A Study On The Profile Of Patients With Lymphatic Filariasis

Neerja Puri, Ashutosh Talwar

1Consultant Dermatologist, Punjab Health Systems Corporation
2Consultant Surgeon, Punjab Health Systems Corporation

Abstract

Lymphatic filariasis [LF], caused by Wuchereria bancrofti and is spread by mosquitoes. LF has traditionally been considered to be a disease associated with poverty, inadequate sanitation and underdevelopment. To study the profile and clinical features of ten patients with lymphatic filariasis in a district hospital in North India. A retrospective study of 10 patients of lymphatic filariasis from 2009 to 2012 was done. Regarding the occupation of our subjects, 60% patients were labourers and 40% patients were farmers. 80% patients were from low income group, 20% patients were from middle income group and none of the patients were from high income group. Lymphoedema was the commonest clinical sign seen in 100% patients, elephantiasis was seen in 50% patients, hydrocele in 20% patients and pulmonary eosinophilia was seen in 10% patients. From this study it indicates that low and medium socioeconomic conditions and disease prevalence rates favour the probability of LF.

Key Words: Filariasis; lymphatic; mosquitoes; lymphoedema; elephantiasis

INTRODUCTION

Lymphatic filariasis is a parasitic disease caused by microscopic, thread-like worms that only live in the human lymph system, which maintains the body's fluid balance and fights infections.[1] Lymphatic filariasis [LF], caused by Wuchereria bancrofti and transmitted by the Southern house mosquito Culex quinquefasciatus, accounts for 95% of the total LF cases in India. It is spread from person to person by mosquitoes. Most infected people are asymptomatic and never develop clinical symptoms. A small percentage of people develop lymphedema, which may affect the legs, arms, breasts, and genitalia; bacterial infections that cause hardening and thickening of the skin, called elephantiasis; hydrocele [swelling of the scrotum] in men; and pulmonary tropical eosinophilia syndrome.[2,3] Treatment may include a yearly dose of medicine, called diethylcarbamazine [DEC]; while this drug does not kill all of the adult worms, it prevents infected people from giving the disease to someone else.

The chronic manifestations of filariasis can have significant, and often very negative, social impact. Sociodemographic factors such as ethnic group, parent's education and occupation, use of protective measures, and living standard of the family are suggested to be important risk factors for epidemics of vector borne disease.[4,5,6] Victims of this disease mostly are poor who live in favourable conditions for the mosquitoes to transmit the disease easily.

MATERIALS AND METHODS

A retrospective study of 10 patients of lymphatic filariasis from 2009 to 2012 was done. All the available data including age, sex, socioeconomic status and clinical profile was noted. The data was collected both from the departments of surgery and dermatology.

RESULTS AND DISCUSSION

The results were tabulated and the data was analysed statistically using chi square test.

It was found that maximum [40%] percentage of patient was between 31 – 40 years of age, followed by 30% patients between 21-30 years, 20% patients between 41-50 years and 10% patients between 10-20 years. Regarding the occupation of our subjects, 60% patients were labourers and 40% patients were farmers. 80% patients were from low income group, 20% patients were from middle income group and none of the patients were from high income group. Lymphoedema was the commonest clinical sign seen in 100% patients [Fig 1], elephantiasis was seen in 50% patients [Fig 2], hydrocele in 20% patients and pulmonary eosinophilia was seen in 10% patients. Lymphatic filariasis [LF], the second most common vector-borne parasitic disease after malaria, is found in 81 tropical and subtropical countries. World Health Organisation [WHO] estimates that 120 million people are infected with this parasite and 1.3 billion [i.e. >20% of the global population] are living at risk of infection. It is estimated that 40 million people are suffering from the long term complications of the disease. Rural and urban areas in India suffer with lack of adequate antifilarial measures and it is estimated only 11% of the endemic population is protected by the National Filaria Control Programme [NFCP], Government of India.

In the present study occupation and income were found to be significant with the microfilaria prevalence. The occupation of the inhabitants was mainly agriculture, labourers followed by people pursuing their family vocations. It was found that the disease prevalence was significant among those living in close proximity to irrigated agriculture and labourers [engaged in agricultural practices]. Agriculture can facilitate the proliferation of mosquitoes including those transmitting filaria.[7] However, in the study area most of the population are low [<1,000] and middle income group [1,000–3,000] house holds and are more risk prone to filariasis. High and middle income participants are generally benefited from clean homes and facilities to maintain personal hygiene and they could afford the cost of the treatment for filariasis. Low income participants lived in less-hygenic conditions and thus were more prone to the infection. Earlier studies reported that low income people are more at risk to lymphatic filariasis and the disease burden is relatively higher in...
significant association between not using a mosquito net and presence of microfilaremia was reported.

CONCLUSION

From this study it indicates that low and medium socioeconomic conditions and disease prevalence rates favour the probability of LF. The results may be used equally in the target groups of the endemic populations. It is also necessary to attempt changes such as, protection against mosquitoes using insecticide treated nets. India is the leading LF endemic country in the world, the global elimination of LF depends much on the success of Indian continent. To achieve the goal of elimination of LF health officials, policy makers should make proper planning keeping in view the socioeconomic, environmental conditions and other logistics.

REFERENCES


Conflict of Interest

All the authors participated to complete this paper declared no conflict of interest.

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