

Preliminary Findings of an Ongoing Study on Transmission of Lymphatic Filariasis in Jaffna District

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The distribution of Lymphatic Filariasis (LF) in Sri Lanka was mainly confined to Southern and Western provinces. However, the infection status of LF has not been studied well in North and East provinces. With this background, a study was carried out to find out any ongoing transmission in Jaffna district.

The indirect questionnaire based Rapid Assessment Procedure using Grama Niladharis (GNs) as key informants was used for initial assessment of clinical lymphatic filariasis case burden. Ten schools were selected from areas where high caseloads were reported by GNs. From each pupil, 5ml of urine sample was collected and tested for IgG4 filariasis specific antibodies.

Further, mosquitoes were collected as a pilot using CDC gravid trap from three locations of the study area and the species were identified morphologically using standard keys. Five GNs (10%) have reported of elephantiasis and/or hydrocoele cases. Ten out of 240 urine samples (4.2%) were weakly positive (Valikamam zone-4, Jaffna zone- 4 and Vadamarachi zone -2). A total of 688 mosquitoes were collected during the study period, out of which 533 (77.4%) were Culex mosquitoes. Among them, 97.2% (518) were identified as Culex quinquefasciatus which is responsible for the transmission of LF in Sri Lanka.

In conclusion, all positives have had very low IgG4 titers, however, it might be an indication of ongoing transmission. Further, LF specific vector density was high as an endemic district. Therefore, it is worthwhile to carry out an epidemiological profile in the village level to study the ongoing LF transmission which is unexplored in Jaffna district.

Keywords: Lymphatic filariasis, IgG4 filariasis specific antibodies, Culex quinquefasciatus