

# Health Problem of Dengue Fever Affect In Tamil Nadu A – Study

\* P. Thangaraj, Ph. D, Research Scholar (Full -Time) PG & Research Department of Economics, Kandaswami Kandar's College, Velur Namakkal (Dt) 638182.

\*\*Dr. P. Loganathan Associate professor, & Head, PG & Research Department of Economics, Kandaswami Kandar's College, Velur Namakkal ( Dt) - 638182.

## Abstract

Through added half twentieth era, dengue became maximum extensive vector-borne pathological illness of persons, complete current approximations among 50 then 100 million circumstances of dengue illness both are international. These circumstances, 500, 000 develop into severe system of dengue illness contagion. Dengue illness rigid methods have become imperative worldwide community health concerns. Completed previous three decades, there has been a studied international intensification the equal of dengue illness, and their waves, by a concomitant growth in disorder frequency. Dengue stays established in hot and sub hot areas nearby the world, regularly in town and semi-town zones. The illness is affected by a pathological belonging to family. That is range by vampires. There is no definite action for dengue, but appropriate therapeutic care regularly saves the survives of patients with the more grave dengue illness. The most actual technique to preclude dengue viral banquet to battle the disease-carrying vampires.

**Key words:** Classification of Dengue, Symptoms, Characteristic of virus, objective of the study.

## Introduction

According to the Earth Condition Report 1996 the “re-emergence of contagious illness is a cautionary that development achieved so far to worldwide security in health and affluence may be wasted. In 2012, dengue ranks as supreme significant vampire borne pathological contagion in the world. Eruptions exert a huge load people health of schemes economies most sweltering nations of the biosphere. The emergence expands of all four dengue infection from Asia the Americas Africa and Eastern Mediterranean areas represent a universal pandemic threat. Although full transnational freight the illness is still uncertain, the designs alarming for together human wellbeing and economy. Withal previous five eras, the occurrence of dengue has magnified 30-fold. Around 50–100 million novel contagions valued to happen yearly more than 100 rife states. A with recognized more expand to before natural zones is a every time hundreds and thousands of rigid thingamy rise, contain of 20 000 demises. 264 disability-adjusted lifetime years per million public per year are lost at an projected cost for ambulatory and hospitalized cases of US\$ 514–1394, often touching actual poor people. The factual numbers are possibly far mediocre, since Spartan underreporting and misclassification of dengue cases have been known. For separate states, position of dengue as illness and

community health unruly cannot be hyped, as seen in the recent explosive outbreaks of dengue in Brazil and Pakistan.

### Classification of dengue virus

The dengue germs affiliates of group *Flavivirus* and family *Flaviviridae*. These small (50 nm) viruses contain single-strand RNA as genome. The virion consists of a nucleocapsid with cubic symmetry enclosed in a lipoprotein envelope. The dengue virus genome is 11 644 nucleotides in length, and is composed of three physical protein genes encoding the nucleocapsid or core protein (C), a membrane-associated protein (M), an wrapper protein (E), and seven non-structural protein (NS) genes. Between non-structural proteins, wrapper glycoprotein, NS1, is of analytical and pathological status. It is 45 kDa in size and connected with viral haemagglutination and neutralization activity. The dengue virus form a different complex within kind *Flavivirus* based on antigenic and biotic features. There are four virus serotypes, which are designated as DENV-1, DENV-2, DENV-3 and DENV-4. Contagion with any one serotype discusses lifelong protection to that virus serotype. While all four serotypes are antigenically comparable, they are diverse adequate to provoke cross-protection for only a few months after infection by any one of them. Secondary infection with another serotype or multiple infections with dissimilar serotypes leads to severe form of dengue (DHF/DSS). There is significant inherited disparity inside each serotype in the form of phylogenetically separate “sub-types” or “genotypes”. Now, three sub-types can be known for DENV-1, six for DENV-2 (single of which is originate in non-human primates), four for DENV-3 and four for DENV-4, with another DENV-4 existence exclusive non-human bishops. Dengue germs of four serotypes have been connected with epidemics of dengue illness (with or without DI) with a varying degree of sternness.

### Objective of the study

- Key society health solution.
- Four serotypes around in urban regions.
- Dispersion rural areas.

### Salient Features Global Strategy Control of DF/DHF Vectors

- Vigilant integrated mossaquito control with community and inter sectoral participation.
- Vigorous illness scrutiny based on strong health data systems.
- Extra preparedness.
- Intensive research on vector control.

### Symptoms

Offspring again minors not display or indications in slight cases of contagion. The indications typically of superficial 4 - 10 day after the being have gnawed. Identify and indications to watch out for:

1. Tall Fever (106F or 41C)
2. Agony behind the eyes
3. Headaches
4. Bone, Muscle, and joint discomfort
5. Minor bleeding from gums or nose
6. Vomiting and nausea

Recovery generally within week, but in cases where the contagion is sunder, the following indications will be prevalent, as the blood clot ability of the body drops. Constitutional indications and headache, backache and general malaise growth. Typically, the start of DF is unexpected with a sharp rise in temperature is frequently associated with a rosy face and headache. Infrequently, chills accompany the sudden rise temperature. Around may be retro-orbital pain on eye movement or eye pressure, photophobia, backache, and pain in the muscles joints/bones. Other joint indications contain anorexia transformed taste sense, constipation, colicky agony abdominal sensitivity, slow pains in the inguinal region, sore throat general depression. These indications usually persist from several days to a few weeks. It is noteworthy that these indications of DF vary markedly in frequency and severity.

### **Characteristics of virus and vector that enhance disease morbidity**

In addition to the societal factors mentioned above, several characteristics of the virus, its vector and the immune response it elicits militate against the control of all forms of dengue. Dengue virus is a member of the Flaviviridae virus family therefore contains a single-stranded, positive sense RNA genome. Mutation rates in viruses with RNA genomes can be six orders of magnitude greater than agents with DNA genomes, as no proofreading enzymes are available for RNA-dependent RNA polymerases. Consequently, antigenic variants arise rapidly, live attenuated vaccines can in some circumstances revert to a virulent phenotype comparatively easily, and inter-virus genetic recombination can occur. In addition, there are four virus serotypes, and imperviousness to any one serotype does not protect against contagion by the others, and in certain circumstances may enhance disease severity. The behaviour of the main urban mosquito vector *A. aegypti* also contributes significantly to spread of disease.

### **Prevention**

Dengue fever inoculations are still in the promising stage of expansion. Therefore, it behoves that precautionary measures be taken to safe.

1. Live or stay in air-conditioned housing or dwellings where there are vampire displays on windows / mosquito protective gear

2. Ensure good lighting. Conflicting to some empathetic, that these mosquitos bite in the beginning, twilight and evening hours, it has been proved by research, that dengue causing mosquitos like to feed (bite) in the dark
3. Wear long sleeved protective clothing, long pants, socks and shoes when in mosquito infested areas
4. Use mosquito repellents, coils and chemicals
5. Ensure you do not create vampire breeding habitats such as old automobile tires.

### **Tamil Nadu been marked extraordinary risk areas for circumstances of dengue illness.**

1. Dharmapuri
2. Krishnagiri
3. Salem
4. Theni
5. Tirupur
6. Trichy

Chennai, at the Rajiv Gandhi Administration Universal Hospital, of the 2,950 patients who necessity acknowledged with illness, 519 need tested affirmative for dengue. Additional than 500 has deport. The Tamil Nadu government is rough strong disapproval from all yearly the handling of the “health emergency”, though it rights it is taking all possible.

Actions to restriction snub. Dengue trappings in Chennai, in the months of July, October, November and tops in January. July usually is the month when Monsoons from the west coast of India, drop a few showers in Tamil Nadu, but October and November are generally the months when the East Coast Monsoons inundate the state.

During 2014-2015, 2357 dengue cases were reported from January to Mid-September, which includes 5 deaths. Of the 2357 cases, 80 were from Chennai City. There has stayed a surge in the number of dengue fever cases, as against 1146 cases described in the previous year.

### **Viral fever**

With several circumstances of dengue being stated in the city Chennai Times talks to medical experts to find out what protections take to avoid contagion, the remedies. Experts say that the spurt in the number of fever cases is due the increased bustle of viruses. “Viruses are always there in the air. But when the temperature dips provides a conducive atmosphere for them to thrive,” says U. Radha, a health worker. For the past two years, the city has witnessed a huge change in climate, and in the last few days, the temperature had dropped

considerably in the nights. The calm temperature helps the virus increase in large statistics, she says. “These germs attack those who are immune-compromised then they catch the contagion fast. Offspring, antenatal women, elderly people and those who have health matters fall bizarre with pathological illness,” says Dr M Arunachalam, a consultant physician and member of Tamil Nadu’s Crisis Management Committee.

Ask him about dengue, and he says, “Dengue fever is caused by a family of viruses that are transmitted by mosquitoes. If untreated, it can lead to complications and even death. If you look at the numbers of 10 cases of fever reported, two have been diagnosed as dengue. It needs become prevalent now.” Elaborating on the symptoms, he says, “If someone is suffering from fever, joint pain, headache, reddish eyes, red upper palate and rashes, they should immediately seek medical help. Uniform if flushes or other indications are not visible patients must consult a medical practitioner if the illness continues for more than 24 hours.”

While infirmaries are recommended by the Tamil Nadu Government’s Health Section on the protocol for the conduct of dengue, Arunachalam says that physicians are advising complete blood count (CBC) test to determine each case as a precautionary measure. “If the platelet count is less than 1,50,000, we carry out the trial for dengue. Though, if the platelet sum of below 50,000, the patients are immediately referred to government hospitals for further management,” he says. While around are no antibiotics or a drug of optimal that can cure dengue, the treatment is aimed at relieving the indications. He says, display the patients and look for hemorrhagic indications, which include bleeding from the gums, hemorrhage or redness of the high taste of the mouth, red-coloured urine and black-coloured stools. If any of these indications are seen, patients need to be given blood transfusion.” As hemorrhage can lead to failure of respiratory and multiple organs, proper diagnosis and treatment are important adds.

Dengue difficulties may occur after the fever subsides hence dengue positive patients are discharged after three days of the disappearance of fever. “We prepared the patient and families to immediately report back to the hospital if there are any signs of decline,” he adds. As esteems the anticipation, he says, “The virus is scope by *Aedes egypti*, a type of mosquito, which grows in pure water. Water kept uncovered is the refinement ground for mosquitoes. Humble acts similar keeping the rainwater containers closed will help reduce their development and the spread of the illness.”

### **Alternative Medicine**

Physicians who practice alternative medicine say that patients can take nilavembu kashyam to speed up recovery. “Although it has not been systematically confirmed that it can increase the platelet sum, there is no harm in taking it,” We prescribe kandankathri kashayam. Which has impartial three elements, but is very actual in the organization of the illness,” he apprises. In adding to giving dengue in the small term, the medication is given to patients for a dated of up to three to six months, depending on the diagnosis. “Depending on the health of the patient, we prescribe it for a longer term. This is to guarantee that the patient

is well to resume all his usual activities,” he declares. Ask him whether a dengue patient can take the nilavembu kashayam along with other medicines, and he says, “It’s perfectly alright to take it along with other medications, if any. It’s like including vegetables in your diet. While it addresses the disease, it will not have any adverse effect on the medications you take.”

## Conclusion

The people of Tamil Nadu, where the dengue occurrences are cumulative, perceive this spurt as due to poor rainfall and power supply. We attempted to verify this perception. We also sought to find out whether these causes are in concert with the monthly scrutiny reports, used to expect yearly dengue factor by formulating a estimate precedential. The results showed that a combination of rainfall and power supply had major effect on the spread dengue. The prediction model, incorporating rainfall and power supply data for four seasons, could not predict the dengue epidemics accurately.

## Reference

1. Almond, J., (2001). Accelerating the development and introduction of a dengue vaccine for poor children, 5—8 December, Ho Chi Minh City. *Vaccine* 20, 3043—3046.
2. Mishra, R. and Kumar, P., A study on outbreak of dengue from Bihar, India establishing new foci, attributable to climatic changes. *J. Public Health Epidemiol.*, 2011, **3**(11), 489–502.
3. Gubler, D. J. and Kuno, G., *Dengue and Dengue Haemorrhagic Fever*, CAB International, London, 1997, 1st edn, p. 17.
4. Pandya, G., Prevalence of dengue infection in India. *Def. Sci. J.*, 1982, **32**, 359–370.
5. Mohan Rao, C. V. R., Dengue fever in India. *Indian J. Paediatr.*, 1987, **54**, 11–14.
6. Ilkal, M. A. *et al.*, Entomological investigations during outbreaks of dengue fever in certain villages in Maharashtra state. *Indian J. Med. Res.*, 1991, **93**, 174–178.
7. Karim, M. N., Munshi, S. U., Anwar, N. and Alam, M. S., Climatic factors influencing dengue cases in Dhaka city: a model for dengue prediction. *Indian J. Med.*

8. Katyal, R., Singh, K. and Kumar, K., Seasonal variations in *A. aegypti* population in Delhi, India. *Dengue Bull.*, 1996, **20**, 78–81.
9. Kumar, R. R., Kamal, S., Patnaik, S. K. and Sharma, R. C., Breedinghabitats and larval indices of *Aedes aegypti* (L) in residential areas of Rajahmundry town, Andhra Pradesh. *Indian J. Med. Res.*, 2002, **115**, 31–36.
10. Sivagnaname, N., Yuvarajan, S. and Britto, D. R. L. J., Urgent need for a permanent dengue surveillance system in India. *Curr. Sci.*, 2012, **102**(5), 672.

