Seroprevalence of Toxoplasma Gondii among HIV Positive Patients in an Antiretroviral Therapy Center in Northern Nigeria

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Abstract

Toxoplasmosis is an important zoonotic disease caused by a protozoan parasite Toxoplasma gondii an emerging opportunistic parasite. In immune compromised individuals the infection leads to life threatening conditions. Thus the importance of understanding the burden of coinfected. There is a paucity of published information on the prevalence of this infection among people infected with the Human Immunodeficiency virus in the study area...This study was carried out to investigate the prevalence of infection and identify some possible risk factors in the study area. One hundred and eighty four consenting patients aged 10-59 years accessing healthcare in an antiretroviral clinic were recruited for this study. They were screened for Toxoplasma gondii IgG using a Toxo IgG ELISA kit (Clinotech Laboratories and Pharmaceuticals Canada). The test was carried out according to the manufacturer’s instructions. Their CD4 count was estimated using Flow cytometry. An ethical clearance for the study was obtained from the Ethical Committee of the Medical Center. The prevalence of latent Toxoplasma gondii infection in the study population was evidenced by seropositivity for anti-Toxoplasma IgG among 17.4% (32) of them. Patients aged 10-19 years had the highest rate of infection (27.3%). The prevalence of infection among males was 28.8% and 12.9% among females (p<0.05). Most of those infected (78.1%) did not have a CD4+ count above 400. The 17.4% seroprevalence of Taxoplasma gondii infection reported in this study is high and suggests that exposure to the protozoan is present in Northern Nigeria. Gender, age and CD4+ count were reported as possible risk factors to infection. There is a need to carry out further studies on a larger scale and include more socio-demographic parameters. Meanwhile, the outcome of this study calls for an urgent awareness campaign of this infection especially among the immunocompromised persons in Nigeria with emphasis on prevention and control of infection.

Keywords: Seroprevalence, Toxoplasma Gondii, HIV