

**ABSTRACT**

A cross sectional study was carried out in order (1) to compare the prevalence and intensity of infection of soil-transmitted helminths such as, *Ascaris lumbricoides*, *Trichuris trichiura* and/or hookworm in children aged 5 to 10 years living in an urban slum Kalikotok (n = 100) and in a low cost housing units (RSS Argopuro/control group) (n = 100) of Jember, (2) to asses the association of contamination of soil with soil-transmitted helminths eggs with prevalence of soil-transmitted helminthiases, (3) to determine the association of ascariasis with nutritional status and (4) to measure the knowledge, attitude, and practice (KAP) to asses maternal awareness related to soil-transmitted helminthiases.

The samples were collected by random sampling. Modified Kato-Katz technique was used to count the eggs of helminth and to know the intensity of infection. Contamination of soil with helminth eggs was investigated with the use centrifugal floatation technique using sucrose solution (sp. gr. 1.200). Nutritional status was determined by adopting National Center for Health Statistics (NCHS) Standard. Simple structured questionnaire survey was used to asses the KAP. Analyzing of data were descriptively and statistically using  $\chi^2$  and t tests.

The result indicate that there is significant difference ( $p < 0.05$ ) between Kalikotok and Argopuro (control group), as regards to the prevalence of the ascariasis and trichuriasis. The intensity of soil-transmitted helminthiases found in this study ranged between light to moderate. Intensity of ascariasis in Kalikotok was significantly higher ( $p < 0.05$ ) than in Argopuro (control group). The highest prevalence of infection was *A. lumbricoides*, but also showed no association with nutritional status ( $p > 0.05$ ). The KAP level of the mothers from Argopuro was significantly better than those from the Kalikotok ( $p < 0.05$ ). The contamination rate from the soil were significantly different ( $p < 0.05$ ) in the Kalikotok and Argopuro (control group). The strong association was found between contamination of soil with *A. lumbricoides* eggs and prevalence rate of ascariasis ( $C = 0.516$ ).

*Key words:* soil transmitted helminthiases, prevalence, intensity, contamination of soil, nutritional status, maternal awareness.