Positive Toxoplasma IgG Serology Is Associated with Increased Overall Mortality - A Propensity Score-Matched Analysis

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Toxoplasma gondii is a prevalent parasitic disease with significant morbidity and mortality in immunocompromised populations. We lack long-term outcomes for latent infections. We aimed to elucidate the relationship between latent T. gondii infection and mortality risk. We queried TriNetX, an international multicenter network, to validate mortality risk differences among patients with positive or negative toxoplasma IgG through propensity score matching (PSM). We excluded patients with toxoplasmosis disease by International Classification of Diseases codes or polymerase chain reaction testing. We found 28,138 patients with available toxoplasma IgG serology. Seropositive patients were older and had a male preponderance. More seropositive patients identified as Hispanic, Latino, or Black persons. Patients who were positive for T. gondii IgG serology were slightly more likely to have underlying heart failure, a transplanted organ or tissue, malignant neoplasms of lymphoid or hematopoietic tissues, and diseases of the nervous system than seronegative controls. After PSM of patients with positive (N = 6,475) and negative (N = 6,475) toxoplasma IgG serologies, toxoplasmosis-positive patients were more likely to have long-term drug use but less likely to suffer from behavioral disorders. The overall PSM 1- and 5-year mortality was higher among patients with a positive toxoplasma IgG serology. The risk of schizophrenia was increased at 5 years. We found a prevalence of toxoplasma IgG positivity of 0.03% during the last 3 years. Latent T. gondii associates with a higher overall mortality risk. The study of social determinants of health and follow-up studies are necessary to corroborate the findings and find possible causal mechanisms.