



Quality of Care and Outcomes Assessment

AFRO-AMERICAN RACE IS ASSOCIATED WITH INCREASED RISK OF HEART FAILURE IN BREAST CANCER PATIENTS ON ANTHRACYCLINE CHEMOTHERAPY

ACC Moderated Poster Contributions

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Background: Limited data are available on the contribution of social determinants of cardiotoxicity in breast cancer patients.

Methods: We identified 537 consecutive newly diagnosed women with breast cancer (50.9±10.8 yrs) treated with anthracyclines between Jan. 2005 and Dec 2010. Clinical findings were entered prospectively into electronic medical records. Pts were followed until June 2011 for the development of incident heart failure (HF), and predictors of HF were sought in a Cox model.

Results: Of 537 pts (80 Afro-Americans [15%]) followed for 2.8 (0.5-5.4) years, 35 developed new HF. Afro-American race (HR 3.4 [95% CI, 1.5 to 7.6]) was associated with HF in women treated with anthracyclines (Figure), independent of age, race, Charlson score, radiotherapy, trastuzumab, hypertension, diabetes, coronary artery disease. Other significant predictors of CHF were age of breast cancer onset (HR 1.04 per year [95% CI, 1.003 to 1.073]), trastuzumab (HR 3.3 [95% CI, 1.6 to 6.8]), and Charlson Score (HR 1.4 [95% CI, 1.1 to 1.8]).

Conclusion: Afro-American race is associated with risk of developing HF in breast cancer patients receiving anthracyclines, independent of other co-morbidities and cancer treatment related risk factors. Afro-American women warrant careful cardiac monitoring during and after chemotherapy.

Figure: Time to New Heart Failure measured from Breast Cancer Diagnosis and Stratified by Afro-American race vs Other

