

Soil-transmitted Helminth Infections among Antenatal Clinic Attendees Residing in a Resource-poor Coastal area, Sri Lanka

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Soil-transmitted helminth (STH) infections pose a notable health risk to children and pregnant mothers. Geohelminthic infections, particularly hookworm infections during pregnancy result in poor fetal outcomes. The national survey on STH infections conducted in 2017 showed a prevalence of 1% at national level. The revised Sri Lankan guideline based on these findings, recommended discontinuation of routine deworming of pregnant mothers in all districts. Since then, socio-economic circumstances in the country have deteriorated. The aim of this study was to reassess the situation among pregnant mothers in a high-risk area. A cross-sectional descriptive study was performed among pregnant women attending antenatal clinics in the Egoda Uyana, Medical Officer of Health area in Moratuwa during the month of November 2022. Faecal samples were examined using direct saline smears and Kato-Katz technique for helminth ova. Of the 480 registered clinic attendees, stool samples were provided by 246 (51.25%). The mean maternal age was 27.4 (range 16-43) years. The overall rate of STH infection was 2.4% (6/246). Mono-infections with *Ascaris lumbricoides* and *Trichuris trichiura* were 0.813% (2/246) and 0.40% (1/246) respectively while 1.28% (3/246) were co-infected with both species. No hookworm infections were seen. The faecal egg counts revealed that *A. lumbricoides* infections ranged from light to moderately heavy intensity (528-45,840 eggs per gram faeces) while all *T. trichiura* infections were of light intensity (24-672 epg faeces). Thirteen percent (32/129) of pregnant mothers had been dewormed during the pregnancy. None of the mothers with STH infections had been dewormed in the recent past. Although the national prevalence of STHs has declined to very low levels, this study provides evidence of residual transmission of STHs in unknown high-risk pockets such as this coastal community. Thus, close monitoring and targeted interventions are recommended.

Keywords: Pregnancy, Soil-transmitted helminth infections, Prevalence, Coastal community, Moratuwa