

4<sup>th</sup> Global Experts Meeting on

# PARKINSON'S & MOVEMENT DISORDERS

May 14-15, 2018 Singapore

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

Ahmed Abd El Rahman Daoud, Wesam Mostafa Elgendy, Nabila Abd El Azeem Yassen, Hazem Abd El Rahman Fayed and Marwa Adel Hasby Saad  
Tanta University, Egypt

**Background & Aim:** Some researches have linked latent toxoplasmosis and neurological diseases, so the main interest is the probable relation between toxoplasmosis and neurological diseases such as epilepsy and parkinsonism. This study aimed to detect the incidence of *Toxoplasma gondii* infection in patients with idiopathic parkinsonism and correlate it to their blood level of cortisol.

**Material & Method:** This study was conducted on 30 idiopathic parkinson's patients, 30 psychiatric patients and 30 apparently healthy individuals. All subjects were given a questionnaire and anti-*Toxoplasma* IgM, anti-*Toxoplasma* IgG and cortisol level were detected by ELISA.

**Result:** 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. Contact to cats, drinking unfiltered water and consuming unwashed raw vegetables was 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 is associated with parkinsonism. *Toxoplasma gondii* oocyst was 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; still it showed no significant relationship with *Toxoplasma gondii* seropositivity.

aardaoud@yahoo.com