



Study the effect of *Tinospora cardifolia* (Wild) Miers and *Boerhaavia diffusa* Linn on Dengue .

Priyank Bharati, Rajashree Sinha

School of Biotechnology, Shobhit University , Meerut U.P. ,India

Corresponding Author: Priyank Bharati 148/4 Jagriti Vihar, Meerut-250004, Uttar Pradesh, India

Dengue is a viral disease caused by Flavivirus and family Flaviviridae which is spread by Aedes aegypti mosquito which is also known as Tiger mosquito and in the present time it is rapid task to cure dengue after the diagnosis in later stage. There is too much of death has been reported since decades. The allopathy and several other treatments are effective but curing slowly and high dose of antibiotics may lead some side effects. To evaluate the possibilities to cure and early relief to the patient by avoiding the side effects. The present study was designed to evaluate the efficacy of some ayurvedic medicines.. By the help of ayurveda we decrease the number of deaths occurring from dengue by taking the combination of Tinospora cardifolia (wild) Miers and Boerhaavia diffusa Linn we cure dengue. They have the ability to increase the platelets and lower down the body temperature in very less time. They also enhance the immune system.

Keywords: Dengue, *Tinospora cardifolia* (Wild) Miers and *Boerhaavia diffusa* Linn

Introduction:

Dengue is a rapidly growing public health problem in tropical and subtropical countries where the majority of the world's population resides and is increasing most rapidly. Dengue fever is a viral disease spread by female *Aedes aegypti* mosquito and its virus belongs to the genus *flavivirus*. This mosquito is black in colour and lining on surface so it is called Tiger mosquito. The dengue viruses are members of the genus *Flavivirus* and family *Flaviviridae*. These small (50 nm.) viruses contain single-strand RNA. The virion consists of a nucleocapsid with cubic symmetry enclosed in a lipoprotein envelope [1]. The dengue virus genome is approximately 11,000 base pairs in length, and is composed of three structural protein genes encoding the nucleocapsid or core protein (C), a membrane-associated protein (M), an envelope protein (E), and seven non-structural protein (NS) genes. The envelope glycoprotein is associated with viral haemagglutination and neutralization activity [1]. The dengue viruses form a distinct complex within the genus *Flavivirus* based on antigenic and biological characteristics. There are four virus serotypes which are designated as DEN-1, DEN-2, DEN-3 and DEN-4. Infection with any one serotype confers lifelong immunity to that virus serotype. In this Dengue-2 is most dangerous.

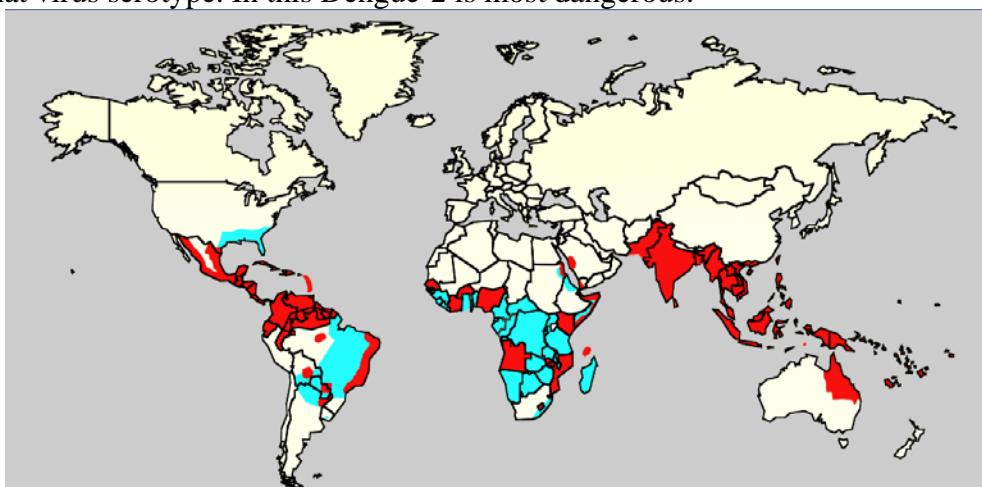


Figure 1 :- Map showing the distribution of dengue fever in the world, as of 2006. Map produced by the Agricultural Research Service of the US Department of Agriculture (Courtesy: Encyclopedia Wikipedia).

Cyan: Areas infested with *Aedes aegypti*.

Red: Areas with *Aedes aegypti* and recent epidemic dengue fever.

Dengue epidemics are known to have occurred over the last three centuries in tropical, subtropical and temperate areas of the world. During the 18th, 19th and early 20th centuries, epidemics of dengue-like diseases were described globally in the tropics as well as in some temperate regions. The first confirmed epidemic of DHF (*Dengue Haemorrhagic Fever*) was recorded in the Philippines in 1953-1954 [1].

One billion people (15% of the world's population) reside in India. India's population is twice that of south-east Asia, these regions shows the most dengue-related deaths [2]. Dengue virus-specific antibodies, types [IgG](#) and [IgM](#), can be useful in confirming a diagnosis in the later stages of the infection [3]. Despite comparable environmental risk conditions, the number of reported cases and deaths in India is only a fraction of that reported in south-east Asia, In many regions of India, an increasing number of suspected cases of dengue are seropositive for IgM and IgG antibodies.

To the best of my knowledge none of the researcher had done the work on medicine of dengue. This is the first work done on finding the medicine of dengue. Our main efforts are to provide medicine or product which can cure dengue and should not be adversely affected the human body and kill the virus of dengue. In ayurveda we found two herbs namely *Tinospora cardifolia* (Wild) Miers (*Figure 2*) and *Boerhaavia diffusa* Linn. (*Figure 3*). By mixing both we make these herbs more powerful against the treatment of dengue.



Figure 2 : *Tinospora cardifolia* (Wild) Miers (Courtesy: Priyank Bharati)



Figure 3: *Boerhaavia diffusa* Linn (By: Priyank Bharati)

Experimental Section :

Every precaution should be taken as per guidelines issued by World Health Organization while experiment on human beings.

Selection of patients on the basis of symptoms:

We examined 3 patients which are come to different medical practitioners in Meerut (U.P).The symptoms are high fever, headache, Pain behind eyes & muscle and joint pain,. In dengue fever the number of platelets decreases in highly significant manner. Blood vessels start to leak and cause bleeding from nose and mouth.

Confirmation of Dengue :

The confirmation reports of dengue for these patients were examined by doctors which are given by pathology laboratory. This report shows that these patients are suffering from dengue as told by doctors.

Preparation of Ayurvedic Medicines :

The medicines was prepared by the stems of *Tinospora cardifolia* (Wild) Miers (10 gm) and the plant of *Boerhaavia diffusa* Linn (10 gm). Both are crushed in pastle and mortar. Boil 160 ml of water with crushed mixture of *Tinospora cardifolia* (Wild) Miers and *Boerhaavia diffusa* Linn until the quantity remains 20-40 ml. Then filter the mixture and add 10 gm of honey in it. This mixture should be taken twice or thrice a day depending upon the condition of patient. While consuming these Ayurvedic medicines don't consume common salt. These medicines are given with cow's milk.

Results and Discussion:

The patients which we examined have body temperature 100⁰ C and platelets ranging from 50,000-60,000.After giving Ayurvedic medicines we again examine after 24 hours, the platelets count were above 85,000 and have normal body temperature. Again after 24 hours they have normal platelets count and no symptoms of dengue.

Ayurveda the science of life deals with the holistic view of healthy living. It covers various physiology and pathology of diseases and therapies. *Tinospora cardifolia* (Wild) Miers and *Boerhaavia diffusa* Linn ^[4] are most famous medicinal plants in treatment of large number of human ailments is mentioned in Ayurveda, Charaka Samhita and Sushrita Samhita.

Ayurvedic literature quotes *Tinospora cardifolia* (Wild) Miers (Hindi name- Guduchi, Common name-giloy) used in dyspepsia, fever, urinary diseases, enriches the blood lower down body temperature (Ayurveda), improve immune system ^[5] and body resistance against infections ^[5].

Boerhaavia diffusa Linn mentioned in Atharvaveda with the name "Punarnava", because the top of plant dries up during summer and regenerates again in rainy seasons. *Boerhaavia diffusa* Linn drawn lot of attention due to their immuno-modulatory effects^[4], antilymphoproliferative activity, anti-viral activity ^[4]^[5] and anti-bacterial activity. The plant is also used in anaemia [6] [7], blood purifier[8], wound healing[9], anti-inflammatory [10].This is also used for stop bleeding [9].None of the researcher combine both the plants to make medicine. So, we combine both these plants and make one medicine. In case of dengue we also got the success in stop bleeding by the combination of both these medicine and the chances of death are very low.

Conclusion :

In the current study *Boerhaavia diffusa* Linn and *Tinospora cardifolia* (Wild) Miers cure dengue in early stages without any side-effects. After observing patients I also conclude that platelets are increased in significant manner and lower down the body temperature. If platelets are too much low then serve this medicine at least 4-5 times a day.

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