

ABSTRACT

Toxoplasma gondii infection is worldwide anthroponosis that had been rarely recognized or investigated in Thailand. Asymptomatic with sero-positive is the most common result of the infection, while fatal illness, stillbirth or abortion can occur occasionally. Eventhough fever and lymphadenopathy are the typical manifestation of the disease, of greater concern are the permanent damage to the eyes and to the central nervous system.

The present study was an attempt to estimate the prevalence of toxoplasmosis in people and animal species in the central part of Thailand in 1978-1979. The prevalence was determined serologically by the indirect haemagglutination test (Lewis and Kessel, 1961) considering the titer of 1:40 or over as positive. The oocysts in cat feces were isolated and identified by the sugar floatation and mouse inoculation method (Dubey, et al., 1970b). Sera of these inoculated mice were also tested for the development of IHA antibody to toxoplasma.

Sero-prevalence in healthy people was studied in 580 blood donors or those seeking blood sugar or cholesterol check up

at the Pra Mongkutkloa Hospital (PHM). They resided in Bangkok-Dhonburi, Nontā Buri, Pathum Thani, Smut Prakarn, Nakorn Pathom and Suphan Buri provinces. The sero-prevalence was 7.4 per cent.

Among the 221 pregnant women and the 87 cases of fever with lymphadenopathy (FL), also attending the PMH, the prevalence were 2.3 per cent and 12.6 per cent respectively. Statistical analysis revealed that prevalence significantly increased with age only in female and not in male. The prevalence in the pregnant women was not significantly different from that in the healthy women of the same age groups while the prevalence in FL group was significantly higher than that in the healthy control. Titer as high as 1:1280 and 1:10240 were only observed in the FL group.

The IHA titer were determined in samples of 100 dogs at Bangkok Rabies Centre, 100 cats from houses and temples in Bangkok-Dhonburi, Nontā Buri, Ayutthaya, Suphan Buri and 505 swine from Raj Buri, Ang Thong, Chainat, Singh Buri, Kanchana Buri, Suphan Buri, Nontā Buri, Nakorn Pathom, Pathum Thani and Bangkok-Dhonburi. Sero-prevalence in dogs, swine and cats were 12, 20.8 and 45 per cent respectively; the differences among species were significant but the differences between sex within each species were not significant.

Toxoplasma oocysts were isolated in 2.4 per cent of 123 stray cats from temples in Bangkok-Dhonburi. The shedding period were 14-21 days. Forty five days after cessation of oocyst shedding seroconversions from negative to positive (1:320 and 1:1280) were observed.

Thus the results indicated that in the area studied cats, in particular feces of young cats, and pork distributed in the market were potentially sources of toxoplasma infection. The prevalence in man were uniquely low despite a high prevalence in cats comparable to most other countries with higher prevalence in man. Also the risk of congenital infection in this population was apparently low. However, acquired toxoplasmosis should be included in the list of differential diagnosis of cases with fever and lymphadenopathy.

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