

Oral Session 15

Research Study

Title: "The Association Between Race and Stage of Testicular Cancer in the US Between 1975-2018"

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Introduction and Objective. Testicular cancer (TCa) is the most common solid-organ malignancy in young men and has an incidence of localized disease in the United States estimated to be 11.9 per 100,000 men in 2015. Current literature shows that racial disparities exist among men with TCa, with patients of minority races having decreased survival, greater incidence of metastatic disease, and larger tumors at diagnosis. While some studies have evaluated the effects of race on TCa, few have specifically looked at how race plays a role on the stage of TCa at diagnosis. The purpose of this study is to determine whether there is an association between race and the stage of testicular cancer (TCa) at diagnosis.

Methods. This cross-sectional study used data from the Surveillance, Epidemiology, and End Results (SEER) Database from 1975-2018. Participants were comprised of males from the ages of 15 to 65 with a diagnosis of seminomatous or nonseminomatous testicular cancer based on the ICD-O3 codes. Patients with missing data from any of the variables analyzed were excluded from the study. The main independent variable was race (whites vs. non-whites). The main dependent variable was the stage of TCa at diagnosis (localized, regional, distant). Covariables included age at diagnosis, ethnicity, median household income, and type of testicular cancer. Multinomial logistic regression analysis was done to calculate odds ratios (OR) and 95% confidence intervals (CI).

Results. The total sample population was 28,977 participants, of which 26,777 were of white race (92.41%) and 2,200 were of non-white race (7.59%). After adjusting for covariates, non-whites had higher odds of presenting with regional (aOR 1.15; CI 1.00-1.32) and distant disease (aOR 1.84; CI 1.57-2.15) than white participants. Moreover, Hispanics had higher odds to present at the regional stage (aOR 1.18; CI 1.04-1.34) and the distant stage (aOR 1.54; CI 1.33-1.79) than non-Hispanics.

Conclusions-Implications. Due to our findings that non-white patients are disproportionately more likely to present at more advanced stages of testicular cancer than white patients, further studies should be conducted to explore the potential causal factors leading to this disparity. If causal factors are identified, then interventions may be implemented to alleviate these disparities.