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Awareness on Dengue in Industrial Town Vapi: An Initiative

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ABSTRACT:

Dengue is the most widely spreading parasitic disease nowadays and affecting majority of the people. Dengue virus generally belongs to the family Flaviviridae, which have four serotypes spread by the bite of infected *Aedes aegypti* mosquitoes. It can cause a wide spectrum of illness from mild asymptomatic illness to severe fatal dengue hemorrhagic fever in to affected person. In the current study the aware3 group decided to create awareness about the dengue fever like causative organism, contingency, treatment and preventive measures in people of industrial town Vapi has been assessed and also with that a general information on disease awareness also been provided via leaflet to spread awareness in the people. To assess the awareness percentage analysis method is used. The result stated 71% people were aware about the disease and 20% were aware about its cause that mosquito is a breeding vector. 41% participants were aware about the symptoms of the disease. There were 65% participants who have seen a case of dengue in their surrounding indicates the disease burden. 100% participants were willing to know and spread awareness about the disease to others. The awareness programs like this will make difference in the healthcare sector one day for sure.

KEYWORDS: Dengue, Aedes Aegypti, Flaviviridae, Awareness, Contingency

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INTRODUCTION:

Dengue is an acute viral infection with potential fatal complications. It is transmitted mainly by *Aedes aegypti* mosquito and also by *Aedes albopictus*. 1-3 Dengue viruses (DV) belong to family Flaviviridae and there are four serotypes of the virus known as dengue virus-1, Dengue virus-2, dengue virus-3 and dengue virus-4. Dengue Virus is a positive-stranded encapsulated Ribonucleic acid virus and it is composed of three structural protein genes, which encode the nucleocapsid or core protein, a membrane-associated protein, an enveloped glycoprotein and seven non-structural proteins. 1-3 Four main characteristic manifestations of dengue illness are (i) continuous high fever lasting 2-7 days; (ii) hemorrhagic tendency as shown by a positive tourniquet test, petechiae or epistaxis; (iii) thrombocytopenia (platelet count $<100 \times 10^9/l$); and (iv) evidence of plasma leakage manifested by hemo-concentration (an increase in hematocrit 20% above average for age and sex & population), pleural effusion and ascites.³ Outstanding work has been done at some of the centers in India on molecular epidemiology of dengue immunopathology and vaccine development. Dengue virus-2 was isolated during the epidemics of dengue in urban and rural areas of Gujarat State during 1988 & 1989.⁴

Dengue fever as such is not so severe one disease but if remain undiagnosed and not managed than the hemorrhagic form of it can be serious. Moreover recently the cases of the serious form of dengue are increases day by day. Many etiological factors are

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predicted but poor hygienic condition and poor sanitation and standing water for more than 4-5 days and dirty places and contaminated water or pond or open water tanks are the major breeding sources of the mosquitoes.⁵⁻⁶ This *Aedes aegypti* are day biters mosquitoes.

Fresh leaf extract of *Caraya Pappaya* is in talk of the town to be used by the general population in control of the dengue severity⁷ and other Ayurvedic plants like *Eclipta alba*, *Poncirus trifoliata* also having created impact in mind of general population so the study will be beneficial to know how much they aware about such non pharmacological available options.⁸⁻⁹

How can prevent the spreading of this vector:³

- Cover the open water tanks and keep the lid tight
- Do not wear a cloth which exposes the arms and legs
- Spray insecticides in the house.
- Use fan
- Maintain sanitation in the surrounding for the health.
- Try to maintain Cleanness in surrounding areas.
- Try to maintain hygienic and healthy environment in surroundings.

Vapi is the one of the epidemic area for mosquito based cases because of the largest GIDC and pollution. People are from different areas settle down in Vapi for the carrier point of view. If proper awareness on regular bases is created in terms of sanitation and hygiene the parasitic disease related cases can be control in future.

Methodology: Aware3 group have decide to spread the awareness and providing a platform for the author to work in community level and assess the awareness and spread the awareness about the most common disease in the town. The questionnaire for the assessment were prepared under the guidance of a doctor and clinical pharmacist for the study and also the basic awareness leaflet in local language has been prepared and dispatched to 100 participants involved into the study. Vapi town is selected for the study is because of pollution and main epidemic for the mosquito based cases. The questionnaire is assessed by the two pharmacists for the reliability. To analyze the obtain result percentage analysis method was used for the analysis of results.

RESULT: from the study the result was 71% participants were aware about the disease and 28% were not having complete immunization. In the study 54% were male and 46% were female. The result on assessment of awareness is mention in the following figure.

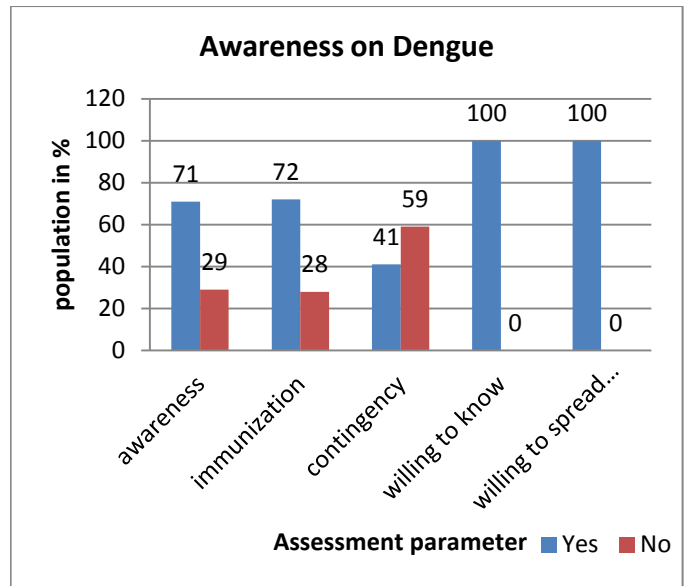


Figure1. Result of awareness assessment on Dengue in Industrial Town Vapi.

The result of the assessment of various parameters of awareness in the basic treatment and non pharmacological treatment options and also mapping the dengue disease burden in the area in the following figure 2.

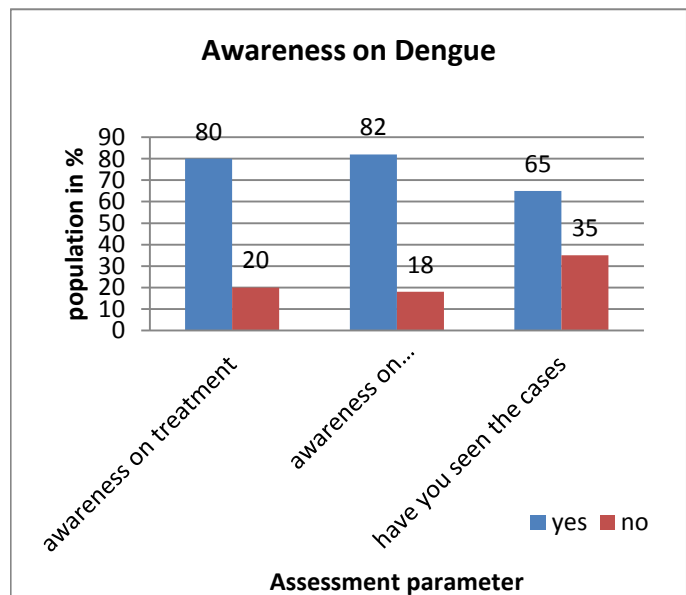


Figure2. Result of the awareness assessment on dengue in Industrial Town Vapi.

CONCLUSION:

The awareness on disease like this require more emphasize on preventive measures and time to time counseling to create a environment in the town to enforce a good sanitation and health related awareness and alertness in the Town. This kind of awareness program at regular interval in certain endemic areas of parasitic disease can make an impact on the awareness about the disease in peoples mind. Creating awareness and spreading awareness is an important part of developing healthy city and for that every pharmacist has to be aware.

DISCUSSION:

Dengue is currently most prevailing parasitic disease so there is a much need of such kind of activities to create awareness in general population because population can only be aware by such kind of regular program by health care providers. Another important aspect like awareness about use of fresh leaf extract of papaya in initial stages can also be assessed to know the impact of such alternative approaches is management by the general population.

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