

Gastrointestinal protozoan parasites amongst school children in Inanam, Sabah

Abstract

Intestinal parasitosis is still an important public health problem. The aim of this study was to determine the prevalence of gastrointestinal protozoan parasites (GIP) in schoolchildren and its association with socio-economic and environmental factors. A series of sample collections for stool was carried out in Sekolah Kebangsaan Inanam II, Kota Kinabalu, Sabah. Samples from 100 schoolchildren were examined by direct smear and formol-ether concentration techniques. The modified Kato-Katz technique was performed to estimate the parasitic burden, expressed in the number of protozoa per gram of stool. The proportion of overall infected samples was 31%. When ranked by proportion, parasite loads were found as follows: *Entamoeba histolytica* (83.87%), *Giardia lamblia* (35.48%), *Entamoeba coli* (22.58%), *Entamoeba hartmanni* (25.81%), *Iodamoeba butschlii* (19.35%) and *Endolimax nana* (6.45%). Both single and double infections in the study had equal percentages (35.48%), followed triple infection (29.03%). There were no significant effects of protozoan infection on weight, height, attendance to school and examination results of the schoolchildren (Independent Group t-Test; $p > 0.05$). No significant association were found between the protozoan infection and the socio-economic and environmental factors (gender, age, occupation status of mother, house area category and the degree of household crowding). We conclude that the parasitic burden amongst the schoolchildren of Sekolah Kebangsaan Inanam II is minimal and is of less concerned.