IMPROVING HEALTH AND WELLBEING AFTER BREAST CANCER SURGERY

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Right breast cancer
Breast cancer - MAMMOGRAM
Diagnosis

- Mammogram, US
- and MRI
- Biopsy
- Staging Investigations
DIAGNOSIS

Preop workup –
fertility/ gene testing/plastic surgeon/gynae/oncologist
Breast care nurse/ psychologist/ psychiatrist/anaesthetist

MDM DISCUSSION

SURGERY
Surgery

> Breast Surgery
  > Breast conservation
  > Mastectomy
  > Breast reconstruction

> Axillary Surgery-

> SLNB/ALND
“UNPREDICTABLE BEAST”

FEAR- FEAR- FEAR- FEAR -FEAR -FEAR –FEAR- FEAR –FEAR -FEAR!!!!!!!
BREAST CARE NURSE / PSYCHOLOGIST
BREAST CONSERVATION- HOOKWIRE PLACEMENT
Lymphoscintogram – sentinel lymph node biopsy
Wide local excision = lumpectomy and sentinel lymph node biopsy
Specimen – right breast cancer
BLUE DYE
Day one post operation – breast conservation surgery – Lumpectomy and sentinel lymph node biopsy
Types of Mastectomy

• Radical
• Simple
• Skin-sparing
• Nipple-sparing
Radical Mastectomy
Simple Mastectomy

Skin-Sparing Mastectomy

Nipple-Sparing Mastectomy
Simple Mastectomy
PROPHYLACTIC MASTECTOMY AND RECONSTRUCTION

Patients with BRCA mutations have a high risk of developing late ipsilateral and contralateral second primary breast cancers.
Risk Reducing Mastectomy

• Several studies of high risk women show RRM offers a 90-95% risk reduction in the development of breast cancer

• 81-94% risk reduction in death from breast cancer

Hartmann et al NEJM 1999
Follow up after RRM

- New lifetime risk 3-9%
  - ie (90-95% reduction of 60-85% lifetime risk)

- Most recurrences would be within skin & detectable by examination

- No role for surveillance imaging of reconstructed breast
Prophylactic Mastectomy for High and Moderate Risk Breast Cancer Candidates

- 639 patients with family hx for breast cancer.

Demonstrated risk reduction by 90-95%

90% of the mastectomies were subcutaneous (a.k.a. NSM), mostly IMF incision

PROPHYLACTIC MASTECTOMY: Selection Principles

- Patient selection must be individualized
- Psychological evaluation critical
- Decision making should not be rushed
- Ultimately only the patient can decide
The decision to undergo risk-reducing surgery can be a complex one. There are many issues to consider.

Even after a decision has been made, the process, including surgery and beyond, can be physically and emotionally challenging.

For these reasons, many women find it helpful to have one or more consultations with a psychologist who is knowledgeable and familiar with the impact of risk-reducing surgery.

Consultation with a psychologist is not an assessment of suitability for surgery or about competence in making decisions. It is an opportunity to discuss the decision.
International Rates of Breast Reconstruction post mastectomy

70% BRCA 1/2 mutation carriers have reconstruction after prophylactic mastectomy

Compared to

5-29% of women having a mastectomy for breast cancer
International Immediate breast reconstruction rates in patients with breast cancer

- USA - 30%
- Stockholm – 30%
- UK - 11%
- Australia – 10%
Potential Safety Concerns

- **Oncological Safety**
  - risk of development of breast cancer in the preserved nipple

- **Surgical Complications**
  - skin flap /nipple necrosis
Multidisciplinary meeting - review pathology

- Surgeon
- Pathologist
- Radiologist
- Medical oncologist
- Radiation oncologist
- Breast care nurse
Post Op Care - Adjuvant treatment

- Chemotherapy
- Herceptin
- Radiotherapy
- Endocrine treatment
- Lifestyle modifications
Don’t forget-
Men get breast cancer too!
ANNUAL BREAST IMAGING
( MAMMOGRAM+ US)

CLINICAL REVIEW

WHO?
>5YRS- BREAST SCREEN
Contralateral Risk

- Women in the general population with breast cancer have an estimated 20 yr cumulative risk of contralateral Ca of 4-21%
- BRCA carriers have a lifetime risk of contralateral Ca of up to 65%
- Sporadic contralateral risk approx 0.6% / annum
- BRCA -approx 3- 5% / annum (higher rate may be limited to pts initially diagnosed at younger age)
- Metcalfe, 2004 - 10 yr CBC risk 43% BRCA1, 35% BRCA2
Contralateral Breast Issues

• **Risk Reduction** – surgical vs non surgical, ie chemoprevention, BSO
  
  important to consider prognosis of index Ca

• **Reconstruction** – need to consider multiple issues
LIFESTYLE FACTORS

Affluence: Western countries - higher socio-economic status
Alcohol: There is a dose-related increase for each additional standard drink p/day
Obesity: Postmenopausal overweight and obese women (BMI >25) have a higher risk of breast cancer recurrence

EXERCISE: 150 MINS/ WEEK   CIGARETTE SMOKING: QUIT !!!
EXERCISE
EXERCISE

• Systematic review > 100 studies – impact of exercise on the prognosis and wellbeing of people with cancer.
• >68,000 PATIENTS
• Lower RR - cancer mortality (28-44%)
• Lower RR- cancer recurrence (21-35%)
• Lower RR- all cause mortality
• Improves cancer related fatigue, psychosocial health, quality of life, bone health, sexual function, lymphedema
• Enhances surgical outcome
EXERCISE – BIOLOGICAL MECHANISMS

POSITIVE CHANGES -
Immunity, inflammation, oxidative stress, metabolic and sex hormones

GET YOUR PATIENTS TO SEE AN EXERCISE PHYSIOLOGIST – for cancer specific community based best practice exercise services
HOW MUCH?  240 MINUTES/WEEK

• 150 MINUTES /WEEK – moderate intensity aerobic exercise
  • ( eg – 30 minutes brisk walking 5 days /week)

• And

• 3 x 30 minute resistance exercise /week – moderate intensity targeting major muscle groups
WHAT IS BREAST CANCER RELATED LYMPHOEDEMA?

• Chronic swelling of the arm on the affected side which may include the corresponding quadrant of the trunk
• It is caused by failure of the lymphatic system to remove a normal load of protein, water and possibly other nutrients from the interstitium and return it to the vascular compartment
• Tends to be a progressive disease and is resistant to drug therapy
• Results from disruption or obstruction of the lymphatics associated with breast and axillary node surgery or the tumour itself, and may be exacerbated by chemotherapy (taxanes) and/or radiotherapy
• Influenced by individual factors such as medical/surgical history, chronic disease, obesity, inactivity, old age, advanced disease
• Can be triggered by factors such as infection, trauma, heat
Occurrence rates:
- up to 7% after Sentinel Lymph Node Biopsy
- up to 20% after Axillary Node Dissection
- up to 30% if radiotherapy

Average onset of lymphoedema is 3 years post surgery/treatment.

Patients are often very focused on developing lymphoedema. It is important for the patient to understand that breast cancer related lymphoedema is **less** likely to occur rather than **more** likely.

**PATIENT EDUCATION, EARLY DETECTION**
AND PROMPT MANAGEMENT IS THE KEY!
Pre-operative/treatment assessment and education

Ideally provide pre-operative/treatment assessment with the following:

• Comprehensive subjective and objective assessments

• Baseline measurements of arm volume or using multifrequency bioimpedence then regular interval follow up to aid with early detection.

• Evidence based verbal education and written information regarding lymphoedema, risk factors, what to look for and where to go for appropriate treatment if needed (provide patient with name and contact details of a local Lymphoedema Practitioner)

• Develop an individualised, evidence based risk minimisation protocol to facilitate early detection and prompt treatment thereby reducing the impact of the disease.
RISK REDUCTION

Advise patients to do the following:

• Maintain optimal body weight
• Eat a balanced diet including plenty of fresh fruit and vegetables
• Engage in daily physical activity to aid the flow of lymph fluid
• Moisturise skin regularly to prevent dryness and cracking
• Attention to nail care
• Take precautions to avoid injury to area of risk eg. use high factor sunscreen, insect repellent and wear protective gloves and clothing when gardening
• Be vigilant if skin injuries do occur and seek medical attention if any signs of infection develop
• Act promptly if you feel any changes such as aching, heaviness, tightness or stiffness in the limb or quadrant of the affected side to initiate early intervention
Management = multi-treatment approach

- Patient education – face-to-face, written information, videos, resources
- Skin care – meticulous skin and nail observation and care, aim to avoid skin trauma, reduce the risk of infection and act promptly if infection identified
- Lifestyle measures - exercise/movement to promote lymph flow and maintain good limb function, maintain a healthy weight range and eat a balanced diet
- Manual lymphatic drainage – very gentle massage that encourages lymph flow and is carried out by a Lymphoedema Practitioner
- Compression therapy – to reduce the size and improve the condition of the limb then maintain and optimise treatment (fitted by a Lymphoedema Practitioner)
- Psychosocial care including goal setting
- Instruction in self care and self lymphatic massage
RESOURCES FOR PATIENTS

• AUSTRALASIAN LYMPHOLOGY ASSOCIATION

• BCNA

• Cancer Australia
ALCOHOL

DRINKING JUST ONE GLASS OF ALCOHOLIC BEVERAGES PER DAY CAN INCREASE BREAST CANCER RISK

HOW MUCH?

NO MORE THEN 2 STANDARD GLASSES ON NO MORE THEN 3 DAYS PER WEEK
PSYCHOLOGIST

• SELF IDENTITY – Psychological and physical
• Health
• Vitality
• Feminity
• Intimacy
• Emotional Stability
• Sexuality
• Body image
SPECIFIC FOLLOW UP – Evidence Based

**SERIAL CT scans** – NO evidence for breast cancer, no difference in survival

**Echocardiogram** – (Chemo/Herceptin) – only if symptoms

**Bone Mineral Density scan** – early menopause due to chemotherapy or surgical menopause – do a baseline BMD and follow up depends on score

  On an Aromatase Inhibitor- annual BMD

**Pelvic US**– only if on tamoxifen and post menopausal bleeding

DON’T FORGET STANDARD GENERAL HEALTH – FOBS/ PAP/BP/CHOLESTROL/BSL
No, They’re Not Real
The Real Ones Tried to Kill Me
Support Breast Cancer Advocacy