

Prevalence and Environmental Risk Factors of Hookworm Infection and Strongyloidiasis in Rural Areas of Indonesia

Blego Sedionoto¹, Witthaya Anamnant²

¹Department of Environmental Health, Faculty of Public Health Mulawarman University, Samarinda, 75123, Indonesia

²Department of Environmental Health, School of Public Health, Walailak University, Thasala, 80160, Thailand

***Corresponding author's Email: blegosedionoto@fkm.unmul.ac.id**

Abstract.

The prevalence of hookworm infection and strongyloidiasis is serious public health concern globally. In Java Island and Kalimantan Island have differential environmental risk factors of hookworm infection and strongyloidiasis, specially rural areas of Indonesia have high risk environmental factors of the prevalence of hookworm infection and strongyloidiasis. In this study would show the infection rates, correlation analysis between environmental risk factors and prevalence of hookworm infection and strongyloidiasis with statistical analysis. We performed a cross-sectional study among 226 school children from rural of East Java province, Central Java Province and East Kalimantan Province, Indonesia. In this study used two diagnostic methods: Kato Katz and Koga agar plate culture/KAP culture for diagnosing of hookworm and *Strongyloides* infections. Pearson chi-square analysis was used for study correlation between environmental factors and hookworm infection and strongyloidiasis. Hookworm, *Strongyloides sp*, and *Ascaris sp* infections were found in this study; 137(60.63%), 25(11.1%), and 124(9.84%) respectively. Environmental risk factors such as; rainy season, quality of soil and infection hookworm and *strongyloides* in pet have significant correlation (p value < 0.05) with hookworm infection and strongyloidiasis. The prevalence of hookworm infection and strongyloidiasis has correlation with environmental factors, and the finding in this research could be contributed for decreasing program of hookworm infection and strongyloidiasis especially in rural community area.

Keywords: *Environmental risk factors, hookworm infection, strongyloidiasis, rural areas, Indonesia*



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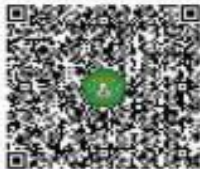
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NIP. 198211112005012001