Sex-associated hormones and Toxoplasma gondii infection

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Serologic evidence indicates that human infections by toxoplasmosis are common in many parts of the world. Hormones could induce anti-parasitic functions of the host immune system and there is a wealth of evidence that illustrates the ability of sex-associated hormones, to influence directly, a variety of diverse immunological function. This study aimed to investigate the correlation between the prevalence of toxoplasmosis and certain levels of sex-associated hormones (progesterone, estradiol & testosterone). The study was carried out in the city of Sharjah, UAE at the blood transfusion and research center with 85 participants included in the study consisting of 49 female and 36 males, mean age (SD±) 31.88±6.156 and 35.69±9.591 for females and males, respectively. ELISA test kits for detection of anti-Toxoplasma IgM was used to screen the samples. The level of serum progesterone, estradiol, and testosterone in Toxoplasma positive samples was measured using ELISA test kits. From the 85 studied subjects, a total of 24 were found to be positive for anti-Toxoplasma IgM using ELISA test, corresponding to an overall prevalence of 28.2%, 9/49 females (18.4%) and 15/36 males (41.6%). The negative samples were used as a control. There was a significant positive correlation between the level of testosterone and anti-Toxoplasma IgM in men and a significant negative correlation between the levels of testosterone, progesterone and anti-Toxoplasma IgM in women p<0.05. However, estradiol showed insignificant correlation with anti-Toxoplasma IgM p>0.05.

Biography
Doaa Sultan completed her education in Mansoura Faculty of Medicine, Mansoura University, Egypt. She was graduated in 1991 with MBCh and she completed her Master’s degree in Parasitology in 1997 and her PhD in 2004. She is working as an Associate Professor of medical Parasitology, Dubai Medical College, Dubai, UAE. She has published more than 25 papers in conferences and reputed journals.

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