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A Study on Perception Regarding Lymphatic Filariasis and Mass Drug Administration In South India

KEYWORDS: Lymphatic filariasis,Mass Drug Administartion,perception

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ABSTRACT

Introduction: *Lymphatic Filariasis(LF) is a major public health problem in India.The most practical and feasible method of controlling LF is to rapidly reduce the microfilaria load in the community by annual mass drug administration (MDA) of a single dose of antifilarial drugs, i.e. of diethylcarbamazine (DEC) or ivermectin with or without albendazole. In spite of massive efforts, the program demonstrated sub-optimal coverage and consumption in urban areas than rural. People's knowledge regarding the disease, it's transmission, role of MDA in disease elimination, all these factors influence the compliance of MDA. So it was decided to conduct a study to assess these parameters.*

Materials and methods: *A cross-sectional study among attendants accompanying patients of general OPD of Urban Health Centre of Katuri Medical College,Guntur (A.P.)was conducted to assess their Knowledge, attitude & perception regarding LF & MDA.*

Results: *198(90.83%) respondents had heard of filariasis and 83(38.07 %) believed that drug can be used to treat the disease. 169(77.52 %) and 29(13.30%) recognize elephantiasis and hydrocele as sequelae of lymphatic filariasis respectively. Drugs during MDA were received by 171(78.44 %) no. of respondents and were consumed by 103 (60.23 %) of recipient. Reasons for nonconsumption of drug were fear of side effect spread by false rumor 31(45.59%), lack of knowledge regarding the program 5 (7.35%).*

Conclusion*: Knowledge of the beneficiaries has to be strengthened, perception & attitude has to be addressed to achieve positive behavioral change which will eventually lead to higher compliance of MDA. Intensive IEC(Information, education & communication) must be done in order to improve community knowledge regarding lymphatic filariasis and role of MDA in its elimination, for the success of the programme.*

Introduction

Lymphatic Filariasis(LF) is a major public health problem in India. Andhra Pradesh is one of the state having high burden of filariais.LF is associated with grossly swollen limbs and genitals. It has been ranked as the second leading cause of disability worldwide [1]. The International Task Force has identified the disease as an eradicable or potentially eradicable disease for Disease Eradication. Environmental control being a long term measure, the most practical and feasible method of controlling LF is to rapidly reduce the microfilaria load in the community by annual mass drug administration (MDA) of a single dose of antifilarial drugs, i.e. of diethylcarbamazine (DEC) or ivermectin with or without albendazole. Five to ten rounds of treatment with 75%–80% compliance could possibly eliminate the disease by reducing transmission to a very low level . MDA has been in operation in 36 out of 83 endemic countries. It was introduced in 13 endemic districts of India in 1997 .Coverage and consumption (compliance) are the two crucial factors in the success of Mass Drug Administration (MDA) program. In spite of massive efforts, the program demonstrated sub-optimal coverage and consumption in urban areas than rural. People's knowledge regarding the disease, it's transmission, role of MDA in disease elimination, all these factors influence the compliance of MDA [2]. So it was decided to conduct a study to assess these parameters.

Materials and methods

A cross-sectional study among attendants accompanying patients of general OPD of Urban Health Centre of Katuri Medical College,Guntur (A.P.)was conducted to assess their Knowledge, attitude & perception regarding LF & MDA. After getting permission from the authority &

obtaining consent, data was collected from attendants accompanying patients . Using convenient sampling method the study was conducted for 3 months from July 2012 to September 2012**.** Data from OPD were collected on two OPD days per week .In case more than one attendant accompanied any patient, only one attendant is selected by lottery method was included in the study . A total of 218 attendants were selected by convenient sampling method.

Data was collected by a single interviewer to avoid inter observer bias .An average of 5 –10 minutes was spent per person. Data was collected by interview in local language based on a pre-tested semi structured questionnaire .Questions were focused on knowledge regarding clinical manifestation of lymphatic filariasis,knowledge regarding role of mosquitoes in disease transmission, knowledge and compliance of MDA and reasons for non-compliance.

Result

198(90.83%) respondents had heard of filariasis and 83(38.07 %) believed that drug can be used to treat the disease. In this context, persons were not referring to a specific drug; rather, they believed a drug existed that could cure these conditions. Filariasis was ranked second to acquired immunodeficiency syndrome as perceived health problems where no satisfactory treatment was believed to be available whereas treatment for other conditions such as malaria, intestinal worms, anemia, and diarrhea was easily obtained. 169(77.52 %) and 29(13.30%)

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recognize elephantiasis and hydrocele as sequelae of lymphatic filariasis respectively; where as only 5(2.29%) were aware of febrile attacks of adenolymphangitis.

Drugs during MDA were received by 171(78.44 %) no. of respondents and were consumed by 103 (60.23 %) of recipient. Prior knowledge regarding date of distribution was absent in 143(65.59%).Only 99(45.41%) knew that taking medicine during MDA could eliminate LF though 127 (58.25%) were aware of the programme. Message of MDA was carried to the community on the day of drug distribution by the drug distributors in 181(83.03%) where as news paper and TV were the source of information in 36(16.51 %) and 31(14.22%) respectively.

Out of those who received drugs only 36 (21.05%) swallowed them in front of the distributor & 67(39.18%) swallowed it later on, where as 68(39.77%) did not consume them. On asking the reason for nonconsumption, it was observed that 29 (42.65%) felt the drug to be unnecessary, as they themselves did not suffer from filariasis. The other reasons were fear of side effect spread by false rumor 31(45.59%), lack of knowledge regarding the program 5 (7.35%),adverse effect of drug in previous round 3 (4.41%). Majority of respondents who consumed the drug later wanted to have it after intake of some food whereas some of them waited for consultation with other community members before having it. None of the respondent who consumed drugs reported any side effect. Primary reasons given for failing to receive medicine were absenteeism during drug distribution period 33 (70.21%) & non-coverage of the area by distributor 14(29.79%).

Discussion

The findings in the present study reflect poor basic knowledge regarding LF, though 198(90.83%) of respondents have heard of filariasis. Only 79(14%) have knowledge regarding role of mosquito in disease transmission . Similar observation has been reported by Eberhard ML et al [3] in which fewer than 50% of residents had heard of filariasis and only 6% of those surveyed knew that it was transmitted by mosquitoes and 15% believed that a drug could be used to treat elephantiasis. However, better results were found in a study by Yahathugoda et al [4] in which over 70.0% knew that transmission was through mosquito bites. Another study by Rath k et al [5] in costal orissa shows that 1/3rd were aware of role of mosquito in disease transmission & 50% thought it could be cured by taking medicine .

Although hydrocele is a much common manifestation of LF than elephantiasis, 169(77.52 %) respondents in our study knew elephantiasis to be a consequence of LF where as only 29(13.30%) were aware of hydrocele similar to findings of Babu et al [6]. Knowledge regarding symptoms of acute manifestation like adenolymphangitis was almost absent.

Drugs during MDA were received by 171(78.44%) & were consumed only by103 (60.23 %) of those who received drugs) in our study. Another study by Babu BV [2] in Khurda dist in 2002 reported 35.15% drug compliance. BV Babu [2] reported fear of side effect to be a major reason for non-consumption where as in our study majority of non-consumer felt the drug to be unnecessary. The compliance is still far away from the desired level in both the studies.

Only 99(45.41%) respondents in our study knew that LF could be eliminated by MDA whereas 127 (58.25%) were aware of the programme. In a study in coastal districts of Orissa by Rath K et al [5] 55% knew that LF could be eradicated by taking medicine.

Conclusion

Even after five rounds of MDA basic knowledge regarding LF is poor & a relatively low proportion of people are aware of the fact that taking medicine can eliminate it. Drug compliance was also very low . Lack of awareness regarding the disease and role of MDA in its elimination is one of the major reasons for poor compliance of drug during MDA.

As there are plans to undertake further rounds of MDA , knowledge of the beneficiaries has to be strengthened, perception & attitude has to be addressed to achieve positive behavioral change which will eventually lead to higher compliance of MDA. Intensive IEC(Information, education & communication) must be done in order to improve community knowledge regarding lymphatic filariasis and role of MDA in its elimination, for the success of the programme. Information from such post MDA survey can be useful in developing area specific-health education programme for subsequent MDA .

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Table 1:Distribution of respondents as per knowledge regarding the disease

Knowledge	Present	Absent
Knowledge regarding lymphatic filariasis	198(90.83%)	20(9.17%)
Knowledge regarding mode of spread	79(36.24%)	139(63.76%)
Knowledge regarding clinical manifestations	177(81.19%)	41(18.81%)
Knowledge regarding availability of drugs	83(38.07%)	135(61.93%)

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