

Seroprevalence of Toxoplasmosis and Diagnosis of Acute *Toxoplasma* Infection among Pregnant Women

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Toxoplasma gondii is an obligatory intracellular protozoan parasite of both humans and warm blooded animals with worldwide distribution. This parasite is transmitted to humans mainly by ingesting food or water contaminated with oocysts shed by cats, or by eating raw or undercooked meat containing tissue cysts. In healthy humans, *T. gondii* infection is generally subclinical or mild. However, disease can occur in-utero or when the host is immunocompromised. Transplacental transmission from mother to foetus may have serious consequences for the foetus when acute infection occurs during pregnancy. In Sri Lanka, although several studies have been done to determine the prevalence of this infection, the majority of the studies have been carried out in Colombo area. Therefore the present study was carried out to determine the prevalence of toxoplasmosis in pregnant mothers, to determine the incidence of acute toxoplasmosis in pregnancy and to identify exposure related risk factors influencing transmission of toxoplasmosis.

Blood samples were collected from 281 pregnant women attending antenatal clinic, Teaching Hospital, Peradeniya. Each serum sample was subjected to IgG ELISA, followed by IgM ELISA on IgG positive samples. PCR was done on 30 IgG positive samples. Personal details and data regarding known risk factors for the infection were obtained using an interviewer-administered questionnaire.

The age of pregnant women varied between 16 – 56 years (mean = 28) and 55.5% of them were primigravidae. The majority (79.8%) were housewives and only 4.2 % (13) had a past history of miscarriages. Seroprevalence of anti-*Toxoplasma* IgG was 35.3% and of these, one was IgM positive while 3 were PCR positive indicating acute infection. There were no significant associations between known risk factors (cat ownership, miscarriages, eating raw or under cooked meat, poor hand hygiene, raw meat tasting while cooking) and seropositivity. This study indicates high seroprevalence of toxoplasmosis among pregnant women and emphasizes the importance of adopting preventive measures to reduce the transmission of toxoplasmosis in sero-negatives. Current study further stresses the importance of performing PCR along with serology in the diagnosis of acute toxoplasmosis.

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