Sereoprevalence of ImmunoglobulinG and of ImmunoglobulinM anti-*Toxoplasma gondii* antibodies in Human immunodeficiency Virus infection/Acquired Immunodeficiency Syndrome patients at Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia.

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ABSTRACT

Background: In Ethiopia only a few studies on the seroprevalence of toxoplasmosis have been carried out among HIV/AIDS patients. The objective of this study was to determine the seroprevalence of toxoplasmosis among HIV/AIDS patients at Tikur Anbessa Specialized Hospital, Ethiopia and to determine risk factors associated with seroprevalence.

Materials and Methods: Blood samples were collected from randomly selected 150 HIV-positive patients and IgM and IgG anti-toxoplasma antibodies were quantified by using Enzyme immunoassay technique (HUMAN-ELISA, GERMANY). Ethical approval for the study was obtained from the Institutional Review Board of the Faculty of Medicine, Addis Ababa University. Questionnaire was administered to assess the risk factors associated with the prevalence of toxoplasmosis in HIV patients.

Results: Of the one hundred fifty patients 108 (72%) were females and 42 (28%) were males. The mean (sd) age was 38.4 (9.5). Based on IgG anti-Toxoplasma antibodies status the seroprevalence of toxoplasmosis in HIV-positive patients was 94%. No IgM antibody was detected. Consumption of raw vegetables and not having primary information about toxoplasmosis were significant association with the presence of anti- Toxoplasma antibody ($p < 0.05$). Inexact logistic regression analysis consumption of raw vegetable (adjusted OR= 7.49, 95% CI 1.29- 58.93) was significant risk factor for toxoplasmosis and having information about toxoplasmosis (adjusted OR =.083,95% CI .011- .499) had significant protective effect. The mean (sd) CD4 count was 341.1(173.6) cells/µl. The association between the presence of anti- toxoplasma antibody and CD4+ T lymphocyte cells count was not statistically significant.

Conclusions and Recommendations: The findings showed that there is a high prevalence of chronic toxoplasmosis in HIV/AIDS patients and the risk factors were consumption of raw vegetable and lack of information about toxoplasmosis. Therefore, routine screening for Toxoplasma should be undertaken for all HIV-infected patients. Moreover, creating awareness about toxoplasmosis and its risk factors should be prioritized.
Key words: Anti-Toxoplasma antibodies, HIV/AIDS, Prevalence, Risk factors, Toxoplasmosis.