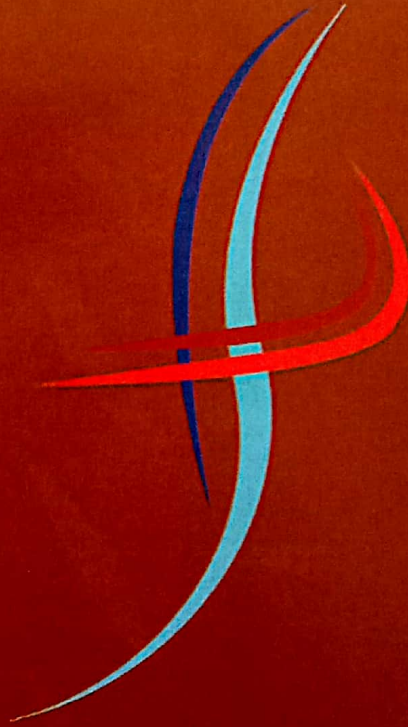


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The Librarian (Arun Sandorva)
Rajkot Homoeopathic Medical College
Gondal Rd, Near Makkam Chowk,
Udhyog Nagar Colony,
Bhakti Nagar, Rajkot,
Gujarat 360002



INTEGRATING HOMEOPATHY INTO DENGUE PREVENTION AND CARE

DR. VAIDEHI BHATT¹

¹ASSISTANT PROFESSOR,

DEPARTMENT OF HOMOEOPATHIC PHARMACY,
RAJKOT HOMOEOPATHIC MEDICAL COLLEGE,
PARUL UNIVERSITY.

Vaidehi.bhatrhmc@paruluniversity.ac.in
drvaidehibhatt@gmail.com

VISAPARA MIHIR J.

3RD YEAR BHMS

RAJKOT HOMOEOPATHIC MEDICAL COLLEGE,
PARUL UNIVERSITY.

Mihirvisapara91@gmail.com

Abstract

The global prevalence of Dengue has significantly escalated in recent years. This viral infection, transmitted by mosquitoes, is predominantly found in tropical and subtropical regions across the globe. The Dengue virus manifests in four distinct serotypes, each capable of causing the disease. Severe Dengue represents a critical health concern, being a leading cause of morbidity and mortality in numerous countries in Asia and Latin America. As an acute viral infection, Dengue can lead to severe complications that may be fatal; thus, early identification of disease progression and appropriate medical intervention are essential in reducing the mortality rates associated with severe Dengue. Homeopathy has a longstanding history of effectively addressing epidemics and is acknowledged for its role in the secondary prevention of dengue fever during outbreak situations.

Keywords: Dengue, dengue fever, classification, complications, Diagnosis, Homoeopathic view, vaccine

Introduction

According to the World Health Organization (WHO), there has been a significant increase in the spread of Dengue fever across all regions in recent years. This disease is transmitted by mosquitoes, primarily by the female *Aedes aegypti* species, with *Aedes albopictus* being a less common vector. Annually, it is estimated that between 100 million to 400 million cases of Dengue virus infections occur globally.[1] Dengue fever was first referred as "water poison" associated with flying insects in a Chinese medical encyclopedia in 992 from the Jin Dynasty (265-420 AD). The term 'Dengue' is Spanish attempt at the swahii phrase "ki denga pepo" which means 'cramp like seizure caused by an evil spirit'. It emerged during a Caribbean outbreak in 1827-1828. The first

clinically recognized dengue epidemics occurred almost simultaneously in Asia, Africa, and North America in the 1780s. The first clinical case reported dates from 1789 of 1780 epidemic in Philadelphia is by Benjamin Rush, who coined the term "break bone fever" because of the symptoms of myalgia and arthralgia. The term dengue fever came into general use only after 1828. The first epidemic of clinical

dengue-like illness was recorded in Madras (now Chennai) in 1780 and the first virologically proved epidemic of DF in India occurred in Calcutta and Eastern Coast of India in 1963-1964 [2, 3, 4].

Epidemiology

As of 30 April 2024, over 7.6 million dengue cases have been reported to WHO in 2024, including 3.4 million confirmed cases, over 16 000 severe cases, and over 3000 deaths. While a substantial increase in dengue cases has been reported globally in the last five years. [5]

Etiology

Dengue is caused by any four of serotypes DENV-1, DENV-2, DENV-3, DENV-4 of single stranded RNA (ss RNA) viruses of the genus Flavivirus [6].

Dengue virus is spread by Aedes mosquitoes, and the most common vectors are Aedes aegypti, followed by Aedes albopictus, Aedes polynesiensis, and Aedes sutellaris [7]

Pathophysiology

The dengue virus, belonging to the Flavivirus family, is characterized as a 50 nm virion that comprises three structural proteins, seven nonstructural proteins, a lipid envelope, and a 10.7 kb capped positive-sense single-stranded RNA genome. Notably, up to 75% of individuals infected with the virus may remain asymptomatic. The disease manifests in a range of forms, from self-limiting dengue fever to more severe conditions such as hemorrhagic manifestations and shock. A small percentage of infections, estimated between 0.5% and 5%, can progress to severe dengue, which, in the absence of appropriate medical intervention, may result in fatality rates exceeding 20%, particularly among pediatric populations. The incubation period for dengue typically spans from 4 to 7 days, although it can extend from 3 to 10 days. Symptoms emerging more than two weeks post-exposure are generally not attributable to dengue fever.

The precise sequence of events following the introduction of the dengue virus via a mosquito bite remains poorly understood. Initial targets appear to be skin macrophages and dendritic cells. It is hypothesized that these infected cells migrate to the lymph nodes and disseminate through the lymphatic system to various organs. Viremia may be detectable for 24 to 48 hours prior to the onset of clinical symptoms. A complex interplay of host and viral factors ultimately influences whether the resulting infection is asymptomatic, typical, or severe. Severe dengue fever, characterized by heightened microvascular permeability and shock syndrome, is believed to be linked to secondary infections with a different dengue virus serotype and the host's immune response. Nevertheless, instances of severe dengue can also arise from infections with a single serotype, and the exacerbation of microvascular permeability may occur even as viral loads decrease.

Classification

Dengue is classified in two ways:

Traditional classification:

The World Health Organization (WHO) traditionally classified dengue into three categories based on severity: dengue fever (DF), dengue hemorrhagic fever (DHF), and dengue shock syndrome (DSS).
Revised classification:

The WHO's revised classification classifies dengue into three categories based on the presence or absence of warning signs: dengue without warning signs, dengue with warning signs, and severe dengue (SD).[8, 9,10]

Other complications

1. Encephalitis
2. Hepatitis
3. Myocarditis
4. Liver injury
5. Cardiomyopathy
6. Pneumonia
7. Orchitis
8. Oophoritis
9. Seizures
10. Encephalopathy

Diagnosis

Dengue fever is diagnosed by detecting the virus or its antigens, nucleic acid, or antibodies in a blood sample:

Nucleic acid amplification tests (NAAT):

Can detect dengue virus RNA in blood, plasma, and serum. A positive NAAT test usually doesn't require further testing.

NS1 antigen tests:

Can provide an early diagnosis in patients with a fever.

IgM antibody tests:

Can identify dengue infections, but results should be interpreted with caution because other flaviviruses can cross-react. IgM levels are positive 4–5 days after symptoms appear and can remain positive for up to 12 weeks.

Complete blood count (CBC):

A low white blood cell (WBC) count can indicate severe dengue, while low platelet levels can increase the risk of bleeding. Hematocrit levels can be elevated due to fluid loss, while low levels can indicate internal bleeding.

Dengue fever can be difficult to diagnose because its symptoms overlap with other vector-borne diseases like malaria, chikungunya, and Zika fever. The CDC recommends ordering molecular testing within one week of the onset of symptoms, and antibody testing more than four days after symptoms appear.[11, 12,13,14]

Differential diagnosis

- malaria
- influenza
- Zika

- chikungunya
- measles
- yellow fever.

Homoeopathic point of view:

As per the principles of Homoeopathy, a genus epidemicus can be identified for the sporadic and epidemic situations. The process of the selection of Genus Epidemicus is specialized and involves following steps:

- The Totality of Symptoms related to the current Epidemic is formulated by in depth study of all the signs and symptoms of minimum 20-30 cases preferably from different regions to cover the complete spectrum of diseases in the community.
- The TOS to be thoroughly studied and following appropriate repertorization process, a group of medicines are to be identified. These medicines are required to be given to these cases on the basis of individualization. The medicine, which is most frequently indicated and has potential of providing the quick and favourable response to the patient, shall be the Genus Epidemicus.
- Drugs commonly found indicated as Genus Epidemicus in the past are Eupatorium perfoliatum, Rhus toxicodendron, Bryonia alba. One of these in 30 or 200 potency can be safely taken twice daily for threedays as prophylactic. Further research in this area is being undertaken.

1. **RHUS toxicodendron:** Lameness and stiffness and pain on first moving after rest or on getting up in the morning, relieved by continued motion [15]. Any continuous exertion to mid or body exhausts the Rhus patient. The prominent projections of bones become sore to touch especially cheek bones. It has cured many cases of intermittent fever, often remittent and continued fevers and low form of Typhoid fever. Pains are tearing, aching, bruised often with numbness and paralytic weakness of the limbs [18].
2. **Belladonna:** Guernsey says this medicine is particularly applicable and in fact takes the lead over all others in cases in which quickness or suddenness of either sensation or motion is predominant. Rush of blood to the head and face [19] 'Starting and jumping' or 'twitching in sleep' or 'on going to sleep' is characteristic [15]. With the heat, there is loquacity and drowsiness [17]. Eyes wild, pupils dilated; pulse full and bounding, globular like buckshot striking the finger, mucous membrane of mouth dry; stool tardy and urine suppressed [19]. A high feverish state with comparative absence of toxæmia. No thirst with fever. Burning, pungent, steaming, heat [20].
3. **Eupatorium perfoliatum:** Named "bone-set" because on account of the severe aching as if bones were broken that occurred in an epidemic of intermittent fever this was the remedy that cured or set the bones. The epidemic was called break bone fever. [15] Great prostration is felt, partly because of pains and partly of lassitude that naturally accompanies 'la grippe' [16]. Chill spreads from back, Thirst before chill [17]. It is often indicated in the warmer climates for fevers, yellow fever, bilious fever, break-bone fever and intermittent fever. The time for administration is at the close of the paroxysm [18]. Bruised feeling as if broken, all over the body; adapted to

1. worn-out constitutions, especially from inebriety [19]. Cachexia from old chronic, bilious intermittents; marked periodicity [20]. Thirst or nausea, then violent shaking chill; begins in small of back [21].
2. **Aconitum napellus**: The Aconite Restlessness is oftenest found in a high grade of synochal or inflammatory fevers[15]. Aconite by Hering - Heat, with thirst; hard, full and frequent pulse, anxious impatience, inappeasable, beside himself, tossing about with agony. Burning thirst for large quantities of cold water; Hahnemann says "whenever Aconite is chosen homeopathically, you must, above all, observe the moral symptoms and be careful that it closely resembles them; the anguish of mind and body; the restlessness; the disquiet not to be allayed" [19]. Sudden, violently acute, painful effects; Terror, Anxiety, Agonizing Fear, Fear of death; beside himself, frantic from intensity of the pain [21].
3. **Gelsemium sempervirens**: Gelsemium is useful in remittent fever in children. The fever is never of that active or violent, but of a milder form. Complete relaxation and prostration of the whole muscular system with almost or quite entire motor paralysis [15]. Useful in the treatment of Intermittents; suffers from nervous chills running from the sacrum to the nape of neck; Chill throughout stage of chill and profuse urination[16]. Chill ascends [17]. Tongue begins to coat, nausea comes on, ending in vomiting of bile and instead of there being an intermission a continued fever extends from one paroxysm to another [18].
4. **Carica papaya**: Useful in increasing platelet count. Many other remedies such as bryonia, arsenicum album, cantharis, cinchona, ipecac, nux-vomica, RHUS-v also helpful in the management of dengue with symptom-similarity. Although many medicines were present in the literature, Eupatorium perf is indicated most frequently in the treatment of Dengue Fever. Based on observations and facts seen in prior studies with Eupatorium perfoliatum and earlier outbreaks, Council has announced Eupatorium perfoliatum 30 as preventive medicine for outbreak of Dengue Epidemic.

Conclusion:

The outlook for individuals with untreated Dengue is extremely poor; however, with appropriate supportive care, the majority of patients can recover, although they may experience lasting damage to multiple organ systems. Supportive treatment primarily includes fluid administration and blood transfusions in cases of hemorrhage. The incidence of Dengue continues to expand into new regions and populations, with its prevalence increasing significantly through successive epidemics. Each facet of Dengue viral infection presents ongoing challenges, yet these can be mitigated through active community engagement. It is essential to implement health education initiatives focused on Dengue to enhance community awareness and encourage participation in comprehensive vector control strategies. Homoeopathic treatment adopts a holistic approach, emphasizing individualization. The choice of homoeopathic remedies is contingent upon the patient's unique response to the infection, the severity of the illness, and the specific clinical manifestations observed. Homoeopathy has the potential to alleviate symptoms such as fever, headache, body aches, fatigue, loss of appetite, nausea, and other related issues, while also decreasing the likelihood of severe complications such as shock and hemorrhage.

References:

- 1) who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue.
- 2) Sarkar JK, Chatterjee SN, Chakravarty SK. Haemorrhagic fever in Calcutta: some epidemiological observations. *Indian J Med Res.* 1964;52:651-9.
- 3) Chatterjee SN, Chakravarti SK, Mitra AC, Sarkar JK. Virological investigation of cases with neurological complications during the outbreak of haemorrhagic fever in Calcutta. *J Indian Med Assoc.* 1965;45:314-6.
- 4) Carey DE, Myers RM, Reuben R, Rodrigues FM. Studies on dengue in Vellore, South India. *Am J Trop Med Hyg.* 1966;15:580-7.
- 5) <https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON518>
- 6) Maia LMS, Bezerra MCF, Costa MCS, Souza EM, Oliveira MEB, Ribeiro ALM, et al. Natural vertical infection by dengue virus serotype 4, Zika virus and Mayaro virus in *Aedes (Stegomyia) aegypti* and *Aedes (Stegomyia) albopictus*. *Med Vet Entomol.* 2019 Sep;33(3):437-442.
- 7) Wilson MA, Celestin M, Maung A, Pauline EJ. Knowledge, Attitude and Practices Regarding Vector Borne Disease in Western Jamaica. *Ann. Glob. Health.* 2015;81:654-663.
- 8) <https://www.uptodate.com/contents/dengue-virus-infection-clinical-manifestations-and-diagnosis/print>
- 9) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7515206/>
- 10) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210746/>
- 11) <https://www.cdc.gov/dengue/hcp/diagnosis-testing/index.html>
- 12) <https://www.cdc.gov/dengue/hcp/diagnosis-testing/serologic-tests-for-dengue-virus.html>
- 13) <https://www.who.int/activities/enhancing-dengue-diagnosis-and-case-management>
- 14) <https://www.testing.com/tests/dengue-fever-test/>
- 15) Dr. Nash EB. *Leaders in homoeopathic therapeutics with grouping and classification*, B. Jain Publishers pvt. Ltd. 2011.
- 16) Dr. Choudhuri NM. *A study on materia medica Enriched with real case studies*, B. Jain Publishers P. Ltd. 2015.
- 17) Dr. Farrington EA. *Comparative materia medica*, Indian books and periodicals publishers, New Delhi. 2010.
- 18) Dr. James Tyler Kent. *Lectures on homoeopathic materia medica together with Kent's 'New Remedies' incorporated and arranged in alphabetical order*, B. Jain Publishers P. Ltd. 2011.
- 19) Dr. Allen Keynotes HC. *Characteristics with comparisons of some of the leading remedies of the materia medica with bowel nosodes*, Eighth Edition, B. Jain Publishers P. Ltd. 2008.
- 20) Dr. William Boericke. *Pocket manual of homoeopathic materia medica and repertory comprising of the characteristic and guiding symptoms of all remedies (Clinical and Pathogenic) including Indian drugs*, B. Jain Publishers Pvt. Ltd. 2010.
- 21) Dr. Boger CM. *A synoptic key of the materia medica (a treatise for Homoeopathic Students)*, B. Jain Publishers P. Ltd. 2015.
- 22) Guy B, Barrere B, Malinowski C, Saville M, Teyssou R, Lang J. From research to phase III: preclinical, industrial and clinical development of the Sanofi Pasteur tetravalent dengue vaccine. *Vaccine.* 2011;29:7229-41. [PubMed] [Google Scholar]
- 23) <https://www.homoeopathicjournal.com/articles/432/5-3-17-570.pdf>