Treating Breast Cancer in Men

Richard Schwab MD
Clinical Professor of Medicine
Comprehensive Breast Health Center
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## Disclosure - Conflicts

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<td>Samumed LLC</td>
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The NCCN 209 page guidelines include only 35 words about male breast cancer!

One percent of breast cancers occur in men, and men with breast cancer should be treated similarly to postmenopausal women, except that the use of aromatase inhibitors is effective without concomitant suppression of testicular steroidogenesis.
therefore the rest of this talk is not guideline based
Differences relative to breast cancer in woman

More often Estrogen Receptor Positive and Her2 Negative
Her2 Positive Less Common
Triple Negative Less Common
Lobular Histology Less Common
Ductal Carcinoma In Situ (DCIS) Less Common
BRCA2 more than BRCA1 (when genetic)
Most breast cancer is localized

Localized cancers are treated with surgery and often medications and radiation after surgery (adjuvant treatment) to reduce the risk of recurrence.

Cancers that are very sensitive to medications (e.g., Her2+) are often treated with medication before surgery (neoadjuvant treatment) to make surgery easier and help judge how well the treatment worked.

Treatment of distant metastasis is very different

- Surgery is rarely used.
- Generally, the least toxic therapy that controls disease is preferred as cures are very rare.
- Emphasis is on quality of life as disease control is usually measured in years.
Adjuvant Endocrine Therapy

Tamoxifen is the preferred agent
Tamoxifen works by binding to the estrogen receptor and reducing receptor signaling
In men the risk of blood clots is the only serious side effect
Hot flashes and mood disturbances are possible.

Aromatase Inhibitors (AI) can be used as a second choice
AI work by block adrenal sex hormone production
Testicular suppression (with GNRH agonists like Lupron) is needed to use AI
GNRH agonists lead to erectile dysfunction
Adjuvant Chemotherapy

Recommendations are extrapolated from breast cancer in Women.

ER+/Her2- breast cancers can be tested with molecular profiling (eg. Oncotype DX) to guide decision about chemotherapy after surgery.

Lower molecular risk cancers have a better prognosis and chemotherapy does not improve survival.

Her2+ breast cancers are very sensitive to chemotherapy and targeted immunotherapy is recommended even for very small tumors (2-4 mm depending on ER).

Triple Negative breast cancers are usually treated with chemotherapy unless small (5-10 mm).

Tools like NHS Predict can help estimate the benefit of adjuvant chemotherapy.
There is a growing body of evidence that Carboplatin is useful as neoadjuvant treatment in triple negative breast cancer.

PARP inhibitors are effective in BRCA associated triple negative breast cancer.

Carboplatin and PARP inhibitors may work similarly in these cases.

PARP inhibitors don’t work as well in Carboplatin resistant disease.

Checkpoint inhibitors in theory should work better in genetic breast cancer.
Adjuvant Radiation Therapy

After lumpectomy

After mastectomy if:
- Lymph nodes were involved with cancer
- Tumor was larger than 5 cm
- Tumor invaded surrounding structures or
- Inflammatory breast cancer