



Homoeopathic Management of Dengue Fever

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ABSTRACT

Dengue is the most rapidly spreading mosquito-borne viral disease in the world with a wide clinical spectrum. Over the past 50 years, incidence has increased 30-fold with increasing geographic expansion into new countries and, in the current decade, from urban to rural settings. An estimated 50 million dengue infections occur annually, and more than 2.5 billion people (about 40% of the world's population) are now at risk of dengue fever.

In India, the first epidemic of clinical dengue-like disease was recorded in Madras (now Chennai) in 1780, and the first virologically proven epidemic of dengue fever (DF) occurred in Calcutta (now Calcutta) and the east coast of India in 1963–1964. The first large widespread outbreak of DHF/DSS occurred in India in 1996, affecting the areas around Delhi and Lucknow and then spreading throughout the country. India has become an endemic zone for dengue and dengue hemorrhagic fever (DHF) outbreaks.

The epidemiology of dengue in India has seen great evolution and change. The first reported occurrence of dengue fever in India dates back to 1946. Since then, the country has not experienced any major outbreaks for nearly two decades. Calcutta faced a major epidemic in 1963–64. It gradually spread to parts of northern and southern India in 1967–1968, with cases of all four serotypes (DENV 1–4) of dengue virus reported. A relative period of almost three decades of calm followed. Another large outbreak of DF/DHF was reported from Delhi in 1996, with 10,252 cases and 423 deaths. This outbreak was caused by DENV2, a genotype IV strain of the virus. Similar strains of DENV-2 were reported from central India and southern India, suggesting that DENV-2 was the predominant circulating strain in India at that time. The serotypes of the virus changed from year to year, and each time the serotype changed, areas reported higher dengue caseloads. In 2003, another large outbreak affected northern and central India (mainly in Delhi and Gwalior) and at that time all four serotypes were observed for the first time in Delhi, with DENV-3 being the predominant serotype. The reappearance of this epidemic strain of DENV-3 in Delhi in 2003 and its persistence in subsequent years marked a changing trend in DENV circulation, indicating a shift in dengue epidemiology in India. Subsequently, all four serotypes were reported from different parts of the country. Co-infection with multiple dengue serotypes has also been observed. Thus, it has become more apparent that India has gradually become a hyper-endemic area with dengue virus infection.

Keywords : Fever, Dengue Fever, Pathology, Homoeopathy.

INTRODUCTION

Dengue fever, also known as reclus fever, is an infectious tropical disease caused by the dengue virus. Symptoms include fever, headache, muscle and joint pain, and a characteristic skin rash that is similar to measles. In a small proportion of cases, the disease develops into life-threatening dengue hemorrhagic fever, which results in bleeding, low platelet levels and plasma leakage, or dengue shock syndrome, where blood pressure is dangerously low.

Homeopathy has a long history of success in the treatment of epidemic conditions, and recent experience in Brazil and India strongly points to the usefulness of homeopathy in the treatment and prevention of dengue fever. Treatment is holistic and individualized, and the choice of homeopathic remedies depends on the individual reaction to the infection, the severity of the disease and the clinical picture of the case.

With the increasing incidence of dengue and dengue hemorrhagic fever, some homeopathic doctors and associations approached the Council to provide guidelines for the treatment and prevention of dengue. The Council has prepared guidelines from various guidelines issued by various authorities (such as World Health Organization, National Vector Borne Disease Control Programme, etc.) and from the experience of senior homeopaths. Reference is also made to homeopathic literature and research studies on epidemic diseases in general and dengue fever in particular. Homeopathic practitioners are advised to follow these guidelines for treating dengue/high grade (suspected dengue) cases.

The goal of homeopathic treatment is to reduce the intensity of the fever and bring symptomatic relief from headache, body ache, weakness, loss of appetite, nausea and other associated symptoms, as well as to reduce the likelihood of developing shock, bleeding and other complications of dengue fever. Homeopathic intervention is preventive for unaffected persons and curative for persons already suffering from dengue fever. Patients may require

hospitalization in cases of dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). Platelet transfusion is recommended for patients with very low platelet counts (generally below 20,000/cumm). In such cases, homeopathy should be used as an adjuvant to standard care.

REVIEW OF LITERATURE

Dengue in India: Dengue has spread rapidly to many parts of the country.

The first case was reported from Vellore, Tamil Nadu in 1956. The first dengue outbreak was reported from Kolkata (WB) in 1963. A major dengue epidemic occurred in Delhi in 1996.

A second outbreak was reported in 2003 and over the years it has metamorphosed and dengue has become an endemic infection.

In 2003, all 4 dengue serotypes were present, but by 2005, DENV 3 had become the predominant serotype in India

A study among hospitalized children in Chennai revealed that 75% of 192 hospitalized children had positive dengue serology. Among them, 20% were infants and 35% had severe dengue fever. Another study in Chennai among children admitted to a pediatric intensive care unit reported a mortality rate of over 8%.

Dengue fever has a wide spectrum of manifestations. It can range from subclinical infection to full-blown shock. The classic clinical picture is an acute febrile illness lasting 2 to 5 days with headache, myalgia, arthralgia, rash, retroorbital pain with or without hemorrhagic manifestation. Patients with severe plasma leakage go into shock.

The latest WHO guidelines use simplified categories for diagnosis and treatment: dengue is divided into three categories:

- 1) dengue fever without warning symptoms;
- (2) dengue fever with warning symptoms
- (3) severe dengue fever (heavy bleeding, plasma leakage, organ damage). Categorization of disease based on severity guidelines when implementing good management.

One of the most common laboratory findings in dengue fever is thrombocytopenia. The complex mechanism of thrombocytopenia remains unclear. Possible mechanisms of thrombocytopenia could be direct suppression of the bone marrow by the virus; dengue antibody-mediated destruction of platelets, peripheral consumption of platelets, and isolated viral replication in platelets. Thrombocytopenia leads to bleeding, although the platelet count may not directly correlate with the bleeding manifestation.

A study in Thailand using a bleeding score based on the site of bleeding showed that the degree of platelet decline correlated with the severity of the disease. Bleeding in dengue fever can vary from small petechial bleeding to severe bleeding causing death of the patient.

Mean platelet volume (MPV) can be used as an independent predictor of bleeding. It is a surrogate marker of bone marrow activity; high MPV indicates increased megakaryocyte activity. A low MPV indicates bone marrow suppression and an increased risk of bleeding. MPV is used as a marker for some other diseases such as coronary heart disease and immune thrombocytopenic purpura. Correlation of platelet count and MPV with bleeding and disease severity using the bleeding score and disease severity score can potentially predict outcome. Activation of endothelial cells and the hemostatic system is also involved in disease severity in dengue infection.

The dengue fever virus belongs to the genus *Flavivirus* and is a member of the family *Flaviviridae*. It is an enveloped RNA virus with a positive strand.

The four serotypes are DEN 1, 2, 3, 4. Globally, all four serotypes have been found to infect high-risk areas, with DEN 2 and DEN 3 being the most common. In India, DEN 1 and DEN 2 are the most common serotypes isolated. The severity of the infection determines the severity of the disease. DAY 2 causing the most severe form of infection and increased mortality.

General Management

Rehydration plays a major role and all efforts must be focused

maintain adequate fluid intake.

Encourage oral intake of oral rehydration solution (ORS), water, fruit juice, lime

water, coconut water, and other fluids containing electrolytes and sugar to replace losses from fever and vomiting. Adequate oral fluid intake may reduce hospitalizations.

Warning: Fluids containing sugar/glucose aggravate the hyperglycemia of physiological stress from dengue fever and diabetes mellitus.

Patients unable to tolerate oral fluids require intravenous fluid therapy.

Advise patients to maintain adequate bed rest and continue their normal regular diet.

Instruct the caregiver that if any of the warning signs occur, the patient should be taken to the hospital immediately.

Warning signs requiring immediate attention

Severe and continuous abdominal pain

Bleeding from the nose, mouth and gums or bruised skin

Frequent vomiting with or without blood

Black stools, like coal tar

Excessive thirst (dry mouth)

Pale, cold skin, cold and clammy limbs

Restlessness or excessive sleepiness/drowsiness

Clinical deterioration with recurrence of fever

Inability to tolerate oral fluids

Failure to pass urine for more than 6 hours

Respiratory distress/oxygen desaturation

Altered sensory perception, confusion, convulsions

Rapid and thready pulse

Narrowing of pulse pressure to less than 20 mmHg

Urine output less than 0.5 ml/kg/h

Laboratory evidence of thrombocytopenia/coagulopathy, rising hematocrit, metabolic acidosis, liver/kidney function test abnormalities

High risk group

The following high-risk groups may have severe manifestations or complications with DF/DHF. Therefore, this group of patients should be carefully monitored for the development of severity:

Pregnancy

infant

Elderly

Obesity

Peptic ulcer diseases

G6PD deficiency

Thalassemia

Ischemic heart disease

Chronic diseases: Diabetes, COPD, Bronchial asthma, Hypertension

Patients on steroids, antiplatelets, anticoagulants

HIV-infected/immune-compromised persons

Follow

Patient monitoring requires close monitoring of temperature pattern, volume of fluid intake and loss, urine output (volume and frequency), and occurrence of warning signs. Examination of hemoglobin, hematocrit (PCV) and platelet count are important to assess the progress of each case.

PREVENTION OF DENGUE FEVER

General measures

1. Personal prophylactic measures

Use repellent creams, liquids, coils, pads, etc.

Wear full-sleeved shirts and full-length pants with socks

Use sleeping nets for babies and small children to prevent mosquito bites

2. Environmental management and resource reduction methods

Identify and eliminate mosquito breeding sources

Avoid pooling of water on roofs, porticoes and sun shades

Cover stored water properly

Change the water in pots, flower vases, water coolers, etc. frequently.

Waste must be disposed of properly and should not be allowed to be collected

3. Biological and chemical control to control mosquito breeding

Use larval fish in ornamental tanks, fountains, etc.

Use biocides or chemical larvicides to control mosquito breeding

Aerosol space spray

3. Health education

Educate the general public on vector reduction measures and safety measures to prevent mosquito bites.

Homeopathic medicine as prevention

According to the principles of homeopathy, the genus epidemicus (medicine capable of preventing disease) can be identified for sporadic and epidemic situations. The selection process for genus epidemicus is specialized and includes the following steps:

The Summary of Symptoms (TOS) related to the current epidemic is formulated by an in-depth study of all signs and symptoms of at least 20-30 cases, preferably from different areas, to cover the complete spectrum of diseases in the community.

The TOS needs to be thoroughly studied and the group of drugs needs to be identified after the appropriate repertorization process. These drugs must be administered to these cases on an individualized basis. The drug that is most often indicated and has the potential to provide a rapid and favorable response to the patient is genusepidemicus.

Medicines commonly used in the past labeled as genusepidemicus are Eupatorium perfoliatum, Rhus toxicodendron, Bryonia alba. One of them in potency 30 or 200 can be safely taken twice a day for three days as a prophylactic. Further research is being done in this area.

HOMOEOPATHIC REMEDIES AND THEIR INDICATIONS—

1) Aconitum napellus –

Indicated in the first stage of fever.

Acute, sudden and violent onset of fever.

The cold stage is marked by an icy cold face and cold sweat.

Skin dry and hot; face red or alternately pale and red.

Fever, often with burning thirst after copious amounts of cold water.

Intense nervous restlessness, writhing in agony.

Sweat running down on the laid parts.

A state of fear, anxiety; anxiety of mind and body.

Physical and mental restlessness

He doesn't want to touch.

A sudden and great loss of strength

2) Arsenicum album -

During a fever, he can't stand the smell or the sight of food.

Marked periodicity of fever.

High temperature

Headache, better with cold.

Burning in eyes with stinging lachrymation. Great thirst for cold water, drinks often but little at a time.

At the end of the fever, there is a sweat, which relieves the pain.

The discharges are thin and offensive.

Fever worse at noon and midnight, from cold drinks and cold food.

Weakness, exhaustion and restlessness with nighttime aggravation

Great exhaustion after the slightest exertion

Great distress and restlessness

3) Bryonia alba

Dry cough associated with fever

Pulse full, hard, tense and rapid.

Stitching, tearing pains, worse on slightest motion, better on absolute rest, and pressure.

Fever with great thirst for much water at long intervals.

Fever associated with constipation; no inclination to stool; stools: large, hard and dry as if burnt.

Pain in every muscle.

The patient is irritable; has vertigo from lifting head, pressure headache

Dry, parched lips, mouth; excessive thirst, bitter taste, sensitive epigastrium and feeling of a stone in the stomach

Dropsy effusions in the synovial and serous membranes

4) Chamomile

The patient is sensitive, irritable, thirsty, hot and numb

Impatient, intolerant of being spoken to or interrupted; very sensitive to every pain

Always complaining.

Mischievous, prompt

Throbbing headache in half of brain.

Tendency to bend the head back.

Hot, clammy sweat on forehead and scalp

The pain seems unbearable, leads to despair; worse with heat, in the evening, by heat, thirst, and faintness, with numbness of the affected part

5) Eupatorium

Deep pain, bone-breaking pain; feels bruised and sore, worse in back.

Aching pain in the eyeball

6) perfoliatum

The cold is preceded by thirst with great pain and pain in the bones.

Bitter vomiting at end of chill.

**Insatiable thirst for cold drinks before and during chills and fever;
drinking makes a cold worse.**

Sweat relieves all symptoms except headache

7) Ferrum phosphoricum

In the early stages of febrile conditions

Bow marked; face more active than gels.

Superficial redness never acquires a dark shade of gels.

Pulse soft and continuous; none of Acon's anxious restlessness.

Bleeding, clear from any orifice. Headache better cold applications

Face flushed; cheeks sore and hot

8) Gelsemium

Chill: wants to be held due to excessive shaking.

Fever with dull headache and coryza.

Fever attacks generally recur between 3-5pm.

Great heaviness of the eyelids (hanging); they can't leave them open.

Sneezing with stuffy nose.

Headache preceded by blindness, better copious urination.

Pulse slow, full and soft.

Fever with shivering, yellow coating on the tongue; thirst; stupor;

dryness of the whole body.

General bow.

Dizziness, drowsiness, numbness and tremors.

Slowed pulse, feeling tired, mental apathy.

9) Ipecacuanha

Slightest chills with great heat, nausea, vomiting and shortness of breath

Persistent nausea and vomiting

Bleeding bright red and profuse

The bones of the skull are crushed or bruised

Pain across the eyeballs

The language is usually clean

Mouth, moist; a lot of saliva

Vomits food, bile, blood, mucus

CONCLUSION:

This study was designed to study the etiopathogenesis and clinical features of dengue fever and its treatment using homeopathic medicines

A total of 30 cases were selected according to the inclusion and exclusion criteria

I. Prevalence of dengue from the study

1. The study concludes that dengue tends to affect individuals of any age group

2. There is no gender discrimination in the number of men/women affected by dengue, it can affect both sexes
 3. concludes that dengue manifests itself ambiguously in both low and high socio-economic groups, shows that prevention is the main step to prevent dengue
- II. The study concludes that homeopathic medicines are well effective in treating the symptoms of dengue fever

III. For the prevention of dengue fever

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2. Environmental management and resource reduction methods

Identify and eliminate mosquito breeding sources

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SUMMARY

Dengue fever, also known as reclus fever, is an infectious tropical disease caused by the dengue virus. Symptoms include fever, headache, muscle and joint pain, and a characteristic skin rash. In a small proportion of cases, the disease develops into life-threatening dengue hemorrhagic fever, which results in bleeding, low platelet levels and plasma leakage, or dengue shock syndrome, where blood pressure is dangerously low.

Homeopathy has a long history of success in the treatment of epidemics, and recent experiences in Brazil and India support its utility in the treatment of dengue fever. Treatment is holistic and individualized and the choice of homeopathic remedies depends on the individual reaction to the infection, the severity of the disease and the clinical presentation of the case. Homeopathy has the potential to reduce the intensity of fever, headache, body aches, weakness, loss of appetite, nausea and other related symptoms, as well as reduce the likelihood of developing shock, bleeding and other complications. Homeopathic intervention can be preventive for the unaffected/high-risk population (relatives, neighbors of the diagnosed patient) as well as curative for people already suffering from dengue fever. With the increasing incidence of dengue and dengue hemorrhagic fever, practitioners and associations have turned to the Council for standard treatment guidelines for clinical management and prevention. These guidelines are compiled after studying the publications of the World Health Organization and the National Vector Borne Disease Control Program in India, classical homeopathic literature, research publications and the experience of senior practitioners. These can be forwarded to clinical case management and genus epidemicus decision making.

The study was conducted with the objectives mentioned below –

1. To understand the etiopathogenesis and clinical symptoms of dengue fever
2. To study the symptomatology of homeopathic remedies from different materia medica with special reference to dengue fever
3. To study the usefulness of homeopathic medicines in the treatment of dengue fever

A study of 30 cases was designed to achieve these objectives. Diagnosed dengue cases from different age groups and both genders, cases belonging to different socio-economic groups and occupations, cases with comorbidities and previous treatment were excluded, each case was studied in detail considering the characteristics of mental and physical generals, clinical picture, living space, and receptivity.

The final choice of drug was made based on the summary of symptoms.

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