Aggressive Breast Cancers in the Oldest Old

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1. Background
2. Locoregional therapies
3. Systemic therapy
4. Future approaches
Breast cancer in the older adults

Percent of New Cases by Age Group: Female Breast Cancer

Percent of Deaths by Age Group: Female Breast Cancer

SEER 21 2013–2017, All Races, Females

U.S. 2014–2018, All Races, Females

Smith BD, Jiang J, McLaughlin SS, Hurria A, Smith GL, Giordano SH, Buchholz TA. Improvement in breast cancer outcomes over time: are older women missing out? J Clin Oncol. 2011 Dec 10;29(35):4647-53.
Ship at sea by Edward Moran
Estimated life expectancy by age and comorbidity level (none, low/medium, or high) (n = 51,744)

Low/medium comorbidities: diabetes, peripheral vascular disease, cerebrovascular disease, or other.

High comorbidities: dementia, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), or other.
Breast surgery & Radiation in older adults

- Both mastectomy & breast conserving surgery are well tolerated in patients ≥ 80 years

- Retrospective study: 129 women >80
  - 37.9%: modified radical mastectomy (MRM)
  - 32.1%: simple mastectomy (ME)
  - 24.3% breast conserving therapy (BCT)
  - 5.7% axillary lymph node dissection

- Complication rate: 37.1%
  - 31.4% with minor complications: seromas, mild wound infections, hematomas
  - 5.7% with Major complications: 1 stroke (ME), 1 DVT (BCT), operative bleeding req. transfusion

- Similarly, breast radiation has low rates of long term toxicity in elderly women, and is recommended in women with >5 years life expectancy with ER/PR negative cancer that are high risk for local recurrence.

Toxicity risk of systemic therapy in older patients

Older age is a risk factor for treatment toxicity\(^1\)

**Causes:**
- Age related decline in organ function
- Multiple comorbid conditions
- Decreased physiologic reserve

higher rates of morbidity & mortality

Adjuvant systemic therapy in older patients

CALGB 49907\(^1\):
Randomized trial of standard adjuvant therapy vs. Capecitabine in older women with breast cancer

- Included both HR+ and HR- breast cancer
- In HR- tumors, the capecitabine group demonstrated
  - risk of relapse: HR of 4.39; 95% confidence interval [CI], 2.9 to 6.7; P<0.001
  - risk of death HR 3.76; 95% CI, 2.23 to 6.34; P<0.001

In women >80 years with life expectancy > 5 years, consider adjuvant chemotherapy in:

- Triple negative or HER2 positive disease where relapse is expected <5 years
- Absolute survival benefit of >5%

Non anthracycline regimens preferred

Pertuzumab and Trastuzumab with or without metronomic chemotherapy for older patients with HER2 positive breast cancer

- 70% considered frail
- Side effect profile manageable and did not differ significantly between the two groups
- mPFS at 20.7 mo
  - HP: 5.6 mo
  - HP+mC: 12.7mo

>70 or >60 with PFS restriction

Herceptin + Perjeta (HP)

Herceptin + perjeta + metronomic cyclophosphamide (mC)

Future approaches: Using tumor biology/molecular profiling to guide therapy

- Ma et al – Analysis of the clinical and genomic features of young (<39 yrs), intermediate, and elderly (>65 yrs) TNBC patients

- nearly one-half of the elderly patients had tumors that were of the luminal androgen receptor (LAR) subtype

- homologous recombination deficiency subtype much less common in elderly patients (HRD subtype percentage: 59.1% young vs 49.7% intermediate vs 15.4% elderly)

develop trials using antiandrogen based regimens in patients with an LAR biology

The Older adult: Ideal target for personalized care

Goals of care

Breast cancer risk

Life expectancy & fitness