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Knowledge, Attitude and Practice Study Regarding Dengue among Rural Communities in Chitradurga City

N. Gowthami[1], Bharathi DR[2], Nataraj G.R[3], Sulfeena T.P[1]

[1]Pharm D Intern, SJM College of Pharmacy, Chitradurga-577502,
[2]Professor, SJM College of pharmacy,Chitradurga, 577502
[3]Asst.Professor, Department of Pharmacology, SJM College of Pharmacy, Chitradurga. 577502.

Corresponding Author: N. Gowthami

ABSTRACT

Background: Dengue fever is one of the major mosquito-borne diseases caused by dengue virus through the bite of female Aedes mosquito.
Objectives: To assess the knowledge, attitude and practices regarding dengue fever among rural communities.
Methodology: A prospective interventional study was carried out for a period of six months. The study was carried out in selected areas of Chitradurga.
Results: A total 405 subjects were participated in to the study, among them 196 were males and 209 were females. Most of the subjects had source of information about dengue through all the above (health department, newspaper, friends, TV/radio) (29.3%). Also they got information from health department staff (26.4%), newspaper (15.8%), friends (14.3%), television/radio (14%). Almost all subjects said dengue is preventable and communicable.
Conclusion: It is concluded that selected areas of Chitradurga population were having good knowledge regarding prevention of dengue fever. Therefore, there is need for further information, education and communication programs prevention of dengue fever and this achieved by organizing health education campaigns in community.

Key words: Dengue fever, cross sectional, KAP, selected areas.

INTRODUCTION

Dengue fever (DF) is a mosquito-borne viral infection causing a severe flu-like illness and, sometimes causing a potentially lethal complication called severe dengue transmitted by bites of Aedes aegypti and Aedes albopictus mosquito. Dengue fever (DF) is caused by any of four closely related viruses, or serotypes: (DENV 1, DENV 2, DENV 3, DENV 4). Symptoms of infection characterized by a sudden onset of high fever (103-106°F), severe headache, backache, intense pain in joints and muscles, retro-orbital pain, nausea and vomiting and a generalized erythematous rash that usually begin 4-7 days after the mosquito bite and typically last 3 - 10 days. [1] India emerges in the analysis as the country with the world's highest dengue burden, with about 34% of all such cases occurring here. [3] Dengue fever or dengue haemorrhagic fever with plasma leakage that may lead to hypovolemic shock and dengue shock syndrome. The illness often begins with a sudden rise in temperature accompanied by facial flush and other flu-like symptoms. There is no specific treatment for dengue, but appropriate medical care frequently saves the lives of patients with the more serious dengue hemorrhagic fever. [5] The rapid increase in human population, lack of awareness among people, environmental changes, social changes and increased breeding of vector mosquitoes resulted in increased dengue transmission. Water storage drums, flower vases, cement tanks, plastic and metal drums, tyres, bottles, tin cans, coconut shells and other such discarded containers which can hold rainwater, overhead tanks, ground water storage tank, etc. are the source of breeding of Aedes mosquitoes. [3] Dengue vector control requires effective participation of the local community.

Although education campaigns have increased people's awareness of dengue, it remains unclear to what extent this knowledge is put into practice, and to what extent this practice actually reduces mosquito populations. [4] People have inadequate knowledge about dengue and its preventive methods. They need more understanding of dengue fever. There is a need to make rural people aware of different preventive practices and reduce knowledge application gap. There is a need for information, education and communication programmes to combat problems related to this disease. [6]

From the above facts it is clear that awareness regarding dengue is necessary to our society. Hence we are planning to conduct a study on "Knowledge, Attitude and Practices regarding Dengue among Rural Communities in Chitradurga City"

MATERIALS AND METHODS

Study design : A Community Based Prospective Interventional study.

Study site : The study will be conducted in selected areas of Chitradurga.

Study period : The study was conducted over a period of six months from 2017 to 2018.

Study subjects: All people of selected area of Chitradurga of both genders.

Inclusion criteria:

- Subjects of age group 18-65 years of both the genders
- Selected villages of Chitradurga city.

Exclusion criteria:

- Subjects who are not willing to give inform consent form.

Ethical approval:

The study was approved by the Institutional Ethical Committee of Basaveshwara Medical College Hospital& Research Centre, Chitradurga.

Sources of data:

- Demographics of study subjects
- Interview with the study subjects.

Study procedure:

- The study was conducted in selected areas of Chitradurga, after taking the ethical clearance from institutional ethics committee. After obtaining the informed consent. Firstly, the study subjects will be given a questionnaire and the answers will be collected and evaluated, which will be the pre-test. After pre-test, verbal education along with patient information leaflets. After a gap of fifteen days, post-test will be conducted on the same study subjects with the same questionnaire to be filled, after which it will be evaluated.
- The questionnaire will be scoring type with multiple choice questions. Each correct answer will be awarded one mark, whereas each wrong answer will be given zero marks.

All these results are analysed by using Microsoft excel 2013 and paired T test to compare the collected data from different selected areas of Chitradurga. P<00.5 will be considered as significant value.

RESULTS

Total no of 421 subjects were enrolled in the study of 1st visit, out of which only 405 subjects were present in the 2nd visit. Hence we have selected the data of 405 subjects for further study analysis and remaining 16 subjects were excluded from the study.

A self prepared questionnaire is used for taking data. Some are

1) What is dengue?

a) Bacterial infection
b) Fungal infection
c) Viral infection
d) Protozoa infection

2) Which mosquito causes dengue?

a) Male
b) Female
c) Both
d) Don't know

3) Which blood cells affected by dengue?

a) Platelet
b) Red blood cells

c) Both
d) Don't know

4) At what time dengue mosquito mostly bite?
a) During dusk
b) During dawn
c) During night
d) None of the above

5) How do you prevent mosquito bite?
a) Using mosquito repellents and coils
b) Applying anti mosquito creams
c) Using full sleeved cloths and bed nets
d) All the above

6) How you know about dengue?
a) Television/radio
b) Newspaper
c) Friends
d) Health department staff
e) All the above

Distribution of the subjects according to gender

Almost 405 subjects were enrolled during the study period. Among them 196(48.3%) were males and 209(51.6%) were females as shown in fig 1

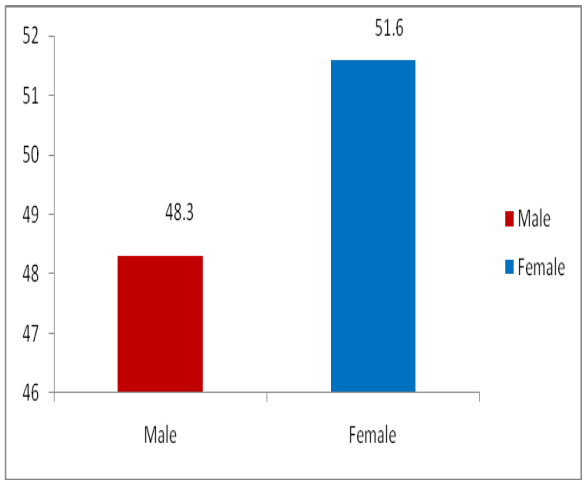

Fig 1: Distribution of Subjects according to Gender.

Distribution of the subjects according to age wise allotment of score

Significant distribution in the age wise distribution of marks during post test in the subjects aged 18-65years and was more significant as shown in fig 2

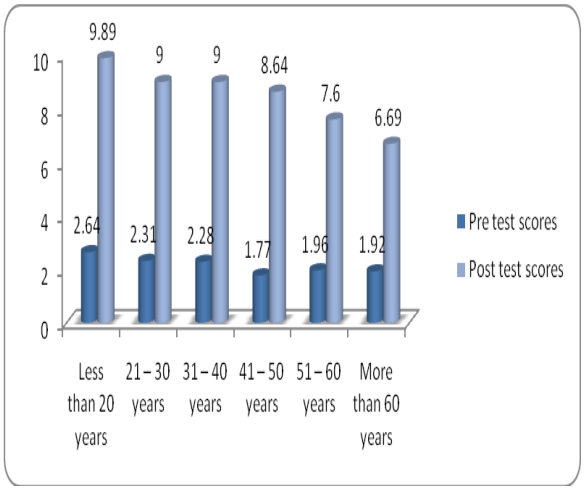

Figure no 2 Distribution of the subjects according to age wise allotment of score

Response for what type of infection is dengue

a) Bacterial infection
b) Fungal infection
c) Viral infection
d) Protozoa infection

About 98 subjects had responded for correct answer in pre test which was increased to 313 during post test showed in fig 3

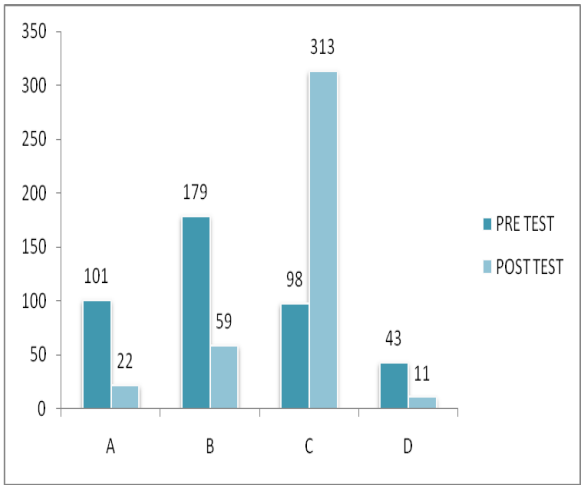

Figure no.3 Response for what type of infection is dengue

Distribution of the subjects according to the source of the information

The distribution of subjects based on source of information, most of the subjects had source of information about dengue through all the above (health department, newspaper friends, TV/radio) 119(29.3%) followed by health department staff 107(26.4%), newspaper 64(15.8%), friends 58(14.3%),

television/radio 57(14%) as shown in table no 13 and figure no 14.

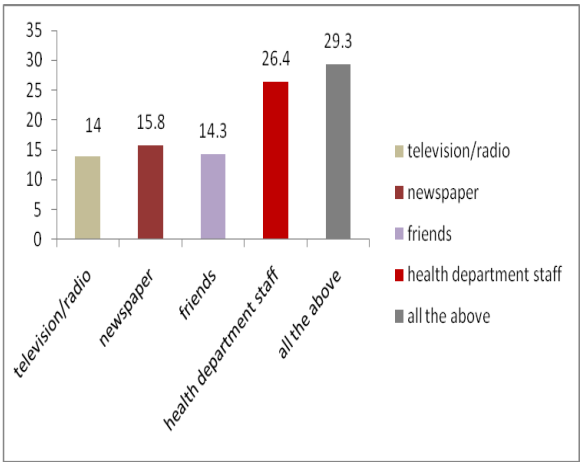

Figure no 4 Distribution of the students according to the source of information

Response for the prevention of mosquito bite

a) Using mosquito repellents and coils
b) Applying anti mosquito creams
c) Using full sleeved cloths and bed nets
d) All the above

About 127 subjects had responded in pre test and in post test 329 subjects as shown in fig no 5

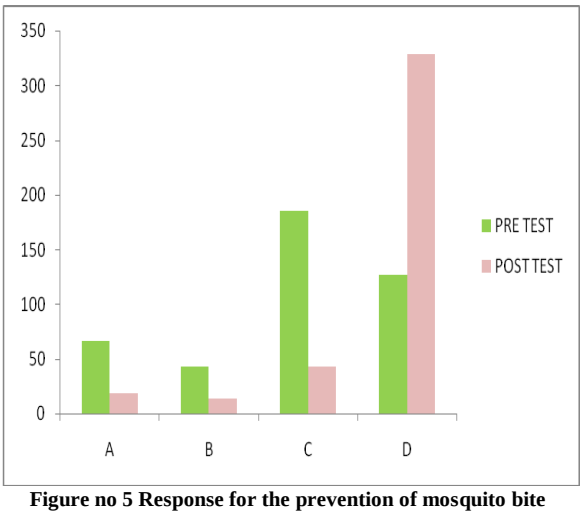

Figure no 5 Response for the prevention of mosquito bite

DISCUSSION

The study was conducted to improve the knowledge in different aspects of dengue fever among subjects through the awareness by using means of KAP method. It was carried out among selected areas of Chitradurga city and the observed a statistically significant change in the level of knowledge and practice on dengue fever among the selected subjects

Total 405 subjects participated in the study, in that 196 males and 209 females. In this study it is shown that there is improvement in the post test. In pre test (2.14) and increased to 8.85 in post test. 21-30 years of subjects are having better knowledge when compared to other age group. According to source of information television (14.0%), newspaper (15.8%), friends (14.3%), health department (25.7%), all the above (29.3%).

Out of a total of 400 respondents, there were equal number of males and females. Majority of the respondents were in the age group 31-40 years and the percentage of >50 years respondents in the study sample were nearly 25%. Regarding the source of information on dengue fever (Table 4), 47.5% respondents came to know about dengue fever through neighbors, 36.5% through TV/ radio, 7.6% through newspapers, 7.6% through health workers and 0.8% through mass meetings. [2]

A total of six hundred forty six (646) respondents were recruited to participate in the investigation consisting of 319 (49.38%) male and 327 (50.62%) female. Majority of the respondents belong to the age group of 18 to 23 years old (n = 394, 60.99%) and not married (n = 458, 70.89%) sources of information about dengue. Majority of the respondents or 73.37% cited Television/Radio as the main source of information on dengue infections. In addition, few participants obtained such information from health workers and schools. [7]

800 respondents are involved in the study. The sample area was the two rural (villages) and two slums of the city. Each 200 respondents from each village and slum area. Results showed that knowledge and awareness about dengue fever was generally inadequate. It was more in rural (48.5%) as compared to slum (30%). Only 72.62% of the respondents answered that mosquito was responsible for the transmission of dengue. They had insufficient knowledge that

dengue mosquito bites at day time and breeds in clean water. Most important role seemed to be played media including television and radio. In the our study, health professional and television/radio was the most important source of information, Further, it was found that the role of health personnel in creating awareness in respect to DF was satisfactory as 44.87%of those who were aware, got the relevant information from health staff. [4]

Out of 235 participants, a total of 223 responded to the questionnaire giving a response rate of 95%. Table 1 depicts the socio-demographic details of the study subjects. The study showed that the age of the respondents (n=223) varied from 20 to 89 years (Mean- 42 yrs, SD- 14.3 yrs). Most (35%) of the participants were in the age group 31-40 years. There were 134 males and 89 females giving a male to female sex ratio of 1.5:1. Only 8.1% of study participants were illiterate. According to socio-economic status, 13.9% of participants were from upper class while 18.4% were from lower classes 2 presents findings on sources of information on DF. The majority of the research participants reported that they had heard of DF through the TV/ Radio (84%) followed by newspaper (42%). [5]

Among 204 students of Alam Shah Science School, Cheras/Kuala Lumpur. Study design was a cross sectional study followed by an interventional (pre-post) Study. The self-administered questionnaire included questions on socio-demographic factors, knowledge, attitude and practice regarding dengue fever. Majority of respondents were Malays (96.6%), monthly family income more than RM 3000 (64.6%) and lives in urban area (64.6%). There was no significant association between knowledge status and socio-demographic factors (p-value>0.05). Most of the respondents had good knowledge (63.2%) good attitudes (79.9%) regarding dengue fever. However, practices to prevent dengue were poor (74.0%). Only about one-fifth of the respondents (18.2%) believed that dengue fever is a flu-like illness. Knowledge score was significantly increased after health education programme (p value <0.001). There is a need to increase health education activities through campaigns and mass media to increase knowledge regarding dengue fever.

CONCLUSION

A significant number of subjects had poor knowledge about dengue fever. It was concluded that more than half of the subjects had average knowledge in the pre test, after the intervention it was increased in the post test.

The subjects had improved the knowledge about dengue fever. In the absence of an effective vaccine for dengue fever, the prevention and control of the disease mainly depends upon the epidemiological surveillance and implementation of effective vector control measure. The main sources of information are newspaper, friends, radio and television. Therefore, there is a further need to provide information, education and communication programs which can be achieved by organizing health education campaigns in community involving areas.

Hence health education programs should not only focus on providing knowledge and also creating awareness. So the research felt awareness programs regarding dengue fever and its prevention should be needed.

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