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A Review On: Awareness on Chikungunya in Tribal area: An Initiative

Bhandari Krunal, Desai Chandani, Gouri Arzoo, Desai Chirag
Smt.Bnb.Swaminarayan Pharmacy College, Salvav, Vapi, Gujarat, India

ABSTRACT:

A survey was conducted to know and spread awareness in people on various aspects of Chikungunya, like causative organism, basic treatments, and contingency and to know if they have seen or observe any cases which are also helpful in estimation of this disease burden in Tribal areas of Valsad district, Gujarat. A well designed questionnaire and leaflet about disease was prepared with the help of clinical pharmacist and standard WHO questionnaire format. With an initiative to door to door communication to spread awareness we received fully filled 100 forms and dispatch leaflets on the disease spreading community awareness. A percentage analysis for each question was carried out. 34% people were aware about the viral disease Chikungunya, where 36% were know how it is spread and 11% were aware about its contingency. 36% were aware how to prevent the spreading and 2% have seen cases of Chikungunya sufferings. In this awareness study 61% were male and 39% were female, 85% were interested to know about the disease but only 4% were ready to spread awareness on the disease in others as only 11% were graduates so it might affect the involvement in spreading the awareness. There is a much need to spread awareness in tribal areas to improve healthcare sector of the country. For the improvement of healthcare through community awareness every students of graduation level in Pharmacy must work together on same platform and utilize their skills and knowledge for the lifting up the community healthcare. Awareness programs on Chikungunya and other parasitic disease have to be conducted for the various semirural and tribal areas.

KEYWORDS: Chikungunya, *Aedes Aegypti*, *Aedes Albopictus*, anti-viral medicines, Awareness in Tribal area.

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INTRODUCTION:

Chikungunya is a viral disease belongs to the Alpha-virus family transmitted to human by vector, infected mosquitoes like *Aedes Aegypti* and *Aedes Albopictus*.¹ Generally the name came from Stooped appearance of those suffering with joint pain. India is one of the epidemic countries of having Chikungunya.¹ Chikungunya often occurs as large outbreaks with high attack rates. The virus is single stranded RNA virus belongs to genus Alpha-virus and Family Togaviride.¹ The Alpha-virus group comprises of almost 29 viruses, from which 6 can cause human joint disorders, namely Chikungunya virus.² Chikungunya was initially believed to be mainly an unbearable disease and nonfatal, still there are severe forms and deaths have been reported on the Indian Ocean islands and in India.³ In 2013 outbreak occurred in geographical regions of India specially Gujarat, Kerala and Tamilnadu.^{4,5} As the main feature of the disease remains the persistence of chronic arthralgia,⁶ the disease is now recognized as a major public health issues.

Pathophysiology:

Molecular mechanisms of Chikungunya viral infection in human cells are poorly

For Correspondence:

Mr. Bhandari Krunal

Smt.Bnb.Swaminarayan Pharmacy College,
Salvav, Vapi, Gujarat, India

Email: krunalbhandari13@gmail.com

(www.jpsbr.org)

characterized. There has been a big advance in research known as a human-specific living thing molecular issue known as NDP52 that's concerned within the replication of Chikungunya virus.⁷ The scientists have incontestible that in human cells, NDP52 is ready to bind to a macromolecule of Chikungunya virus, nsP2, which this interaction promotes the replication of the virus within its target cells, thereby contributory to the event of human Chikungunya viral infection. In distinction, mouse NDP52 doesn't act with nsP2 and NDP52 thus doesn't promote infection in murine cells.⁷

Symptoms: Between 4-7 days after patient has been bitten by infected mosquito. Symptoms are rarely fatal; it's self-limiting and last for 2-3 days. The virus remains in human system for 5-7 days and mosquitoes feeding on an infected person during this period can also become infected. Symptoms are high fever, symmetric type of joint pain, swelling in joint, Rash and headache and muscle pain, nausea and vomiting. Rare complications are nephritis, hepatitis and uveitis.^{8,9}

Prevention and Control: To prevent there is no vaccine for Chikungunya virus but more recently, three new recombinant versions of Chikungunya virus vaccines were reported and successfully tested on mice.¹⁰ Prevent viral infection by avoiding mosquito bites.^{1,8,9}

- Reduce Mosquito exposure
- Use Mosquito repellent
- Wear long sleeved shirts
- Empty standing water from outdoor
- Support local vector control program
- Maintain hygienic sanitation.

Diagnosis: Viremia is observed in first 48 hours of disease and ELISA test helps in detecting viral specific Ig-M antibodies distinguishes the disease from dengue also.⁹ Other clinical features are lymphopenia, thrombocytopenia, increase creatinine and increase hepatic transaminase enzyme level

Treatment: It is generally self-limiting condition so complete rest or analgesics can only helpful to reduces fever and pain. Till date there are no specific anti-viral medicines available to treat this viral disease.^{1,8,9}

Methodology: A well designed questionnaire and leaflet was prepared with the help of clinical pharmacist and standard WHO questionnaire format and received fully filled 100 forms

and dispatch leaflets by door to door spreading community awareness with an initiative to person to person communication. A percentage analysis for each question was carried out.

Result: Only 34% people were aware about the viral disease Chikungunya, where 36% were know how it is spread and 11% were aware about its contingency. 36% were aware how to prevent the spreading and 2% have seen cases of Chikungunya sufferings. In this awareness study 61% were male and 39% were female, 85% were interested to know about the disease but only 4% were ready to spread awareness on the disease in others as only 11% were graduates so it might affect the involvement in spreading the awareness.

Discussion: *Aedes Aegypti* considered being the primary vector widespread in Asian regions for Chikungunya and Dengue both. Therefore Surveillance system⁹ in the countries needs to be intensified and lab testing has been strengthened in collaboration with regional or international lab. A close follow-up of situation and coordinated surveillance and control within the region is still needed.⁹ The clinical feature of both dengue and Chikungunya are similar and might be a challenge for clinicians that are not familiar with clinical presentations. The survey with patient education involving the community pharmacist may be helpful in spreading and preventing spreading of filarial in various Indian states. This program is a kind of an initiative for us as a student while studying the theoretical concept about community pharmacist and implements the same functions in practical lead to contribute and received satisfactory response in prevention of the disease. Pharmacist can effectively communicate the information by patient counseling about sign and symptoms of disease; spreading of the disease and by explaining various preventive measures and available treatment for the disease.

Conclusion: There is a much need to spread awareness in tribal areas to improve healthcare sector of the country. For the improvement of healthcare through community awareness every students of graduation level in Pharmacy must work together on same platform and utilize their skills and knowledge for the lifting up the community healthcare. Awareness programs on Chikungunya and other parasitic disease have to be conducted for the various semirural and tribal areas.

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