Chemotherapy Adherence for Obese High-risk Breast Cancer Patients and the Role of Dose-Dense Chemotherapy

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Background

• These women are more likely to be diagnosed in advanced stages, develop metastases, and have an increased risk of dying from breast cancer. ¹

• Dose-dense chemotherapy has previous been found to improve outcomes for breast cancer patients. This occurs either by increasing the dose intensity of agents or reducing intervals between cycles. ²

• Study purpose: Describe dose-dense regimen use by BMI and the association of dose-dense regimens with RDI across BMI groups
Patients

Subset of high-risk breast cancer patients for whom chemotherapy is clearly recommended:

- Receptor Status
  - Triple negative status
  - HER2-positive
- Either positive lymph node metastases or tumor size >1.0 cm
Variables and Outcomes

• Primary outcome: RDI <85% of guideline-recommended doses
• Secondary outcomes:
  • Delays
  • Discontinuation
  • Composite measure of all three

• Variables: age, HER2/ER/PR status, race, BSA, Elixhauser co-morbidity score, dose dense indicator

• BMI categories
  • Non-overweight: BMI < 25
  • Overweight: BMI 25 - < 30
  • Obese: BMI >30
Results

• 244 patients who met our inclusion and exclusion criteria
• 48% (117 patients) were in a dose dense regimen

• Patient characteristics were similar between dose-dense and non-dose-dense groups except dose dense patients were more likely to be:
  • younger
  • HER2-negative
BMI by Regimen Type

NON DOSE-DENSE GROUP

- Obese: 43%
- Overweight: 31%
- Non-overweight: 26%

DOSE DENSE GROUP

- Obese: 43%
- Overweight: 25%
- Non-overweight: 32%
Discussion

• Implications:
  • We found that dose-dense regimens are protective from having a low RDI.
  • However obese patients, who could potentially benefit the most from a dose-dense regimen, are equally likely to receive non-dose-dense therapy.
  • Our research suggests further investigation of strategies to increase use of dose-dense regimens for obese patients.

• Limitations
  • Could not determine differences in adherence between normal and underweight.
  • Limited generalizability.

Questions?