

RESEARCH NOTE

SEROEPIDEMIOLOGICAL STUDY OF TOXOPLASMOSIS IN LAOS

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Toxoplasmosis belongs to parasitic infections with a wide range of prevalence, occurring all over the world. Data about prevalence of human toxoplasmosis have been reported from many Asian countries Singh (1952) from India; Catar (1964) from Indonesia; Roever-Bonnet (1964) from West New Guinea; Sangkasuwan (1968) from Thailand; Singh *et al* (1968) from Singapore; Ludlam *et al* (1969) from Hong Kong; Cheah *et al* (1975) from Malaysia). This report presents the first data from seroepidemiological study on toxoplasmosis in Laos.

In the course of a comprehensive parasitological study in the Vientiane Province a group of inhabitants was examined for toxoplasmosis as well. The studied area, Keoudom, is located in the north of the province. The largest water basin in Laos with a hydroelectric power station on the Nam Ngum river dominates this region. Three groups of inhabitants were examined:- workers of

the hydroelectric power station and their family members, inhabitants of neighboring villages who earned their living by agricultural work and fishing, and out patients of the Institute of Malaria and Parasitic Diseases in Vientiane. Of 640 serum samples collected from persons in the age from 3 to 70 years 52 were anticomplementary and consequently excluded. The remaining serum samples were tested for toxoplasma antibodies using the complement fixation test (CFT) with the basic titer 1 : 16 (Čatár, 1961). Presence of toxoplasma antibodies was confirmed in 15.3% of sera examined (Table 1). Increase of seroprevalence was found with an increasing age. No significant difference in seropositivity was noticed between males and females (16.38% : 13.67%). Higher frequency of seropositivity by CFT was observed in 38 patients with simultaneous malaria infection (28.94%) but the highest titer of complement-fixing antibodies did not exceed 1 : 32. This could be explained by

Table 1

Toxoplasma antibodies in inhabitants of Laos, Vientiane Province.

Age (Years)	Examined sera no.	CFT positive		CFT negative	
		No.	%	No.	%
3-10	68	1	1.5	67	98.5
11-20	143	17	11.9	126	88.1
21-30	136	21	15.4	115	84.6
31-40	139	32	23.0	107	76.0
> 40	102	19	18.6	83	81.4
Total	588	90	15.3	498	84.7

CFT - complement fixation test.

activation of the toxoplasma infection raised by malarial parasites.

Our results on seroprevalence of toxoplasmosis in Laos are in concordance with those from the region. They are close to the results of Bowerman (1991) from rural India with 15% of seropositivity in subjects 2 to 63 years old by the indirect hemagglutination test. This report extends the list of food-borne parasitic zoonoses in Laos (Giboda *et al*, 1991). The further studies on clinic of toxoplasmosis in humans, and detection the major reservoir animals are needed.

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