Could Homeopathy Become An Alternative Therapy In Dengue Fever? An example Of 10 Case Studies

Seema Mahesh*, Mahesh Mallappa*, George Vithoulkas**
*Centre for Classical Homeopathy, Vijayanagar, Bangalore, India
**University of the Aegean, International Academy of Classical Homeopathy, Alonissos, Northern Sporades, Greece

Correspondence to: Seema Mahesh
Centre for Classical Homeopathy #10, 6th Cross, Chandra Layout, Vijayanagar, Bangalore 560040, Karnataka, India
Phone: +91 9449084747, E-mail: bhatseema@hotmail.com

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Abstract
Background: Dengue fever is one of the most rampant epidemics in India of late and any therapy that may help limit the sickness and hospital admissions is worth considering. In India complementary and alternative medicine physicians are medically trained and hence have a role to play in delivery of public health.
Case Series: We present a retrospective case series of 10 Indian patients who were diagnosed with dengue fever and treated exclusively with homeopathic remedies at Bangalore, India.
This case series demonstrates with evidence of laboratory reports that even when the platelets dropped considerably there was good result without resorting to any other means.
Conclusions: A need for further, larger studies is indicated by this evidence, to precisely define the role of homeopathy in treating dengue fever. This study also emphasises the importance of individualised treatment during an epidemic for favourable results with homeopathy.

Key words: dengue fever, homeopathy, individual therapy

Abbreviations: DF: dengue fever, NS1: non-structural protein 1 antigen, IgG: immunoglobulin G, IgM: immunoglobulin M, +ve: positive, -ve: negative, WBC: white blood cells, RBC: red blood cells, ESR: erythrocyte sedimentation rate

Background
Dengue is one of the most prevalent epidemics in India of late; increasing from 30,000 cases in 2010 to 100,000 in 2016 it has become a big concern to public healthcare [1]. Even though most cases recuperate with little medication, considering the dangerous potential haemorrhagic complications, it is essential to have a system in place that can efficiently meet this challenge. In a country where medical care in any form is many times difficult for the population to access, Complementary and Alternative physicians are welcome to lend a hand thus lightening the burden on manpower requirement and economy.

Homeopathy has been proven to be effective as prophylactic in large populations of endemic dengue areas [2] but to the best of our knowledge this case series is the first of its kind providing treatment of individual case details with the corresponding laboratory reports.

Case Series
(Tables 1 - 10: Cases description)
The 10 patients were treated for DF at the Centre for Classical Homeopathy, Bangalore, India. In certain cases, patients resorted to antipyretics in the beginning at the onset of fever, but once the diagnosis of dengue was made, all patients were treated only with homeopathy.

The diagnosis was usually made on the first, second or third day after the onset of fever with a blood test to check for the presence of non-structural protein 1 antigen (NS1), immunoglobulin M (IgM) and immunoglobulin G (IgG). NS1 is evident in the blood at the early stages of infection and indicates the presence of an infection. IgM and IgG are detectable considerably later [3]. In these cases, the presence of NS1 was taken as the indication to begin dengue-targeted treatment, and the stability in terms of symptoms and blood parameters (mainly platelets) was considered the indicator to stop treatment. A complete blood count was performed at the
beginning and any abnormal parameters (Platelets, WBCs or NS1) were monitored regularly until they stabilised (Tables 1-10).

**Table 1. Case 1: 20 Year old male patient on treatment for psoriasis chronically**

| Date     | Blood test results | Signs and symptoms                      | Homeopathic Remedy             |
|----------|---------------------|-----------------------------------------|---------------------------------|
| 19/06/2015 | Hb: 15.8 g%         |                                        |                                 |
|          | WBC: 3,500 cells/cu mm |                                        |                                 |
|          | N: 62; L: 33; E: 4; M: 1; B: 0; |                                        |                                 |
|          | ESR: 5 mm/hour      |                                        |                                 |
|          | RBC: 5.58 million/ cu mm; |                                        |                                 |
|          | Platelets: 1,00,000/cu mm |                                        |                                 |
|          | Dengue NS1: -ve     |                                        |                                 |
|          | IgG: +ve            |                                        |                                 |
|          | Ig M: -ve           |                                        | Patient did not consult till 2 days later |

| Date     | Blood test results | Signs and symptoms                      | Homeopathic Remedy             |
|----------|---------------------|-----------------------------------------|---------------------------------|
| 20/06/2015 | Hb: 14.5 g%         |                                        |                                 |
|          | WBC: 2,900 cells/cu mm |                                        |                                 |
|          | N: 56; L: 49; E: 2; M: 3; B: 0; |                                        |                                 |
|          | ESR: 10 mm/hour     |                                        |                                 |
|          | RBC: 5.71 million/ cu mm; |                                        |                                 |
|          | Platelets: 80,000/cu mm |                                        |                                 |
|          | Dengue NS1: -ve     |                                        |                                 |
|          | IgG: +ve            |                                        |                                 |
|          | Ig M: -ve           |                                        |                                 |

| Date     | Blood test results | Signs and symptoms                      | Homeopathic Remedy             |
|----------|---------------------|-----------------------------------------|---------------------------------|
| 21/06/2015 | Platelets: 70,000/cu mm | Fever since 3 days | Thlaspi bursa pastoris 200C |
|          |                     | Craves Buttermilk                       |                                 |
| 23/06/2015 | Platelets: 1,50,000/cu mm |                                      | Stop treatment                  |
| 26/06/2015 | Platelets: 2,70,000/cu mm |                                      |                                 |

**Table 2. Case 2: 47 Year old female patient on treatment for hypothyroidism chronically**

| Date     | Blood test results | Signs and symptoms                      | Homeopathic Remedy             |
|----------|---------------------|-----------------------------------------|---------------------------------|
| 27/06/2016 | Hb: 12 g%           |                                        |                                 |
|          | WBC: 4,200 cells/cu mm |                                        |                                 |
|          | N: 76.4; L: 14; E: 0.4; M: 8.6; B: 0.6; |                                        |                                 |
|          | ESR: 25 mm/hour     |                                        |                                 |
|          | RBC: 4.18 million/ cu mm; |                                        |                                 |
|          | Platelets: 1,70,000/cu mm |                                        |                                 |
|          | Dengue NS1: +ve     |                                        |                                 |
|          | IgG: -ve            |                                        |                                 |
|          | Ig M: -ve           |                                        |                                 |
|          | Severe body ache with fever, nausea on seeing food, abdominal distension - cannot lie o her back has to lie to the right; cannot tolerate any food can drink tea and warm water Few Bleeding spots were apparent on her oral mucosa | Patient did not consult till 2 days later |

| Date     | Blood test results | Signs and symptoms                      | Homeopathic Remedy             |
|----------|---------------------|-----------------------------------------|---------------------------------|
| 29/06/2016 | Platelets at 10.40am: 17,000 cells/cu mm | She was excessively tired and weak. was hospitalised for expected emergency but no treatment was given | Lycoodium 200C |
|          | at 1.50 pm: 18,000 cells/cu mm |                                      |                                 |
|          | at 7.00pm 14,000 cells/cu mm |                                      |                                 |
| Date       | Blood test results | Signs and symptoms                                      | Homeopathic Remedy       |
|------------|--------------------|--------------------------------------------------------|--------------------------|
| 30/06/2016 | Platelets at 5 am: 23,000 cells/cu mm at 4.30 pm: 42,000 cells/cu mm | She was generally feeling fine and was able to eat; She was discharged from the hospital | No change                |
| 01/07/2016 | Platelets: 1,28,000 cells/cu mm | Feeling well                                           | Treatment stopped        |
| 03/06/2016 | Platelets: 2,08,000 cells/cu mm |                                                         |                          |

**Table 3. Case 3: 28 year old female patient on treatment for bronchial asthma and hypothyroidism chronically**

| Date       | Blood test results | Signs and symptoms                                      | Homeopathic Remedy       |
|------------|--------------------|--------------------------------------------------------|--------------------------|
| 14/09/2016 | Hb: 13.1 g% WBC: 4,100 cells/cu mm N: 69.4; L: 24; E: 6; M: 1; B: 0; ESR: 13 mm/hour RBC: 4.36 million/ cu mm; Dengue NS1: +ve IgG: -ve Ig M: -ve | Severe body ache and tiredness with fever - the family admitted her to a hospital | She was at hospital the first 2 days so did not take homeopathy |
| 15/09/2016 | Platelets: 52,000 cells/cu mm | Patient was worse than the previous day in general |                          |
| 16/09/2016 | Platelets: 30,000 cells/cu mm | She exhibited oral mucosal hemorrhagic spotsShe could only drink lemonade and nothing else | Ptelea 200C               |
| 17/09/2016 | Platelets 25,000 cells/cu mm | Generally her condition was better than previous day - she could eat a little but still too weak | No change                |
| 18/09/2016 | Platelets: 45,000 cells/cu mm | Patient felt fine and went home from the hospital | No change                |
| 19/09/2016 | Platelets: 80,000 cells/cu mm | Feeling well                                           | Treatment stopped        |
| 21/09/2016 | Platelets 2,50,000 cells/cu mm |                                                         |                          |
Table 4. Case 4: 32 year old male patient on treatment for depression chronically

| Date       | Blood test results          | Signs and symptoms                                                                 | Homeopathic Remedy            |
|------------|-----------------------------|------------------------------------------------------------------------------------|-------------------------------|
| 30/05/2017 | Dengue NS1: +ve IgG: -ve IgM: -ve Platelets: 1,40,000 cells/cu mm WBC: 6,800 cells/cu mm | Headache and pain in sacrum with fever; nausea at the sight of food; craving for refreshing juice | Acidum phosphoricum 200C      |
| 02/06/2017 | Dengue NS1: -ve IgG: -ve IgM: -ve Platelets: 1,41,000                                  | Feeling well                                                                      | Treatment stopped             |

Table 5. Case 5: 34 year old male not on any treatment before now

| Date       | Blood test results          | Signs and symptoms                                                                 | Homeopathic remedy            |
|------------|-----------------------------|------------------------------------------------------------------------------------|-------------------------------|
| 08/06/2017 | Dengue NS1: +ve IgG: -ve IgM: -ve Platelets: 81,000                                  | Diarrhoea - exhausting along with fever; Was afraid to stay alone - always wanted someone with him; There were hemorrhagic spots on the oral mucosa | Arsenicum album 200C          |
| 09/06/2017 | Platelets: 65,000           | Patient was not better and was brought again to clinic. On examination the pulse was very slow in correlation to the temperature | Pyrogenum 200C                |
| 10/06/2017 | Platelets: 75,000           | Diarrhoea stopped; patient feeling better                                           | No change                     |
| 11/06/2017 | Platelets 1,15,000          | Feeling fine                                                                       | Treatment stopped             |

Table 6. Case 6: 8 year old girl on treatment for recurrent acute infections from time to time

| Date       | Blood test results          | Signs and symptoms                                                                 | Homeopathic remedy            |
|------------|-----------------------------|------------------------------------------------------------------------------------|-------------------------------|
| 15/06/2017 | Hb: 12.4 g% WBC: 3660 cells/cu mm N: 61.8; L: 29.5; E: 0.1; M: 8.2; B: 0.4; RBC: 5.11million/ cu mm; Platelets: 2,32,000/cu mm Dengue NS1: +ve | High fever; Pulse slow in correlation to temperature Pain in extremities; Nausea at the smell of food | Pyrogenum 200C                |
Table 7. Case 7: 16 year old male patient on treatment for premature greying of hair since 3 months

| Date   | Blood test results | Signs and symptoms | Homeopathic remedy |
|--------|--------------------|--------------------|--------------------|
| 16/06/2017 | Hb: 12.6 g% WBC: 3170 cells/cu mm N: 30.9 L: 56.3; E:0.4; M: 10.7; B: 1.7; RBC: 5.21 million/ cu mm; Platelets: 1,99,000/cu mm | Generally girl is well no complaints | No change |
| 19/06/2017 | Hb: 12.7 g% WBC: 5860 cells/cu mm N: 19; L: 72.7; E: 3.5; M: 4.3; B: 0.5; RBC: 5.26 million/ cu mm; Platelets: 2,39,000/cu mm Dengue NS1: -ve | Feeling well | Treatment stopped |
| 04/07/2017 | Hb: 15.3 g% WBC: 6000 cells/cu mm N: 77; L: 20.7; E: 2; M: 1 RBC: 5.10 million/ cu mm; Platelets: 2,31,000/cu mm Dengue NS1: +ve IgM: -ve; IgG: -ve | Rise of temperature in the afternoon; Wants to drink warm water; decreased appetite | Lycopodium 200C |
| 06/07/2017 | Hb: 15.7 g% WBC: 3600 cells/cu mm N: 55; L: 34.7; E: 6; M 5 RBC: 5.23 million/ cu mm; Platelets: 2,11,000/cu mm Dengue NS1: -ve | Appetite better | No change |
| 07/07/2017 | Hb: 15.9 g% WBC: 2600 cells/cu mm N: 19; L: 72.7; E: 3.5; M: 4.3; B: 0.5; RBC: 5.27 million/ cu mm; Platelets: 1,86,000/cu mm Dengue NS1: +ve IgM: weakly positive; IgG: -ve | Generally well | No change |
| 08/07/2017 | Dengue NS1: -ve IgM: -ve; IgG: -ve | | Treatment stopped |
### Table 8. Case 8: 41 year old female patient on treatment for hypothyroidism and polycystic ovarian syndrome

| Date       | Blood test results | Signs and symptoms                           | Homeopathic remedy   |
|------------|--------------------|-----------------------------------------------|----------------------|
| 24/07/2017 | Hb: 11.2 g%        | Diarrhoea with fever; Pulse slow in correlation to the temperature | Pyrogenum 200C       |
|            | WBC: 6900 cells/cu mm |                                              |                      |
|            | N: 48; L: 32; E: 12; M: 8; RBC: 4.97 million/ cu mm; Platelets: 2,16,000/cu mm Dengue NS1: -ve IgM: weakly +ve; IgG: -ve |                      |                      |
| 28/07/2017 | Hb: 10.5 g%        | Diarrhoea reduced.                           | No change           |
|            | WBC: 4200 cells/cu mm |                                              |                      |
|            | N: 60; L: 32; E: 4; M: 4; RBC: 4.70 million/ cu mm; Platelets: 4,33,000/cu mm Dengue NS1: -ve IgM: +ve; IgG: -ve |                      |                      |
| 05/08/2017 | Hb: 10.1 g%        | Feeling well                                 | Treatment stopped    |
|            | WBC: 8200 cells/cu mm |                                              |                      |
|            | N: 65; L: 30; E: 3; M: 2; RBC: 4.46 million/ cu mm; Platelets: 7,91,000/cu mm Dengue NS1: -ve IgM: -ve; IgG: -ve |                      |                      |

### Table 9. Case 9: 2 year old child on treatment for delayed milestones

| Date       | Blood test results | Signs and symptoms                           | Homeopathic remedy   |
|------------|--------------------|-----------------------------------------------|----------------------|
| 29/07/2017 | Hb: 12 g%          | Child was asymptomatic except for fever       | No remedy administered |
|            | WBC: 3120 cells/cu mm |                                              |                      |
|            | N: 26.8; L: 67.6; E: 0.4; M: 4.8; RBC: 4.9 million/ cu mm; Platelets: 1,42,000/cu mm Dengue NS1: +ve |                      |                      |
| 30/07/2017 | Hb: 12 g%          | No symptoms                                  | Arum triphyllum 200C (patient had been on the same remedy previously for his chronic complaint and in the absence of any acute symptomatology the same was repeated - a homeopathic therapeutic law) |
|            | WBC: 3080 cells/cu mm |                                              |                      |
|            | N: 17; L: 76.1; E: 1.3; M: 5; RBC: 4.88million/ cu mm; Platelets: 1,09,000/cu mm |                      |                      |
IgG +ve which became positive on 8th day as indicated in Table 2. Generally, DF patients with NS1 positivity go on to become seropositive for IgM by day 5 and demonstrate detectability of all three markers by days 5 – 6 [3]. The 10 cases in this report included 5 males and 5 females. The average time from the detection of NS1 until it became positive was 4.4 days (minimum of 3 days and maximum of 8 days). Five patients exhibited a decrease in platelets, which became normal with treatment. Nine patients were +ve for NS1 at the time of diagnosis, and 1 patient was IgG +ve (probably due to late diagnosis). In case 8, NS1 was +ve at diagnosis but became IgM + ve by day 4, and one week after receiving the homeopathic remedy, these returned to normal. However, this patient took 8 days to recover. Case 5 required two remedies in succession because the first one was unsuccessful, leading to further decrease in the number of platelets. The second remedy was successful, and the platelet count immediately increased. Though there were at least three cases demonstrating mucosal bleeding, none of these cases proceeded to shock or severe haemorrhage. The significance of the homeopathic treatment is that all patients maintained at least a fairly good general

| Date       | Blood test results                                           | Signs and symptoms              | Homeopathic remedy          |
|------------|---------------------------------------------------------------|---------------------------------|------------------------------|
| 31/07/2017 | Hb: 11.7 g%  
WBC: 4290 cells/cu mm  
N: 21.6 L: 62.7; E: 5.5; M: 8.7; B: 1.5  
RBC: 4.78 million/ cu mm  
Platelets: 1,00,000/cu mm | No symptoms                      | No change                     |
| 02/08/2017 | Hb: 12.3 g%  
WBC: 5320 cells/cu mm  
N: 26.4 L: 61.7; E: 4.4; M: 6.8; B: 0.7  
RBC: 4.99 million/ cu mm  
Platelets: 1,47,000/cu mm  
Dengue NS1: +ve | No symptoms                      | No change                     |
| 05/08/2017 | Dengue NS1: -ve                                              |                                 | Treatment stopped            |

Table 10. Case 10: 21 year old female not on any treatment before now

| Date       | Blood test results                                           | Signs and symptoms              | Homeopathic remedy          |
|------------|---------------------------------------------------------------|---------------------------------|------------------------------|
| 22/08/2017 | Hb: 13.1 g%  
WBC: 3960 cells/cu mm  
N: 30.2 L: 55.7; E: 2.5; M: 10.1; B: 1.5  
RBC: 4.61 million/ cu mm  
Platelets: 1,96,000/cu mm  
Dengue NS1: +ve | High fever; Craving for tomato soup  | Ferrum metallicum 200C         |
| 23/08/2017 | Hb: 11.9 g%  
WBC: 5760 cells/cu mm  
N: 21.7 L: 66.3; E: 4.3; M: 6.8; B: 0.9  
RBC: 4.23 million/ cu mm  
Platelets: 1,95,000/cu mm  
Dengue NS1: -ve | Temperature is normal and patient generally well | Treatment stopped |

Normal reference range for blood parameters: WBC count: 4,000 to 11,000 cells/cu mm, Neutrophils (N): 40 - 75%, Lymphocytes (L): 20 - 40%, Eosinophils (E): 0 - 6%, Monocytes (M): 2 - 10%, Basophils (B): 0 - 2%, RBC Count: 3.8 - 4.8 million cells/cu mm, Haemoglobin: 11.5 - 15.5 g%, Erythrocyte Sedimentation Rate (ESR): 0 - 20 mm/hr, Platelets count: 1,40,000 to 4,50,000/ cu mm, NS1 (Non specific antigen1): negative (-ve), Immunoglobulin G (Ig G): negative (-ve), Immunoglobulin M (Ig M): negative (-ve)

Results

Generally, DF patients with NS1 positivity go on to become seropositive for IgM by day 5 and demonstrate detectability of all three markers by days 5 – 6 [3]. The 10 cases in this report included 5 males and 5 females. The average time from the detection of NS1 until it became positive was 4.4 days (minimum of 3 days and maximum of 8 days). Five patients exhibited a decrease in platelets, which became normal with treatment. Nine patients were +ve for NS1 at the time of diagnosis, and 1 patient was IgG +ve (probably due to late diagnosis). In case 8, NS1
condition during the infection and were able to return to normal functioning in a short length of time. There was no evidence of any post viral syndrome which are common in these cases [4].

Most of these patients were already on homeopathic treatment for their chronic complaints, so they did not delay in approaching the homeopath. If instead there was considerable time lost between onset of dengue and seeking homeopathy, we cannot say for sure if such favourable results would have been achieved.

Discussion

This case series is significant because in all cases, the prescription was based on the principles of classical homeopathy, which considers the individual signs and symptoms of every patient for remedy selection. Often, these signs and symptoms do not have any relation to the pathological process occurring in the individual; rather, they are considered to be part of the immune response to the pathological agent, which is an attempt to re-establish homeostasis. Therefore even in epidemics, where the pathogen and pathology are similar in all cases, each individual’s reaction to them is different [5]. We observe in this study that only 3 out of 10 cases required the same remedy (as they had very similar symptoms).

The remedies are derived from animal, plant and mineral kingdom. They are prepared by a special process called ‘potentisation’ which renders even the most toxic substances safe for use as medicines [6].

Conclusions

This case series demonstrates that classical homeopathy has the potential to help treat dengue infection. Further larger studies are required to confirm the extent to which it may be employed. This study further demonstrates that it is essential to consider the individual symptoms, even in epidemics, to achieve favourable results from homeopathy.

Take home lessons

- Dengue is a real public health threat in India. Complementary and Alternative Medicine physicians may help lessen the burden as they are medically trained in this country.
- Case series of 10 cases to demonstrate that individualised therapy with homeopathy for dengue yields favourable results.
- It was possible to maintain even the dangerously low platelet situations without hospitalisation or cumbersome procedures.
- None of the cases progressed to a post dengue syndrome which will be worth investigating as a potential benefit of homeopathic therapy
- Further larger studies on the feasibility and the extent to which individualised homeopathy may be employed in dengue affected areas need to be conducted.

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