

Clinico-epidemiological aspects of *L. donovani* cutaneous infections in Sri Lanka

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Introduction

Human cutaneous leishmaniasis (CL), caused by the usually visceralizing species *L. donovani*, has recently emerged as an important public health problem in Sri Lanka. Furthermore, genetic studies showed that the local strain of *L. donovani* is different from the members of same species complex found in other endemic sites in the world indicating possible differences in the clinico-epidemiological characteristics too.

Objectives

Study aimed at identifying clinico-demographic characteristics, annual seasonal variation and spatial distribution of leishmaniasis.

Methods

Patients who were referred to us with a provisional diagnosis of CL were recruited for the study after informed written consent. Patients were clinically evaluated. A pre-tested interviewer administered questionnaire was completed. Laboratory diagnosis was established by light microscopy (LM) and/or PCR performed on lesion material. Data was entered and analyzed using SPSS.

Results

Highest number of cases were received from the districts of Matara (n=726, 40.3%), Hambantota (n=316, 17.5%), Anuradhapura (n=205, 11.4%) and Vavuniya (n=182, 10.1%). Over 90% of patients provided adequate evidence to conclude that the disease was contracted while based in the same province. There is bi-annual seasonal variation of case presentation with 2 peaks in April-June and August-October. Majority in laboratory confirmed group (n=467, 46.4%) was in the 21-40 year age group. Mean ages did not differ by gender (32.9 years, SD=18.4) for males and 34.1 years (SD=20.6) for females. Lesions were mainly single (n=845, 84%), presented within 6 months of onset (n=871, 86.6%), less than 2cm in diameter (n= 932, 92.7%) and rounded in shape (n=752, 74.8%). There were several types of lesions seen approximately in equal proportions (papules of less than 1cm diameter-22.6%, nodules -32.5%, ulcerating nodules-27.4% and ulcers 28.2%). Most of the lesions were found on exposed body areas (forearm and hand- 46.3%, head and neck region-37.1 %).

Conclusions

Disease seems to be transmitted regionally within the island. Almost all the districts were affected. Local strain of *L.donovani* is mainly dermatrophic, but may possess the ability to spread. Appropriate control measures may be urgently required to minimize further spread.

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