Recurrence score and clinicopathologic characteristics of TAILORx participants by race and ethnicity.

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Background: Black race is associated with worse outcomes in localized breast cancer. We evaluated the characteristics of patients enrolled in the Trial Assigning Individualized Options for Treatment (TAILORx) by race and ethnicity.

Methods: The analysis included 10,071 evaluable patients with Recurrence Score (RS) data. Eligibility criteria included: (1) T1-2, N0 disease, (2) estrogen receptor (ER) and/or progesterone receptor (PR) positive disease that was also HER2/neu negative, (3) age 75 years or younger and medically appropriate for adjuvant systemic chemotherapy.

Results: The study population included 8,501 whites (84%), 722 blacks (7%), 423 Asians (4%), and the remainder other/unknown race. With regard to ethnicity, 7,916 were non-Hispanic (79%), 919 were Hispanic (9%), and 1,236 were of unreported ethnicity (12%). There was no significant difference in RS distribution ($p = 0.14$), median RS (17 vs. 17), and mean RS (19.6 vs. 18.4) in blacks compared with non-blacks. There was likewise no difference in Hispanic vs. non-Hispanic ethnicity for RS distribution ($p = 0.53$), median RS (17 vs. 17), and mean RS (18.6 vs. 18.4). Blacks were significantly more likely to be younger (39% vs. 30% < 50 years), have larger tumors (37% vs. 31% > 2 cm), poor histologic grade (25% vs. 17%), and PR-negative disease (14% vs. 10%) (Chi square test $p < 0.05$). Hispanic women were also significantly younger (39% vs. 30% < 50 years), and demonstrated marginal but statistically significant differences in tumor size (34% vs. 31% > 2 cm), histologic grade (20% vs. 18% poor), and PR expression (12% vs. 10% negative) (Chi square test < 0.05). In 974 patients with information on body mass index (BMI), there was no correlation between BMI and RS ($r = -0.04$). BMI was higher for blacks than whites (medians 31.6 vs. 28.9, $p = 0.02$, Wilcoxon test), but not in Hispanics.

Conclusions: In patients selected for participation in TAILORx there were no significant differences in RS by race, ethnicity, and BMI. When compared to white patients, black and Hispanic patients were significantly younger, had tumors that were larger, and more likely to be associated with poor grade.