced Spectral Mammography (CESM) and Contrast Enhanced Magnetic Resonance Imaging (CEMRI) for local staging of breast cancer: Interim results from the CESM V study	Donna Taylor
Predictors of responses and sexual function for women in the St George Breast Boost Randomized Trial (StGBBT)	Peter Graham
What is the value of axillary staging in elderly women with breast cancer?	
Review of four years prospective series from a single institution	Kowslya Murugappan
PET Scans for locally advanced breast cancer and diagnostic MRI to determine the extent of operation and radiotherapy (PET LABRADOR); TROG 12.02	Verity Ahern

12:30 - 13:30 **Lunch**

13:30 - 15:00 **Session 7: Multidisciplinary Meeting Case Review**

Chair/Moderator: James Kollias

Panel

Surgeons:	Hiram Cody, Anne Tansley, Elisabeth Elder
Radiation oncologist:	Marie Burke
Medical oncologists:	Catherine Shannon and Natasha Woodward
Geneticist:	Michael Gattas
Pathologist:	Gelarah Fashid
Radiologist:	Bruno Giuffre
Breast Care Nurse:	TBA

15:00 - 15:30 **Afternoon break**

15:30 - 17:00 **Session 8: Great Debates in Breast Cancer**

Chair: Christopher Pyke

“The axilla is the responsibility of the surgeon not the radiation oncologist”	Teresa Nano and Margot Lehman
“Oncoplastic surgery serves two masters poorly: oncology and plastics”	Hiram Cody and Richard Sutton
Closing comments	

19:30 - 23:00 **Congress dinner**

Awards for best proffered paper and best poster



Section 2
Abstracts

WORKSHOP: COMMUNICATION

Jane Turner

The workshop will provide a brief overview of key communication techniques including barriers to good communication. In addition there will be discussion about challenging encounters such as responding to patients who are angry or depressed, or situations of family conflict. Embedded in the workshop is attention to the personal impact of these challenging encounters. The aim of the workshop is to enhance the confidence of participants in their clinical communication through the use of brief role-plays aligned with the specific needs of the individual clinicians.



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SESSION 1: SCREENING AND DIAGNOSTICS

ADVANCES IN BREAST IMAGING

Kerry McMahon

Radiologist, Qld X-Ray, Brisbane

Mammography has formed the basis of breast screening programs throughout the world since the 1980's, and has contributed to a significant reduction in breast cancer mortality. For over 20 years, little change or advance in mammography techniques occurred until more recently with the introduction of digital imaging, initially in the form of CR mammography and full field digital mammography. In 2005 the DMIST trial was released, showing improvements in conspicuity of microcalcification and improved penetrance within the "dense breast", with an increase in detection rate of DCIS, however the increase in the detection rate of small breast cancer was less pronounced.

The advent of full field digital mammography has however lead to development of Digital Tomosynthesis Mammography, and this has the potential to significantly improve the detection rate of breast cancer and reduce the false positive recall rate. Much research is still ongoing however preliminary results from the Oslo Trial and STORM trial are extremely encouraging. Digital Breast tomosynthesis enables the breast tissue to be reprocessed in 1mm slices, increasing the conspicuity of spiculated lesions, frequently obscured by superimposed tissue on a standard 2D image. At this stage, digital tomosynthesis is generally performed in addition to standard 4 view 2D images, which does involve slightly increased radiation dose, though well within acceptable limits. Synthesized 2D Imaging, known as "C-View", creates a synthesized 2D from the 3D datasets, and eliminates the need for an additional conventional 2D exposure. This has the potential to reduce the radiation dose, and compares extremely favourably, potentially even better than standard 2D exposures. The advent of full field digital mammography also enables remote reporting and improved reporting times to rural and remote regions, and improvements in service provider to remote regions of Australia.

MRI continues to be advantageous in characterization of mammographically occult disease, and screening of high-risk young women. Developments in molecular imaging however are likely to form the basis of significant advances in imaging over the next 10 years. Molecular imaging incorporates MRI with spectroscopy, nuclear medicine techniques such as PET imaging and Breast specific Sestamibi imaging, and the new field of photoacoustic imaging. This together with the development of individual risk-profiles for women may potentially change the method of screening, particularly in offering programs tailored to individual risk and breast tissue density.

Useful References:

- 1 Diagnostic Performance of Digital versus Film Mammography for Breast Cancer Screening: Digital Mammographic Imaging Screening Trial Investigators Group; *N Engl J Med* 2005, 353;17: 1773-83.
- 2 Breast Screening using 2D-mammography or integrating digital breast tomosynthesis (3D-mammography) for single-reading or double-reading – Evidence to guide future screening strategies. Houssami et al: *Eur J Cancer* (2014) 50, 1799-1807.
3. Comparison of Digital Mammography Alone and Digital Mammography plus Tomosynthesis in a population based screening program. Skaane et al. *Radiology* (2013) 267:47-56.

NOTES

4. Advances in molecular imaging for breast cancer detection and characterization. Specht et al. *Breast Cancer Research* 2012, 14:206.
5. Light In and Sound Out: Emerging Translational Strategies for Photoacoustic Imaging. Zackrisson et al. 2014. American Association for Cancer Research.
6. FDG PET, PET/CT and Breast Cancer Imaging: Rosen et al. *Radiographics* 2007; 27: S215-S229.

WHAT'S WRONG WITH BREASTSCREEN SCREENING? (AND WHAT'S RIGHT?)

Meagan Brennan

The presentation will discuss the role of BreastScreen 23 years after its establishment in 1991. The evolution of BreastScreen and its current National Accreditation Standards (including participation and re-screening rates) will be reviewed and the results of the 2009 Evaluation Report will be revisited. The presentation will discuss how BreastScreen addresses the needs of multidisciplinary breast cancer treatment teams. Future directions will be proposed, including the need for a more tailored approach to screening based on breast cancer risk.

EXPANDING THE INDICATIONS FOR MRI: WHAT IS BEST PRACTICE?

Christobel Saunders

Annual MRI screening for women under 50 years at high-risk of breast cancer (including those at high risk due to previous chest wall irradiation), in conjunction with a surveillance programme that includes mammography, clinical examination and risk reduction advice and follow up of suspicious lesions, is now accepted practice in Australia, with a Medicare rebate available. This is based on international evidence that suggests such a results in detection of lower stage cancers than mammography alone, but important drawbacks include its cost and higher recall rates than seen with mammography alone. A number of unanswered questions remain to ensure the optimal function and application of MRI screening, its availability to women who most need it and to ensure access to the necessary follow up investigations to provide a final diagnosis, and further research in this area is planned in the "real world" setting.

CONFESSIONS OF AN MRI SCEPTIC

Hiram S Cody III MD

Attending Surgeon, Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center

Professor of Clinical Surgery, Weill Cornell Medical College, New York, USA

The promise of breast MRI, our most sensitive imaging modality for the detection of breast cancer, is substantial but the results of breast MRI in practice, especially from a surgical perspective, have been mixed. Here, categorized as “yes”, “maybe” and “no”, are my own indications for breast MRI.

“Yes”

- 1) *Detection of an occult primary breast cancer.* These comprise $\leq 1\%$ of all breast cancers and were historically treated by modified radical mastectomy, with the disconcerting result that in about 30% of cases no primary was found in the breast. MRI identifies a breast abnormality in about 70% of these patients, mostly T1 cancers, and a negative MRI implies sufficiently low tumor burden that whole breast RT will suffice for local control¹.
- 2) *Highest risk screening.* Measured by sensitivity and stage at diagnosis, the benefit of MRI over mammography in screening patients with proven or suspected BRCA mutations is well-established²⁻⁴. MRI screening seems appropriate for other highest-risk groups including patients who have received mantle RT for lymphoma, but the evidence is insufficient.
- 3) *Response to neoadjuvant chemotherapy.* Neoadjuvant chemotherapy will allow breast conservation for some patients in whom it would not otherwise be possible, and MRI helps to determine the pattern of response and thus the feasibility and extent of breast conserving surgery. In meta-analysis of 44 studies (2050 patients)⁵ the sensitivity of MRI in identifying residual disease was 92% and the accuracy of predicting a pCR was 60%; in another large multicenter study (770 patients)⁶ the accuracy of MRI in predicting a pCR varied by tumor subtype but was 74% overall.
- 4) *Problem solving.* MRI can be particularly useful for any clinical situation in which the results of physical exam, mammography and ultrasound are ambiguous or discordant, and one must choose between further intervention (biopsy, surgery) vs. observation. This must be taken as anecdote as I have no data to support it.

“Maybe”

- 1) *Higher-than-normal risk screening.* MRI may have a role in screening patients with BRCA mutations of uncertain significance or who have high risk family histories and test negative for BRCA mutations. Although screening MRI is often recommended for patients with a lifetime breast cancer risk exceeding 20%, MRI is not of proven benefit for LCIS (lifetime risk ~30%) or atypical hyperplasias (lifetime risk ~20%)⁷.

“No”

- 1) *Routine preoperative evaluation for breast conservation or post-operative follow-up.* Breast MRI has been presumed beneficial for patients with lobular cancers but there is no evidence that MRI is more useful for lobular than for duct cancers. There is no evidence that preoperative MRI alters the rates of re-excision, conversion to mastectomy, ipsilateral local recurrence, or contralateral breast cancer⁸⁻¹². Finally, there is no evidence that MRI is of benefit for postoperative followup.
- 2) *Moderate risk screening.* There is no evidence of benefit for MRI screening in women whose lifetime breast cancer risk is $< 20\%$.
- 3) *“MRI is suggested”.* There is no evidence that MRI is of benefit in women with younger age, difficult mammography, dense breasts, non-high-risk family history, benign breast biopsies, personal history of breast cancer, breast pain, or anxiety.

NOTES

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1. de Bresser J, de Vos B, van der Ent F, et al. Breast MRI in clinically and mammographically occult breast cancer presenting with an axillary metastasis: a systematic review. *Eur J Surg Oncol* 2010; 36(2):114-9.
 2. Warner E, Messersmith H, Causer P, et al. Systematic review: using magnetic resonance imaging to screen women at high risk for breast cancer. *Ann Intern Med* 2008; 148(9):671-9.
 3. Warner E, Hill K, Causer P, et al. Prospective study of breast cancer incidence in women with a BRCA1 or BRCA2 mutation under surveillance with and without magnetic resonance imaging. *J Clin Oncol* 2011; 29(13):1664-9.
 4. Rijnsburger AJ, Obdeijn IM, Kaas R, et al. BRCA1-associated breast cancers present differently from BRCA2-associated and familial cases: long-term follow-up of the Dutch MRISC Screening Study. *J Clin Oncol* 2010; 28(36):5265-73.
 5. Marinovich ML, Houssami N, Macaskill P, et al. Meta-analysis of magnetic resonance imaging in detecting residual breast cancer after neoadjuvant therapy. *J Natl Cancer Inst* 2013; 105(5):321-33.
 6. De Los Santos JF, Cantor A, Amos KD, et al. Magnetic resonance imaging as a predictor of pathologic response in patients treated with neoadjuvant systemic treatment for operable breast cancer. Translational Breast Cancer Research Consortium trial 017. *Cancer* 2013; 119(10):1776-83.
 7. Pilewskie M, Morrow M. Applications for breast magnetic resonance imaging. *Surg Oncol Clin N Am* 2014; 23(3):431-49.
 8. Peters NH, van Esser S, van den Bosch MA, et al. Preoperative MRI and surgical management in patients with nonpalpable breast cancer: the MONET - randomised controlled trial. *Eur J Cancer* 2011; 47(6):879-86.
 9. Turnbull L, Brown S, Harvey I, et al. Comparative effectiveness of MRI in breast cancer (COMICE) trial: a randomised controlled trial. *Lancet* 2010; 375(9714): 563-71.
 10. Houssami N, Turner R, Morrow M. Preoperative magnetic resonance imaging in breast cancer: meta-analysis of surgical outcomes. *Ann Surg* 2013; 257(2):249-55.
 11. Brennan ME, Houssami N, Lord S, et al. Magnetic resonance imaging screening of the contralateral breast in women with newly diagnosed breast cancer: systematic review and meta-analysis of incremental cancer detection and impact on surgical management. *J Clin Oncol* 2009; 27(33):5640-5649.
 12. Pilewskie M, King TA. Magnetic resonance imaging in patients with newly diagnosed breast cancer: A review of the literature. *Cancer* 2014; 120(14):2080-9.
-

SESSION 2: ONCOPLASTIC TECHNIQUES

Sponsored by Allergan

SINGLE STAGE RECONSTRUCTION

Anne Tansley

NOTES

BREAST CANCER LOCALISATION, A 2014 UPDATE

Donna Taylor

Department of Radiology, Royal Perth Hospital and School of Surgery, University of Western Australia

Introduction

Mammographic screening has led to an increasing number of impalpable breast cancers that require localisation for breast conserving surgery (BCS).

The aims of surgery are:

- Complete lesion excision in one operation. Acceptable pathological margins vary (SSO guideline no tumour at ink¹, in Australia, 2 - 5mm)
- Good cosmetic outcome (related to tissue volume excised²)

Ideal features of currently available techniques for pre/intra-operative lesion localisation are listed in Table 1.

Table 1: Features of currently available preoperative lesion localisation techniques

Ideal Feature	Localisation technique				
	HWL	Carbon Track	ROLL	IOUS	ROLLIS (I-125 seed)
Low cost	✓	✓	✓	X	✓
Flexibility with scheduling	X	✓	X	✓	✓
Suitable for US and MG visible lesions	✓	✓	✓	X	✓
No movement/migration	X	NDA	X	✓	✓ ³
Bracketing available	✓	NDA	X	✓	✓
Minimal training required	✓	✓	✓	X	✓
Uses existing equipment	✓	✓	✓	X	✓
No inference with SNB	✓	✓	✓ ^{**}	✓	✓
No radiation dose	X	X	X	✓	X
No risk of spill/contamination	✓	X*	X ^{***}	✓	✓ ^{****}
Short theatre time	X	NDA	NDA	X	✓ ⁴
Surgeon can choose surgical approach	X	X	✓	✓	✓
Cosmesis	NDA	NDA	NDA	NDA	NDA

X = Disadvantage, ✓ = Advantage, * = granulomas can occur if not excised, ROLL = Radio-occult lesion localisation, MG = mammogram, US = ultrasound, IOUS = intra-operative ultrasound, SNB = sentinel node, **SNOLL = SNB + ROLL may interfere, ***ROLL: liquid can disperse into adjacent tissues, ****ROLLIS: sealed source, NDA = No Data Available, T 1/2 = half-life, ***** US: can only be used for US visible lesions (68%)⁵.

Patterns of use of lesion localisation techniques

There is no published data. In a recent online survey of the 279 members of the BreastSurgANZ, the most frequently used pre-operative lesion localisation technique was HWL (71/79 respondents, 89.87%). IOUS was the next most commonly used method (30/79 surgeons, 37.97%), a promising increase from the 17% figure noted a 2010 survey published by Law et al⁶.

While the use of a carbon track is popular in some Australian centres, responses to our survey indicate that overall, this technique is infrequently used by ANZ surgeons (12/79 respondents, 15.19%). Radio-guided techniques (liquid Tc99m MAA and solid iodine 125 seeds) are currently rarely used 3/79 (3.80%).

The choice of lesion localisation technique will depend upon

- Availability of local expertise and equipment.
- Characteristics of the lesion: size/shape/orientation/location in breast. "Bracketing" should be considered for lesions >25mm in size, with elongated shape in supero-inferior or medio-lateral orientation.
- Need to correct for migration of biopsy marker
- Sonographic visibility of lesion/biopsy marker. US > mammographic guidance for pre-operative lesion localisation in terms of ease, speed, accuracy and patient comfort.

- Use of IOUS avoids need for separate pre-operative localisation procedure, gives immediate feedback as to adequacy of lesion excision and improves likelihood of obtaining clear margins⁷.

Specimen imaging important to confirm excision of lesion/biopsy marker/seed, and need for intra-operative re-excision for close margins.

Good communication between radiologist/nuclear medicine physician and surgeon is a key feature in obtaining the best outcome.

References

- ¹ Moran MS, Schnitt SJ, Giuliano AE, et al. Society of Surgical Oncology–American Society for Radiation Oncology consensus guideline on margins for breast-conserving surgery with whole-breast irradiation in stages I and II invasive breast cancer. *Int J Radiat Oncol* Biol* Phys*. 2014; 88:553-64.
- ² Cochrane RA, Valasiadou P, Wilson AR, Al-Ghazal SK, Macmillan RD. Cosmesis and satisfaction after breast-conserving surgery correlates with the percentage of breast volume excised. *Br J Surg*. 2003; 90:1505-9.
- ³ van Riet YE, Maaskant AJ, Creemers GJ, et al. Identification of residual breast tumour localization after neo-adjuvant chemotherapy using a radioactive 125 Iodine seed. *Eur J Surg Oncol*. 2010; 36:164-9.
- ⁴ Lovrics PJ, Goldsmith CH, Hodgson N, et al. A multicentered, randomized, controlled trial comparing radioguided seed localization to standard wire localization for nonpalpable, invasive and in situ breast carcinomas. *Ann Surg Oncol*. 2011; 18:3407-14.
- ⁵ Gray RJ, Pockaj BA, Karstaedt PJ, Roarke MC. Radioactive seed localization of nonpalpable breast lesions is better than wire localization. *Am J Surg*. 2004; 188:377-80.
- ⁶ Law MT, Kollias J, Bennett I. Evaluation of office ultrasound usage among Australian and New Zealand breast surgeons. *World J Surg*. 2013; 37:2148-54.
- ⁷ Krekel NM, Zonderhuis BM, Stockmann HB, et al. A comparison of three methods for nonpalpable breast cancer excision. *Eur J Surg Oncol*. 2011; 37:109-15.

NEW TECHNIQUES AND TECHNOLOGIES IN RECONSTRUCTION**Raja Sawhney**

Patients considering breast reconstruction represent a diverse group of patients with regard to disease profile, surgical intervention for cancer extirpation and adjuvant therapy. The goals of reconstruction are effected by patient desire, age, comorbidities, expectations, psychosocial issues and body specifics to name a few. Options available also depend on surgeon training, experience and available resources. A tailored approach is usually required to individualise a multi-stage reconstruction plan. Beyond this a certain amount of fluidity is required as you may be required to modify your plan in between stages. Patient education can be overwhelming and confusing for the patient and multiple consults are often required to help them attain a reasonable understanding of options to base their decision upon.

No other subspecialty in Plastic & Reconstructive Surgery brings together form and function quite like breast reconstruction as aesthetics of the reconstructed breast are integral to it's function. The complexities and advances in treatment regimes set the scene for innovation, use of new techniques and new technology in the search for better outcomes and reduced donor site morbidity.

We will discuss

- Avoiding skin islands and “patchwork” in breast reconstruction
 - o Pre-expansion for delayed autologous reconstruction
 - o Sequential expansion and reduction of skin islands from pedicled Latissimus Dorsi reconstructions
- Manipulating mastectomy scars in delayed reconstruction
- Nipple-sparing mastectomy through Inframammary approach with immediate reconstruction
- Use of Acellular Dermal Matrices in Expander / implant based reconstruction
- Autologous Fat Transfer and the BRAVA external expansion device.

THERAPEUTIC MAMMOPLASTY**Richard Sutton**

SESSION 3: AXILLARY SURGERY KEYNOTE AND PROFFERED PAPERS

KEYNOTE ADDRESS: MANAGEMENT OF THE AXILLA POST-Z0011

Hiram S Cody III MD

Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center;
Weill Cornell Medical College

The widespread adoption of sentinel lymph node (SLN) biopsy as standard care for axillary staging in cN0 breast cancer is supported by the results of at least 69 observational studies¹, 7 randomized trials², 3 meta-analyses²⁻⁴, an ASCO Guideline⁵, and an extensive literature covering all aspects of the procedure. These studies establish that patients with negative SLN do not require axillary dissection (ALND), that axillary local recurrence (LR) after a negative SLN biopsy is rare (0.3%)⁶, that disease-free (DFS) and overall survival (OS) are unaffected by the addition of ALND to SLN biopsy, and that the morbidity of SLN biopsy is less than that of ALND. The logical next question in the evolution of axillary staging is to ask whether there are SLN-positive patients who can avoid ALND, and it is clear that there are: 30-50% of SLN-positive patients have disease limited to the SLN1.

Bilimoria et al.⁷ report patterns of care in 97,314 SLN-positive patients (1998-2006) from the National Cancer Data Base; 23% with SLN macrometastases (>2 mm, pN1) and 36% with SLN micrometastases (0.2-2 mm, pN1mi) did not have ALND, yet axillary local recurrence and 5 year relative survival were unaffected. Yi et al.⁸ report on 26,986 SLN-positive patients (1998-2004) from the SEER database; they find that 11% of those with SLN macrometastases and 33% of those with SLN micrometastases did not have ALND, and OS at 50 months was unaffected. Both studies report a strong trend over time away from ALND for patients with SLN micrometastases. Nine smaller retrospective studies⁹ comprising 1035 patients with positive SLN and no ALND report low rates of axillary LR, most in the range of 0-2%, at 28-82 months' follow-up.

The most definitive data are from ACOSOG Z0011^{10,11}, a prospective randomized trial in which 813 SLN-positive patients with clinical stage T1-2N0 breast cancer were randomized to ALND vs no further surgery. All were SLN-positive by routine H&E staining and all had breast conservation including whole-breast RT. Patients with 3 or more positive SLN (or with matted nodes) were excluded and axillary-specific RT was not allowed. Additional positive nodes were found in 27% of the patients who had ALND, but at 6 years' follow-up there were no differences between the ALND and no-ALND arms in local (3.6% vs 1.9%), regional (0.5% vs 0.9%), or overall locoregional recurrence (4.1% vs 2.8%)¹⁰, nor were there any differences in disease-free or overall survival¹¹.

Critics of Z0011 have focused on issues of case selection (arguing that young women and those with ER-negative tumors were under-represented), followup (arguing that 6.3 years is inadequate), and statistical power (arguing that Z0011 did not meet its planned accrual or statistical endpoints). In response, Morrow and Giuliano¹² argue as follows: 1) younger age is associated with higher rates of recurrence in the ipsilateral breast, but not in regional nodes, 2) ER-negative tumors are associated with early relapse but not with higher rates of axillary node involvement, 3) most women within the Z0011 selection criteria are postmenopausal and ER-positive, 4) axillary recurrence is an early event (virtually all occur within the first 5 years), and 5) Z0011 closed early (based on slow accrual and a lower-than-expected rate of events) but achieved its predefined goal, showing with a high level of significance that SLN biopsy alone was not inferior to ALND.

NOTES

The principal implications of Z0011 are surgical, and over the last 2 years many institutions and surgeons in the US (and to a lesser extent worldwide) have found the results to be persuasive and practice-changing, incorporating into their treatment guidelines a policy of “no-ALND” for SLN-positive patients who meet the Z0011 selection criteria. At our institution we have done so since 2010 and 84% of our Z0011-eligible patients have been able to avoid ALND¹³.

What are the implications of Z0011 for breast imagers? Preoperative axillary ultrasound (US) and US-guided needle biopsy were not part of Z0011 but are well-established worldwide¹⁴ and have allowed the triage of node-positive patients directly to ALND. For cN0 patients who meet the Z0011 entry criteria we have largely abandoned axillary US and US needle biopsy. Among recent Z0011-eligible patients treated without axillary US, about 85% have avoided ALND. Even among cN0 patients with a positive US needle biopsy about 70% have avoided ALND (M. Pilewski, unpublished data).

What are the implications of Z0011 for the medical oncologist? Montemurro et al.¹⁵ use post hoc case review to argue that the information gained from completion ALND could change the indication for systemic chemotherapy in 16% of their patients. Reassuringly, two large trials which randomized SLN-positive patients to ALND vs no-ALND (ACOSOG Z0011¹¹) and ALND vs axillary RT (EORTC AMAROS¹⁶) found no differences in the usage of chemotherapy, hormonal therapy, or RT based on the performance of ALND.

What are the implications of Z0011 for the radiation oncologist? Positive axillary nodes were presumably left behind in 27% of the no-ALND Z0011 patients but only 0.9% developed axillary LR. Modern CT-guided treatment planning allows treatment of at least part of the axilla by adjusting the superior and deep tangent borders. Although Z0011 did not allow supraclavicular or axillary fields, Haffty et al.¹⁷ suggest that irradiation of the lower axillary nodes with “high tangents” to the breast may have contributed to a low rate of axillary LR, and Reznik et al.¹⁸ estimate that “high tangents” treat axillary levels I, II and III with 86%, 71% and 73%, respectively, of the prescription dose. An audit of Z0011 is asking whether participating radiation oncologists adjusted their tangent fields based on tumor characteristics and the extent of axillary surgery.

Can the success of Z0011 be extended to Z0011-ineligible patients, specifically those treated by a) mastectomy without RT, b) partial breast irradiation (PBI), and c) neoadjuvant chemotherapy (NAC)? Regarding mastectomy, we have recently reported¹⁹ on 535 SLN-positive patients from the pre-Z0011 era who had either mastectomy or breast conservation without other axillary-specific treatment: among 234 with N1mi or N1 disease, there were no differences at 4 years in regional node recurrence between mastectomy (97 patients, 2.5%) and breast conservation (134 patients, 1.5%). This low event rate is encouraging but requires wider confirmation in prospective studies specific to mastectomy. Regarding PBI, the MammoSite Registry Trial (in which PBI is delivered through an intracavitary balloon) has reported 5-year axillary LR of 0.8% in SLN-negative patients²⁰, a result quite similar to that of negative SLN biopsy in general (0.3%). The TARGIT Trial²¹, an international multicenter randomization of PBI given as a single intraoperative dose to the tumor site (n=1113) vs conventional whole-breast RT (n=1119) reports no difference in 4 year LR (1.20% vs. 0.95%, p=0.41), or in axillary LR (J.S. Vaidya, personal communication). Both studies suggest that the effect of whole-breast RT on axillary LR in SLN-negative patients is modest at best. No studies address SLN-positive patients treated with PBI and without ALND, but it is reasonable to assume that the results would be at least as good as for mastectomy and, to the extent that the PBI patients have earlier-stage disease, probably better.

Regarding neoadjuvant chemotherapy (NAC), the false-negative rate of SLN biopsy after NAC (in 27 studies comprising 2148 patients) is roughly comparable to that of SLN biopsy in general, 10.5%²². The performance of SLN biopsy following NAC in patients with biopsy-proven nodal metastases is the subject of two prospective observational trials, ACOSOG 1071²³ and SENTINA²⁴, which report false-negative rates of 12.8% (n=607) and 14% (n=592), slightly higher than for SLN biopsy in general. Mamounas²⁵ has recently reported on pattern of 10-year patterns of locoregional recurrence after NAC in NSABP B-18 and B-27; the highest rates of regional node recurrence were in clinically node-positive patients whose nodes remained positive after NAC. Two new randomized trials aim to clarify management of the axilla in node-positive patients after NAC. NSABP B-51/RTOG 1304 (www.nsabp.pitt.edu/) comprises patients whose SLN become negative after NAC, randomizing to axillary RT vs no RT, and Alliance 11202 (www.allianceforclinicaltrialsinoncology.org/) comprises those whose SLN remain positive, randomizing to ALND vs no further surgery. Each promises a more conservative approach to the axilla following NAC in patients with nodal metastases.

Looking further ahead, we must ask whether axillary staging is necessary at all. We live in an exciting era where prediction increasingly trumps prognostication, and where molecular classification increasingly trumps conventional histopathology. The 21-gene recurrence score can predict chemotherapy benefit for node-negative²⁶ and possibly for node-positive patients²⁷, sparing them treatment from which they cannot benefit, and is the subject of large randomized trials (TailoRx²⁸ and RxPONDER (www.swog.org/rxponder)). In this setting, the role of lymph node staging for breast cancer is in decline. Our next generation of clinical trials will compare SLN biopsy to no axillary staging, and ALND will increasingly be used for salvage rather than prevention of local recurrence.

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LIPOSUCTION FOR ADVANCED LYMPHOEDEMA – IMPACT OF LIPOSUCTION ON LIMB VOLUMES. SURGICAL TREATMENT RESULTS FROM AUSTRALIA

Koelmeyer L.A¹, Kastanias K¹, Sedger L.M¹, Lam T.C², Ngo Q.D², Heydon-White A³, Sherman K.A⁴, Winch C¹, Magnussen J.S⁵, Munnoch A⁶, Mackie H², Boyages J^{1,2}

¹ Macquarie University Cancer Institute, Macquarie University, Australia

² Macquarie University Hospital, Macquarie University, Australia

³ The Clinic Physiotherapy, Macquarie University Hospital, Macquarie University, Australia

⁴ Department of Psychology, Macquarie University, Australia

⁵ Macquarie Medical Imaging, Macquarie University Hospital, Macquarie University, Australia

⁶ Department of Plastic Surgery, Ninewells Hospital, Dundee, United Kingdom

Background

Although liposuction has been established as a treatment for advanced lymphoedema in Europe and Scandinavia, determining its effectiveness in a hotter country like Australia is important.

Methods

A prospective analysis on patients with unilateral, non-pitting, primary or secondary advanced (ISL stage II or III) lymphoedema, with a calculated limb volume difference greater than 25%, and for whom conservative therapies were no longer effective, was carried out. Eligible patients attended the multidisciplinary Advanced Lymphoedema Assessment Clinic (ALAC), of whom 37% travelled from interstate or New Zealand. Liposuction was performed under general anaesthesia and appropriate compression garments or Ready Wraps were applied intra-operatively and continued throughout follow-up. Following surgery, patients were monitored at 6 weeks, 3, 6, 9, 12, 18 and 24 months with bioimpedance spectroscopy (L-Dex), volume differences using circumferential measurements, Magnetic Resonance Imaging (MRI) and functional assessments.

Results

Between May 2012 and June 2014, 106 patients attended ALAC, 57 (55.7%) aged 55 ± 11.6 years were eligible for liposuction surgery. Twenty-four patients (40.7%) who have undergone surgery (of whom 66.6% had a previous diagnosis of breast cancer) had a mean pre-surgical percentage limb volume difference of 43.6% (range, 23-83). At six-week post-surgery mean limb difference reduced to 12.4% (range, -2-24), ($t(23)=10.29$, $p<0.001$). With continued compression at 6-month post-surgery, mean limb volume further reduced to 3.8%, an 89.6% reduction of pre-surgical volume ($t(18)=9.17$, $p<0.001$). By 12 months post-surgery with a reduction of 97.2% ($t(9) 6.54$, $p<0.001$), equal volume was nearly obtained. For those who had an eighteen-month post-surgery assessment ($n=3$), affected limb was now smaller than unaffected limb with a mean limb excess volume of -5.3% ($p=.042$). There have been no major complications from the surgery.

Conclusion

Liposuction is a safe and effective option for carefully selected Australian patients with advanced lymphoedema assessed and treated by a multidisciplinary team.

WHAT SHOULD BE USED FOR LOWER POLE COVERAGE IN IMMEDIATE TWO-STAGE EXPANDER / IMPLANT BASED BREAST RECONSTRUCTION?

Farid Meybodi*, Ines Prasadha, James French, Jeremy Hsu, Elisabeth Elder

Westmead Breast Cancer Institute, Australia

Background and purpose

Implant-based reconstruction is the most common type of post mastectomy immediate breast reconstruction. This can be performed either with a single-stage, direct to implant method or as a two-stage insertion of tissue expander followed by a delayed exchange to a permanent gel implant. A common criticism of the two-staged technique is the lack of lower pole projection. While the use of different materials to provide lower pole coverage is well established in direct to implant reconstruction, the best method for coverage in two- stage reconstructions remains unclear.

Methods

From November 2013 to July 2014, 24 breasts in 20 patients were reconstructed with anatomical tissue expanders and assessed during the course of their expansion using three-dimensional photography (3-D). Four different techniques including lipodermal flap (LF), biologic mesh (BM), serratus anterior advancement flap (SA) and synthetic mesh (SM) were used to achieve lower pole coverage.

3-D photography was performed using the Canfield Vectra system before and after 55 expansions, and at the end of expansion process. Distribution of added volume in the upper and lower pole of the breasts were calculated and compared between groups.

Results

Lower pole coverage was achieved using a LF in 12/24 (50%), BM in 5/24 (21%), SA in 3/24 (13%) and SM in 4/24(17%). Volume distribution immediately after each expansion (50-200 ml per session) was not significantly different between groups. The mean proportion of final lower pole expansion was significantly higher in LF and BM compared to SA and SM ($47 \pm 10\%$ versus $36 \pm 8\%$; $p < 0.05$).

Conclusion

Better lower pole expansion was achieved using a lipodermal flap or biologic mesh when compared to total muscle coverage or synthetic mesh.

CAN THE CONTENT OF SEROMA FLUID FROM MASTECTOMY OR AXILLARY CLEARANCE WOUNDS PREDICT CLINICAL COURSE?

Lim C,* Akra R, Yarrow S, Segara D, Soon P

Dept of General Surgery, Bankstown-Lidcombe Hospital, NSW Australia

Background and purpose

Depending on the method of detection, the incidence of seroma after mastectomy or axillary dissection varies from 10-85%. After mastectomy or axillary clearance, it is standard practice to place a suction drain to remove the seroma fluid. Because of the potential risk of infection, the suction drain is often removed after a week with the resultant need for subsequent wound aspiration.

The purpose of this study is to determine whether the content of seroma fluid after mastectomy or axillary clearance for breast cancer is able to predict the clinical course of seroma production and hence affect clinical decision-making.

Methods

All patients undergoing mastectomy and/or axillary clearance at Bankstown Hospital from May 2013 to May 2014 who are able to provide informed consent were recruited. Drain fluid was sent for microscopy for cell count and biochemical analysis for ferritin, sodium, potassium, protein, albumin and calcium levels on D2 and D7 postop. Total seroma output was documented from the patient's clinical notes. Statistical analyses was performed using Pearson's rank correlation on SPSS.

Results

37 subjects were recruited for the purpose of the study. (26 IDC, 4 ILC, 4 DCIS, 3 others). The mean tumour size was 35mm and the mean total seroma volume was 762mls with an increase in the tumour size corresponding with increased seroma output. (p=0.017).

There was a significant increase in the ferritin level of seroma fluid from 937 to 1343 over D2 to D7. (P<0.001) Correlation exists between the D7 protein and albumin levels and the total seroma volume with low protein and albumin levels favouring an increased seroma output. (p=0.002, p=0.001).

Conclusion

This study suggests that analysis of seroma fluid for protein and albumin levels on D7 may be useful in predicting total seroma volume and hence influence clinical decision-making regarding drain removal.

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POSITIVE ANTERIOR MARGINS IN BREAST CONSERVING SURGERY: DOES IT MATTER?: A SYSTEMATIC REVIEW OF THE LITERATURE**Ang S.C*¹, Tapia G², Davidson E.J³, Kahramangil B⁴, Mak C³, Carmalt H³, Warriar, S³**

¹ Department of General Surgery, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia

² Breast Surgery Researcher, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia

³ Department of Breast Surgery, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia

⁴ Hacettepe University Faculty of Medicine, Ankara, Turkey

Background and purpose

A recent consensus guideline for breast conserving surgery (BCS) reported that positive margins are associated with an increased risk of ipsilateral breast tumor recurrence (IBTR)¹. It has been reported that involvement of anatomically non-breast margins, such as anterior margins, is associated with lower risk of IBTR than radial margins. Although it is common practice among breast surgeons not to re-excise positive anterior margins (PAM); there is no consensus regarding this practice. The purpose of this systematic review is to find evidence that assesses this practice.

Methods

A systemic literature review was performed through nine electronic databases from January 1995 to July 2014. Relevant studies included those that discussed anatomical location of involved margins in BCS. Studies were selected independently by three reviewers according to predefined selection criteria.

Results

Of 677 articles, five studies were identified evaluating PAM. A retrospective study examined re-excision rates and percentage of residual disease in PAM, but did not report IBTR rates. Another study reported 2.5% of IBTR in patients with nonnegative margin treated by radiation (23% corresponded to anterior margin)². An American survey showed that 47% of surgeons would not re-excise a PAM, while a British survey showed that 71% of surgeons would not re-excise a PAM of 1mm. A later survey in the UK reported that 43.8% surgeons would not re-excise a PAM in DCIS, whilst 29.2% would not for invasive carcinoma.

Conclusion

Common surgical practices to not re-excise a PAM contradict current guidelines that recommend obtaining negative margins to reduce the risk of IBTR. However, there is scarce evidence of the relationship between IBTR and PAM in BCS. Some studies indicate that re-excision of PAM has limited benefit due to a low residual disease after re-excision. Further studies are required to evaluate this topic.

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ROLLIS™ RADIOGUIDED OCCULT LESION LOCALISATION USING IODINE-125 (I-125) SEEDS FOR REMOVAL OF IMPALPABLE BREAST LESIONS: FIRST AUSTRALIAN RESULTS

Taylor D*^{1,2}, Bourke A^{2,3}, Hobbs M^{1,2}, Westcott E⁴, Saunders C^{1,2}

¹ Department of Radiology, Royal Perth Hospital

² School of Surgery, University of Western Australia

³ Department of Radiology, Sir Charles Gairdner Hospital

⁴ Department of Medical Technology and Physics, Sir Charles Gairdner Hospital

Background

Approximately one third of breast cancers are impalpable, requiring pre-operative localisation¹. Current techniques, including hookwire (HWL), carbon tracks and ultrasound, have disadvantages. Low activity radioactive iodine-125 seeds are a promising alternative used in the US and Netherlands. These pilot studies describe the first use of this in Australia.

Methods

A total of 120 participants (ROLLIS pilot and pilot extension studies) underwent ROLLIS with HWL for back-up. If indicated, sentinel node (SN) biopsy was undertaken using technetium-99 (Tc-99m) colloid and a hand-held gamma probe. Eligibility criteria for both studies are summarised:

ROLLIS pilot extension study n=99	ROLLIS pilot study n=21
Inclusion criteria <ul style="list-style-type: none"> • Informed consent • Female ≥ 40 years • Impalpable lesion • Pre-operative core biopsy • Candidate for breast conserving surgery (BCS) 	
<ul style="list-style-type: none"> • Group A: benign/indeterminate lesions • Group B: malignant lesions 	<ul style="list-style-type: none"> • Solitary malignant lesion
Exclusion Criteria <ul style="list-style-type: none"> • Pregnancy/lactation • BCS contraindicated • Recent Nuclear Medicine or PET radioisotope administration that may adversely affect the procedure (isotopes with long half life eg gallium-67, thallium-201) 	
<ul style="list-style-type: none"> • Periareolar lesion (if SN mapping required) 	<ul style="list-style-type: none"> • Intraductal lesion • Peri-areolar lesion

Outcomes measured included ease of hook-wire and seed insertion, dependence on ROLLIS vs HWL during surgery, histopathology including size of radial margins, ease of seed retrieval by pathology, safety including return of seeds for disposal, learning curve with ROLLIS, and re-excision rate compared to historical institutional data.

Results

- All seeds and lesions were removed
- No cases of seed migration
- Learning curve was short – 2 cases
- Surgeons/radiologists preferred ROLLIS
- SN biopsy was successful where indicated
- Re-excision rate for group B (extension study): 17.11%

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Lessons

- Radiologists should deploy seed before wire, place seed on deep surface of the lesion and avoid antero-posterior bracketing.
- Surgeons should familiarise themselves with correct gamma probe settings and remove sentinel node before the breast lesion.

Conclusion

ROLLIS is an easily learnt, safe and effective alternative technique to standard HWL.

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SESSION 4A: RADIOTHERAPY AND RECONSTRUCTION

ACCELERATED PARTIAL BREAST IRRADIATION – COCHRANE REVIEW

Brigid Hickey

Radiation Oncology, Mater Service, Brisbane

Breast conserving therapy for women with breast cancer consists of local excision of the tumour (achieving clear margins) followed by radiation therapy (RT). RT is given to sterilize tumour cells that may remain after surgery to decrease the risk of local tumour recurrence. Most true recurrences occur in the same quadrant as the original tumour. Whole breast RT may not protect against the development of a new primary cancer developing in other quadrants of the breast. In this Cochrane Review, we investigated the role of delivering radiation to a limited volume of the breast around the tumour bed (partial breast irradiation: PBI) sometimes with a shortened treatment duration (accelerated partial breast irradiation: APBI).

Objectives

To determine whether PBI/APBI is equivalent to or better than conventional or hypofractionated WBRT after breast conservation therapy for early-stage breast cancer.

Search methods

We searched the Cochrane Breast Cancer Group Specialised Register (07 November 2013), CENTRAL (2014, Issue 3), MEDLINE (January 1966 to 11 April 2014), EMBASE (1980 to 11 April 2014), CINAHL (11 April 2014) and Current Contents (11 April 2014). We searched the International Standard Randomised Controlled Trial Number Register, the World Health Organization's International Clinical Trials Registry Platform (07 November 2013) and US clinical trials registry (www.clinicaltrials.gov) (22 April 2014). We searched Open Grey (23 April 2014), reference lists of articles, conference proceedings and published abstracts, no language restrictions were applied.

Selection criteria

Randomised controlled trials (RCTs) without confounding, evaluating conservative surgery plus PBI/APBI versus conservative surgery plus whole breast RT. We included published and unpublished trials.

Data collection and analysis

Three review authors (ML, DF and BH) extracted data. We entered data into Review Manager for analysis. BH and ML assessed trials and graded the methodological quality. Any disagreements were resolved through discussion.

Main results

We included five RCTs (3558 women). Two older trials examined RT techniques which do not reflect current practice and one trial had a short follow-up. We downgraded the quality of the evidence for key outcomes due to risk of bias. Following GRADE recommendations, the quality of evidence for our outcomes was very low to low. For the comparison of partial breast irradiation/accelerated breast irradiation (PBI/APBI) with whole breast irradiation (WBRT), local recurrence-free survival appeared worse (Hazard Ratio (HR) 1.98, 95% confidence interval (CI) 1.43 to 2.75; four trials, 2445 participants, very low quality evidence). Cosmesis appeared improved with PBI/APBI in a single trial (OR 0.40, 95% CI 0.23 to 0.72; one trial, 241 participants, very low quality evidence), but late toxicity (telangiectasia OR 4.41, 95% CI 3.21 to 6.05; very low quality evidence, 708 participants) and subcutaneous fibrosis (OR 4.27, 95% CI 3.04 to 6.01;

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one trial, 710 participants, very low quality evidence) appeared increased in another trial. We found no clear evidence of a difference for the comparison of PBI/APBI versus WBRT for the outcomes of: overall survival (HR 1.0, 95% CI 0.85 to 1.18; four trials, 2445 participants, very low quality evidence), cause-specific survival (HR 0.98, 95% CI 0.78 to 1.24; three trials, 966 participants, low evidence quality), distant metastasis-free survival (HR 1.01, 95% CI 0.82 to 1.24; 1140 participants, low quality evidence), subsequent mastectomy rate (OR 0.20, 95% CI 0.01 to 4.21; 258 participants, low quality evidence) and relapse-free survival (HR 0.99, 95% CI 0.53 to 1.85; 258 participants, low quality evidence). New ipsi-lateral primaries appeared increased with APBI/PBI (OR 29.77, 95% CI 1.77 to 500.15; 1305 participants, one study). We found no data for the outcomes of acute toxicity, costs, quality of life or consumer preference.

Authors' conclusions

The limitations of the data currently available mean that we cannot make definitive conclusions about the efficacy and safety or ways to deliver of PBI/APBI. We await completion of ongoing trials.

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PARTIAL BREAST IRRADIATION: MSKCC EXPERIENCE

Hiram S Cody III MD

Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center;
Weill Cornell Medical College, New York, USA

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Following breast-conserving surgery, accelerated partial breast irradiation (APBI) appears to be a reasonable alternative to conventional whole-breast RT (WBRT), and in properly selected patients to achieve comparable outcomes. APBI has the hypothetical advantages of treating that portion of the breast at greatest risk for local recurrence and of preserving the option for whole-breast RT in the future; APBI also has the practical advantages of shortened treatment time and patient convenience. APBI is appropriate for breast cancer patients with early-stage disease at low risk for ipsilateral breast tumor recurrence (IBTR), and the ASTRO selection criteria are representative: age >60, unicentric, T1 ductal (or favorable subtype) cancer, ER-positive, node-negative, margins negative, and non-extensive DCIS component¹.

The American Society of Breast Surgeons Mammosite Registry has reported excellent 5-year results for APBI delivered by intracavitary balloon (35 Gy in 10 fractions over 5 days) in 1449 patients, with survival and local control comparable to those of WBRT². In the TARGIT randomized trial comparing single-dose intraoperative RT (IORT) with conventional WBRT³, the authors observed 2% more IBTR but fewer non-breast cancer mortalities in the IORT arm, with no differences in breast cancer specific survival. NASBP B-39, a randomization between PBI (delivered by intracavitary balloon, catheter brachytherapy, or external beam) and conventional WBRT, has completed accrual but not yet reported results. Our own experience with IORT is limited; in 52 patients treated with single-dose IORT using a Hamm applicator and followed for 1 year, we have observed better cosmetic outcomes at a dose of 18 Gy (patients #19-52) than with our initial dose of 20 Gy (patients #1-18)⁴.

Our interest in IORT has diminished significantly over time, based on the observation that many patients who meet the selection criteria for PBI may not require RT at all. Hughes et al.⁵ have recently reported 10 year results of CALGB 9343, a randomization of 636 women >70 with cT1N0 ER+ breast cancers to lumpectomy followed by RT plus tamoxifen vs tamoxifen alone. Locoregional recurrence was less frequent with RT (2% vs 10%) but this did not translate in any significant differences in the rate of mastectomy (2% vs 4%), time to mastectomy, time to distant metastasis, breast cancer specific survival or overall survival.

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ISSUES IN TREATING PATIENTS WITH RECONSTRUCTION**Marie-Frances Burke**

Genesis Cancer Care Queensland

For many women with breast cancer, radiation treatment can have an important role to play after modified radical mastectomy. Post-mastectomy radiation can be given to reduce the risk of local recurrence, and can also improve survival in selected patients. Typically, these are women with 4 or more positive lymph nodes, tumours larger than 5cm or with positive surgical margins. Currently, there are worldwide trials going on to assess the benefit of post-mastectomy radiation in women with 1-3 positive nodes. Outside of these trials it is not unusual for women to be considered for post-mastectomy radiation in light of other adverse factors, such as, lymphovascular invasion, young age and multifocality. So potentially the use of post-mastectomy radiation will increase over time.

With advances in plastic surgical techniques, immediate breast reconstruction is now an option for many patients who undergo mastectomy, and from a psycho-social and sexual standpoint, breast reconstruction plays a highly important role in the management of patients with breast cancer. Concern about immediate reconstruction though exists when a patient is likely to need chest wall radiation. These concerns have included an increased incidence of complications, poorer cosmetic outcome and technical problems in the administration of radiation. The rates of complications, as well as the aesthetic outcomes, vary depending on the timing of the radiation treatment in relation to the reconstruction, as well as the type of reconstruction used. Hence, a multidisciplinary collaboration is warranted in which the breast surgeon, plastic surgeon and radiation oncologist confer with one another and with the patient, to ensure the best cosmetic outcome without compromising the proven benefits of timely post-mastectomy radiation treatment.

In the setting of breast reconstruction, the effects of radiotherapy are potentially twofold, with consideration required on the impact of immediate breast reconstruction on the administration of and the initiation of radiation therapy, as well as the effects of radiotherapy on operative complications and cosmetic outcome following immediate breast reconstruction.

Breast reconstruction may impact on the delivery of radiotherapy, by altering the contour of the chest wall and making the design of the radiotherapy fields more challenging. Modern adjuvant radiation treatment fields may include the chest wall, internal mammary nodes, supraclavicular nodes and the apex of the axilla. Distorting the anatomy with a breast reconstruction may lead to compromises in field design, diminish the radiation dose available in some areas, or dictate the need for wider radiation fields with more normal tissue being irradiated¹.

The impact of breast reconstruction on delaying the administration of radiotherapy has been explored in only a few studies, despite the fact that there may be poorer oncological outcomes with treatment delays. Those studies that have addressed the issue have all been relatively small in numbers and based at single institutions. They have not shown a delay in commencement of adjuvant radiation treatment though, in patients undergoing immediate breast reconstruction².

Post-mastectomy radiation treatment can result in high rates of contracture, fibrosis, poorer wound healing and poor cosmesis in both implant based reconstructions and autologous reconstructions. There is no consensus in the literature however, as to which is the optimal method when post-mastectomy radiation is planned. The effects of radiotherapy on a reconstructed breast may however be less than previously suggested, as some of the studies showing severe effects were associated with older

regimes and modes of administration of radiotherapy, and more recent techniques such as Intensity Modulated Radiation Treatment and Tomotherapy may improve outcomes in the setting of breast reconstruction^{3,4}.

Immediate breast reconstruction can be successfully performed in the setting of post-mastectomy radiation in most patients, but further study is needed into optimal methods and timing, and optimal radiation treatment techniques. Any recommendation made to an individual patient must be done in a collaborative fashion between breast surgeons, plastic surgeons and radiation oncologists.

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RECONSTRUCTIVE OPTIONS IN THE HIGH RISK PATIENT

Raja Sawhney

High risk patients for reconstruction can be divided into those who have high risk for disease recurrence and those at higher risk of complications or failure related to reconstruction.

High risk disease encompasses those with advanced local tumours in the breast, nodal disease and even metastatic disease. Halting reconstruction efforts until high recurrence risk periods have past is sensible and should remain the mainstay. It does however leave some of these patients in despair in what may even be their last years of life. Furthermore, disease is unpredictable and many high risk patients do not recur and some live with metastatic disease for lengthy periods. High risk disease does have implications on reconstruction efforts. Utilising less invasive options in a definitive or temporising manner may be plausible in the patient who would like to pursue reconstruction at an early stage rather than wait to satisfy disease free survival criteria. Issues to consider include budgets and resource management. Decisions here are difficult with some philosophical controversies.

High risk patients for reconstruction again have a wide array. Radiotherapy is the major treatment factor followed by chemotherapy that effect tissue characteristics and vascularity. Tissues become restrictive and heal poorly challenging reconstructive efforts. Radiotherapy is often unilateral so achieving symmetry to a native or non-irradiated contralateral reconstruction can invite complexity. Couple this with comorbidities, overweight body habitus and high expectations and the plot thickens. Nevertheless, we have some well travelled roads and some new less travelled ones to lead us to our destination. Generally speaking we tend to favour new vascularised tissue import as at least part of the reconstruction in radiotherapied patients. That said in the select patient with less effected tissues expander/implant based reconstructions can still achieve reasonable results albeit with a higher complication risk profile. Autologous fat transfer can improve tissue effects from radiotherapy but not reverse them completely. On the other hand, older patients with comorbidities generally suit less invasive procedures and the aims of reconstruction may be in line with lower expectations.

Hot topics

- Immediate expansion in pts likely to need adjuvant therapy to maintain skin envelope for delayed definitive reconstruction
 - Neoadjuvant radiotherapy followed by mastectomy and immediate reconstruction
 - Composite reconstruction with autologous fat transfer and implants after radiotherapy
 - One-stage hybrid expanders for older, co-morbid and high risk disease patients
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SESSION 4B: SURVIVORSHIP: OPTIMISING LIFE AFTER CANCER

PHYSICAL HEALTH AND QUALITY OF LIFE IN BREAST CANCER SURVIVORS

Sandi Hayes

Institute of Health and Biomedical Innovation, Queensland University of Technology

Approximately 13,000 Australian women are diagnosed with breast cancer each year, representing the most common cancer among women and accounting for nearly one-third of all cancer diagnoses. While the vast majority of women diagnosed with breast cancer will not die from the disease (5-year survival, 88%), breast cancer is a leading cancer cause of burden, contributing to significant number of 'healthy life years' lost. The current model of cancer care is focused on disease treatment followed by ongoing cancer recurrence surveillance. However, as breast cancer survival continues to increase among Australian women, so too does our need to understand their treatment-related concerns, and to identify safe, effective, evidence-based strategies to improve the quality and quantity of their survival.

Breast cancer and its associated treatment are associated with a myriad of adverse physical and psychosocial effects. Despite major advances in breast cancer treatment that have contributed to less-invasive and more targeted treatment, treatment-related impairments remain common and persist into longer-term survivorship. The majority (>65%) of breast cancer survivors experience at least one impairment. As such, women typically suffer from the aggregate burden of impairments, presence of other co-morbidities and disease treatment. Unfortunately, it is not uncommon for these impairments to go unrecognized and untreated until they reach levels that significantly influence function, quality of life and potentially survival.

Evidence is overwhelming and compelling for the benefits of exercise following the diagnosis of breast cancer. Exercise reduces the number and severity of treatment-related impairments during treatment, and optimises function and quality of life during and beyond the cancer treatment period. Exercise also reduces risk of future chronic disease and has been linked with reduced risk of cancer recurrence and improved overall- and cancer specific-survival. Exercise is considered safe and participating in regular exercise during treatment is feasible, even when treatment-related impairments are present. Yet, the majority of breast cancer survivors are either sedentary or insufficiently active during treatment and are more likely to reduce their exercise levels following a cancer diagnosis, compared with initiating or maintaining an exercise regime.

Throughout the course of this presentation, the presence of treatment-related side effects, their relationship with function and quality of life and the potential benefits of exercising during and following breast cancer treatment in optimising function, quality of life and potentially survival will be discussed. The question is no longer whether women with breast cancer should be active during and following their treatment, but is how do they become and/or stay active in an endeavour to live healthy lives beyond their breast cancer experience.

PSYCHOSEXUAL HEALTH

Jane Turner

SOMCentral - Psychiatry - RBWH, Faculty of Medicine and Biomedical Sciences, University of Queensland

It is self-evident that the diagnosis and treatment of breast cancer poses a challenge for the woman and her family. The initial phase of adjustment after diagnosis typically focuses on making treatment choices and coping with treatment. However completion of active treatment, whilst often anticipated with relief, can be a difficult phase in which the woman confronts the longer-term impact of the diagnosis. For many women, this is the time when they reflect more deeply about the effect on confidence and self-esteem, on body image and sexuality, and changes in roles and relationships. Many health professionals lack confidence about raising issues related to psychosexual health because of concerns about lack of specific training, and assume that these are personal issues which the woman might address elsewhere. The reality is that many women feel reluctant to raise these issues because they feel guilty and embarrassed or convinced that little can be done to help.

This presentation outlines some of the common psychosexual difficulties experienced by women after treatment for breast cancer including changes in libido, vaginal dryness and hot flushes, and describes evidence-based recommendations to assist. The presentation includes discussion of the complex psychosocial contributions to concerns about sexuality and provides practical suggestions to assist health professionals to initiate discussion and provide information, support and guidance.

Chair: Christobel Saunders

Panel

Surgeon: Melissa Bochner

Breast physician: Susan Fraser

Geneticist: Michael Gattas

Medical Oncologist: Catherine Shannon

BCNA representative: Vicki Shepherd

Breast Care Nurse: TBA

SESSION 5: NEOADJUVANT THERAPY UPDATE

Sponsored by Roche

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NEOADJUVANT CHEMOTHERAPY – EXPANDING THE INDICATIONS

Andrew Spillane

The University of Sydney, Northern Clinical School; Melanoma Institute Australia (MIA); Mater, Royal North Shore and North Shore Private Hospitals

Neoadjuvant chemotherapy (NAC) is used in approximately 3% of the cases registered in the BreastSurgANZ Quality Audit. NAC is well documented as having the same long-term survival as adjuvant therapy with the benefit of improving breast conservation rates¹. In addition, it is also now clear that in a broader sense NAC is a facilitator of more conservative and oncologically safe surgical procedures. NAC can be used to down-stage the breast and axilla, to facilitate better cosmesis with BCS, increase the rate of immediate breast reconstruction in women requiring mastectomy, and enable time for understanding complex surgical decision-making or time for genetic testing for those at high risk for a BRCA mutation. With patient selection based on molecular phenotype recognition predictable high complete pathological response rates are achieved especially in Triple Negative Breast Cancer and Her2 enhanced breast cancer whilst rates of progression on NAC are <3%². New oncoplastic and reconstructive techniques are broadening the range of surgical options for women and the evolving paradigm for surgical management of breast cancer of an expectation of both excellent oncological management and aesthetic outcomes is enhanced in many situations by the use of NAC. These advantages suggest NAC should be offered to all women who present with a presentation whereby it is clear chemotherapy will be an essential part of their treatment³.

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NEOADJUVANT THERAPY AND AXILLARY STAGING**Hiram S Cody III MD**

Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center and Weill Cornell Medical College, New York, US

Neoadjuvant chemotherapy (NAC) for breast cancer is well-established, and in multiple randomized trials has been associated a modestly increased rate of breast conservation, variation in response by biologic subtype, and survival comparable to that of postoperative adjuvant chemotherapy¹⁻³. With current regimens of NAC, about 40% of axillary node-positive patients become node-negative.

Sentinel lymph node biopsy has become standard care for axillary staging in virtually all patients with cN0 operable breast cancer and has been logically extended to the neoadjuvant setting, where it can be done before or after NAC. The arguments in favor of "SLN upfront" are that:

- 1) axillary staging is more accurate,
- 2) SLN-negative patients require no further axillary surgery,
- 3) SLN-positive patients can proceed directly to ALND post-NAC.

The arguments in favor of "SLN post-NAC" are that:

- 1) upfront axillary staging upfront is irrelevant (chemotherapy is given regardless),
- 2) every patient must have two operations,
- 3) 40% of node-positive patients achieve a pathologic CR and may not require ALND.

In the US, the emerging consensus favors SLN post-NAC, and 27 retrospective studies (in which SLN biopsy with a backup ALND was done after NAC)⁴ show that the success rate is slightly lower (91%) and the false-negative rate was roughly comparable (10.5%) to that of SLN biopsy in general.

These studies do not address the performance of SLN biopsy in patients with proven axillary node metastases but two recent prospective observational studies have. In ACOSOG 1071⁵, 607 patients with cT0-4, pN1-2 breast cancers had SLN biopsy and ALND after NAC, with success and false-negative rates of 92.5% and 12.6%, respectively. In SENTINA⁶, among 592 comparable patients, the authors observed 80% success and 14% false-negatives. Taken together, these trials show that the technique of SLN biopsy matters: false-negatives were minimized by the removal of at least 2 SLN, by using dual agent mapping (dye plus isotope), and by the performance of SLN biopsy once, *after* NAC (rather than twice, *before* and *after* NAC).

On a cautionary note, Mamounas⁷ has recently reported on pattern of 10-year patterns of locoregional recurrence after NAC in NSABP B-18 and B-27; the highest rates of regional node recurrence were in *clinically node-positive patients whose nodes remained positive* after NAC. Two new randomized trials aim to clarify management of the axilla in node-positive patients after NAC. NSABP B-51/RTOG 1304 (www.nsabp.pitt.edu/) comprises patients whose SLN become negative after NAC, randomizing to axillary RT vs no RT, and Alliance 11202 (www.allianceforclinicaltrialsinoncology.org/) comprises those whose SLN remain positive, randomizing to ALND vs no further surgery. Each promises a more conservative approach to the axilla following NAC in patients with nodal metastases.

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INTERPRETING PATHOLOGY DURING AND AFTER NEOADJUVANT THERAPY

Gelarah Fashid

NEOADJUVANT THERAPY FOR BREAST CANCER – CURRENT TRIALS AND FUTURE DIRECTIONS

Catherine Shannon

Director, Medical Oncology Mater Cancer Care Centre, Brisbane

Neo-adjuvant therapy has become standard of care for locally advanced and inflammatory breast cancer. Pathological complete response (pCR) is a robust predictor of long term outcome but occurs in only a subset of patients. The neo-adjuvant therapy paradigm allows early assessment of the addition of new drugs to therapy in patients with high risk disease as well as opportunities for predictive bio-marker discovery and assessment of imaging modalities which might identify early response. There are currently 4 neo-adjuvant studies recruiting in Australian sites with 2 more to open in the near future. The development of sophisticated pathological methods of quantifying residual cancer burden (RCB) has allowed for stratification of patients with worse outcomes into trials of more intensive treatment with new agents. The 2013 FDA approval of Pertuzumab for the neo-adjuvant therapy of HER-2 positive breast cancer signalled a new era for neo-adjuvant trial design. The use of adaptive trial designs such as the I-SPY collaborative is hoped to lead to accelerated approval of new drugs and more importantly the identification of subsets of breast cancers which respond to particular targeted therapy.

SESSION 6: GENETICS KEYNOTE AND PROFFERED PAPERS

Sponsored by AstraZeneca Oncology

BREAST CANCER BIOLOGY: PROGNOSTIC AND PREDICTIVE FACTORS IN CURRENT CLINICAL PRACTICE

Nirmala Pathmanathan

In general, time dependant prognostic factors such as tumour size and lymph node metastasis may not declare their associated risk at the time of diagnosis. This is especially relevant in early breast cancer and in a setting of population-based mammographic screening. In this regard, the biological/molecular characteristics of breast cancer assume even greater significance. Currently breast cancer prognostication and treatment selection is reliant on the assessment of clinical and pathological characteristics of breast tumours. This information can be integrated into internet-based tools to assist with prediction of outcome and chemotherapy benefit.

In the last decade gene expression profiling using microarray technologies has emerged as a potential candidate for the refinement of breast cancer prognosis and prediction of systemic treatment response. These studies have served to emphasise the underlying heterogeneity in breast cancers, and this is reflected clinically in terms of prognosis and treatment response. The classification of breast cancers into clinically meaningful subgroups on the basis of these gene expression profiles is relevant to contemporary oncology practice, with the need for further definition and refinements in the prognostic and predictive assessment of breast cancer with the ultimate goal of identifying more tailored therapeutic regimens and importantly to identify those patients in whom adjuvant therapy may be safely avoided. Consequently there have been a number of commercially available and there is considerable interest in application of these techniques into routine practice. Significantly, when comparing various gene platforms, there is little overlap in terms of individual genes in most of these assays; notably, however, proliferation related genes appear to be a common discriminatory component across all array platforms.

The first generation of these multigene prognostic classifiers ("gene signatures") have been shown to outperform traditional clinicopathological features in retrospective datasets. Two of these are currently being tested in prospective multicentre randomised clinical trials and these are expected to report in the near future. Second generation multigene assays have focussed on identification of intrinsic subtype as well as a risk score which incorporates clinical information.

The contribution of microarray-based gene expression profiling has certainly contributed to the understanding of the heterogeneity and complexity of breast cancers. Incorporation of this information into routine clinical practice is a challenging and evolving area. Clearly this should be in the context of a multidisciplinary setting and in close collaboration and communication with the patient.

COMPARATIVE EVALUATION OF CONTRAST ENHANCED SPECTRAL MAMMOGRAPHY (CESM) AND CONTRAST ENHANCED MAGNETIC RESONANCE IMAGING (CEMRI) FOR LOCAL STAGING OF BREAST CANCER: INTERIM RESULTS FROM THE CESM V STUDY

Donna B. Taylor*^{1,2}; Max Hobbs^{1,2}

¹ Department of Radiology, Royal Perth Hospital

² School of Surgery, University of Western Australia

Background

Optimal treatment of breast cancer requires accurate local staging. Standard imaging (mammography and ultrasound) has limitations. New diagnostic techniques which use intravenous contrast increase our ability to detect breast cancer by showing contrast uptake associated with tumour neo-angiogenesis¹. Contrast Enhanced Magnetic Resonance Imaging (CEMRI) is currently the most sensitive imaging technique for breast cancer detection; however, it suffers from many drawbacks including high cost, timely accessibility, patient contraindications and low specificity. Previous studies have shown that contrast enhanced spectral mammography (CESM) may have similar diagnostic capability to CEMRI without these associated costs².

Methods

The study included patients with biopsy proven breast cancer aged ≥ 21 years, fit for surgery, and excluded patients with contra-indications to intravenous contrast or CEMRI, candidates for neo-adjuvant chemotherapy, or who had pure in situ carcinoma. Participants underwent both CESM and CEMRI. Studies were independently double read and results benchmarked against the final surgical histopathology, core biopsy histology or one year follow-up imaging. CESM and CEMRI were compared for 1) detection of additional lesions 2) ability to size the index lesion 3) influence on surgical plan and 4) participant satisfaction.

Results

A minimum of 19 participants was analysed for each study objective. For the detection of additional lesions (n=21), the addition of CESM to conventional imaging increased sensitivity from 50% to 67% with specificity unchanged (47%). Addition of CEMRI to standard imaging increased sensitivity from 50% to 100% but with considerable reduction in specificity (47% to 7%). The geometric mean of index lesion size at pathology was similar for CESM and CEMRI (n=24). For 19 patients, CESM and CEMRI had identical influence on the surgery plan. Participants preferred CESM to CEMRI (n=34, p=0.0005).

Conclusions

Results so far suggest CESM has similar diagnostic capacity to CEMRI and is preferred by patients.

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PREDICTORS OF RESPONSES AND SEXUAL FUNCTION FOR WOMEN IN THE ST GEORGE BREAST BOOST RANDOMIZED TRIAL (STGBBT)

Graham P.H*¹, Browne L¹, Capp A², Delaney G³, Fox C⁴, Millar E.K¹, Nasser E⁴, Papadatos G⁵.

¹ Cancer Care Centre, St George Hospital, Kogarah, Australia

² Mater Hospital, Newcastle, Australia

³ Cancer Therapy Centre, Liverpool Hospital, Liverpool, Australia

⁴ Cancer Care Centre, Wollongong Hospital, Wollongong, Australia

⁵ Macarthur Cancer Care Centre, Campbelltown Hospital, Campbelltown, Australia

Background and purpose

To describe the StGBBT sexual function dataset and associations of response to sexual function assessment.

Methods

688 women participated in the StGBBT as previously reported. Quality of life (QOL) and Sexual function data was collected from baseline (pre-radiotherapy) to year 10 annually.

Results

92% completed QOL questionnaires. 81% responded to sexual partner status but responders to other sexual function questions ranged from 59 to 64%. Response rates were maintained to 10 years, were highest in marrieds, lowest in singles, intermediate for divorcees/widows. 97% <60 years and 81% aged 60-79 of married had sexual partners, versus 35% and 5% divorcees, 5% aged 69-79 widows. Of responders, at baseline 60% married versus 75% non-married reported their treated breast did not affect their sexual function. Sexual desire was reported normal in 47% married versus 35% non-married. Sexual frequency never versus at least weekly was reported in 22% and 33% of marrieds, 68% and 17% of non-marrieds. Sexual enjoyment was reported as normal in 60% of married and 47% of non-married.

Conclusions

From this unique large long-term Australian data set for sexual function in breast cancer treated women longitudinal data and predictors will be presented. Response rates and sexual partnership status are similar to large community population sexual health surveys.

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WHAT IS THE VALUE OF AXILLARY STAGING IN ELDERLY WOMEN WITH BREAST CANCER? REVIEW OF FOUR YEARS PROSPECTIVE SERIES FROM A SINGLE INSTITUTION

Murugappan K¹, Dijkstra B²

¹ Department of surgery, Christchurch Hospital, Christchurch, New Zealand

² Department of surgery, Christchurch Hospital, Christchurch, New Zealand

Background and purpose

The optimum management of elderly women with breast cancer is complex. Current guidelines are based on expert panel recommendations due to paucity of major trials¹. In particular, there is lack of evidence to guide axillary management in elderly women (specifically ≥ 80 years). Our aim is to evaluate the role of axillary surgery in the management of women aged ≥ 80 with breast cancer and its impact on their outcomes.

Method

From 2009 – 2013, 130 patients ≥ 80 years were identified. Patient demographics, presentation, diagnosis, surgical and non-surgical management and pathological characteristics were derived from a prospective database series. Follow up period was a median of 2 years (range 1- 4).

Results

Of the 130 patients, 83 (64%) patients underwent Breast +/- axillary surgery, 39 (30%) patients primary endocrine therapy alone; 4 (3%) had combination of endocrine and radiotherapy, 2 (1.5%) patients had primary radiotherapy, 2 patients refused all treatment. 52 patients (62%) who were clinically or radiologically negative for axillary metastatic lymph node (LN) involvement underwent SLNBx (36 patients) and ALNDx (13 patients). Positive axillary LN was found in 5 patients from ALNDx group and 8 patients had positive SLNBx with 4 of these patients proceeding to completion ALNDx. Chemotherapy was not offered to anyone with positive axillary LN. Four patients with positive axillary LN underwent radiotherapy. 38 of 57 patients with clinically node negative disease had recommendation for adjuvant endocrine therapy. Patients' functional and medical comorbidities were analyzed to determine their impact on adjuvant management plan.

Conclusion

The vast majority of patients with clinically node negative disease are undergoing axillary surgery that does not alter their subsequent adjuvant treatment plan. Elderly patients' functional status and medical comorbidities plays a crucial role in adjuvant management planning.

PET SCANS FOR LOCALLY ADVANCED BREAST CANCER AND DIAGNOSTIC MRI TO DETERMINE THE EXTENT OF OPERATION AND RADIOTHERAPY (PET LABRADOR); TROG 12.02

Ahern V*

Crown Princess Mary Cancer Centre, Westmead Hospital, Wentworthville, Australia.

Background

This study investigates whether women with Stage III non-inflammatory breast cancer (LABC) can undergo breast conserving surgery (BCS) instead of mastectomy with a low chance of recurrence, and whether breast MRI and PET are better ways of assessing tumour response to primary systemic (chemo- / hormone) therapy (PST) compared to mammogram, ultrasound and physical examination.

Methods

This is a multi-centre phase II pilot study. Women participate irrespective of hormone or HER2 status. 70 women undergoing BCS need to be enrolled (220 overall), powered to exclude a detriment of 20%, with 90% confidence and 80% power. Breast MRI and PET are performed at diagnosis, after 8 weeks of PST and at completion of PST. PST is per institutional preference (at least 2 cycles of trastuzumab prior to local therapy for HER2 positive patients). Women may be enrolled on ELIMINATE. All women receive radiotherapy delivered according to protocol, and subsequent hormone therapy if relevant.

Results

This study has commenced recruitment with small local grants. It brings together the multi-disciplinary team caring for these patients, builds expertise in breast MRI and PET, and can potentially improve the quality of life of these women. While pathological response will be reported and a bio-specimen bank will be obtained with imaging correlation, the focus of this study is local control and quality of life for women with LABC.

Conclusions

This standardised clinical protocol allows both the opportunity to choose BCS for women with LABC and the opportunity to choose the most effective PST by identifying the most accurate way of assessing disease extent at diagnosis and in response to PST.

SESSION 7: MULTIDISCIPLINARY MEETING CASE REVIEW

NOTES

In this session, a number of contemporary breast cancer cases will be presented to a Multidisciplinary Team of Australian and International breast cancer specialists. Each case will feature a specific area of interest. Audience participation with a mobile phone APP will add to the discussion.

Chair/Moderator: James Kollias

Panel

Surgeons: Hiram Cody, Anne Tansley, Elisabeth Elder
Radiation oncologist: Marie Burke
Medical oncologists: Catherine Shannon and Natasha Woodward
Geneticist: Michael Gattas
Pathologist: Gelarah Fashid
Radiologist: Bruno Giuffre
Breast Care Nurse: TBA

SESSION 8: GREAT DEBATES IN BREAST CANCER

“THE AXILLA IS THE RESPONSIBILITY OF THE SURGEON NOT THE RADIATION ONCOLOGIST”

Margot Lehman

- The appropriate choice of management for the axilla is the responsibility of both the surgeon and the radiation oncologist.
- Traditionally, the role of surgical dissection of the axilla was two-fold: 1) to provide staging information to guide the choice of adjuvant therapies and 2) to provide regional control.
- Given that the use of adjuvant therapy is less dependent on nodal status nowadays, the need for complete axillary dissection is less apparent.
- Furthermore, radiation therapy provides excellent loco-regional control. Recent data from a multi-institutional trial in patients with T1-T2 cN0 disease randomised to completion axillary lymph node dissection or axillary radiation therapy following sentinel lymph node biopsy, found both dissection and radiation therapy provided excellent loco-regional control with axillary radiation therapy associated with a lower rate of complications.
- With the changing clinical presentation of breast cancer patients, the increasing use of information other than nodal therapy to guide adjuvant therapy choice and the proven benefit of well-designed, modern radiation therapy techniques in achieving loco-regional control with minimal morbidity, radiation therapy will become the treatment of choice for the management of the axilla.

“THE AXILLA IS THE RESPONSIBILITY OF THE SURGEON NOT THE RADIATION ONCOLOGIST”

Teresa Nano

Staging and treatment of the axilla in breast cancer is necessary to allow prognosis, determine treatment and decrease local recurrence. The Surgeon is “The Master of the Axilla” as previously with axillary clearance alone and now with the use of sentinel node biopsy as well as axillary clearance, surgery still provides the most accurate staging tool available and the treatment with the lowest risk of local recurrence.

“ONCOPLASTIC SURGERY SERVES TWO MASTERS POORLY: ONCOLOGY AND PLASTICS”

Hiram Cody and Richard Sutton

Hiram S Cody III MD

Breast Service, Department of Surgery, Memorial Sloan-Kettering Cancer Center and Weill Cornell Medical College

- 1) Should the development of breast cancer become the occasion for an operation, often bilateral, which the patient would not otherwise have chosen to do?
- 2) What proportion of all newly diagnosed breast cancer patients:
 - a. are familiar with oncoplastic surgical options?
 - b. are or become interested?
 - c. are anatomically suitable?
 - d. actually have the surgery?
- 3) How does oncoplastic breast conservation surgery compare to conventional methods, re:
 - a. extent of resection?
 - b. margin status?
 - c. re-excision rate
 - d. conversion to mastectomy?
 - e. complications?
 - f. long-term results?
 - g. patient-reported outcomes?
- 4) Should the oncologic and the oncoplastic surgeon be the same individual, or different?
- 5) Which oncoplastic procedures can be done by the oncologic surgeon and which require a plastic surgeon? How and where do we draw the line?
- 6) In the event of a lawsuit who is liable:
 - a. for the bad oncologic result?
 - b. for the bad cosmetic result?

References

- i Hau E, Browne LH, Khanna S, Cail S, Chin Y, Clark C, Inder S, Swajcer A, Graham PH. Radiotherapy breast boost with reduced whole breast dose is associated with improved cosmesis: The results of a comprehensive assessment from the St George and Wollongong Randomized Breast Boost Trial. *Int J Radiat Oncol Biol Phys.* 2012; 82(2):682-689.
 - ii Mercer CH, Tanton C, Prah P, et al. Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual attitudes and lifestyles (Natsal). *Lancet* 2013; 382:1781-94
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NOTES

POSTERS

EVALUATION OF METHODS USED TO GUIDE BREAST CONSERVING SURGERY BY AUSTRALIAN AND NEW ZEALAND BREAST SURGEONS

Donna B. Taylor*^{1,2}, **Anita G. Bourke**^{2,3}, **Max Hobbs**^{1,2}, **Glenys Dixon**¹, **Christobel Saunders**^{1,2}

¹ Department of Radiology, Royal Perth Hospital.

² School of Surgery, University of Western Australia.

³ Department of Radiology, Sir Charles Gairdner Hospital.

⁴ Department of Medical Technology and Physics, Sir Charles Gairdner Hospital.

Background

Screening mammography has seen an increase in impalpable breast lesions requiring image guided localization for breast conserving surgery (BCS). Techniques include hook-wire localization (HWL), carbon tracks, surgeon performed intraoperative ultrasound (IOUS) and more recently radio-guided methods using Technetium 99m colloid or iodine 125 seeds. Minimal objective data concerning current use of these methods in Australia and what are considered "acceptable" pathological margins exists. The aim of this study was to provide this information.

Methods

An on-line questionnaire regarding preferred localisation techniques was made available to surgeons through a link on the BreastSurgANZ website between September 2013 and June 2014. Information on practice demographics, case load, acceptable pathological margins, equipment and training was collected.

Results

79 surveys were returned. Most surgeons performed general and breast surgery, were metropolitan based, practiced in both public and private sectors and undertook <10 cases of BCS per week. For invasive disease, 56% accepted no tumor at ink, 34% requiring margins >2mm. For high grade DCIS, 20% accepted no tumour at ink and 56% required margins >2mm. Access to US equipment in theatre was reported by 70% of surgeons. Whilst 59% of surgeons reported using IOUS (27% regularly), 41% did not, relying solely on radiological techniques. HWL was the commonest method of localisation, used by 90% of respondents. Attendance at courses was the commonest method of training in breast ultrasound. Only 4% reported training during their fellowship. The cost of US equipment used by most surgeons was <\$60,000. Surgeons cited movement of hook-wires and timing of current localisation techniques as the commonest disadvantages.

Conclusion

Despite increased uptake of IOUS by Australian and New Zealand surgeons, HWL is the most frequently used localisation technique. Whilst over half of the surgeons accepted "no tumour at ink" as adequate for invasive disease, most required margins >2mm for DCIS.

A NOVEL METHOD OF ANALYZING AND INITIATING A TARGETED INTERVENTION FOR POPULATIONS AT RISK OF LATE-STAGE BREAST CANCER

Goltsman D^{1,2}, Warriar S^{1,2}, Bruce E^{2,3}, Mak C^{1,2}, and Carmalt H^{1,2}

¹ Department of Surgery, Royal Prince Alfred Hospital, Camperdown, NSW, Australia.

² University of Sydney, Camperdown, NSW, Australia.

³ Geocoastal Research Group, School of Geosciences, University of Sydney, Australia.

Background and purpose

A myriad of risk factors have been established for breast cancer. Prevention among at-risk women remains an area where significant gains can be achieved. At a local level, the success of interventions aimed at breast cancer prevention have been challenged by their ability to successfully adapt to the risk profile of the area ¹. Socioeconomic factors, especially disadvantage, have been shown to play an especially important role in the differential distribution of the disease².

This study aims to improve rates of cancer screening and outcomes by identifying sub-groups in a local health district that have increased risk of presenting with late-stage breast cancer (LSBC).

Methods

All patients presenting to the Royal Prince Alfred Hospital (RPAH) between July 2005-March 2013 were identified. For each patient, data were collected on: sociodemographics (including country-of-birth), geographical area of residence, socioeconomic characteristics of residential area and the clinical features and outcomes of the cancer.

The data were analyzed to identify sub-groups at greatest risk of presenting with LSBC. Geospatial analyses were conducted to ascertain if LSBC clustered in geographical areas or was associated with area-level socioeconomic characteristics captured by the SEIFA (socioeconomic-indexes-for-areas) index.

Results

A total of 5317 patients presented with breast cancer over the study period. Most (47.54%; n=2536) were Australian-born, followed by those born in Southern/Eastern Europe(12.80%;n=683) and North-East Asia(8.61%;n=459).

Among patients presenting with LSBC, most (50.11%; n=1151) were Australian-born, followed by Southern/Eastern Europeans (11.84%; n=683).

LSBC was associated with area-level socioeconomic disadvantage within some postcodes; patients residing in the northeastern and western regions of the health district had a greater likelihood of presenting with LSBC (relative-risk of 1.51-2.25). These areas were also characterized by socioeconomic disadvantage.

Conclusions

In this health district, patients residing in socioeconomically-deprived areas, who are of Australian or Eastern/Southern European descent were more likely to present with LSBC. Focused interventions targeting this cohort are required.

References

- 1 Henley SJ, King JB, German RR, Richardson LC, Plescia M. Surveillance of screening-detected cancers (colon and rectum, breast, and cervix) - United States, 2004-2006. *MMWR Surveill Summ*. 2010 Nov 26;59 (9):1-25.
- 2 Freeman Harold P, Chu Kenneth C. Determinants of cancer disparities: barriers to cancer screening, diagnosis, and treatment. *Surg Oncol Clin N Am*. 2005 Oct;14(4):655-v.

TRENDS IN AXILLARY MANAGEMENT OF BREAST CANCER IN AUCKLAND, NEW ZEALAND

Russell, P* and Gerred, S*

Department of General Surgery, Waitemata District Health Board, Auckland, New Zealand

Background and Purpose

The American College of Surgeons Oncology Group (ACSOG) Z0011 Trial and other studies have strongly challenged traditional surgical management of the axilla following a positive sentinel node biopsy result. The growing body of evidence suggests axillary node dissection (AND) in clinically T1/2, N0, M0 invasive breast cancer patients with 1-2 positive sentinel nodes is unnecessary. This study aims to quantify the trends pre and post the landmark paper and its impact in Auckland, New Zealand.

Methods

We performed a retrospective review of all women who underwent lumpectomy or mastectomy and sentinel node biopsy for T1-T2 breast cancer between January 2009 and June 2012 in Auckland. We identified patients who would fulfill the Z0011 inclusion criteria and compared the rate of AND pre and post February 2011 when the Z0011 trial was published.

Results

Only 7.5% of clinical T1/T2, N0, M0 invasive breast cancer patients would fulfill the criteria of Z0011. The rate of progression to AND significantly dropped in the time period post publication of Z0011 (89.6% pre, 65.5% post, P=0.0005). This result was again seen in patients with micrometastatic disease only (68.2% pre, 38.6% post, P=0.0148). There were no significant differences in patient or tumor characteristics between the two groups. Further metastatic nodes were detected pathologically in 40.2% of patients who had an AND.

Conclusions

The trend in this patient subgroup is likely to be explained by increasing evidence against completion AND in macro and micrometastatic sentinel node disease. This signifies a substantial reduction in morbidity associated with AND for these patients. However the findings remain applicable to only a small proportion of breast cancer patients.

CHANGING ROLE OF THE FINE NEEDLE ASPIRATION BIOPSY IN BREAST SCREENING

Hema Mahajan*

Tissue Pathology ICPMR, Westmead Hospital, NSW Australia

Background and purpose

There has been a gradual decline in the popularity of fine needle aspiration (FNA) biopsy of breast with increased usage of core biopsy of breast (CB). Nevertheless, FNA continues to be the essential part of triple modality assessment, in the context of breast screening service.

Our aim was to see if there is a change in practice in use of FNA of breast with regards to indication and frequency. In addition, the accuracy of FNA versus core biopsy was ascertained as a primary diagnostic modality for the workup of abnormalities detected at screening mammography.

Methods

We looked at the breast screen cases performed during the years 2002 & 2012 by conducting a search through breast screen data base at Breast Cancer Institute at Westmead hospital.

We compared the types of lesions, the screening categories, whether core biopsy was performed; accuracy of final diagnosis of FNA versus CB was determined.

Results

There was a significant increase in the numbers of FNA & CB performed in 2012 with a significant smaller numbers called as indeterminate on FNA. In 2012, a larger proportion of patients had FNA performed for a benign assurance of a lesion, whereas in many cases only CB was done if there was radiological suspicion of a malignant lesion. Overall the correlation between FNA and CB was excellent over both years.

Conclusion

We think FNA still plays an important role in the initial triage of breast lesions. There has been an evolution in how FNA is used in the screening setting. There is more tendency to use FNA for confirmation of a benign diagnosis and less inclination to use FNA to confirm a malignant diagnosis. Increasing role of FNA of locoregional lymph nodes in the management of breast cancer has also been highlighted. The added advantages of performing FNA are highlighted.

References

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2. Young et al. *Arch pathol lab med* 2002; 126:1453-1457.

GEOSPATIAL VARIABILITY OF BREAST CANCER ACCORDING TO AGE: THE ROYAL PRINCE ALFRED EXPERIENCE

Goltsman D^{1,2}, Warriar S^{1,2}, Bruce E^{2,3}, Mak C^{1,2} and Carmalt H^{1,2}

¹ Department of Surgery, Royal Prince Alfred Hospital, Camperdown, NSW, Australia

² University of Sydney, Camperdown, NSW, Australia

³ Geocoastal Research Group, School of Geosciences, University of Sydney, Australia

Background and purpose

Few studies have assessed the geographic variability of age based cancer risk in hospital catchment areas. This study attempts to categorise the frequency of breast cancer based on age of diagnosis and location of residence within a catchment area.

The primary risk factor for breast cancer in most women is older age. The incidence of breast cancer rises with increasing age until approximately 50 years. It then starts to slow down, with incidence starting to plateau and decline at 80 years¹.

Australian data in 2010 showed that, 22.9% of new breast cancer occurred in women ≤ 50 years; 52.5% in women 50–69 years; and 24.6% in women aged ≥ 70 years².

The results of this study are aimed at designing targeted prevention campaigns for different population demographics, to improve screening in areas of the Sydney local health district catchment area (SLHD).

Methods

All patients presenting to RPAH between July 2005 - March 2013 were identified. Information regarding patient demographics, breast cancer detail and clinical outcome were collected.

Patients were stratified according to age groups that reflect current breast screening practice in Australia: <40 years, 40-49, 50-69, and ≥ 70 .

Spatial analysis was used to determine geographic variability in the relative-risk of breast cancer occurrence by postcodes in the SLHD. Choropleth maps were generated for each index.

Results

In the study period, 7.27% (n=388) of patients were <40 years; 21.33%(n=1138) were 40-49; 56.64%(n=3021) were 50-69; and 14.75%(n=787) were ≥70.

For the <40 age group, higher relative-risk occurs in the eastern region of the SLHD; 40-49 higher relative-risk occurs in the eastern and southeastern regions; 50-69 years higher relative-risk occurs in the eastern, northeastern and central regions and for ≥70 higher relative-risk occurs in the east-central region.

Conclusion

This novel method of geospatial analysis has shown differing trends for breast cancer risk by age groups in the SLHD catchment area. Indicating that early and late-stage breast cancer can be more effectively targeted in the SLHD.

References

- 1 Hulka BS, Stark AT. Breast cancer: cause and prevention. *Lancet* 1995; 346:883.
- 2 Australian Cancer Incidence and Mortality (ACIM) Books - Breast cancer for Australia (ICD10 C50). <http://www.aihw.gov.au/acim-books/>

IMMEDIATE BREAST RECONSTRUCTION WITH INFERIOR DERMAL FLAP TECHNIQUE: AN INITIAL EXPERIENCE

Syed S*, Majeed U

Department of Surgery, Calvary Healthcare, ACT, Australia

Purpose

Acellular dermal matrix (ADM) is been utilised with increasing frequency to assist with implant or tissue expander based primary breast reconstruction¹. Besides the cost, studies have suggested technical problems and higher risk of wound complications with ADM². The de-epithelialized inferior dermal flap following a skin sparing mastectomy can be utilized to provide implant coverage and support, as an alternative to ADM in selected patients. Candidates suitable for this procedure are women with large breasts, or breast ptosis who wish breast reduction at the time of mastectomy with reconstruction. We present our initial experience with the inferior dermal flap technique.

Methodology

The safety and efficacy data were obtained for 14 patients undergoing skin-sparing mastectomies and immediate breast reconstructions (13 unilateral for breast cancer, 1 bilateral risk reducing mastectomies for BRCA mutation) between Jan 2012 and June 2014. 13 patients had direct to implant reconstruction using silimed polyurethane implants, and the patient with bilateral mastectomies underwent reconstruction with tissue expanders. The inferior dermal flap technique was utilised in all patients.

Results

1 bilateral procedure and 11 unilateral procedures were uncomplicated with satisfactory cosmetic outcomes on follow up (6 to 24 months). 2 unilateral procedures were complicated by cellulitis, which resolved with antibiotic therapy.

Conclusions

The inferior dermal flap is a simple, reproducible, and cost efficient procedure that can be used as an alternative to acellular dermal matrix in selected patients, with excellent cosmetic outcome.

References

- 1 JoAnna Nguyen T, Carey JN, Wong AK. *J Plast ReconstrAesthet Surg*. Dec 2011;64(12):1553-1561
- 2 Lanier ST, Wang ED, Chen JJ, et al. *Ann Plast Surg*. May 2010;64(5):674-678.

LUNG VOLUME CHANGES AFTER ADJUVANT BREAST CANCER RADIOTHERAPY

Pramana A^{*1,2}, Browne L¹, Or M¹, Saba S¹, Pham K¹, Trakis S¹, Crawford K¹, Hall M¹, Batchelor N¹, Graham P^{1,2}

¹ Radiation Oncology Department, St George Cancer Care Centre, Sydney, NSW, Australia

² The University of New South Wales, Sydney, NSW, Australia

Purpose

There is no data for lung volume changes after adjuvant breast cancer radiotherapy. Lung volume at rest and airspace volume increase with aging¹. The study aim is to prospectively evaluate lung volume changes for patients who received adjuvant radiotherapy to the breast or chest wall area.

Methods

Lung computed tomography (CT) was performed in 170 patients at minimum period of 12 months after completion of adjuvant radiotherapy. This CT was replanned and compared with the original radiotherapy treatment plan CT images to record resting-free breathing lung volume (RFB-LV) change and to assess CT density value of various lung regions as the quantitative measurement of fibrosis². The in-portal lung regions encompassed by the breast radiotherapy tangents were defined as central axis (CA), 5cm superior to CA, and 5cm inferior to CA. Paired t-test and regression-analysis were used to determine significance.

Results

The mean age of study patients was 62 years (48-83). The mean time interval between radiotherapy start dates to study CT was 1.25 years (1-3.5). Overall, both ipsilateral and contralateral mean RFB-LV post radiotherapy were highly correlated but larger than the original values. The mean RFB-LV change were 100cc (1349 to 1449) and 212cc (1286 to 1498) for the ipsilateral and contralateral side. The degree of mean RFB-LV increase was consistently larger for contralateral lung. Increased CT densities in multiple ipsilateral in-portal lung regions were significantly associated with decrease in ipsilateral RFB-LV values.

Conclusions

This study has indicated that RFB-LV increases post adjuvant radiotherapy. This could be explained partly due to physiological aging process or any lung pathology that cause hyper-inflation of lung volume. However, the degree of increase is less on the ipsilateral lung possibly due to increase fibrosis in the ipsilateral in-portal regions of the lung which leads to subsequent reduction of airspace volume.

References

- 1 Sharma G, Goodwin J. Effect of aging on respiratory system physiology and immunology. *Clinical Interventions in Aging* (2006) 1(3): 253–260.
- 2 Ando K, Sekiya M, Tobino K et al. Relationship between quantitative CT metrics and pulmonary function in combined pulmonary fibrosis and emphysema. *Lung* (2013) 191:585–591.

BILATERAL PROPHYLACTIC MASTECTOMY IN AUSTRALIA: TIME FOR A RETHINK?

Hwang S¹, Warriar S^{1,2}, Mak C², Carmalt H²

¹ Department of Surgery, Prince of Wales Hospital, Randwick NSW

² Department of Breast Surgery, Royal Prince Alfred Hospital, Camperdown NSW

Purpose

Bilateral prophylactic mastectomies (BPM) may be performed for patients with BRCA mutations. In Australia, patients are offered genetic counselling and advised of the management options including routine screening, hormonal therapies and/or bilateral prophylactic mastectomy +/- oophorectomy.

However, the current rate of BPM in Australia is low, with anecdotal evidence suggesting that it is rarely performed. In conducting this review, the authors aim to establish the current rate of BPM in BRCA positive women in Australia and compare this to USA.

Methods

Pubmed was searched for the term "bilateral prophylactic mastectomy". Abstracts were searched for relevance.

Results

The rate of BPM in Australia was assessed by Phillips et al. and at 3 years follow up from genetic testing, 9/134 (7%) women had undergone BPM¹.

This compares to two multi-centre studies from USA showing higher rates of BPM: Friebel et al reports 89/406 (19.7%) had BPM at 6 months follow up from genetic testing, while Metcalfe et al found 115/317 (36.3%) had BPM at 18 months^{2,3}.

Conclusion

The decision-making process to undergo BPM is difficult, and patients may be influenced by personal and social factors. We demonstrate that there are significant differences in published rates of BPM between Australia and USA.

References

- ¹ Phillips KA, Jenkins MA, Lindeman GJ, et al. Risk-reducing surgery, screening and chemoprevention practices of BRCA1 and BRCA2 mutation carriers: a prospective cohort study. *Clinical genetics* 2006; 70:198-206.
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- ³ Metcalfe KA, Birenbaum-Carmeli D, Lubinski J, et al. International variation in rates of uptake of preventive options in BRCA1 and BRCA2 mutation carriers. *Int J Cancer* 2008; 122:2017-22.

OPERATIVE TIMES AND RE-OPERATION RATES BEFORE AND AFTER INTRODUCTION OF AN INTRA-OPERATIVE SPECIMEN RADIOGRAPHY MACHINE FOR BREAST CONSERVING SURGERY

Ong J¹, Teh J¹, Phillips M², Taylor D*³

¹ Radiology Department, Royal Perth Hospital, Perth, Western Australia

² Harry Perkins Institute for Medical Research, University of Western Australia, Perth, Western Australia

³ School of Surgery, University of Western Australia, Perth, Western Australia

Background and purpose

In 2010, 607 WA women were diagnosed with breast cancer. 63.9% had breast-conserving surgery (BCS), thus placing a focus on operative efficiency. Operative efficiency is also a target for remuneration in activity based funded public hospitals, but should not occur at the expense of adverse patient outcomes e.g. re-operation.

Intra-operative specimen radiography (IOSR) machines allow instantaneous assessment of radiographic margins, minimising delays in intraoperative re-excision. Reductions in operating time of up to 19 minutes have been observed compared to conventional specimen radiography (CSR) protocols¹. Use of IOSR machines is not associated with higher re-operation rates for adequate margin clearance².

Aim

This audit compared operative times and re-operation rates in women undergoing BCS before and after introducing IOSR.

Methods

Following ethics approval, women who had undergone BCS before and after the introduction of a portable IOSR machine were identified. We excluded patients with mammographically occult and/or palpable lesions without hookwire or iodine seed localisation. Sixty women in each group were reviewed. Differences in surgical duration and re-excision rates were compared.

Results

There was a slight (5 minutes, $p = 0.12$) reduction in mean operating time in the IOSR group. The non-significant p value possibly reflects small sample size. No difference in the frequency of second operations ($p=0.862$) was observed.

Conclusions

IOSR can reduce mean operating time without adversely affecting re-operation rates.

Review of a larger sample for greater power and multivariate analysis to evaluate the influence of lesion type, surgeon and excised tissue volume is pending.

References

- ¹ Kaufman CS, Bachman BA, Jacobson L, Kaufman LB, Mahon C, Gambrell L. Intraoperative digital specimen mammography: prompt image review speeds surgery. *Am J Surg* 2006; 192:513-5.
- ² Kim SH, Cornacchi SD, Heller B, Farrokhyar F, Babra M, Lovrics PJ. An evaluation of intraoperative digital specimen mammography versus conventional specimen radiography for the excision of nonpalpable breast lesions. *Am J Surg* 2012; 205:703-10.

CONTACT DETAILS

Australasian Society for Breast Disease

PO Box 1124,
Coorparoo DC Qld 4151
T: +61 7 3847 1946
F: +61 7 3847 7563
E: info@asbd.org.au
W: www.asbd.org.au

CONTACT DETAILS

BreastSurgANZ

PO Box 1207
Randwick NSW 2031
E: media@breastsurganz.com
E: members@breastsurganz.com
E: partners@breastsurganz.com
W: www.breastsurganz.com



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