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**Seroprevalence of *Toxoplasma gondii* and associated risk factors among HIV infected patients in Jahrom, southern Iran**

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**Statement of the Problem:** *Toxoplasma gondii* is an important opportunistic agent especially in the immuno-compromised hosts that can cause significant morbidity and mortality. Detection of anti-*Toxoplasma gondii* antibodies are of a great interest among HIV-infected patients.

**Aim:** The aim of the study was to determine prevalence of toxoplasmosis and associated risk factors in HIV-infected patients.

**Methodology & Theoretical Orientation:** *Toxoplasma gondii* antibodies were determined by IgG ELISA in 90 serum samples from HIV positive patients. PCR was performed on all of the samples. Determination of CD4+ T cells counts was performed by flow cytometry. Clinical features and sociodemographic factors affecting toxoplasmosis studied in the HIV patients.

**Results:** Prevalence of IgG anti-*Toxoplasma* was 21.1% in the HIV-infected patients. Besides, one of the blood samples was positively detected by PCR method. Anti-*Toxoplasma* IgG antibody was significantly higher in age group of 30-39 years old ( $p=0.05$ ). The seroprevalence of toxoplasmosis in patients with CD4+<100 cells/ $\mu$ l was 33.3% that was significantly higher than other groups ( $p=0.042$ ) with or without the anti-toxo IgG antibody. The CD4+ count mean of patients with positive toxoplasma serology was lower than patients with negative serology test. Seroprevalence of toxoplasmosis in patients with highly active antiretroviral therapy was significantly less than patients without therapy ( $p=0.025$ ).

**Conclusion & Significance:** There is low seroprevalence of latent toxoplasmosis among HIV-infected patients in the region, although the risk of toxoplasmosis reactivation could be important among this population. Possible reasons for the low prevalence may be effective antiretroviral therapy and the primary prevention measurements to avoid the evolution toward toxoplasmosis in this region.

**Biography**

Hassan Rezanezhad completed his PhD at University of Camerino, Italy. His Doctoral dissertation was focused on "The study of cellular-molecular apoptosis-like cell death in *Plasmodium*". He has experiences in the fields of "Isolation and identification of *Leishmania* and *Toxoplasma* from patients by different techniques". He has work experience in the medical laboratory for more than 10 years. In addition, he currently works as an Assistant Professor.

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