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Title

More than Cervical Cancer: Understanding Racial/Ethnic Disparities in Oropharyngeal Cancer Outcomes among Males by HPV Status

Priority 1 (Research Category)

Cancer research (not screening)

Presenters

Seiichi Villalona, MA, Jeanne Ferrante, MD, MPH, Satsuki Villalona, Antoinette Stroup, PhD

Abstract

Context: Over the last two decades the incidence of male oropharyngeal cancers (OPCa) has increased rapidly in the United States, yet OPCa is mostly preventable. Differences in OPCa incidence and outcomes by race/ethnicity and human papillomavirus (HPV) status have not been previously studied. Objective: Examine racial/ethnic disparities in HPV-related and non-HPV related OPCa outcomes among males. Study Design: Nationwide population-based retrospective cohort study. Setting or Dataset: North American Association of Central Cancer Registries' Cancer in North America Deluxe dataset, covering 93% of the U.S. population. Population studied: Males diagnosed with OPCa in the U.S. between January 2005 and December 2016 (N=175,843). Outcome Measures: OPCa incidence rates by race/ethnicity [Non-Hispanic White, Non-Hispanic Black, Hispanic, Non-Hispanic Other] and HPV status (HPV-related or non-HPV-related); late-stage diagnosis; mean and cumulative survival; cancer-specific mortality. Results: Most male OPCa were HPV-related (92.2%) and in Whites (83.6%), with over 50% increase from 2005 to 2016 in age-adjusted incidence of late-stage HPV-related OPCa among Whites. There was no difference in late-stage diagnosis between Whites and Blacks (aOR, 0.99, 95% CI, 0.94-1.05) or Hispanics (aOR, 0.96, 95% CI, 0.89-1.03), while Other race had 15% lower odds of late-stage diagnosis (95% CI, 0.79-0.95). Independent predictors of late-stage disease included having Medicaid (aOR, 1.37, 95% CI, 1.28-1.46) or no insurance (aOR, 1.44, 95% CI, 1.32-1.57) and HPV-related OPCa (aOR, 3.53, 95% CI, 3.37-3.70). Lower mean survival in HPV-related OPCa compared with Whites (99.63 months, 95% CI, 99.18-100.07) was seen among Blacks (69.72 months, 95% CI, 68.14-71.31) and Hispanics (91.89 months, 95% CI, 89.87-93.91; $p < 0.01$). Blacks had lowest adjusted cumulative survival for HPV and non-HPV related OPCa ($p<0.001$). Blacks (aHR, 1.78, 95% CI, 1.70-1.87), Hispanics (aHR, 1.11, 95% CI, 1.03-1.19), and HPV-related OPCa (aHR, 1.25, 95% CI, 1.17-1.34) had higher cancer-specific mortality. Adjusting for treatment eliminated the higher mortality among Hispanics, but not in Blacks. Conclusions: To decrease incidence rates of late stage OPCa, HPV vaccination and possibly, HPV OPCa screening should be advocated, especially in White males. Further research to explicate possible biologic mechanisms and behaviors or comorbidities contributing to the higher OPCa mortality among Black males is needed.