



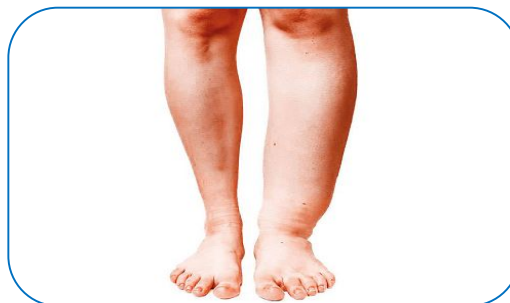
GENDER WISE OCCURRENCE OF ELEPHANTIASIS PATIENTS WITHIN OSMANABAD DISTRICT (MS) INDIA

Sayad Jalil Hussain Abrar¹, Mohd.Ilyas Mohd Fazil² and Shaikh Feroz*

* Department of Zoology Milliya Art's Science and Management Science College, Beed (MS), India.

ABSTRACT :

Filariasis - a disease caused by parasitic worms known as filariae. These filariae are microscopic roundworms which dwell in the blood as well as in the tissues of humans. In humans the most important filarial disease observed is lymphatic filariases. Lymphatic filariases also called as "elephantiasis." Elephantiasis is an extreme clinical feature of the filariasis disease. Present study was undertaken in an attempt to shed light on the effect of various environmental factors on the prevalence and occurrence of Filariasis disease within 8 talukas of Osmanabad district of Maharashtra. We observed that during higher temperature and humidity prevalence of disease increased significantly. Gender, seasons are the other factors which influence the occurrence of the disease.



KEYWORDS : Filariasis, Elephantiasis, Osmanabad, Temperature, Humidity.

1. INTRODUCTION

Filariasis - a disease caused by parasitic worms known as filariae. These Filariae are microscopic round worms which dwell in the blood as well as in the tissues of humans. In humans the most important filarial disease observed is lymphatic filariases. In this disease adult worms are found in the lymphatic system. Lymphatic filariases also known as "elephantiasis." Elephantiasis is an extreme clinical feature of the filariasis disease Kabaterieine NB, Malecela (2010)

Symptoms of lymphatic filariasis can be grouped into asymptomatic, chronic, and acute manifestations. Most of the patients with lymphatic filariasis behave clinically asymptomatic. This asymptomatic appearance do exists despite the presence of microfilariae in their blood and hidden damage to patient's lymphatics. The duration of this asymptomatic period is directly associated with the quality of the immune response of patient Fredman DO, et.al. (1994). Acute filariasis is featured by periodic emergence of inflammation of the lymph glands (lymphadenitis), lymph channels (lymphangitis) and subsequent swelling of the limbs or scrotum (lymphedema). These symptoms are characteristically associated with pulmonary eosinophilia, fever and malaise. Filariatic fever is generally seen with headache and chills, and will usually occur at the time of lymphangitis. Lymphatic filariasis is a disease of underdeveloped regions of South America, Central Africa, Asia, the Pacific Islands, and the Caribbean. Chu BK, (2010) Filariasis in India is mostly caused by the helminths *W.bancrofti* and *B. malayi* [6].

Present study was undertaken in an attempt to shed light on the effect of various environmental factors on the prevalence and occurrence of Filariasis disease within 8 talukas of Osmanabad district of Maharashtra.

2. METHODOLOGY

The current study aims to investigate different environmental factors responsible for the prevalence and occurrence of the filarial parasite. Thus identify the risk factors associated with Filariasis and its prevalence at the district level. The survey method was used for the present research. Taking environmental factors like temperature and humidity into consideration a questionnaire was prepared. During the construction of questionnaire parameters like symptoms, frequency and occurrence of disease, gender etc. were also included. Survey was conducted within eight (8) talukas of Osmanabad district during the period of 2016 to 2018. Based on the response to the questionnaire, data obtained was further analyzed and interpreted.

RESULTS :

1. According to the survey following facts could be established.

- **Gender:**

Doctors believe that female cases of filariasis were more than their counterparts. As can be seen in Table 1 and 2, female patients [60.22%] are found more in the year 2016-17 and in 2017-18 [60.43%].

Gender wise occurrence of elephantiasis disease

Sr. No	Gender	2016-17		2017-18	
		No. of Patients	Percentage	No. of Patients	Percentage
1	Male	35	39.77	36	39.56
2	Female	53	60.22	55	60.43
3	Total	88	100	91	100

Table No 1 Gender wise occurrence of elephantiasis disease within Osmanabad district 2016-2017

Sr. No	Taluka	No. of Patients in 2016-17			
		Male	%	Female	%
1	Paranda	1	2.94	1	1.88
2	Bhoom	0	0	0	0
3	Osmanabad	4	11.76	5	9.43
4	Lohara	5	14.7	2	3.77
5	Tulajapur	5	14.7	14	26.41
6	Omerga	18	52.94	30	56.6
7	Washi	0	0	0	0
8	Kalamb	1	2.94	1	1.88
	Total	34	100	53	100

Graph No 1

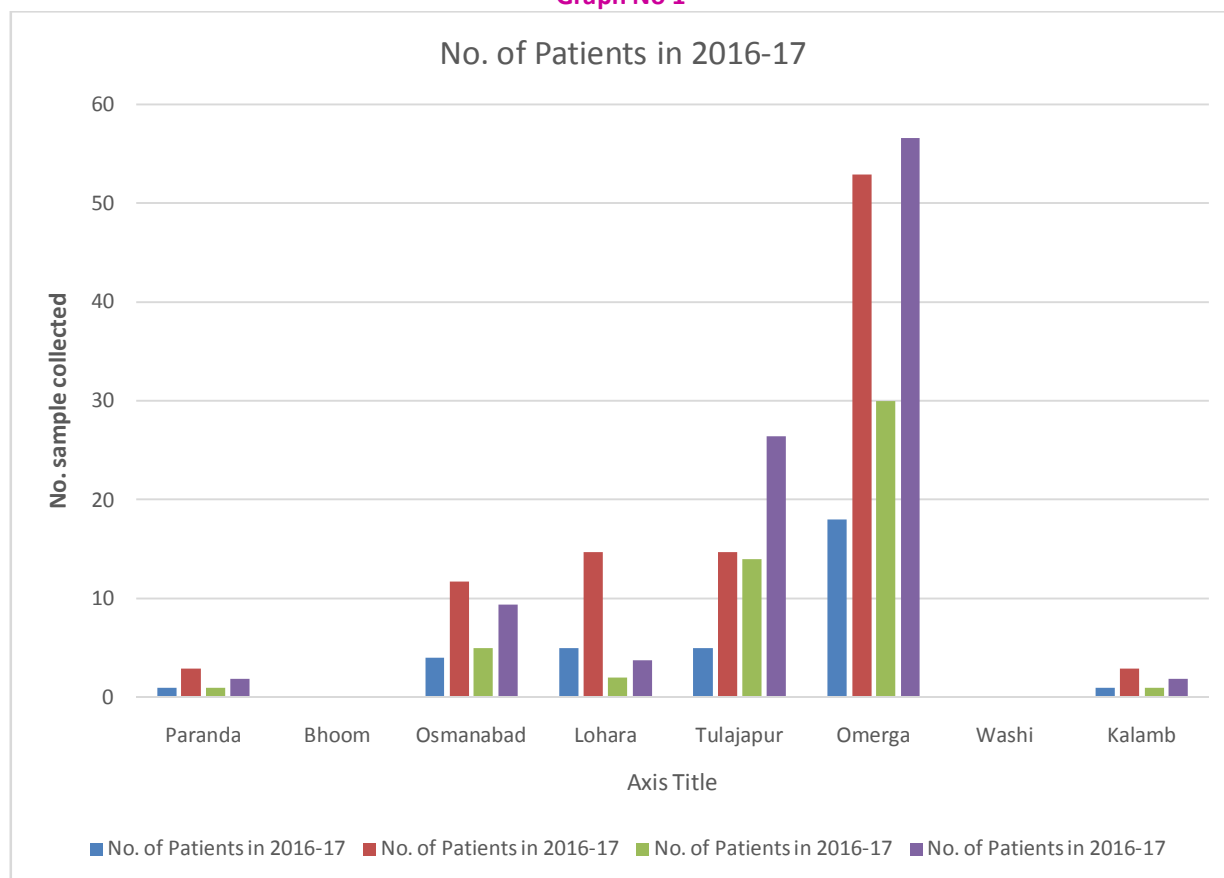
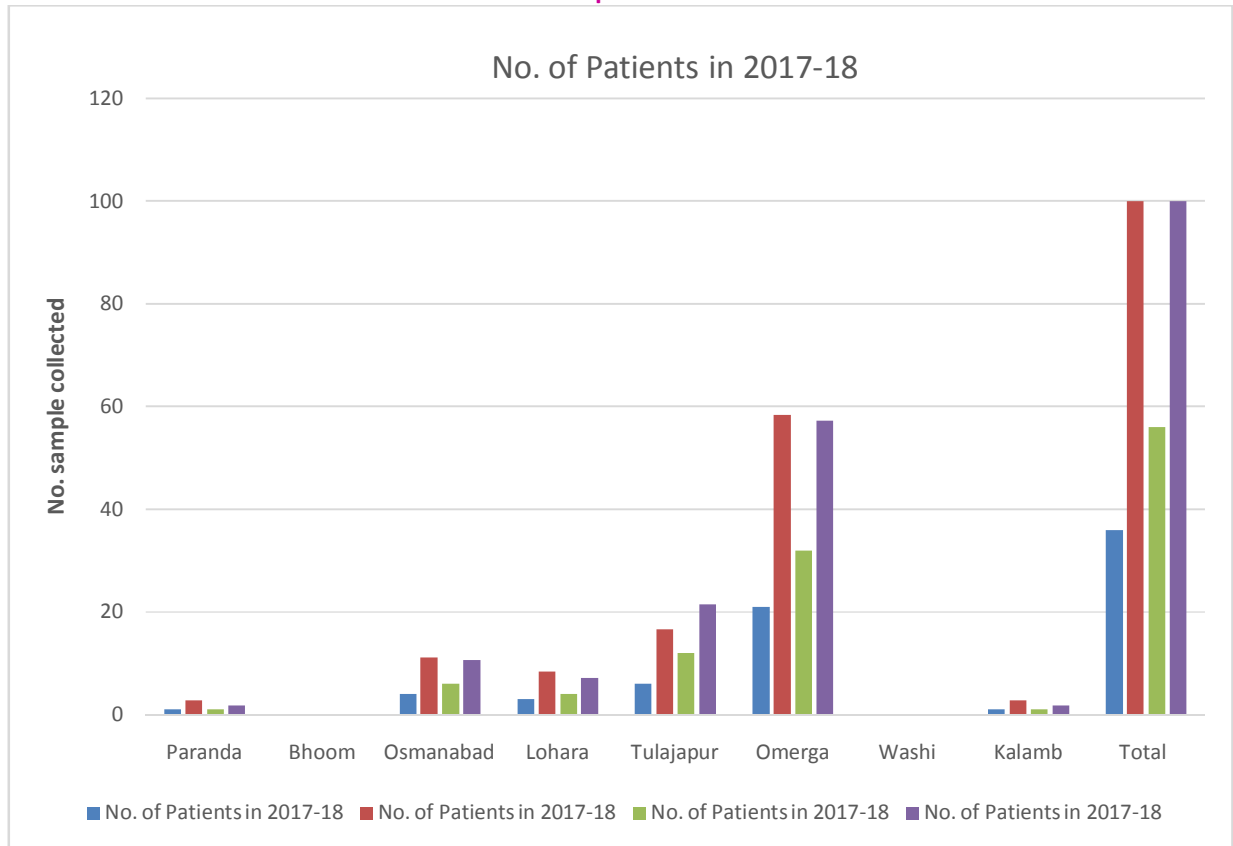


Table No 2 Gender wise occurrence of elephantiasis disease within Osmanabad district 2017-2018

Sr. No	Taluka	No. of Patients in 2017-18			
		Male	%	Female	%
1	Paranda	1	2.77	1	1.78
2	Bhoom	0	0	0	0
3	Osmanabad	4	11.11	6	10.71
4	Lohara	3	8.33	4	7.14
5	Tulajapur	6	16.66	12	21.42
6	Omerga	21	58.33	32	57.14
7	Washi	0	0	0	0
8	Kalamb	1	2.77	1	1.78
	Total	36	100	56	100

Graph No 2



● **Cure:**

According to the survey, doctors stated that elephantiasis disease can be cured. Following observation were recorded during the survey of the disease occurrence-

DISCUSSION :

As lymphatic filariasis programs move toward elimination, the use of PCR to identify *W. bancrofti* infection in mosquitoes should become an increasingly important tool in certifying the absence of LF transmission. However, important limitations exist when linking the results from PCR assays of vector mosquitoes to LF transmission. The current *W. bancrofti* PCR assay is not stage specific, so it is impossible to know if a positive mosquito pool contains the infective L₃ stage of the parasite. Indeed, the sensitivity of the assay is such that a positive result could potentially be achieved with only the remnants of dead parasites present in a mosquito, as has recently been shown in PCR assays of mosquitoes for *Brugia malayi*. Fischer P. (2007)

Overall, PCR becomes more cost effective than dissection when mosquito infection levels are low and when pools of mosquitoes can be tested. As infection levels drop, it becomes increasingly difficult and more costly and time consuming to dissect large numbers of mosquitoes with little or no infection ever detected. Bockarie MJ, (2000).

However, before the mosquitoes of a region can be pooled for analysis, particularly if several different species are vectors, to assess the relatively contribution of each species to transmission. Different regions contain unique sets of characteristics that influence LF transmission, and the application of molecular and entomological indices should be used accordingly. In our study, we found that morphologically indistinguishable sibling species provide similar contributions of LF transmission, allowing us

to visually separate our pools for molecular testing. Operationally, this finding is critical to allow entomological indices to be correctly measured and proper conclusion drawn.

Most of the patients in this study affecting their lives, causing shyness, depression and intense worry about progression of disease to elephantiasis. A few had been suicidal as well at some point of their disease. Similar negative feelings have been reported in studies done in other areas, Krishna Kumari et.al. 2005.

CONCLUSION :

According to the above table in the year 2016-2017, 39.77% in 2017-2018 39.56% of filariasis patients of male gender are found in osmanabad district on the other hand in 2016_17, 60.22% and in 2017-18, 60.43%, female patients found in osmanabad district.

According to the above analysis, it is clear that female patients i. e. 60.22% are found more than that of male patients that is 39.77 in 2016-2017. in 2017-2018 also the female patients percentage i. e. 60.43 is more than that of male patients that is 39.56

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