



Long-term Impact of Seven Years Antifilarial Mass Drug Administrations (MDAs) on Soil Transmitted Helminth (STH) Infections in Walgama, Matara, Sri Lanka

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Abstract

National Programme to Eliminate Lymphatic Filariasis (PELF) in Sri Lanka MDA, in 2002 with 6mg/Kg diethylcarbamazine (DEC) and 400 mg albendazole. Filariasis Research Training and Service Unit (FRTSU) of University of Ruhuna evaluated them. Changes in STH prevalence in Walgama suburb were presented elsewhere (Yahathugoda, *et al.*, 2010). The August 2014 study was to evaluate its long term impact on the same population. In three study sites selected based on pre-MDA (June 2001) and post-MDA (Dec 2006) data from Walgama, Matara two stage cluster sampling was used to select 59-150 age and sex matched sample in each locality for the study seven years since MDA. Faecal examinations were performed using the modified Kato-Katz – cellophane thick smear and direct normal saline and iodine smear methods. A total of 344 samples [Hamugewatta, n=135; Matotagama, n=59, Walgama, n=150] were examined. They had comparable age and sex data with 2001 and 2006 samples. They were negative for *Ascaris lumbricoides*, Hookworm and *Trichuris trichiura* only the last detected in 2006. Albendazole used in anti-filarial MDA caused 100% disappearance of ascariasis and hookworm infection while accumulating only trichuriasis in the community by 2006. This may be attributed to low sensitivity of *T. Trichiura* to albendazole (de Silva, *et al.*, 2003). Current results indicated that STH could reach zero once it was suppressed to a low level (<10%). The eliminations of STH in these communities would have been facilitated by various reasons. According to Ministry of Health circular all MOHs in Matara district should conduct annual Mebendazole (500mg) MDAs, 2014 onwards. Our study indicated that a known high endemic region reached zero prevalence even before the MDA. Therefore, all MOHs should conduct probe surveys prior MDAs as blind MDAs are not cost-effective and may produce multi drug resistance.

Keywords: Albendazole, Antifilaria MDAs, Ancillary benefits, Combined filarial treatment, STH.