Welcome

On behalf of the Executive Committee, I welcome you to the Australasian Society for Breast Disease Surgical Workshop.

Whilst particularly of interest to surgeons, this multidisciplinary Workshop has been designed to be as practically oriented and interactive as possible. There will also be valuable opportunities for networking with colleagues.

I wish to thank Michael Dixon, for his great contribution to this Workshop, as well as all the members of the local faculty. I am sure we are in store for a stimulating program.

I also wish to thank our sponsors AstraZeneca Oncology, Roche Products, Novartis Oncology, Sanofi Aventis, Focus Medical Technologies and GE Healthcare. It would not be possible to hold this Workshop without their support.

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. Please give the completed questionnaire to Workshop organising staff.

If you are not a member of ASBD, we would like you to consider joining. Membership application forms are available on the registration desk.

Enjoy the weekend!

Robin Stuart-Harris
President

Organising Committee

Dr James Kollias
Dr Lynne Mann
Dr Natacha Borecky
Dr Daniel de Viana
Ms Solei Gibbs

Australasian Society for Breast Disease Executive Committee

Prof Robin Stuart-Harris	*Medical Oncologist, President*
Dr Marie-Frances Burke	*Radiation Oncologist, Secretary/Treasurer*
Dr Natacha Borecky	*Radiologist*
Dr Daniel de Viana (co-opted)	*Surgeon*
Dr Roslyn Drummond (co-opted)	*Radiation Oncologist*
Prof Michael Friedlander (co-opted)	*Medical Oncologist*
Dr Susan Fraser (co-opted)	*Breast Physician*
A/Prof Jennet Harvey	*Pathologist*
Dr Nehmat Houssami	*Breast Physician & Medical Epidemiologist*
Dr James Kollias	*Surgeon*
Dr Warwick Lee	*Radiologist*
Dr Lynne Mann	*Surgeon*
Dr Kerry McMahon (co-opted)	*Radiologist*
Dr Wendy Raymond	*Pathologist*
Dr Belinda Scott (co-opted)	*Surgeon*
Ms Solei Gibbs	*Executive Officer*

Previous Executive Committee members

Dr Geoffrey Beadle	*Medical Oncologist*
A/Prof Michael Bilous	*Pathologist*
A/Prof John Boyages	*Radiation Oncologist*
Dr Colin Furnival	*Surgeon*
Prof Michael Green	*Medical Oncologist*
Dr Cherrell Hirst	*Breast Physician*
Ms Elspeth Humphries (co-opted)	*BCNA Representative)*
Dr Michael Izard	*Radiation Oncologist*
Dr Jack Jellins	*Scientist*
Ms Veronica Macaulay-Cross (co-opted)	*BCNA Representative*
Mr William McLeay	*Surgeon*
Ms Lyn Moore (co-opted)	*BCNA Representative*
Dr Margaret Pooley	*Surgeon*
A/Prof Mary Rickard	*Radiologist*

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Useful Information

Venue

Sydney Harbour Marriott
30 Pitt Street
Circular Quay
Sydney NSW 2000
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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 staff at registration desk.

Tickets

Attendance at the Ultrasound Workshop 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 staff at registration desk.

Special diets

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

Dress

Dress code for Workshop sessions and social functions is smart casual. Cocktail wear is suitable for the dinner.

Welcome Drinks

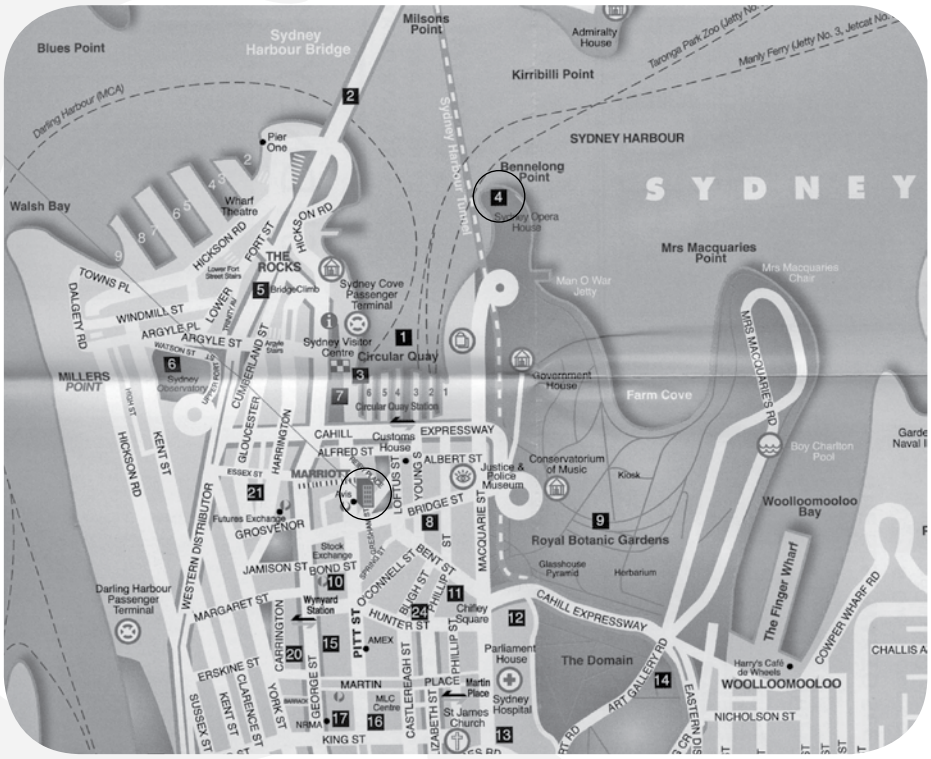
Friday 13 June 2008 1900-2000 hrs
Meet your colleagues at this informal get together at the Thomas Keneally Foyer. Included for delegates. Additional tickets: $50 per person.

Breaks

Morning and afternoon teas and Saturday lunch will be served in the Thomas Keneally Foyer. Lunch service is by ticket only to delegates.

Dinner

Saturday 14 June 2008 1900-2230 hrs
Enjoy a leisurely stroll along Circular Quay to the dinner venue, the Opera House Point Marquee (located behind the Opera House at Bennelong Point). The venue is around 10 minute walking distance away from the Marriott. Dinner includes pre-dinner drinks, dinner, beverages and entertainment. Additional tickets: $150 per person.



Keynote speaker

Mr J Michael Dixon

BSc (1st Hon), MB ChB (Ed), MD (Ed), FRCS (Ed & Eng), FRCP (Hon)
Consultant Surgeon & Senior Lecturer, Edinburgh Breast Unit, Western General Hospital, Edinburgh, United Kingdom

Sponsored by AstraZeneca Oncology

Mr Dixon received his MBChB and MD degrees from Edinburgh University, and trained in breast cancer research at the University's Department of Clinical Surgery. He also has a 1st class Bachelor of Science degree in Pathology. He trained in Edinburgh and Oxford. His research focuses on surgical perspectives in neoadjuvant endocrine therapy of large operable and locally advanced breast cancer, particularly aromatase inhibitor treatment. In efforts to optimise endocrine therapy, he is currently investigating the changes in biologic characteristics that occur during response and resistance to endocrine treatments and has recently been awarded a £4.59 million grant to set up a new Breakthrough Breast Cancer Unit in Edinburgh.

Mr Dixon is a Fellow of The Royal College of Surgeons of both Edinburgh and England. He is also an honorary fellow of The Royal College of Physicians of Edinburgh. He is a member of the British Breast Group, the Scottish Cancer Trials Breast Group, the European Association for Cancer Research, is a panel member of the UK National Breast Cancer Coalition, and a representative on the Central European Cooperative Oncology Group.

Mr Dixon has published over 250 papers, contributed 68 book chapters, and written or edited 16 books. He was the inaugural managing editor of *The Breast* and a former member of the editorial board of the *British Medical Journal*. He is a reviewer for 30 cancer-related journals. Mr Dixon has been an invited speaker at numerous international meetings, symposia, and conferences on breast cancer and on aromatase inhibitors and is co-chair of the Miami Breast Cancer Conference 2008 onwards.

Mr Dixon has given over 150 invited lectures all around the world and has been an invited speaker at all the major international breast cancer meetings in the world including the San Antonio, ASCO and Miami Breast Cancer Conferences, the American Society of Breast Diseases, the American Society of Surgical Oncology and the Australasian Society for Breast Disease.

Faculty

Dr Steven Blome
MBBS, FRANZCR

Steven Blome joined the staff of Royal North Shore Hospital in Sydney in 1986 and is currently Director of Radiology. His major areas of clinical interest and practice involve body imaging using all modalities and, in particular hepatobiliary, pancreatic, pelvic and women's imaging. Dr Blome has had a long term interest in breast imaging. He has been senior radiologist at The Sydney Breast Clinic for over 20 years and currently serves on its Medical Advisory Committee. He was involved with The Sydney Breast Imaging Accuracy Study which explored the relative accuracies of modern ultrasound and mammography particularly in younger symptomatic women and in early evaluation of the efficacy of MR in a variety of clinical breast situations. Dr Blome has also been a screen reader and breast assessment radiologist with Northern Sydney BreastScreen since its inception.

Dr Melissa Bochner
MBBS, FRACS, MS

Melissa Bochner trained in breast surgery at the Royal Adelaide Hospital in 1998 and Edinburgh Breast Unit in 1999. Her current positions are Staff Specialist Surgeon, Royal Adelaide Hospital Breast Endocrine and Surgical Oncology Unit, and Visiting Medical Specialist, BreastScreen SA. She is a member of the expert advisory panel for National Breast and Ovarian Cancer Centre (NBOCC) and has worked with the NBOCC on guideline development in several areas. Dr Bochner is a member of the Breast and Endocrine sections of the Royal College of Surgeons and Royal Adelaide Hospital Supervisor of Basic Surgical and Pre-SET trainees.

Dr Natacha Borecky
MBBS, Doctor of Radiology (Belgium)

Natacha Borecky achieved her medical and radiological degrees at the University of Brussels, Belgium in 1995. She completed two years of training in Pediatric Radiology, Breast Imaging and MRI at the University Hospital in Lausanne, Switzerland. Her thesis was on Pediatric Lymphangioma on MRI. During her radiological training, Dr Borecky developed a special interest in Breast Disease and Breast Imaging. Since 2003, she has worked as Staff Specialist Radiologist for BreastScreen NSW in Sydney and in the rural areas. Dr Borecky is involved with the Digital Mammography Users Group for the implementation of the digital mammography in BreastScreen NSW and is a member of Australasian Society of Breast Disease Executive.

Dr Marie-Frances Burke
MBBS, FRACR

Marie Burke graduated in medicine from the University of Queensland in 1982. Since 1989, she has been a Fellow of the Royal Australasian College of Radiologists, having done her training in radiation oncology at the Queensland Radium Institute, in Brisbane. She is currently in practice as a Radiation Oncologist at the Wesley Cancer Care Centre, Brisbane. Dr Burke's major interests are in breast and gynaecologic cancers. She is the current Secretary / Treasurer for the Australasian Society of Breast Disease.

Dr Daniel de Viana
MBBS, RACS

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 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, member of Executive Committee of Australasian Society of Breast Disease, member of Royal Australasian College of Surgeons Breast Section, and member of the International Society of Breast Disease.

Prof Michael Friedlander
MBChB, MRCP, FRACP, PhD

Michael Friedlander is conjoint Professor of Medicine at the University of NSW and Director of Medical Oncology at the Prince of Wales Hospital in Sydney. His clinical and research interests are broad, ranging with a focus on breast and gynaecological malignancies as well as the management of women at increased genetic risk of breast/ovarian cancer.

Prof David Gillett
AM, FRCS, FRACS, FACS

David Gillett is the Chairman of the Surgical Division at the Concord Hospital and Head of the Breast Unit. He is the Chairman of the Breast Group, NSW Oncology Group, Cancer Institute NSW. He is also the Principal at the Strathfield Breast Clinic in Sydney. Prof Gillett was awarded the Order of Australia AM award for his contribution to breast cancer management and development of multidisciplinary clinics. He initiated sentinel node biopsy in Concord Hospital and published the first clinical experience of this procedure in the Australian Surgical literature.

Dr James Kollias
MBBS, FRACS, MD

James Kollias is a specialist Breast Surgeon at the Royal Adelaide Hospital, St Andrews Breast Clinic and BreastScreen South Australia. He is the current Chairman of the Royal Australian College of Surgeons (RACS) Breast Section and the Clinical Director of the RACS National Breast Cancer Audit. Dr Kollias' special interests include breast training and oncoplastic breast surgery. He has published over 50 scientific manuscripts in scientific refereed journals and book chapters. Dr Kollias is a member of the Australasian Society for Breast Disease Executive.

Dr David Littlejohn
MBBS, FRACS

David Littlejohn has worked as an Oncoplastic Breast Surgeon since 2000 in Wagga Wagga. He spent a year with Dr Dick Rainsbury in Winchester, United Kingdom, in 1999 learning oncoplastic techniques. Prior to this, Dr Littlejohn completed his surgical training at Prince of Wales Hospital, Sydney. He was an invited speaker in 2006 at the ASC on immediate breast reconstruction including Miniflap and breast reduction techniques. He has been a member of the Breast Executive since 2004.

Dr Lynne Mann
MBBS, FRACS

Lynne Mann is a Staff Specialist General Surgeon with a major interest in breast surgery with the Sydney West Area Health Service. She works at the Auburn Hospital and the NSW Breast Cancer Institute at Westmead Hospital. Dr Mann is a member of the Breast Section of the Royal Australasian College of Surgeons, and a member of the NSW Breast Cancer Trials Group. She has been on the Australasian Society for Breast Disease Executive Committee since 2003.

Dr Katrina Moore
MBBS, MS, FRACS

Katrina Moore is a Senior Staff Specialist Breast Surgeon at Royal North Shore Hospital where she leads the multidisciplinary breast group, Mater Private and North Shore Private Hospitals. She is a Fellow of the Royal Australasian College of Surgeons and was the International Surgical Oncology Fellow at Memorial Sloan Kettering Hospital in New York where she completed her surgical training. She is a Senior Lecturer at the University of Sydney and also holds a Masters of Surgery Degree from there. She is on the Cochrane Editorial Review Committee for Breast Cancer and is Deputy Chairman of NSW Breast Oncology Group. Dr Moore is involved in clinical and translational research, the latter with the Kolling Institute at Royal North Shore Hospital where they have developed a tissue bank and breast proteomic program.

Dr Nirmala Pathmanathan
BSc (Med), MBBS, FRCPA, MIAC

Nirmala Pathmanathan has been a Staff Specialist in Tissue Pathology at the Institute of Clinical Pathology and Medical Research at Westmead Hospital since 2002, where she has acquired significant expertise in Breast Pathology and Cytology. She is a Breast Pathologist for the Breast Cancer Institute and also for BreastScreen Greater Western Sydney. Dr Pathmanathan also has an appointment as a research fellow at the Westmead Millennium Institute and is actively involved in breast cancer research, with an emphasis on preneoplastic and borderline breast proliferations with particular emphasis on screen-detected lesions.

Dr Wendy Raymond
MBBS, MD, FRCPA

Wendy Raymond is a Pathologist with a longstanding interest in breast disease having completed an MD on immunohistochemical markers in Breast Carcinoma in 1991. She is a consultant pathologist at Flinders Medical Centre, a Visiting Specialist Cytopathologist at Breastscreen SA and a part time consultant in the private laboratory practice of Drs King and Mower. Dr Raymond is a co-author of the ACN sponsored *The Pathology Reporting of Breast Cancer*, is a member of the Australasian Society for Breast Disease Executive, has served on Quality Assurance Committees of the RCPA in breast pathology and cytopathology and is a Pathology College examiner.

A/Prof Mary Rickard
MBBS, BSc (Med)(Hons), MPH, FRANZCR, DDU

As a Radiologist, Mary Rickard has taken a keen interest in mammography and ultrasound technique and interpretation, and in correlative diagnosis of breast disease. She previously held appointments as director of a Sydney mammography screening pilot project and the Central and Eastern Sydney BreastScreen service, and more recently as State Radiologist for BreastScreen NSW. She is now Chief Radiologist for the Sydney Breast Clinic. Prof Rickard is involved in activities with the College of Radiologists (RANZCR), National Breast and Ovarian Cancer Centre (NBOCC), International Breast Ultrasound School (IBUS), Australasian Society for Breast Disease (ASBD) and other bodies.

Mrs Belinda Scott
MBChB, FRACS

Belinda Scott is a Breast and General Surgeon. She is the Director of Breast Associates Ltd, a multidisciplinary centre in Auckland, New Zealand. The Centre has state of the art Digital Mammography, MRI scanning Ultrasound, Breast Physicians, Nurses and Surgeons. Mrs Scott is the Chair of the Medical Committee of the New Zealand Breast Cancer Foundation and a Patron of Pink Pilates. She is a Member of Auckland Breast Cancer Study Group, ANZ Trials Group and BIG (Breast Interest Group) New Zealand. Mrs Scott has a strong interest in women's health and she is a frequent speaker at public education forums.

A/Prof Andrew Spillane
BMBS, FRACS, MD

Andrew Spillane is a Surgical Oncologist with specialised skills in the management of Breast Cancer, Melanoma and Soft Tissue Tumours. He is Associate Professor of Surgical Oncology at The University of Sydney's Northern Clinical School. He works at the Mater Hospital North Sydney and Royal North Shore Hospital and is Visiting Medical Officer for the Sydney Melanoma Unit at the Sydney Cancer Centre, Royal Prince Alfred Hospital, and BreastScreen NSW.

Prof Robin Stuart-Harris
MD, FRCP, FRACP

Robin Stuart-Harris trained in medical oncology and palliative care at the Royal Marsden Hospital, London, United Kingdom, but migrated to Australia in 1987. In February 1998, he took up the appointment of Senior Staff Specialist in Medical Oncology at the Canberra Hospital. In August 2004, he was appointed as Director of the Capital Region Cancer Service. He has particular interests in the management of both early and advanced breast cancer and the psychosocial aspects of cancer. Professor Stuart-Harris is the current President of the Australasian Society for Breast Disease.

Program

Please note that the program is subject to change.

Friday 13 June 2008

1300 – 1900 hrs Registration

1430 – 1900 ***Ultrasound Workshop for Surgeons***
Sponsored by Focus Technologies and GE Healthcare

Basic physics	Janine Lister (Focus Medical Technologies)
Ultrasound equipment	Michelle Yan (GE Healthcare)
Diagnostic perspective	Natacha Borecky
The role of ultrasound for breast surgeons	David Gillett
Interventional techniques	Katrina Moore
Practical sessions	Natacha Borecky, Michael Dixon, David Gillett, James Kollias, Katrina Moore, Belinda Scott, Daniel de Viana

1900 – 2000 Welcome Drinks

Saturday 14 June 2008

0800 – 0900 Registration

0900 – 1000 ***Opening Remarks, Welcome***: Robin Stuart-Harris

Session 1 – Benign Breast Disease: Surgical Management
Sponsored by AstraZeneca Oncology

Chair: Daniel de Viana

Periductal mastitis; mammary fistula; periareolar abscess; lactational breast abscess	Michael Dixon
Palpable and impalpable fibroadenomas	Melissa Bochner and Mary Rickard
Breast pain, fibromatosis and nipple adenomas	Michael Dixon
Granulomatous mastitis	Lynne Mann and Wendy Raymond

1000 – 1030 Morning break

1030 – 1230 ***Session 2 – Benign Breast Disease: Borderline Conditions***

Chair: Lynne Mann

Papillary lesions	Nirmala Pathmanathan
Radial scars	Natacha Borecky
Atypical hyperplasias for the surgeon	Wendy Raymond
Phyllodes tumours	Andrew Spillane
Panel:	Speakers and Michael Dixon, Mary Rickard, Daniel de Viana

1230 – 1330 Lunch

1330 – 1500 ***Session 3 – Breast Conserving Surgery: Maximising Cosmetic Outcomes***

Chair: Belinda Scott

Partial mastectomy and scar placement	Daniel de Viana
Volume displacement	David Littlejohn
Volume replacement techniques	Michael Dixon
Central breast tumours	Michael Dixon
Panel	

1500 – 1530 Afternoon break

1530 – 1700 ***Session 4 – Mastectomy: Maximising Cosmetic Outcomes***

Chair: James Kollias

Simple mastectomy	Andrew Spillane
Skin sparing mastectomy with immediate reconstruction	James Kollias
Contralateral procedures	Melissa Bochner
Panel:	Speakers and Marie-Frances Burke

1900 – 2230 Dinner

Sunday 15 June 2008

0930 – 1100 ***Session 5 – 'Tricky' Breast Cancers***
Sponsored by Roche Products

Introduction: James Kollias
Presentation of difficult cases including: internal mammary node; BRCA1; small tumour; lobular cancer; micrometastasis; supraclavicular node; early onset cancer.
With Michael Dixon and a multidisciplinary panel:
Steven Blome, Marie-Frances Burke, David Littlejohn, Nirmala Pathmanathan, Andrew Spillane, Robin Stuart-Harris

1100 – 1130 Morning break

1130 – 1300 ***Session 6 – Locally Advanced Disease***
Sponsored by Roche Products

Chair: Robin Stuart-Harris

Neoadjuvant hormone therapy	Michael Dixon
Neoadjuvant chemotherapy and tumour markers	Michael Friedlander
Sentinel node biopsy and surgery for locally advanced breast disease	Katrina Moore
Case studies	Michael Dixon and Katrina Moore
Panel	

Abstracts

ULTRASOUND WORKSHOP

Sponsored by Focus Medical Technologies and GE Healthcare

Diagnostic perspective

Natacha Borecky
BreastScreen NSW

The use of Ultrasound (US) for diagnostic purpose in a symptomatic breast clinic requires the knowledge of the benign and suspicious features of breast masses and the understanding of their histopathological significance. Most of the palpable breast lumps will be benign corresponding to a simple cyst, a fibroadenoma, hamartoma or a lipoma. However in some cases, invasive carcinoma as medullar, mucinous, high-grade carcinoma and mass like DCIS can present clinically and under US examination as benign circumscribed solid nodule.

Tom Stavros has written that the goal of breast US is to characterise > 98% of malignant solid breast nodules as suspicious or malignant (BIRAD 4-5) and to identify a subgroup of benign nodules that had less than 2% chance of malignancy (BIRAD 3). Stavros has classified the suspicious US findings into three groups. Spiculations, angular margins and acoustic shadowing are classified as hard suspicious findings. They are usually sign of invasion of surrounding breast tissue by the tumor and have a high predictive value for carcinoma. Microlobulation, shape taller than wide and hypoechogenicity of the lesion are mixed findings. The presence of microcalcifications, duct extension and branch pattern is classified as soft findings. The soft findings indicate the presence of DCIS associated to the mass which may improve the diagnosis of malignancy in case of circumbscribed mass. The soft findings enable a more accurate staging especially in lesion with an extensive in situ component and therefore more clear surgical margins and less risk of local recurrence. The sensitivity of individual suspicious finding is low but the combined sensitivity is high up to 99.8%. Malignant mass usually shows up 5 to 6 suspicious findings but 1 or 2 suspicious findings are enough to characterize a malignant nodule. The management of US BIRAD 4 and BIRAD 5 breast nodules is based on tissue sampling with US guided needle biopsy (FNA or Core biopsy). BIRAD 3 breast nodules is a group of probably benign nodules with less than 2% of risk of malignancy. A breast nodule is classified BIRAD 3 only if there are no suspicious US findings. Circumscribed cancer can show a mixture of benign and suspicious findings. A careful US examination of the shape, the contours or margins and the internal characteristics of the breast nodule is required in different plans to look for any suspicious findings which may lead to needle biopsy sample. Purely hyperechoic, elliptic shape nodules with a complete thin capsule or gently lobulated nodules with a complete thin capsule are generally benign. In the management of the US BIRAD 3 breast nodules, the patient has the choice after information provided about the significance of that classification between either a short interval US follow up (6, 12 and 24 months) or US guided needle biopsy. BIRAD 2 breast mass is typically the simple cyst. Complicated or complex cysts are to be considered and managed as BIRAD 3 breast nodule.

Notes

The role of ultrasound for breast surgeons

David Gillett
Strathfield Breast Clinic and Concord Hospital, Sydney

Notes

Ultrasound is a non-invasive non-radiation examination that has been shown to be valuable in the assessment of breast lesions. It is based on the differential reflections of sound waves which are recorded and the tissue characteristics determined. The use of this modality by breast surgeons is supported by the Surgical Colleges which usually run education courses associated with annual clinical meetings.

The techniques of its use can be readily learnt and the interpretation of the images while very dynamic and operator dependent can be acquired to a basis level relatively easily. This factor and the availability of portable machines to be used in the clinic, consulting rooms or operating theatre indicate its integration into the assessment diagnosis and treatment of breast lesions is an obvious progression.

Its use in breast practice enhances the accuracy of clinical diagnosis, the sensitivity of biopsies and the accuracy of surgical excision.
Ultrasound is usually employed as focussed ultrasound by surgeons whereby a focal area is assessed:

1. As an aid to clinical examination to determine the pathology or absence thereof at a site of clinical interest.
2. To guide biopsy of a lump and determine that the needle is accurately placed.
3. To follow the changes or absence thereof in benign lumps or cancer treated with neoadjuvant therapies.
4. To determine the optimal site of incision for removal of breast lesions.
5. To delineate the extent of tumour in the breast at the time of excision.

Examples and characteristics of these procedures and lesions will be presented.

Interventional ultrasound

Katrina Moore
Royal North Shore Hospital, Sydney

As in many disciplines, often the trick lies in knowing when not to intervene. The adoption of ultrasound by surgeons in their practice has many advantages and provides the perfect extension to clinical examination but it is important to use it selectively. We have found ultrasound useful in the diagnostic and therapeutic setting for both benign and malignant disease. In the therapeutic setting, its most useful application has been a peri-operative one, where it often aids in simplifying some of the multiple preoperative steps that can be involved. We use it for localization procedures, for specimen ultrasounds to confirm resection and for placing peri-tumoural injections of isotope and patent blue dye for sentinel node procedures. It can also be helpful in determining adequacy of margins.

As surgeons there are some simple technical issues that can enhance the use of ultrasound in the interventional setting. Certainly there is a learning curve and technical steps can be taken to expedite that process, such as patient positioning, probe positioning, positioning of the lesion on the screen, selection of biopsy equipment and the approach to a lesion when performing biopsy or aspiration etc. Practical aspects such as audit, record keeping, cost effectiveness and time management of its use within the diagnostic setting need also to be considered.

This presentation will centre on simple steps that might aid the introduction of interventional ultrasound into surgical practice.

Notes

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Notes

Periductal mastitis; mammary fistula; periareolar abscess; lactational breast abscess

J Michael Dixon
Consultant Surgeon & Senior Lecturer in Surgery, Clinical Director, Breakthrough Research Unit, Edinburgh

Sponsored by AstraZeneca Oncology

A survey of breast surgeons in the UK demonstrated no consistent policy amongst surgeons in breast abscess management. 65% treated some abscesses by aspiration. Most use ultrasound to guide aspiration and 24% continue to use incision and drainage under general anaesthesia as the main treatment for abscesses. Most abscesses can be managed by aspiration but if the overlying skin is thinned or necrotic then incision and drainage can be performed under local anaesthesia. Older surgeons are more likely to treat abscesses by incision and drainage whereas younger surgeons are more likely to use aspiration. Recurrent breast infection is common in smokers as a consequence of periductal mastitis. These women get recurrent non-lactating abscesses and mammary duct fistulae. The surgery for mammary duct fistulae is difficult and optimally involves excising the fistula tract through a circumareola incision. Total removal of all the ducts is necessary to ensure that the infection does not recur. Another condition causing recurrent infection is granulomatous lobular mastitis. Recent identification of corynabacteria from these lesions suggested there may be a bacteriological basis for this condition. Clinical experience indicates however that prolonged courses of antibiotics effective against corynabacteria do not improve granulomatous lobular mastitis. Steroids have been tried but remain of dubious value. Granulomatous lobular mastitis should be managed conservatively.

Other breast infection includes peripheral and skin associated infection. Antibiotics and aspiration or mini incision and drainage are the mainstay of treatment. Often there is no underlying cause for peripheral infection but as it can occasionally be a manifestation of infected comedo necrosis – following resolution, in women over the age of 35 a mammogram should be organised.

Palpable and impalpable fibroadenomas

Mary Rickard [1]
Melissa Bochner [2]
[1] *The Sydney Breast Clinic*
[2] *Breast Endocrine and Surgical Oncology Unit, Royal Adelaide Hospital*

Notes

Fibroadenomas of the breast are a common cause of a palpable lump in young women, and a common incidental finding on screening mammography. They are considered to typically develop in young women (after menarche), to grow over the next few decades and to then progressively age with time showing a decrease in size and degenerative change, particularly after the menopause. They are often multiple.

Given that normal breast glandular structures occur within fibroadenomas, the usual proliferative and malignant changes can develop within them. However the risk of developing a breast cancer within a fibroadenoma is low and similar to that of glandular tissue elsewhere in the same breast. They are not considered a significant risk lesion and therefore do not require routine removal or increased surveillance.

On mammogram and ultrasound examination, many fibroadenomas have characteristic appearances. Their margins are well-defined, their shape is ovoid often with macrolobulations, the surrounding tissue is pushed aside rather than disrupted, and they may contain characteristic degenerative calcifications. In addition, on ultrasound examination fibroadenomas lie with their long axis parallel to the chest wall and their internal echogenicity is similar to fat with some increase in through transmission. However given the variety of histological changes within fibroadenomas, it is not surprising that many lesions show less typical features on imaging; for example, the margins may be somewhat irregular and the internal echogenicity non-uniform.

In a mammography screening program, if mass lesions show typical benign features on mammography then further investigation is not required and normal re-screening is recommended. When there are uncertain or atypical features, assessment using the triple test approach is needed to establish an accurate diagnosis. In a screening environment it is not always necessary to have a tissue diagnosis if the lesion has benign features consistent with fibroadenoma. When a fibroadenoma is symptomatic / palpable however, it is generally considered appropriate to confirm the nature of the lesion with a tissue diagnosis. Whenever the imaging features of a palpable or impalpable lesion are atypical then tissue diagnosis is mandatory.

The radiological diagnosis of carcinoma within a fibroadenoma is based on the usual imaging findings, such as alterations in shape or size, irregular margins or suspicious calcifications. The methods used for diagnosis, and the treatment approaches to malignancy within fibroadenomas are the same as for other breast cancers.

Other than for diagnostic purposes indications for removal of fibroadenomas include patient choice, large or increasing size which may impact on cosmetic appearance, and discomfort. When removing benign breast lesions cosmetic outcome and attention to scar placement is important, and the use of peri-areolar incisions with a tunnelled approach to these lesions is often appropriate. Rarely women with very large lesions may require the use of breast reconstructive or reduction techniques.

References

1. Tabar L, Dean PB. Teaching Atlas of Mammography. Thieme-Verlag 2001.
2. Madjar H. The Practice of Breast Ultrasound. Thieme-Verlag 1999.
3. Dupont WD, Page DL, Parl FF, et al. Long-term risk of breast cancer in women with fibroadenoma. *N Eng J Med*. 1994; 331(1):10-15.
4. Page DL, Anderson TJ. Diagnostic Histopathology of the Breast. Churchill Livingstone 1988.
5. Chang DS, McGrath MH. Management of benign tumors of the adolescent breast *Plastic & Reconstructive Surgery*.120(1):13e-19e, 2007 Jul.

Notes

Granulomatous mastitis

Lynne Mann[1]
Wendy Raymond [2]
[1] *Sydney West Area Health Service*
[2] *Flinders Medical Centre, Breastscreen SA and Drs King and Mower, Adelaide*

Notes

Idiopathic granulomatous mastitis is an uncommon benign inflammatory condition, first described in 1972[1] occurring generally in younger women. It is characterised histopathologically by non-caseating giant cell granulomas, centred on breast lobules. Clinical presentation is most commonly a mass with or without inflammation, abscess or sinus formation. Differentiation from carcinoma can be difficult. Management remains challenging with steroids the mainstay of treatment. Immunosuppression has been tried with success.[2,3] Surgery should be reserved for those cases which fail to respond to conservative treatment, those with localised disease able to be widely excised, those who develop complications, or where the diagnosis remains uncertain. [2,4,5]

References

1. Kessler & Wolloch. Granulomatous mastitis: a lesion clinically simulating carcinoma. *Am J Clin Path*: 1972; 58, 642 - 646
2. Kim, Tymms, & Buckingham. Methrotrexate in the management of granulomatous mastitis. *ANZ J Surg*: 2003; 73(4), 247 – 249
3. Raj, Macmillan, Ellis & Deighton. Rheumatologists and breasts: immunosuppressive therapy for granulomatous mastitis. *Rheumatology*: 2004; 43 (8), 1055 – 1056
4. Asoglu et al. Feasibility of surgical management in patients with granulomatous mastitis. *The Breast Journal*: 2005; 11(2), 108 – 114
5. Wilson et al. Idiopathic granulomatous mastitis: in search of a therapeutic paradigm. *The American Surgeon:* 2007; 73 (8), 798 - 802

Breast pain, nipple adenomas and fibromatosis

J Michael Dixon
Consultant Surgeon & Senior Lecturer in Surgery, Clinical Director, Breakthrough Research Unit, Edinburgh

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Notes

Breast pain is common. Although cyclical pain is said to be more common, I see more non cyclical pain. Also much so called cyclical breast pain actually emanates from the chest wall. A careful clinical examination is essential to ascertain the true site of the pain. For true breast pain tamoxifen 10 mg/day is the agent of choice. Tamoxifen gel has been evaluated and appears effective.

Nipple adenoma usually presents as an ulcerating lesion of the nipple. Clinically there is a lump in the nipple and nipple discharge. They can be difficult to diagnose. Treatment is by wide excision. It is usually possible to save the nipple but sometimes the lesion is so large that the nipple has to be excised. Although it is important to obtain clear margins, if a lesion has been excised but is close to a margin, then as the lesion has minimal malignant potential, careful observation only is needed to determine if the lesion recurs.

Fibromatosis is a proliferative lesion characterised by spindle cells on ranges from benign to malignant. Lesions in the middle of this range include fibromatosis and nodular fasciitis. These lesions masquerade clinically and mammographically as breast cancer. They are rare but can occur locally after excision. Tradition has been to treat these by wide excision and careful surveillance. There is a spectrum of lesions within the category of breast fibromatosis. Where there is doubt about the nature of the lesion it should be sent for a second opinion. Where the diagnosis is one of proliferative fibromatosis then wide excision should be performed. Sometimes these lesions involve the chest wall and underlying structures which need to be excised. There are a few reports of the use of radiotherapy. Where local recurrence is inoperable, radiotherapy can delay further regrowth of disease but such treatment is unlikely to provide long term control. Very few fibromatosis lesions are oestrogen receptor positive but tamoxifen has been used in such patients.

Papillary lesions of the breast

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As breast cancer is a significant problem in Australia, screening programs have been instituted with the primary aim of reducing breast cancer mortality and morbidity by means of early disease detection. Currently in most Australian screening programs, this involves mammographic screening of asymptomatic women at an age of substantially increased breast cancer risk (over 40 years) with an on-going biannual re-examination. As a result of such screening programs, there has been a shift in the spectrum of breast disease seen, for example asymptomatic lesions which would otherwise have gone unrecognized. Such as microcalcifications or mammographic densities are subject to investigations, such as core biopsy, to rule out the possibility of malignancy. As a direct consequence of this a large number of non-malignant lesions such as papillary lesions are seen in the histopathology laboratory and with these diagnoses arise issues of appropriate management and evaluation of risk.

The defining feature of papillary lesions is a frond like or branching proliferation within a breast duct, and these lesions comprise a wide spectrum of appearances under the microscope. Included within this spectrum are benign lesions, premalignant lesions and malignant lesions. Accurate classification of these lesions is dependant upon evaluation of specific microscopic features such as the presence of a myoepithelial layer and patterns of epithelial proliferation [1].

Studies have shown that a papilloma without surrounding proliferative changes carries a risk of subsequent carcinoma similar to proliferative epithelial disease without atypia (a 2 fold risk of developing breast cancer) [2] whereas the risk associated with papillomas with atypia is 4 to 5 fold, similar to atypical duct hyperplasia in some studies and 7.5 fold, similar to in situ carcinoma in others [3].

The current practice in most screening programs for all papillary lesions diagnosed on core biopsy is surgical excisional biopsy, and it is not clear whether this represents over-treatment of patients. Whilst there is agreement that papillary lesions with atypical features should undergo surgical excision when diagnosed on core biopsy, the need for surgical biopsy when a benign papillary lesion is diagnosed is more controversial [4, 5]. The main rationale for excision of benign papillary lesions diagnosed on core biopsy is sampling error, however, there are several studies in the literature which indicate that where lesions are well sampled and there is radiological correlation, the incidence of a more significant lesion in the excision specimen is very low [6-10]. Many of these studies are limited by their small patient numbers and possible selection bias into which patients underwent surgical excision. Moreover, definitions and criteria of atypia are variable. Optimal management strategy remains an area of controversy.

Notes

References

1. Kraus FT, Neubecker RD. The differential diagnosis of papillary tumors of the breast. *Cancer* 1962;15:444-55.
2. Lewis JT, Hartmann LC, Vierkant RA, et al. An analysis of breast cancer risk in women with single, multiple, and atypical papilloma. *American Journal of Surgical Pathology* 2006;30:665-72.
3. Page DL, Salhany KE, Jensen RA, Dupont WD. Subsequent breast carcinoma risk after biopsy with atypia in a breast papilloma. *Cancer* 1996;78:258-66.
4. Collins LC, Schnitt SJ. Papillary lesions of the breast: selected diagnostic and management issues. *Histopathology* 2008;52:20-9.
5. Mulligan AM, O'Malley FP. Papillary lesions of the breast: a review. *Advances in Anatomic Pathology* 2007;14:108-19.
6. Philpotts LE, Shaheen NA, Jain KS, Carter D, Lee CH. Uncommon high-risk lesions of the breast diagnosed at stereotactic core-needle biopsy: clinical importance.[see comment]. *Radiology* 2000;216:831-7.
7. Liberman L, Bracero N, Vuolo MA, et al. Percutaneous large-core biopsy of papillary breast lesions. *AJR* 1999;172:331-7.
8. Mercado CL, Hamele-Bena D, Singer C, et al. Papillary lesions of the breast: evaluation with stereotactic directional vacuum-assisted biopsy. *Radiology* 2001;221:650-5.
9. Ivan D, Selinko V, Sahin AA, Sneige N, Middleton LP. Accuracy of core needle biopsy diagnosis in assessing papillary breast lesions: histologic predictors of malignancy. *Modern Pathology* 2004;17:165-71.
10. Agoff SN, Lawton TJ. Papillary lesions of the breast with and without atypical ductal hyperplasia: can we accurately predict benign behavior from core needle biopsy? *American Journal of Clinical Pathology* 2004;122:440-3.

Notes

Radial scars

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Radial scar (RS) or complex sclerosing lesion (CSL) is a benign breast lesion, usually impalpable and more frequently identified on mammograms since the widespread implementation of population-based screening program.

The radiological signs described by Tabar and Dean are variable and lack specificity. The typical “black star”, the central radiolucency, the radial long thin spicules and the radiolucent linear structures parallel to spicules are observed only in 48% of stellate lesions. Microcalcifications are often present but not predictive of associated malignancy. RS can be detected under ultrasound examination in 55% to 68% most commonly seen as hypoechoic areas/masses or parenchymal distortion without a hypoechoic mass but the echographic semiology also lacks specificity. Definitive mammographic and sonographic differentiation between RS and stellate-type carcinoma is impossible.

Because of the high incidence of atypia (22.4% to 28.5%) and malignancy, both in situ and invasive carcinoma associated with RS (7% to 24.8%), and the possible risk of neoplastic transformation in asymptomatic RS with time, the actual recommendation for optimal management is the removal of all mammographically detected radial scar. Even though that cancer are missed in 4% and underestimated in 22.2% of percutaneous biopsy, preoperative sampling by 11 vacuum-assisted biopsy (VAB) or 14-gauge core biopsy of RS is recommended for a one-stage surgical therapy. Core biopsy is also valuable in the assessment of mammographic lesion suggestive of RS since 28.6% of such lesions are indeed carcinomas that mimic RS. However, few studies support mammographic follow-up of biopsy-proven RS that are benign or pure without atypia on 11 gauge vacuum-assisted biopsy with a large number of specimens sampled and when mammographic findings correlated with histologic findings. The presence of associated atypical hyperplasia on percutaneous needle biopsy requires the surgical excision of the RS.

References

1. Doyle EM et al. Radial scar/complex sclerosing lesions and malignancy in a screening programme: incidence and histological features revised. *Histopathology*. 2007 Apr; 50(5): 607-14.
2. Boute V et al. Are the criteria of Tabar and Dean still relevant to radial scar? *Eur J Radiol.* 2006 Nov: 60(2): 243-9.
3. Lee E et al. Ultrasound imaging features of radial scars of the breast. *Australas Radiol.* 2007 Jun; 50(3): 240-5.
4. Becker L et al. Management of radial scars found at percutaneous breast biopsy. *Can Assoc Radiol J.* 2006 Apr: 57(2): 72-8.
5. Farshid G, Rush G. Assessment of 142 stellate lesions with imaging features suggestive of radial scar discovered during population-based screening for breast cancer. *Am J Surg Pathol.* 2004 Dec; 28(12): 1626-31.
6. Cawson JN et al. Fourteen-gauge needle core biopsy of Mammographically evident radial scars: is excision necessary? *Cancer*. 2003 Jan 15:97(2): 345-51.
7. Brenner RJ et al. Percutaneous core needle biopsy of radial scar of the breast: when is excision necessary? *Am J Roentgenol.* 2002 Nov: 179(5):1179-84.
8. Ung OA et al. Complex sclerosing lesion: the lesion is complex, the management is straightforward. *ANZ J Surg.* 2001 Jan; 71(1): 35-40.
9. Manfrin E et al. *Breast Cancer Res Treat.* 2007 Apr 25

Notes

Atypical hyperplasias for the surgeon (ALH, LCIS, ADH)

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Notes

The range of lesions regarded as likely to be associated with an increased risk of developing carcinoma will be discussed. These lesions may be calcified and thus are most frequently detected in the setting of screening mammography. Lobular neoplasia (encompassing atypical lobular hyperplasia and lobular carcinoma in situ) is a continuous spectrum of proliferative change in which monotonous cells expand and fill lobular acini. This lesion is associated with 5 (ALH) to 10 (LCIS) times the risk of developing carcinoma. The risk is bilateral.

Atypical ductal hyperplasia is a ductular proliferation which shows some, but not all, of the features of a low grade ductal carcinoma in situ (DCIS). This lesion is associated with a unilateral, approximately 5 fold, increase in the risk of developing carcinoma. The cells are uniform, minimally pleomorphic and show an abnormal architecture of bridges and cribriform patterns. This lesion is frequently seen adjacent to foci of DCIS and there is a continuum from the atypical ductal hyperplasia through to carcinoma such that the diagnosis may be subject to interobserver variability. The more recently recognised columnar cell change (columnar cell hyperplasia, flat epithelial atypia, columnar alteration of lobules or CAPPS lesion), with or without atypia, will be discussed. This lesion is also frequently seen in association with radiological calcifications and may show marked cytological atypia, mimicking carcinoma on fine needle aspiration biopsies. The lesion is currently regarded as a possible, non-obligatory premalignant change.

Phyllodes tumour

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Phyllodes tumours represent ≤1% of breast tumours and ≤3% of fibroepithelial breast lesions. There is a wide range of behaviour from benign through to aggressively malignant sarcoma. Two contrasting cases are used to highlight features of clinical behaviour and pathological identifiers that warn against more aggressive lesions. One case is a recurrent borderline lesion with indolent history whilst the other is a recurring low grade malignant lesion dedifferentiating into an aggressive sarcoma. Management strategies for dealing with these tumours are discussed.

Notes

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Partial mastectomy and scar placement

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Breast conserving surgery for carcinoma has long been accepted as providing equivalent survival and acceptable recurrence rates compared with mastectomy. Quadrantectomy has been surpassed by lumpectomy / complete local excision as the focus has shifted from pure oncologic resection to a more balanced approach to improve cosmesis and patient satisfaction. The goals of such surgery therefore include complete excision with adequate surgical margins, minimising the need for re-excision and the risk of recurrence, whilst still maintaining breast shape and appearance.

To provide a good foundation in achieving these goals, careful surgical planning with appropriate use of pre-operative imaging and peri-operative collaboration with radiological colleagues is essential. Well planned surgical placement of incisions requires thorough assessment of the lesion to be resected as well as the patient's breast prior to anaesthesia, and should be combined with meticulous intraoperative surgical technique. Classical curvilinear incisions following Langers lines are commonly used but factors such as tumour characteristics and tumour location within the breast may necessitate other options such as radial incisions. Incisions should also be placed with regard to the possible need of subsequent mastectomy. After excision of small tumours wounds should be closed with full thickness closure to minimise long term cosmetic deformity. The approaches discussed are often combined with other oncoplastic techniques which will be the topic of other speakers.

References

1. Anderson B.O., Masetti R., Silverstein M.J. Oncoplastic approaches to partial mastectomy: an overview of volume displacement techniques. *Lancet Oncol* 2005; 6:145-57
2. Shrotira S. Techniques for improving the cosmetic outcome of breast conservation surgery. *Eur J Surg Oncol* 2001; 27:109-12
3. Senofsky G.M., Gierson E.D. et al Local excision, lumpectomy and quadrantectomy; Surgical Considerations in Spear SL, Surgery of the Breast: Principles in Art. Philidelphia: Lippincott – Raven, 1998: 129-135

Volume displacement

David Littlejohn

Bilateral Breast Reduction has been an effective way of helping patients with symptomatic mammary hypertrophy for decades. It is now becoming a common option for treating large breasted women with breast cancer in many places throughout the world. Functional and cosmetic advantages are proven, i.e. relief of neck pain and back pain, intertrigo, painful shoulder grooves, preventing severe lopsidedness and improving patient function and ability to exercise. The oncological advantages revolve around the ability to take much wider margins, decreasing the reoperation rate occurring with standard BCS and intuitively maybe also the local recurrence rate. The contralateral breast is also able to be extensively assessed pathologically for incidental changes. Breast reduction has been shown to decrease the incidence of breast cancer, therefore, we may be able to infer the incidence of a second primary breast cancer may also decline. Radiotherapy is safer and more reliable in a reduced breast, while in a large breast radiotherapy has a higher incidence of complications.

The disadvantages mainly revolve around complications delaying adjuvant treatments, and the possibility of involved margins necessitating progression to mastectomy. Patient selection as well as advice regarding surgical technique will be discussed. Breast reduction techniques are being increasingly used in the treatment of breast cancer and will eventually become an expected option to be offered to patients.

Notes

Volume replacement techniques

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The latissimus dorsi flap has a very reliable blood supply from the thoraciodorsal. It can be used as a pedicled flap for partial breast reconstruction, whole breast reconstruction, or salvage surgery. When 10% or less of the breast volume is excised during breast conserving surgery, 90% of women have a good or excellent cosmetic result whereas only 40% of women, who have more than 10% of their breast volume excised, obtain a good or excellent result. It is now possible using careful assessment of size by ultrasound and using measurements from the initial mammograms to determine which patients are likely to obtain a good result from breast conserving surgery. As tumour size is not a factor associated with local recurrence after breast conservation, the only reason that large cancers are treated by mastectomy is that their removal causes a significant volume and cosmetic defect. Providing the cancer can be completely excised and the margins are clear, this volume defect can be filled by means of a latissimus dorsi myocutaneous flap. Excellent cosmetic results have been obtained with this procedure in Edinburgh with an extremely low rate of local recurrence. Another option is to take a myocutaneous LD flap and to de-epithelialise it. This gives even greater volume and extends even further the range of cancers that can be treated by this procedure.

In the past the use of implants in patients treated by breast conserving surgery and radiotherapy has not been advocated. In younger women the breast sometimes shrinks following radiotherapy or its volume remains static while the opposite breast gets larger. Breast augmentation with a shaped prosthesis is a real option for these patients. It will not be successful for all but for over 80% it achieves good or excellent symmetry both clothed and unclothed.

Central breast tumours

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There are a variety of options for central cancers. If the cancer is central but not directly involving the nipple then the cancer can be widely excised and the nipple can be preserved and the tissue underneath mobilised and the defect in the breast closed primarily so as to ensure nipple prominence. Removing a cancer close to the nipple above or below it can result in the nipple being displaced inferiorly or superiorly. Sometimes it is necessary in such patients to symmetrise the nipple at the same time as the wide excision by excising a crescentic portion of skin and de-epthelialising it.

If the nipple has to be removed then there are a number of options. It can be simply excised or incorporated in an ellipse of skin, but this leaves a flat centre to the breast and a poor cosmetic result. If the patient has reasonably sized breasts, the nipple areolar complex can be excised and surrounding breast tissue can be mobilised off the underlying skin, the chest wall and breast and the defect closed before directly closing the skin by a purse string suture. Another option is to replace the nipple areolar complex with another area of skin. In small to moderate sized breasts, the best option is to rotate a portion of skin and underlying breast tissue from the lower outer quadrant, a so called Grisotti flap. In women with large breasts with at least 9cm of skin inferior to the cancer above the inframammary fold then the best option is to perform a reduction type procedure and to raise an inferior dermo-glandular flap, leave an ellipse of skin on this dermo-glandular flap and insert this in the position of the new nipple areolar region. If less skin is available then the nipple areola complex acne be incorporated into the reduction incision and a new nipple reconstructed later. Preoperative imaging must be rigorous as patient selection is paramount. In these oncoplastic procedures the aim is to get the cancer excised with clear margins as re-excision is not easy. These various options will be discussed.

Notes

Notes

Simple mastectomy

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Simple mastectomy is the most basic of breast operations that can be done by any surgeon. However, the aesthetic results breast surgeons achieve from their mastectomy procedures are one of the most often cited discriminators used by both patients and colleagues. Breast size, degree of ptosis, general body shape and level of obesity of the patient, are the dominant factors that require adjustments in technique to facilitate achieving satisfactory results. The strategies used in planning incisions for simple mastectomy and suggestions on how to avoid cosmetic pitfalls and complications are discussed.

Skin sparing mastectomy and immediate breast reconstruction

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Approximately one in three women with early breast cancer in Australia and New Zealand undergo or choose mastectomy as definitive surgery to extirpate the breast cancer from the chest breast wall. Traditionally, simple mastectomy was performed to provide a flat postoperative field and neat scar to fit an external prosthesis within the bra. In some circumstances, immediate breast reconstruction can be offered to women undergoing mastectomy for breast cancer or in cases of "risk-reduction mastectomy" for an inherited breast cancer predisposition. The breast skin envelope, and occasionally the nipple/areola complex, can be preserved to facilitate the reconstruction process and improve cosmesis. Concerns about the oncological safety of skin (+/- nipple/areola) sparing mastectomy have been dispelled by a number of studies demonstrating equivalent local recurrence and survival rates compared with simple mastectomy. A number of skin sparing mastectomy techniques have been described including complete skin envelope and nipple/aerial preservation, periareolar mastectomy and variations of Wise-pattern technique at the time of immediate breast reconstruction.

The rate of immediate breast reconstruction has remained stable over the last 6 years (between 8-10%). The reasons for this apparent low uptake of immediate breast reconstruction by surgeons and patients are unclear, but may relate to a number of socio-demographic, organisational, surgical and oncological factors. The recent experience of skin sparing mastectomy has identified several caveats that relate to surgical dissection technique, operative choice and patient selection. The success of skin-sparing mastectomy techniques in terms of oncological safety, morbidity and aesthetic outcomes are dependent on the breast surgeons' familiarity and understanding of these critical clinical and operative aspects.

Notes

Contralateral procedures

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Notes

Contralateral procedures performed to achieve symmetry after breast reconstruction include reduction, mastopexy and augmentation. In an Australian series contralateral procedures were performed in 37% of women undergoing breast reconstruction [1]. The proportion of women requiring a contralateral procedure varies with the type of reconstruction performed, with more contralateral procedures being done in women having purely prosthetic reconstruction than in women having autologous flaps, while women undergoing delayed rather than immediate reconstruction are more likely to require a contralateral procedure [2]. Contralateral procedures, in particular breast reduction may also be performed in women who have had breast conservation or mastectomy without breast reconstruction. The provision of contralateral procedures has implications for management of case load and resources and as well as for training of specialist breast reconstructive surgeons [3].

References

1. Nano MT, Gill PGG, Kollias J, Bochner MA, Carter N, Winefield. Qualitative assessment of breast reconstruction in a specialist breast unit. *ANZ Journal of Surgery*. 2005;75:445-453
2. Losken A, Carlson GW, Bostwick J, Jones GE, Culbertson JH,Shoemann M. Trends in unilateral breast reconstruction and management of the contralateral breast: the Emory experience. *Plastic and Reconstructive Surgery*. 2002;110:89-97
3. Kollias J, Davies G, Bochner MA, Gill PG. Clinical impact of oncoplastic surgery in a specialist breast unit. *ANZ Journal of Surgery* 2008;78:269-272

SESSION 5: *'TRICKY' BREAST CANCERS*

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Neoadjuvant endocrine therapy

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Neoadjuvant endocrine therapy is now becoming more widely used. It is usually restricted to patients with tumours which strongly express estrogen receptor (ER) in the range of 6 – 8 on the Allred score. The greatest reductions in tumour volume have been reported in patients whose tumours express high levels of ER. Response does not apparently relate to HER2 status with similar levels of tumour shrinkage in HER2 positive and HER2 negative cancers. Response is superior with aromatase inhibitors than with tamoxifen. Although all three aromatase inhibitors have been shown to increase the rates of breast conserving surgery compared with tamoxifen, the largest volume of data is with letrozole.

Only one study has directly compared neoadjuvant endocrine therapy and chemotherapy and this study showed similar response rates between the two treatments. We recently compared the histological changes in patients treated with neoadjuvant endocrine therapy and chemotherapy. We reviewed 50 patients treated with anthracycline based neoadjuvant chemotherapy and 53 treated with neoadjuvant letrozole. The median volume decrease was similar for the letrozole group, (median 75%) and the chemotherapy group, (median 78%) with a similar percentage of women responding to letrozole (88.7%) and to chemotherapy (85%). The big difference between the groups was the histological patterns at the end of treatment. There were significantly more complete pathological responses to chemotherapy, (complete responses 18% vs. 1.9%) $p<0.001$ but significantly more central scars with noeadjuvant chemotherapy, (58.5% vs. 4%) $p<0.0001$.

Prolonging treatment increases the numbers suitable for breast conserving surgery. At 3 months approximately 50% of those who had locally advanced breast cancer or required a mastectomy at the outset had responded sufficiently to be treatable by breast conserving surgery. By continuing treatment for up to a year this percentage increased to more than 70%. Pathology response to endocrine therapy is one of central scarring and tumour implosion.

We have investigated the factors which predict long term outcome after treatment with neoadjuvant endocrine therapy. 153 postmenopausal women with large operable locally advanced breast cancer were treated for 3 months or longer with anastrozole, letrozole or exemestane. Tumour biopsies were taken before and after 3 months of treatment. Median follow up was 41 months. Overall cause specific survival was 79.8%. By 3 months 103 out of 153 (67%) of patients had responded to neoadjuvant endocrine therapy. The factors predicting survival were node status at surgery, $p=0.0007$, change in Ki67 between baseline and 3 months, $p= 0.0029$ and tumour grade, $p=0.04$.

Neoadjuvant chemotherapy and tumour markers

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Notes

Locally Advanced Breast Cancer (LABC) comprise a heterogeneous subset of patients with breast cancer and has been defined to include patients with **inoperable disease at initial presentation** due to size of tumour and extension to surrounding structures and fixed axillary nodes or supraclavicular nodes as well as patients with inflammatory breast cancers (IBC).[1,2] However, some studies have also included patients with tumours > 5 cm in size (T3NO T3N1). The focus of this talk will be the management of patients with stages 3B and 3C breast cancers including IBC. These are relatively uncommon and comprise < 10% of women diagnosed with breast cancer in the western world. Although LABC and IBC are commonly grouped together, there are distinct biological differences between the 2 entities. IBC is more common in younger women, and more likely to be ER-ve and HER2 +ve whereas LABC includes patients with neglected low grade ER+ ve breast cancers as well more rapidly progressive ER- ve cancers.[1] The likelihood of metastatic spread is much higher in these patients and staging is indicated to rule out stage 4 disease.[1,2]

Although there have been a number of randomised trials of neoadjuvant chemotherapy vs. adjuvant systemic therapy in women with **operable** breast cancer [3] there have been no such studies in women with LABC / IBC, but nevertheless it is rational to offer primary systemic therapy unless there are significant co-morbidities that preclude chemotherapy followed by loco regional therapy.[1,2,4-6] Clinical response rates of 50-95% have been reported with pathological CR in 20- 30% of patients.[1-3] There are a wide range of chemotherapy regimens that can be used and there are intriguing results reported with metronomic regimens as well as with trastuzumab and chemotherapy combinations. The recent NOAH study investigating the impact of trastuzumab to anthracycline and taxane based chemotherapy reported a 45% pathological CR in patients with HER2+ve LABC/IBC at the recent European Breast Cancer Conference in Berlin. There are significant variations to the approach to loco-regional management with some centres using radiation alone following chemotherapy and others advocate surgery followed by radiation and adjuvant hormonal therapy if hormone receptor positive.[5-7] In the absence of randomised data it is not possible to be dogmatic as to what is the best approach to loco regional management. As a general rule, if surgery is possible, a mastectomy and axillary dissection are indicated and breast conserving therapy would be rarely if ever be carried out in this population of patients. There are data to suggest that SLND is not accurate for IBC and there are also limited data on SLND for LABC and it is not generally recommended[2.] Despite the lack of trials, post mastectomy radiotherapy should be administered following surgery and the local control rates have been reported to be very high in some but not all series.[4-7] Patient selection is almost certainly the key factor and a multidisciplinary assessment is imperative.

There are a number of studies evaluating combinations of targeted agents and more novel approaches to management including the use of novel "tumour markers" including gene arrays, expression of HER2, ER, Proliferative Fraction amongst others to allow individualisation of treatment.[8-10]

Notes

Selected References

1. Franceschini G, Terribile D, Fabbri C, Magno S, D'Alba P, Chiesa F, Di Leone A, Masetti R Management of locally advanced breast cancer. Mini-review. *Minerva Chir*. 2007 Aug;62(4):249-55. Review.
2. Chia S, Swain SM, Byrd DR, Mankoff DA Locally advanced and inflammatory breast cancer. *J Clin Oncol*. 2008 Feb 10;26(5):786-90. Review.
3. Gralow JR, Burstein HJ, Wood W et al. Preoperative therapy in invasive breast cancer: pathologic assessment and systemic therapy issues in operable disease. *J Clin Oncol*. 2008 Feb 10;26(5):814-9. Review.
4. Low JA, Berman AW, Steinberg SM, Danforth DN, Lippman ME, Swain SM Long-term follow-up for locally advanced and inflammatory breast cancer patients treated with multimodality therapy. *J Clin Oncol*. 2004 Oct 15;22(20):4067-74
5. Recht A Locally advanced breast cancer and postmastectomy radiotherapy. *Surg Oncol Clin N Am*. 2000 Jul;9(3):603-20, x-xi. Review
6. Bristol IJ, Woodward WA,Strom EA, et al. Locoregional Treatment Outcomes After Multimodality Management Of Inflammatory Breast Cancer. *Int J Radiat Oncol Biol Phys.* 2008 Apr 24. [Epub ahead of print]
7. Ahern V, Brennan M, Ung O, Kefford R Locally advanced and inflammatory breast cancer.*Aust Fam Physician*. 2005 Dec;34(12):1027-32.Review.
8. Tewari M, Krishnamurthy A, Shukla HS Predictive markers of response to neoadjuvant chemotherapy in breast cancer. *Surg Oncol*. 2008 May 6. [Epub ahead of print]
9. Nagasaki K, Miki Y.Molecular prediction of the therapeutic response to neoadjuvant chemotherapy in breast cancer. *Breast Cancer*. 2008;15(2):117-20.
10. Nolen BM, Marks JR, Ta'san S, Rand A, Luong TM, Wang Y, Blackwell K, Lokshin A Serum biomarker profiles and response to neoadjuvant chemotherapy for locally advanced breast cancer. *Breast Cancer Res*. 2008 May 12;10(3):R45. [Epub ahead of print]

Sentinel node biopsy and surgery for locally advanced breast disease

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Notes

10% of breast cancers present as locally advanced disease (LABC).[1] In LABC there has been a greater emphasis on preventing the progression of micrometastatic systemic disease, whilst controlling local disease. Although not offering a survival benefit over postoperative chemotherapy, neoadjuvant therapy has become standard regime for these patients with the intent of making a lesion operable or of conserving the breast, in addition to detecting chemo-sensitivity. Surgery usually follows neoadjuvant therapy but there are still unresolved issues around this component of care.

Although in other settings loco-regional control has been demonstrated to potentially convey a small survival benefit, the impact on survival in the LABC setting is probably negligible and this is confirmed by studies looking at neoadjuvant therapy patients undergoing breast conservation who did not have a survival disadvantage compared to those who had mastectomy.[2] Therefore the benefit of performing mastectomy in a patient with LABC, who has been rendered conservable by neoadjuvant therapy lies mostly in optimizing loco-regional control and the acquisition of clinico–pathological or prognostic information.

The most accurate prognostic information for these patients is the clinico-pathological response to chemotherapy[3] and hence the nodal status pre, but more importantly post chemotherapy is important to establish. Traditionally, clinical, radiological assessment and ultrasound guided biopsy have been the tools used to assess the axillary status prior to neoadjuvant therapy while axillary clearance has been the gold standard for staging the axilla after neoadjuvant therapy. The role of sentinel node biopsy (SNB) remains controversial in this setting, largely for two reasons. Internationally, SNB is accepted as standard for T3 and T4 tumours[4] (excluding patients with inflammatory breast cancer) but its accuracy is questioned and at present in Australia, this is still being addressed by the SNAC 2 trial. In addition, the accuracy of sentinel node biopsy procedure itself, post neoadjuvant chemotherapy, is much debated. Standard surgical approaches to patients with LABC are therefore still evolving, but as survival outcomes continue to improve may become ever more important.

References

1. Valero V et al Locally Advanced Breast Cancer. *The Oncologist,* 1996 1:8-17
2. Wolmark N et al. Preoperative chemotherapy in primary operable breast cancer: nine year results from NSABP B-18. *Journal of the National Cancer Institute*. Monographs,2001(30):p96-102.
3. Kuerer HM et al. Residual metastatic axillary lymph nodes following neoadjuvant chemotherapy predict diseases free survival in patients with locally advanced breast cancer. *Am J Surg* 1998;176;502-509.
4. Chung et al Role for sentinel lymph node dissection in the management of large (> or =5cm) invasive breast cancer. *Ann Surg Oncol* 2001;8:688-92.

Notes