1. ABSTRACT

A prospective follow-up study was carried out among different categories of pregnant women in Sri Lanka, to establish seroprevalence rates in this group, to examine the possible role of *Toxoplasma gondii* infection among women with bad obstetric histories, and to examine the relationship between seroprevalence and various known risk factors for infection. The study population consisted of women in the first trimester of pregnancy, attending an antenatal clinic in the De Soysa Maternity Home, Colombo during the period May 1994 to January 1995. Each woman was interviewed with her informed consent, and details regarding basic demographic factors, the current pregnancy, previous pregnancies and exposure to risk factors for *T. gondii* infection were recorded on a pre-prepared questionnaire. Venous blood samples were taken from each woman, and the sera were examined by the Indirect Immuno Fluorescent Antibody Test (IFAT) for *T. gondii* specific antibodies. Women were followed up with repeat examinations of serum in the second and third trimesters whenever possible.

A total of 291 women aged 15-43 years were included in the study: 109 normal healthy primigravidae, 88 normal healthy multigravidae, 53 with a history of single, previous abortion and 41 women with a bad obstetric history. The seroprevalence rates (defined as the percentage prevalence of seropositivity by the IFAT, at a titre of 1:16 or above for *T. gondii* specific antibodies) in these four categories were 26.6, 26.1, 34.0 and 24.4% respectively, with an overall prevalence of 27.5% (80/291). The highest seroprevalence rate was in the group of women with a single previous abortion, but this rate was not significantly higher than in any of the other categories. Follow-up serum samples were obtained from 188 of the 291 women (64.6%) in the 2nd trimester, and 131 women (45.0%) in the 3rd trimester of pregnancy. Only one mother (in the bad

obstetric history group) seroconverted during the study. She had a titre of 1:16 in the first trimester, 1:64 in the second, and 1:16 in the third. Seropositivity was not significantly related to consumption of improperly cooked meats, handling of raw meat, gardening or association with cats. The results of this study indicate that although toxoplasmosis is of relatively low endemicity in Sri Lanka, it still poses a significant problem to pregnant women, and may contribute towards the occurrence of sporadic single abortions. It does not appear to be associated with a bad obstetric history, but confirmation of this will require further studies.