

Thesis Title : Helminthiasis in primary school children
in Changwat Khon Kaen

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Abstract

The cross-sectional surveys of helminth infection in pupils in 6 primary schools in Khon-Kaen were conducted. Of the 6 schools, 3 were located in urban and the other 3 were in rural areas. The purpose of this study is to compare the prevalence and intensity of helminth infection between schools in urban and rural areas. Socioeconomic factors, sanitary conditions, habit of raw food consumption and shoes's wearing habit which may influence parasite infection are also investigated.

The overall prevalences of helminth infection between different groups of school were similar. The schools in urban area had the prevalence of 10.68 % and that for school in rural area was 8.64 %. When considering *Opisthorchis viverrini* infection, the prevalences were also similar, the schools in urban being 3.89 % and school from rural area being 3.12 %. Although the intensity of infection measured as egg per gram faeces

epg) showed no significant difference between two groups of school, a higher frequency of high epg was observed in school from rural area than those in urban area.

For hookworm infection, comparable prevalence were also observed and the prevalences are 0.96 - 2.27 %. There is a tendency that heavy infection as indicated by epg, was seen more in school from rural area than urban area. Other parasite found in the study were relatively low ($< 2\%$). They consisted of *Strongyloides stercoralis*, Minute intestinal flukes, *Echinostoma* sp. and *Taenia* sp.

Statistical analyses of the data on socioeconomic conditions reveal that there are significant relation between helminth infection and family income, helminth infection and the availability of toilet ($p < 0.05$). But there is no significant relation between knowledge on parasitic infection and helminthes infection ($p > 0.05$).

The frequency of raw fish consumption had no relationship with liver fluke infection ($p > 0.05$). But hookworm infection is related to shoe wearing habit ($p < 0.05$).