Follow-up Care of Breast Cancer Patients

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Disclosures

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- **Ownership:** none
- **Research funding:** none
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Breast cancer scenario – Mrs. M

- Mrs. M is a 55-year-old, peri-menopausal woman
  - PMHx: Wolff-Parkinson-White, GERD, hypothyroid

- Normal screening mammogram 2016

- Presented with firmness of left nipple, and discharge in late 2017

- Bilateral mammogram, and ultrasound of left breast was normal
Breast cancer scenario – Mrs. M

• Biopsy of nipple-areolar complex
  – Invasive ductal carcinoma, grade 3
  – ER+ PR+ Her2-negative

• Ultrasound of left axilla showed multiple abnormal lymph nodes
  – Core biopsy of axilla node = ductal carcinoma

• Staging investigations for metastatic disease, including CT scan and bone scan, were negative

• Left mastectomy + axilla lymph node dissection
  – pT1c (1.6 cm) pN2a (5/17 nodes), margins negative
Breast cancer scenario – Mrs. M

- Oncologist indicates a high risk of recurrence, more than 50% in the next 10 years
  - Recommends adjuvant chemotherapy, and radiotherapy

- Adjuvant hormonal therapy initiated
  - Plan for up to 5 years **Tamoxifen** followed by up to 5 extra years **Aromatase inhibitor**
  - Accompanied by bisphophonate
Breast cancer scenario – Mrs. M

• Treatment completed 12 months after her first imaging
  – Breast biopsy
  – Lymph node biopsy
  – Staging CT scans and Bone scan
  – Mastectomy + axilla lymph node dissection
  – Echocardiogram, Cardiology consultation
  – 8 chemotherapy treatments over 16 weeks
  – 16 fractions of radiotherapy to chest and axilla
  – Endocrine therapy, and bisphosphonate commenced

• After all of that...
  – You receive a discharge letter from BC Cancer requesting you to kindly coordinate follow-up with Mrs. M
Overview

• Breast cancer overview

• Survivorship issues for breast cancer patients
  – Screening for recurrence
  – Preventing recurrence
  – Managing medications
  – Other health issues
Breast cancer overview

• Breast cancer is extremely common
  – Most common cancer type in women
  – 1 in 8 women is expected to develop breast cancer
  – Estimated 3790 new breast cancer cases in 2018
Breast cancer overview

• Breast cancer survival rates are good
  – 5-year relative survival rate of 88% if diagnosed between 2005-2009

• The number of breast cancer survivors continues to rise dramatically
  – In 2004 there were ~18,000 survivors
  – In 2014 there were ~24,000 survivors

• The care of these patients must be shared between family physicians and specialists
Breast cancer overview

- Most common cancers diagnosed among BC cancer survivors

<table>
<thead>
<tr>
<th>Cancer Group</th>
<th>Females</th>
<th>Males</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>0</td>
<td>25,300</td>
<td>25,300</td>
</tr>
<tr>
<td>Breast</td>
<td>24,444</td>
<td>166</td>
<td>24,610</td>
</tr>
<tr>
<td>Colorectal</td>
<td>7,061</td>
<td>8,654</td>
<td>15,715</td>
</tr>
<tr>
<td>Melanoma (Skin)</td>
<td>3,447</td>
<td>3,687</td>
<td>7,134</td>
</tr>
<tr>
<td>Bladder</td>
<td>1,629</td>
<td>5,166</td>
<td>6,795</td>
</tr>
<tr>
<td>Lung</td>
<td>3,339</td>
<td>2,756</td>
<td>6,095</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>2,705</td>
<td>3,198</td>
<td>5,903</td>
</tr>
<tr>
<td>Uterus</td>
<td>5,095</td>
<td>0</td>
<td>5,095</td>
</tr>
<tr>
<td>Leukemia</td>
<td>1,488</td>
<td>2,336</td>
<td>3,824</td>
</tr>
<tr>
<td>Kidney</td>
<td>1,099</td>
<td>1,992</td>
<td>3,091</td>
</tr>
<tr>
<td>Thyroid</td>
<td>2,293</td>
<td>769</td>
<td>3,062</td>
</tr>
<tr>
<td>Oral</td>
<td>977</td>
<td>2,033</td>
<td>3,010</td>
</tr>
<tr>
<td><strong>All Cancers</strong></td>
<td><strong>62,567</strong></td>
<td><strong>65,059</strong></td>
<td><strong>127,626</strong></td>
</tr>
</tbody>
</table>
Overview

• Breast cancer overview

• Survivorship issues for breast cancer patients
  – Screening for recurrence
  – Preventing recurrence
  – Managing medications
  – Other health issues
Survivorship

• What is “survivorship”?  
  – Is it Life after cancer?  
  – Is it Living with cancer?  
  – Does it imply being cancer free?

• “Living with, through, and beyond cancer”  
  – Begins at diagnosis  
  – Includes people who continue to receive treatment to reduce recurrence or manage chronic disease
Survivorship

• Survivorship issues for breast cancer patients are broad
  – Screening for recurrence
  – Preventing recurrence
  – Managing medications
  – Managing related concerns
    • Neuropathy, lymphedema, sexuality, fertility, menopause
  – Other health issues
    • Bone health, heart disease, diet, exercise, smoking, alcohol, mental health, relationships
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Screening for recurrence

• Early stage ER+ breast cancer has significant long-term risk of relapse after 5y adjuvant tx

Pan, H et al. NEJM. 2017. 377:1836-46
Screening for recurrence

- Timing of recurrence of early stage breast cancer varies by receptor status

Screening for recurrence

• Physician visits every 6 months x 5 years, then yearly

• History
  – Breast, axilla or skin changes
  – New symptoms, esp. unexplained and persistent
  – Medication adherence
  – New medications
  – Updated family history

• Physical exam
  – Breasts (chest wall), axilla, lymph nodes
  – Heart, lungs, spine, abdomen
Screening for recurrence

• Imaging
  – Diagnostic mammography qYearly
  – MRI
    • If very high risk (BRCA1/2)
    • Dense breast tissue
    • Lobular cancer
    • Occult primary on mammogram
Screening for recurrence

• Early detection of recurrence can be curative
  – In-breast recurrence
  – Chest wall, or lymph node recurrence
  – Limited regional recurrence
  – Oligometastatic disease
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Hormonal therapy

• Recall Mrs. M...

• Adjuvant hormonal therapy initiated
  – Plan for up to 5 years Tamoxifen followed by up to 5 extra years Aromatase inhibitor
  – Accompanied by bisphophonate
Hormonal therapy

- Adjuvant tamoxifen for ~5 years reduces risk of ER+ breast cancer recurrence

Hormonal therapy

- Adjuvant aromatase inhibitor for ~5 years reduces recurrence rates further compared to tamoxifen for post-menopausal women.

EBCTCG. *JCO*. 2010. 28(3):509-518
Hormonal therapy

- Extended hormonal therapy beyond 5 years may reduce recurrences for some patients

5y TAM → 5y TAM (ATLAS)

5y TAM → 5y AI (MA17)

TAM → 5y AI → 5y AI (MA17R)
Hormonal therapy

• What are options for hormonal therapy?
  – Tamoxifen (±OFS) x 5y
  – Tamoxifen x 10y
  – Aromatase inhibitor (±OFS) x 5y
  – Aromatase inhibitor x 10y
  – Tamoxifen x 2-5y → Aromatase inhibitor x 2-5y

• Compliance / adherence is a challenge!
Hormonal therapy

- Adherence
  - At least 14% of patients will stop hormonal therapy due to side effects
  - Low adherence leads to worse disease-free survival

Hormonal therapy

Hormonal therapy

• Important to ask about adherence
  – Remind patients of the benefits
  – Explore reasons for low adherence
  – Manage side effects when possible
Hormonal therapy

• Hot flushes
  – Avoidance of triggers, Acupuncture, SSRIs, natural health products

• Arthralgias / myalgias
  – Exercise, Analgesics, Massage, Acupuncture

• Vaginal irritation
  – Water-based lubricants, lowest-dose topical estrogens
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Other health issues – bone health

- Aromatase inhibitor use is a risk factor for osteoporosis

<table>
<thead>
<tr>
<th></th>
<th>5 yrs Aromatase Inhibitor</th>
<th>10 yrs Aromatase Inhibitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>New-onset osteoporosis</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Bone fracture</td>
<td>9%</td>
<td>14%</td>
</tr>
</tbody>
</table>

- < 30% of breast cancer survivors in British Columbia have bone mineral density testing
  - Worse for low SES and rural residence

Other health issues – bone health

• Bone mineral density should be tested prior to starting aromatase inhibitor

• Severe osteopenia, or osteoporosis is a relative contraindication to aromatase inhibitor
Other health issues – bone health

• Optimizing bone health
  – Ensure adequate calcium and vitamin D intake, preferably from dietary sources
  – Avoid smoking
  – Avoid glucocorticoids
  – Encourage exercise
  – Consider bisphosphonates
    • May reduce breast cancer recurrence and mortality
Other health issues – bone health

- Adjuvant bisphosphonates may reduce breast cancer recurrence and breast cancer mortality in post-menopausal women.
Summary

• Mrs. M is doing well 18 months after diagnosis

• She remains on Tamoxifen, and is managing side effects reasonably well

• As she transitions into menopause, she will be considered for aromatase inhibitor and possibly bisphosphonate therapy
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Selected Resources


• BC Cancer – Your Survivorship Care Plan http://www.bccancer.bc.ca/survivorship-site/Documents/Generic%20CP%20Electronic%20%20revised%20June%202013.pdf

• ASCO ANSWERS Cancer Survivorship https://www.cancer.net/sites/cancer.net/files/cancer_survivorship.pdf
Thank you!

• Questions / Comments ?