



sydney breast clinic
peace of mind

Staying ABREAST



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Winter 2009

VACUUM-ASSISTED (MAMMOTOME®) PRONE BIOPSY SERVICE

If a breast abnormality has been detected, a breast biopsy may be necessary to establish a diagnosis. Different methods of breast biopsy are available depending on the abnormality that is identified.

Typically, the finding of very small abnormalities such as tiny calcium deposits (microcalcifications) requires a biopsy using an x-ray guided vacuum-assisted (Mammotome®) technique. Biopsy by this method can establish a highly accurate diagnosis, using local anaesthesia and with minimal pain, scarring and recovery time.

Unlike the traditional add-on biopsy unit in which the whole procedure can be visualised by the patient, the prone table at Sydney Breast Clinic makes it possible to have the biopsy performed in a comfortable environment; the mammographic unit and needle guidance system are located under the table out of the patient's direct sight which minimises the patient's anxiety and motion and further increases the likelihood of an accurate biopsy.

Case 1

Intraduct Carcinoma (DCIS)

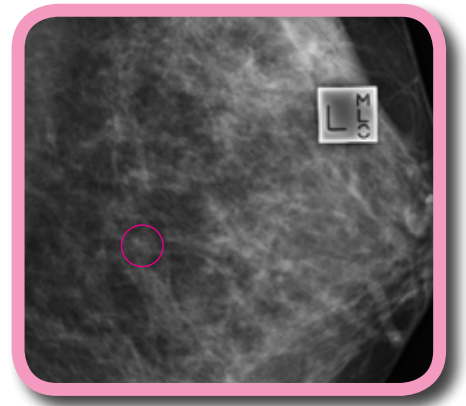
Diagnostic Team

Breast Physician: Dr Sue Fraser

Consultant: Dr Khimling Tew

Radiologist: Dr Nigel Hunter

Sonographer: Carolyn Hummerston



The patient, aged 58, attended Sydney Breast Clinic for evaluation of a left breast pain/discomfort associated with breast lumpiness. Her clinical history revealed no significant risk factors. She was post menopausal.

Clinical examination was unremarkable; general texture of both breasts was described as lumpy. The axillary and supraclavicular regions bilaterally were normal.

Mammotome® Biopsy and Open Surgical Biopsy compared:

Mammotome® Biopsy		Open Surgery
Probe gently vacuums, cuts and removes breast tissue through a tiny incision	DESCRIPTION	Surgeon creates a larger incision to remove breast tissue. X-ray wire procedure also required to help locate breast change if it cannot be felt
Local in the skin	ANAESTHETIC	General anaesthetic
Approximately 3mm	INCISION SIZE	Approximately 3cm
Minimal or nil	SCARRING	External scar and internal scar
Clinic/outpatient setting	SETTING	Operating room
Approximately 30 min - 1hr	DURATION	Approximately 1 - 2 hrs
Immediate	RECOVERY TIME	A few hours
Adhesive bandage	INCISION CLOSURE	Stitches and bandage

Inside this issue:



Breast Screening

Clinical Breast Examination and Mammogram - \$220



GP Education with Dr John Eden

"Hormones and the breast"
Thursday 27th August, 5pm



Correlation of Needle Biopsy Results

Case Report by Associate Professor Mary Rickard and Dr Peter Earls

To book an appointment call **1300 65 30 65**

www.sydneybreastclinic.com.au

The mammography showed in the left breast at 9 o'clock, 70 mm from the nipple, multiple clusters of pleomorphic microcalcifications which were suspicious. These extended over a distance of 4 cms. The mammographic breast density was described as Category 3 (50-75% glandular).

Breast ultrasound was performed and showed no signs of malignancy. In view of the mammographic findings a vacuum assisted biopsy of the left breast lesion at 9 o'clock was performed. The pathology revealed *Intraduct Carcinoma (Code 5)*.

The patient was recommended for surgical referral for management of her DCIS.

Case 2

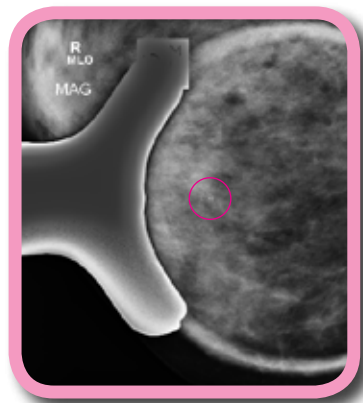
Fibrocystic Change

Diagnostic Team

Consultant: Dr Fred Niesche

Radiologist: Dr Denis O'Brien /
Dr Mary Rickard

Sonographer: Val Briggs



The patient, aged 64, attended Sydney Breast Clinic for a check as she had no current symptoms. Her clinical history revealed several potential risk factors including a family history of breast cancer (categorised according to NBOCC guidelines as Breast Cancer Risk Category 1, average risk), a current use of hormone replacement therapy for more than 5 years, and a known mammographic density of Category 4.

Clinical examination was unremarkable; general texture of both breasts was identified as lumpy and the axillary and supraclavicular regions bilaterally were normal.

The mammographic breast density was described as Category 4 (>75% glandular). The mammogram showed two clusters

of indeterminate calcifications in the right breast at 6 o'clock, 60 mm from the nipple.

Breast ultrasound was performed and showed no signs of malignancy.

In view of the above findings a vacuum assisted (Mammotome) biopsy of right breast calcifications was carried out. An adequate sample was obtained (as demonstrated by the specimen radiograph) and most of the calcifications in this cluster were removed. The pathology revealed Benign Fibrocystic change (Code 2).

Multidisciplinary correlation of the results of the above tests was performed. The follow up recommendation was for Risk Assessment in 12 months in view of the history of hormone replacement usage and the category 4 mammographic density. The patient was informed of the need to check for breast changes, and to see her doctor for prompt assessment of any findings, and to see her doctor for a routine annual clinical examination.

Discussion: "These cases are presented to illustrate the importance of the detection and appropriate mammographic work-up of breast calcifications and their subsequent classification into the three categories of benign, indeterminate and suspicious/malignant. Appropriate work-up must always include magnification views of the micro calcification to ensure accurate classification. All indeterminate and suspicious/malignant calcification must be subject to core biopsy by stereotaxis and preferably vacuum-assisted biopsy. Of the indeterminate calcifications - 80% will turn out to be benign and - 20% will be pre-invasive, invasive cancer or a pre-cancerous lesion. Suspicious/malignant calcifications discovered on mammogram often represent very early or pre-invasive cancer so its appropriate work up is vital in our efforts at early detections of breast cancer in our screening and diagnostic patients. The vast majority of pre-invasive cancers will be totally curable." Dr Sue Fraser, Senior Breast Physician.

BREAST SCREENING

Sydney Breast Clinic recommends that women aged 40 years and over, who show no symptoms of breast change and have no family history of breast cancer should be having regular screening mammograms. Patients in this demographic who attend the Breast Screening Clinic at SBC will pay just **\$220.00** for a breast check.

The Medicare rebate for a patient's consultation ranges from \$33.55 to \$67.20. Minimum cost to the patient is \$152.80. The rebate is only available for women who are 40 years of age and older who have no symptoms of breast change or a family history of breast cancer and are referred to the Clinic by a doctor or medical specialist. For more information on the Medicare Benefits Schedule visit MBS online www.health.gov.au

What happens during a Breast Screening at Sydney Breast Clinic?

A multidisciplinary team will be involved throughout the process of your patient's Breast Screening. This team may include; a Breast Surgeon, Breast Physician, Radiographer, Sonographer, Radiologist and Clinic Nurse. Breast Screening at the Clinic takes approximately one hour and involves:

1. Clinical Breast Examination: a Breast Surgeon or Breast Physician will document the patient's breast and general medical history and examine both breasts, armpits and neck.

2. Mammogram: a very low dose, digital x-ray of the breast tissue involving compression of the breasts for a few seconds. Some women find the compression of the breast uncomfortable, but only a few find it painful. All the Clinic's Radiographers are highly skilled and aim to minimise discomfort.

A recommendation is made about the need for further screening, with ultrasound examination or for biopsy if an abnormality is found. Patients are informed of all results and a recommendation is made about the need for further tests, such as an ultrasound or biopsy.

“ Having a single test is not always enough to detect cancer. The misconception that a single test is enough is especially prevalent for younger women; a mammogram alone is not as reliable due to the sometimes dense nature of breast tissue in this age group, ” said Dr Sue Fraser.

At Sydney Breast Clinic all procedures can be performed on the same day which can reduce stressful waiting times and the need for multiple return visits to medical specialists for further tests.

CORRELATION OF NEEDLE BIOPSY RESULTS

Associate Professor Mary Rickard and Dr Peter Earls

The investigation and management of breast lesions is based on the findings of the Triple Test. This involves:

1. Medical history and clinical breast examination
2. Imaging - mammography and/or ultrasound
3. Biopsy - cytology and/or core biopsy

While it is not necessary to use all three components in all cases, needle biopsy, when required, is used to establish a definite diagnosis and inform patient management.

As with all investigations there are many components that lead to the establishment of a correct outcome. For needle biopsy these include:

- An expert biopsy technique
- A thorough and expert clinical and imaging assessment prior to biopsy
- Sampling of the correct lesion, with use of the appropriate imaging guidance
- Supply of the appropriate clinical and imaging information to the pathologist
- Pathology interpretation expertise
- Multidisciplinary correlation of the results to ensure concordance

It is essential that the multidisciplinary team members know what to expect from the biopsy and that they correlate the Triple Test results to ensure that the pathology findings adequately explain the clinical and imaging results.

All Triple Test components have true positive, true negative, false positive and false negative rates and therefore results should be documented, monitored and evaluated against good standards of practice. In this way quality improvement can be achieved.

The following case report illustrates some of the issues discussed above.

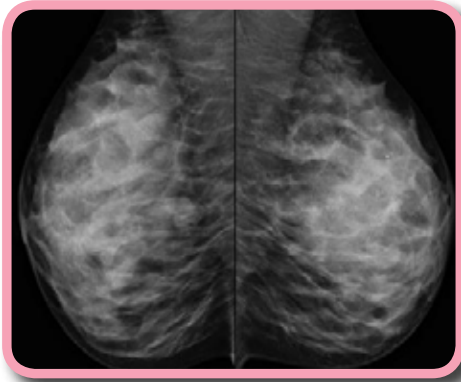
Case Report

Clinical History & Examination

A 35 year old asymptomatic, pre-menopausal woman with no past history of breast disease presented for risk assessment. She had a family history of breast cancer and this was assessed as NBOCC category 2 (moderately increased risk).¹

On clinical examination there was a lumpy thickening identified at the left 12 o'clock position. This was considered benign, clinical code 2. There were no other significant clinical findings.

Breast Imaging ²



Bilateral Mammogram, MLO view

The mammographic density was described as ACR category 4 (>75% glandular). A well defined, multi-lobulated mass lesion was noted at the right 8 o'clock position. This had benign features, mammographic code 2 (benign). No abnormality was seen in the area of clinical interest and no other significant finding was identified.

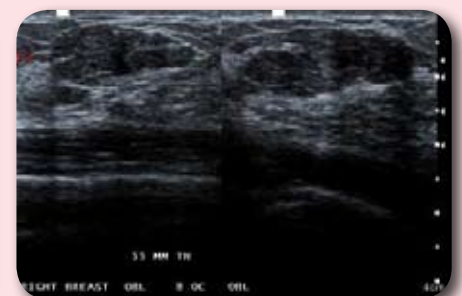
Bilateral breast ultrasound showed that the clinical lesion at the left 12 o'clock position corresponded to a relatively well defined, multi-lobulated, solid, ovoid mass lesion. The mammographic lesion at the right 8 o'clock position corresponded to a mass lesion with similar sonographic appearances. Two further right breast lesions with similar sonographic features were identified, at the 7 and 1 o'clock positions. All of these lesions had features consistent with but not diagnostic of benign fibroadenomata, ultrasonographic code 3 (indeterminate).

Needle Biopsy

The question to be considered at this stage was whether one or more of the lesions required needle biopsy. As the findings on ultrasound are code 3, and not diagnostic of benign lesions, biopsy is indicated. Given that there are multiple lesions present bilaterally and these have similar ultrasonographic features, it was considered appropriate to biopsy only one of the lesions, as any one would be representative of all the lesions.

The next question for consideration was what type of needle biopsy should be used – fine needle aspiration cytology (typically 25 gauge) or core biopsy (typically 14 gauge). This decision is based on the expected

Bilateral Ultrasound Images



pathology, i.e. the provisional diagnosis based on the clinical and imaging findings. In this case the provisional diagnosis is multiple fibroadenomata. It would be expected that fibroadenomata in a patient of this age would be cellular and readily diagnosed on cytology. A core biopsy would be required only if the cytology sampling proved inadequate or to have atypical or suspicious features.

Therefore ultrasound-guided fine needle aspiration cytology was performed on one lesion, that at the right 7 o'clock position

Correlation of Triple

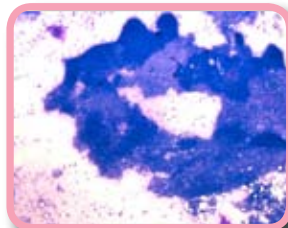
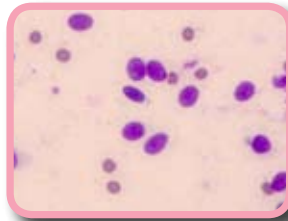


RT BREAST 7 O'Clock 50 mm From Nipple

Ultrasound - guided fine needle aspiration biopsy of right breast lesion

Test Findings

Cytology examination showed stromal fragments and bare bipolar nuclei, a pattern diagnostic of a benign fibroadenoma. As this was consistent with the provisional diagnosis based on clinical and imaging findings, the results were considered to be concordant and diagnostic.



Cytology showing feature diagnostic of fibroadenoma

Patient Management

Fibroadenoma is a benign lesion and multiplicity and bilaterality are common. Fibroadenoma is not associated with an increased risk of malignancy. Malignancy may

occur in a fibroadenoma, with approximately the same risk as for carcinoma occurrence in the adjacent breast tissues. Therefore once a diagnosis is established, no specific management is required for a fibroadenoma. Excision is required only if the patient requests this or for cosmetic or comfort reasons due to lesion size.

This patient has a significant family history (category 2) and mammographically dense breasts (category 4)³. both of which put her at increased risk of breast cancer development. Annual clinical, mammographic and ultrasonographic ⁴ screening would be appropriate for the on-going monitoring of this patient.

As the patient's family history indicates a moderate and not a high risk of breast cancer based on NBOCC criteria, she is not eligible for Medicare rebated breast MRI screening. ⁵

- [1. http://www.nbocc.org.au/bestpractice/resources/BOG182_adviceaboutfamiliala.pdf](http://www.nbocc.org.au/bestpractice/resources/BOG182_adviceaboutfamiliala.pdf)
- [2. http://www.nbocc.org.au/bestpractice/resources/BIG226_synopticbreastimaging.pdf](http://www.nbocc.org.au/bestpractice/resources/BIG226_synopticbreastimaging.pdf)
- [3. http://www.nbocc.org.au/resources/clinicalupdate/cubc-iss27.html#summary](http://www.nbocc.org.au/resources/clinicalupdate/cubc-iss27.html#summary)
- [4. http://www.ncbi.nlm.nih.gov/pubmed/18477782?dopt=Abstract](http://www.ncbi.nlm.nih.gov/pubmed/18477782?dopt=Abstract)
- [5. http://www.health.gov.au/internet/main/publishing.nsf/Content/mri-breast-qa](http://www.health.gov.au/internet/main/publishing.nsf/Content/mri-breast-qa)

What our patients say...

“ The Clinic provides a very high standard of care. It is great that you get all the tests, consultations etc. done on the spot. The staff have an exceptionally caring manner. The service is wonderfully caring. The whole environment great with tea/coffee facilities and lovely bathroom. Keep it up! ”

Hlona Johnson

Patient at Sydney Breast Clinic

We Value Your Feedback

Sydney Breast Clinic is committed to improving its services to you and your patients. With this in mind, we have recently undergone a review of our services with referring GPs and medical specialists.

76% of referring GPs rated the service at the Clinic as 'Excellent.'

If you have not received a questionnaire and would like to take part in our survey, please send an email to the Clinic's Product Manager, Gemma Sullivan via gsullivan@sydneybreastclinic.com.au. Our sincere thanks to all the GPs and medical specialists who have given up their time to provide us with their feedback to date.

GP EDUCATION

Archived recordings of the Clinic's recent webinars are now available to download from the 'Resources' section of our website www.sydneybreastclinic.com.au.

- 'Staging of Breast Cancer' by Dr Khimling Tew
- 'Benign Breast Conditions' by Dr Warren Hargreaves.

The RACGP acknowledges the personal learning value of various activities; GPs are therefore encouraged to self-record this activity using the QA&CPD online services.

Sydney Breast Clinic is pleased to welcome Dr John Eden from the University of New South Wales to the Clinic later this month to deliver a webinar on 'Hormones and the Breast'. Dr Eden's presentation will be held at Sydney Breast Clinic on Thursday 27th August at 5pm.

"Hormones and the breast" by Dr John Eden

Thursday 27th August at 5pm.



"Over the last decade, there has been a dramatic increase in both clinical and basic research into the effect of sex-hormones on the breast. Clinical trials of different types of hormone therapy (HT) suggest that the impact of oestrogen only HT on breast cancer risk is small, even negligible. In contrast, there is clear evidence that oestrogen-progestin HT is associated with a small increase risk of breast cancer.

Why the difference?

In the last few years, breast cancer stem cells have been identified and are usually ER, PR negative. These stems produce some transient, intermediate daughter cells which are usually PR positive. Kathryn Horwitz's group have shown that in the presence of progesterone or progestin, these intermediate forms convert back into breast cancer stem cells. In the absence of progesterone, these intermediate forms change into ER+PR+ breast cancer cells, which then can be stimulated by oestrogen. There is abundant evidence that HT does not cause breast cancer, but that a small, perhaps clinically undetected breast cancer can be stimulated to grow."

About Dr John Eden: Dr John Eden graduated from the University of NSW in 1979 and became a fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) in 1988. Dr Eden was amongst the first group of specialists to be accredited as a reproductive endocrinologist.

Dr Eden is Associate Professor of Reproductive Endocrinology at The University of New South Wales, Sydney. He is also Director of the Sydney Menopause Centre, the Natural Therapies Unit and the Barbara Gross Research Unit; all located at the Royal Hospital for Women. He is a certificated Reproductive Endocrinologist and has research interests in the areas of managing menopause after breast cancer, polycystic ovary syndrome, osteoporosis, biofilms, hormone replacement therapy as well as herbal medicine.

Referring GPs and medical specialists are invited to attend this event in person and also take the opportunity to talk to our team of Breast Surgeons, Breast Physicians, Radiologists, Pathologists, Radiographers, Sonographers and Nurses. Guests are also

invited to attend the Clinic's multi-disciplinary meeting which follows the presentation where the team discuss cases of interest.

To register your interest to attend 'Hormones and the Breast' at Sydney Breast Clinic please email Gemma Sullivan, gsullivan@sydneybreastclinic.com.au. Alternatively, to receive your exclusive email invitation to view Dr Eden's presentation online please email education@sydneybreastclinic.com.au clearly marking 'Webinar' in the subject heading.

Remember, if you are unable to attend the live broadcast you can download the presentation from www.sydneybreastclinic.com.au

What is a webinar?

Short for **Web**-based seminar, a webinar is a presentation, lecture, workshop or seminar that is conducted over the Internet. Each participant sits at his or her own computer and views a presentation over the web. The audio which accompanies the presentation can be heard through the participants telephone line or via the speakers on their computer.

DATES FOR YOUR DIARY:

Wednesday, 16th September
Breast Symptoms
Dr Sue Fraser

Wednesday, 28th October
Breast Reconstruction
Dr Cindy Mak



NEW PATIENT INFORMATION

A large number of health professionals who completed our questionnaire have requested some information about Sydney Breast Clinic to give to patients after referring them to the Clinic. As a result we are preparing a suite of brochures each one dedicated to the services we provide at the Clinic:

- **Diagnostic Assessment Clinic**
- **Risk Assessment Screening Clinic**
- **Breast Screening Clinic**
- **Bone Mineral Density Testing**

To place your order for our new brochures to be delivered to your practice, please email info@sydneybreastclinic.com.au with 'Patient Brochures' in the subject line.

Sydney Breast Clinic Staff

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Dr Nigel Hunter
Dr Michael Jones
Dr Elizabeth Lim
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Dr Mary Rickard
Dr Wayne Wong

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Dr Lauren Arnold
Dr Annette Bemand
Dr Sue Fraser
Dr Fran Jones
Dr Naomi McIntyre
Dr Margo McKern

Did you know?

All medical specialists and/or their spouse are bulk billed at Sydney Breast Clinic? Why not book an appointment to have a breast check and experience the Clinic's facilities first hand.

Call **1300 65 30 65**.

Where is Sydney Breast Clinic?

Sydney Breast Clinic is located at Level 12, 97-99 Bathurst Street, Sydney NSW.



About Sydney Breast Clinic:

Sydney Breast Clinic is Australia's leading private breast clinic dedicated to detecting and diagnosing breast cancer since 1978. For diagnosis with an accuracy of 99.6%, the Clinic performs the Triple Test within a single day with results returned that same day. This efficiency and accuracy is achieved by the multidisciplinary team at the Clinic which consists of Breast Surgeons, Breast Physicians, Radiologists, Pathologists, Radiographers, Sonographers and Nurses. Sydney Breast Clinic provides women with a sensitive, comforting and positive environment, reducing waiting time and the need for multiple return visits to medical specialists.