

Survival advantage of Anastrozol compared to Tamoxifen for lobular breast cancer in the ABCSG-8 study

Authors:

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Introduction:

Invasive lobular cancer (ILC) is the second most common histological type of breast cancer, appearing to have a biology distinct from ductal cancer (IDC). In the first 5 years, the prognosis of ILC seems to be more favourable compared to IDC. The aim of this study was to investigate the differences in benefit from adjuvant Tamoxifen (Tam) and Anastrozol (Ana) for these histologic subtypes.

Patients and Methods:

The ABCSG-8 (Austrian Breast and Colorectal Cancer Study Group 8) study was a randomized phase III clinical trial (n=3.714) in hormone receptor-positive cancer addressing a sequence strategy with 3 years of Ana after 2 years of Tam in comparison with 5 years of Tam in a low- to intermediate-risk group (Grade 1/2) of postmenopausal patients not receiving adjuvant chemotherapy. Univariate and multivariate comparisons for overall (OS) and disease-free survival (DFS) between endocrine treatments were conducted per subgroup with respect to histology (ductal or lobular). Multivariate Cox analysis included endocrine treatment, histology and their interaction \pm additional covariates (age, T-stage, N-stage, grade, ER, PR). For the time-to-event analyses, starting point for all patients was two years after randomization, i.e. when treatment changed from Tamoxifen to Anastrozole on the experimental arm. To avoid crossover effects for post-study treatment, the total time for this analysis is 3 years.

Results:

The 3-year OS hazard ratio (HR) for Anastrozol versus Tamoxifen in ILC (n=694) was 0.24 (0.08-0.70) vs. IDC (n=2.739) HR 1.08 (0.75-1.58). In multivariate analysis, HR for ILC was 0.23 (0.08-0.68) vs. 1.02 (0.70-1.49) for IDC. The test for interaction of treatment and histology was significant (p=0.01). In ILC, no other clinico-pathologic factor was significantly associated with survival differences compared to IDC, where age, T- and N-stage maintained significance. In the models for DFS, our preliminary analysis after 3-year follow-up did not show significant variations in treatment effect according to histology.

Discussion:

The magnitude of survival benefit from adjuvant Anastrozol vs. Tamoxifen varies by histology in this large phase III randomized trial. A significant reduction in risk of death occurs only in patients with lobular cancer compared to ductal cancer after only 3 years of follow-up.