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Is there relationship between *Toxoplasma gondii* IgG seropositivity and idiopathic Parkinsonism and does it have correlation with cortisol blood level?

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Background: Some researches linked latent toxoplasmosis and neurological diseases, so the main interest is the probable relation between toxoplasmosis and neurological diseases like epilepsy and Parkinsonism.

Aim: To detect the incidence of *Toxoplasma gondii* infection in patients with idiopathic Parkinsonism and correlate it to their blood level of cortisol.

Materials & Methods: This study was conducted on 30 idiopathic Parkinson's patients, 30 psychiatric patients and 30 apparently healthy individuals. All subjects were submitted a questionnaire and anti-Toxoplasma IgM, anti-Toxoplasma IgG and cortisol level was detected by ELISA.

Results: Of the 90 cases; 41.11% and 1.11% were positive for anti-Toxoplasma IgM and IgG, respectively. The percentage of positive anti-Toxoplasma IgG cases was in healthy group (46.67%) followed by Parkinsonism group (43.3%). Mean cortisol level higher in Parkinson's group than other groups but still within normal levels. Contacts to cats, drinking unfiltered water and consuming unwashed raw vegetables were significantly higher in Toxoplasma IgG seropositive Parkinson's patients. Highest anti-Toxoplasma IgG positive cases in Parkinson's group were detected in stage 3 of the disease.

Conclusion: A high Toxoplasma seropositivity in association with Parkinsonism. *Toxoplasma gondii* oocyst may be the most probable main mode of transmission of *Toxoplasma gondii* in idiopathic Parkinson's patients. *Toxoplasma gondii* may worsen idiopathic Parkinsonism. Cortisol level was higher in Parkinson's patients but still it showed no significant relationship with *Toxoplasma gondii* seropositivity.

Biography

Ahmed Abd El-Rahman Daoud currently working as a Professor in Tanta University. He has completed his Ph.D. Medical Parasitology in Tanta Faculty of Medicine, Tanta University. He has Completed a course in Theoretical and Practical Studies in Radio-Active Isotopes, "Principles and Applications" at the Regional Radio-Active Isotopes Centre, Cairo. He has Attended the Conference of the American Academy of Allergy, Asthma and Clinical Immunology in Miami City, USA .He has Actively participated in the First Training course in Immunology "HLA by PCR" at Al-Mansoura Faculty of Medicine. He has published more than 50 papers in reputed journals.

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