

Dynamics of geohelminth infection in a rural area of Sri Lanka

School children carry the heaviest burden of morbidity due to intestinal helminth infection. The objective of this study was to study the dynamics of geo-helminth infection in 349 school children aged 6 to 13 years living in Kataragama and Buttala which are rural areas of Sri Lanka. Stool samples were examined by direct saline smear in a baseline survey to determine the prevalence of intestinal parasitic infections and thereafter the children were followed up over a two year period with cross sectional surveys of stool samples being carried out at yearly intervals. Following collection of a stool sample, all the subjects were treated with mebendazole 500mg as a single dose. Weights and heights were measured using standardized procedures. 2ml of venous blood were collected from each subject under aseptic conditions to determine haematological indices. Compared to studies done in other parts of Sri Lanka, the prevalence of *Ascaris lumbricoides*, Hook worm and *Trichuris trichiura* infections was much lower, and the prevalence of geo-helminth infections declined during the two year period from 0.054% in 1997 to 0.022 % in 1998 and 0.020% in 1999 following mass anti-helminth treatment. The incidence density was 0.021 cases per child year. The reduction in the prevalence from the baseline to the second survey is probably due to the reduction of the reservoir of infection among children as a result of mass treatment at baseline. The prevalence of infection during the second and third surveys were almost the same probably due to infections originating from other segments of the untreated population. To evaluate the exact extent of geo-helminth infections, other segments of the population including adults and pre-school children have to be studied and the extent of infection in such groups of populations has to be considered in designing and implementing an elimination programme.