Trichomonas vaginalis infection and risk of prostate cancer: associations by disease aggressiveness and race/ethnicity in the PLCO Trial.


Abstract

PURPOSE: Results from previous sero-epidemiologic studies of Trichomonas vaginalis infection and prostate cancer (PCa) support a positive association between this sexually transmitted infection and aggressive PCa. However, findings from previous studies are not entirely consistent, and only one has investigated the possible relation between T. vaginalis seropositivity and PCa in African-American men who are at highest risk of both infection and PCa. Therefore, we examined this possible relation in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial, including separate analyses for aggressive PCa and African-American men.

METHODS: We included a sample of participants from a previous nested case-control study of PCa, as well as all additional Caucasian, aggressive, and African-American cases diagnosed since the previous study (total n = 438 Gleason 7 Caucasian cases, 487 more advanced Caucasian cases (≥Gleason 8 or stage III/IV), 201 African-American cases, and 1216 controls). We tested baseline sera for T. vaginalis antibodies.

RESULTS: No associations were observed for risk of Gleason 7 (odds ratio (OR) = 0.87, 95% confidence interval (CI) 0.55-1.37) or more advanced (OR = 0.90, 95% CI 0.58-1.38) PCa in Caucasian men, or for risk of any PCa (OR = 1.06, 95% CI 0.67-1.68) in African-American men.

CONCLUSIONS: Our findings do not support an association between T. vaginalis infection and PCa.

KEYWORDS: Epidemiology; Prostate cancer; Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial; Sexually transmitted infections; Trichomonas vaginalis

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