

EDITORIAL

Dengue epidemic: What can we offer?

Most parts of India are in the grip of dengue epidemic. Dengue epidemics have increased in extension and virulence, possibly indicating viral mutation and evolution.^[1] Dengue is a vector-borne disease transmitted by the bite of an infected mosquito. There are four serotypes of the virus that causes dengue. These are known as DEN-1, DEN-2, DEN-3, and DEN-4. The total economic burden of dengue in South-east Asia is estimated at 970.2 US\$.^[2] Dengue outbreak in the country is attributed to a number of factors, including heavy rains, intense construction activity and better surveillance system that enable detection of more cases. Hospitals and clinics across the country are inundated with patients, putting a strain on emergency services. Outbreak of dengue fever is reported every year from various parts of country and this year, the total incidence reported by Directorate of National Vector Borne Disease Control Programme^[3] until August 2015 is 17,340, which is already 43% of the last year's total figure 40,571, and the worse seems yet to come, since the maximum prevalence of dengue in most parts of India is in post monsoon period (September to November).^[4]

Homoeopathic literature mentions several medicines for treatment of dengue. *Eupatorium perfoliatum* is one of the most frequently indicated medicines in dengue fever. Even the cases that Council collected through its online data recording software during the last year epidemic, pointed towards *Eupatorium perfoliatum*. Further, the clinical presentation of this year's dengue fever recorded by the teams deputed by the Council at various hospitals of Delhi is also suggestive of *Eupatorium perfoliatum* as a key drug. Moreover, most studies (discussed below) carried out on dengue have used *Eupatorium perfoliatum* as the only or one of the drugs. Based on these observations and facts, Council recently announced *Eupatorium perfoliatum* 30 as the preventive drug for the ongoing outbreak.

Studies carried out for evaluating the role of homoeopathic treatment of dengue fever have been

encouraging, with evidence reported from Brazil, Pakistan and Cuba.

In Brazil, in May 2001, a single dose of the homeopathic remedy *Eupatorium perfoliatum* 30C was given to 40% of residents of the most highly affected neighborhood. Thereafter, dengue incidence decreased by 81.5%, a highly significant decrease as compared with neighbourhoods that did not receive homoeopathic prophylaxis.^[5] Again in early 2007, facing the challenge of controlling an outbreak of dengue, the Secretary of Health of the county of Macaé, Rio de Janeiro, Brazil, carried out a "Homeopathy Campaign against Dengue." 156,000 doses of homoeopathic remedy were freely distributed in April and May 2007 to asymptomatic patients, according to the notion of "epidemic genus." The remedy used was a homoeopathic complex against dengue containing *Phosphorus* 30cH, *Crotalus horridus* 30cH and *Eupatorium perfoliatum* 30cH. The incidence of the disease in the first 3 months of 2008 fell by 93% in comparison to the corresponding period in 2007, whereas in the rest of the state of Rio de Janeiro there was an increase of 128%. While confounding factors were not controlled for, these results suggest that Homoeopathy may be an effective adjunct in dengue outbreak prevention.^[6] Further, in 2012, a double-blind, placebo-controlled randomized trial was conducted on dengue patients using the same homoeopathic complex, to evaluate the effectiveness of the homeopathic intervention in dengue epidemic. The intervention group showed improvement in most symptoms including headache, fever, and myalgia.^[7]

In Pakistan, a homoeopathic complex of 10 medicines including *Bryonia alba*, *Rhus toxicodendron*, *Gelsemium sempervirens*, *Aconitum napellus*, *Eupatorium perfoliatum*, *China boliviana*, *Hamamelis*, *Citrullus colocynthis*, *Crotalus horridus* and *Phosphorus* was given to 25 patients of dengue fever and the mean values of each of the criteria of both homoeopathic and standard treatment groups were compared.

Better results were seen in the blood values within a week of prescription, as opposed to the standard maintenance therapy.^[8]

In Cuba, 25,000 patients who tested positive for dengue were treated with a homoeopathic complex containing medicines *Bryonia alba*, *Eupatorium perfoliatum*, *Gelsemium sempervirens* and Dengue nosode. As a result, no severe symptoms were reported after its administration, nor did any patient require any more intensive care from an average of 3 to 5 days of entering Intensive Care Unit. Even the stay at the hospital reduced from 7–10 days to 3–5 days.^[9]

These results reflect that the dengue epidemic is not a country specific health problem, but an global burden, with most parts of world trying to find ways to fight it, especially so when the dengue vaccine is not existing yet. The standard management of uncomplicated cases of dengue fever primarily includes controlling fever, ensuring adequate hydration and monitoring blood values for platelets, hematocrit and total leucocyte count. However, clear cut antiviral therapy for dengue is largely wanting. It is not only an opportunity for the homoeopathic community but also its obligatory calling to rise to the occasion and offer all that it can in prevention, management, and treatment during the dengue epidemic.

Evidence that Homoeopathy may be effective in prevention of dengue, as well as an add-on therapy, especially in reducing the intensity of the disease and decreasing the duration of stay at hospital is enough to lay our foundation for more work on this front. Nonetheless, the studies so far also give rise to some thought-provoking questions on our approach to selecting medicines for prevention or treatment in epidemic situations. The use of complex medicines in recent trials compels one to revisit the approach of administering only one medicine for homoeoprophylaxis and certainly calls for more trials. On the contrary, another double-blind, placebo-controlled randomized control trial by Jacobs *et al.*^[10] using a combination remedy was carried out in Honduras, along with standard conventional analgesic treatment for dengue. The results showed no difference in outcomes between the two groups. However, most of the studies discussed above, including this one, had some or the other limitations ranging from small sample

size, poor research design or abrupt withdrawal of study. Still, the data are sufficient to invoke more studies with better methodology and compliance. Thus, shedding all bias and without losing any more time in opinion clashes, we must initiate preventive and curative trials based on either of the two approaches – single or complex medicines for preventive and/or curative roles.

That said, the hard fact remains that conducting these studies is a challenge in itself, especially the prophylactic studies. The preventive programs for epidemics need a synergistic association: Formal approvals from government heads, tie-ups with health service centers and adequate awareness about Homoeopathy of those who are involved in conducting or facilitating such a program. It has been observed that since epidemic is a short-term situation if precious time is lost in getting such approvals or in establishing tie-ups, true justice cannot be done to these studies. Such kind of challenges need to be overcome and for that, we need to build strategies and standard protocols in liaison with the concerning authorities.

Coming back to the ongoing epidemic, we, as healthcare delivers, should not forget that going by the present state of affairs, especially in the state of Delhi, which is witnessing the worst epidemic of dengue, we must remember that the control of dengue requires a combination of strategies, with Homoeopathy as only one pillar. During the infection, the use of antipyretics for lowering the temperature in patients reporting of high fever and regular platelet monitoring to ensure timely blood transfusion, in case of need, are vital management steps. Homoeopathic remedies, especially in advanced cases, should be proposed in an integrated manner along with the standard therapy, with the chief aim to minimize the progression and severity of the disease.

For information and education of a homoeopathic practitioner dealing with dengue cases, 'Guidelines for homoeopathic Practitioners for Clinical Management of Dengue' have been developed by Central Council for Research in Homoeopathy. These guidelines aim to present all relevant details to a practitioner in daily clinical practice for management of cases diagnosed or suspected to be of dengue and are available at the Council's website www.ccrhindia.org. As regards the new

cases of dengue, which a homoeopathic practitioner, by way of his or her knowledge of the disease, finds to be uncomplicated, should be treated with the indicated medicines prescribed on the basis of their individualizing symptoms. Such cases may also be reported at Council's website link <http://www.ccrhdengueinfo.org/#>, created for organized data management and subsequent analysis of dengue cases treated with Homoeopathy.

With the increasing understanding of the role of homoeopathy in epidemics and more rigorous trials, future epidemics, it is hoped, will be tackled with better strategies and management plan.

NANO DIMENSIONS OF HOMOEOPATHY

Several studies have revealed that homoeopathic remedies contain Nanoparticles (NPs) of source materials. NPs induce adaptive changes in the organism at non toxic doses (hormesis). Homoeopathic remedies act by stimulating hormetic adaptive rather than conventional pharmacological effects. This reflects the possibility of its integration with modern medicine in future.^[11] In a review article being published author elaborated the nano-dimensional properties of Homoeopathic medicine.^[12] It can be argued that Homoeopathy represents the earliest practical development of "integrative nanomedicine" for using pulsed doses of NPs from natural source materials safely and effectively in treating a wide range of acute and chronic clinical conditions.^[13] This is a very informative article that discusses the current state of affairs from Physicist's point of view. It highlights the preliminary outcomes in terms of size of these particles, their spectral properties and effect on membrane fluidity. It connects important, old, un-quantifiable effects with the latest quantifiable technology and opened up an era of applications with more possibilities. Other usage of these NPs outside medicine such as thermovoltage generation and enhancing electrical properties of the polyvinylidene fluoride film, which can be a promising high dielectric material for the fabrication of high charge strong multilayer capacitors in electronic industries.^[11] Mohanty *et al.* has presented an outcome of homoeopathic pathogenetic trial of *Nano Curcumin 6X* potency.^[14] The symptoms reported need further verification by profession provided this drug is available.

A book review of "Homoeopathy and Modern Medicine" written by Dr. R.D. Lele is being published.^[14] This is a unique book that connects homoeopathic principles, philosophy with modern day knowledge of science; all students, homoeopaths and scientists of basic research should read it.

HOMOEOPATHY IN LEPROSY AND VITILIGO

Since the adoption in 1991 of the World Health Assembly resolution on the elimination of leprosy, the prevalence of leprosy has fallen globally.^[15] However, the pockets of high incidence (endemic) are still remaining in many countries such as Angola, Brazil, the Central African Republic, Nepal, Tanzania, and India. These countries remain highly committed to eliminating the disease and continue to intensify their leprosy control activities.^[16] An environment, in which patients will not hesitate to come forward for diagnosis and treatment at any health facility, must be created.^[17] Chakraborty *et al.* had been working in this area since 20 years, their latest publication "Comparative Study of a Homoeopathic Medicine – *Sulphur* with the Multi Drug Therapy in the Treatment of Paucibacillary Leprosy" is another piece of evidence that points toward the distinct advantage of integrated care.^[18] Another publication highlights the usefulness of homoeopathy in a cohort study in vitiligo. The frequently indicated medicines are *Sulphur*, *Arsenicum album*, *Phosphorus* and *Lycopodium*.^[19] The outcome measures are generic, and there is a possibility of improving the success rate of prescribing. Further, study using specific outcome measures and with the aim of identifying statistically significant indications of each drug is a prerequisite for instituting randomized control trial for a limited period.

The publication on "Homoeopathic preparation of *Berberis vulgaris* as an inhibitor of Calcium Oxalate Crystallization: An *in-vitro* evidence" is another study justifying the use of *Berberis vulgaris* in the prevention and treatment of renal stones. In this *in-vitro* study, *Berberis vulgaris* has been found as a potent drug against calcium oxalate crystallization both at the level of nucleation and aggregation.^[20]

We are glad to announce that now onwards, the abstracts of all the articles will also be published in Spanish, and this will benefit Spanish speaking countries. We extend a warm thanks to Madam Ute Fisch, National Vice President, Liga Medicorum

Homoeopathica Internationalis, Spain for agreeing to translate all the abstracts. We welcome her as Associate Editor.

Raj K. Manchanda

Editor in Chief,
Central Council for Research Homoeopathy, Janakpuri, New Delhi, India.
E-mail: rkmachanda@gmail.com

REFERENCES

1. World Health Organization. Dengue: Guidelines for Diagnosis, Treatment, Prevention and Control; 2009. Available from: <http://www.who.int/rpc/guidelines/9789241547871/en/> [Last accessed on 2015 Sep 28].
2. Shepard DS, Halasa AY, Undurraga EA. Economic and disease burden of dengue. In: Gubler DJ, Ooi EE, Vasudevan S, Farrar J, editors. Dengue and Dengue Hemorrhagic Fever. 2nd ed., Ch. 3; 2014. p. 50-77.
3. Directorate of National Vector Borne Disease Control Programme. Available from: <http://nvbdcp.gov.in/den-cd.html>. [Last accessed on 2015 Sep 28]
4. Gupta E, Dar L, Kapoor G, Broor S. The changing epidemiology of dengue in Delhi, India. *Virology Journal* 2006;3:92.
5. Marino R. Homeopathy and Collective Health: The Case of Dengue Epidemics. *Int J High Dilution Res* 2008;7:179-85.
6. Nunes L, Reynaldo AS, Amorim MHC, Zandonade E, Salume S. Contribution of homeopathy to the control of an outbreak of dengue in Macaé, Rio de Janeiro. *Int J High Dilution Res* 2008;7:186-92.
7. Novaes AR. Homeopathic Intervention In Users Treatment Network Public Advised With Dengue In Victory, Brazil. Proceedings of 70th Congress of Liga Medicorum Homoeopathica Internationalis 2015. <http://www.lmhi2015.org>.
8. Hassan S, Tariq I, Khalid A, Karim S. Comparative Clinical Study on the Effectiveness of Homeopathic Combination Remedy with Standard Maintenance Therapy for Dengue Fever. *Tropical Journal of Pharmaceutical Research* October 2013;12:767-70.
9. Bracho G. Homeopathy and ultradilutions: From basic evidences to practical applications. Powerpoint presented at 14th Japanese Homoeopathic Medical Association (JPHMA) Congress. 7-8 December 2013.
10. Jacobs J, Fernandez EA, Merizalde B, Avila-Montes GA, Crothers D. The use of homeopathic combination remedy for dengue fever symptoms: A pilot RCT in Honduras. *Homeopathy*. 2007. p. 22-26.
11. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23277079>. [Last accessed on 2015 Sep 28].
12. Nandy P. A review of Basic Research on Homoeopathy from Physicist's Point of View. *Indian J Res Homoeopathy* 2015;9:141-51.
13. Mohanty N, Sujata Kumari Choudhury, Santosh Kumar Jena. A double blind, placebo controlled homoeopathic pathogenetic trial of *nanocurcumin* 6X. *Indian J Res Homoeopathy* 2015;176-87.
14. Kshirsagar NA. Homoeopathy and Modern Medicine. *Indian J Res Homoeopathy* 2015;216-7.
15. Available from http://apps.who.int/iris/bitstream/10665/69485/1/WHO_CDS_NTD_2006.4_eng.pdf. [Last accessed on 2015 Sep 28].
16. Available from: <http://www.who.int/lep/en/>. [Last accessed on 2015 Sep 28].
17. Available from: <http://www.who.int/mediacentre/factsheets/fs101/en/>. [Last accessed on 2015 Sep 28].
18. Chakraborty D, Das P, Dinda AK, Sengupta U, Chakraborty T, Sengupta J, *et al*. Comparative Study of a Homoeopathic Medicine – Sulphur with the Multi Drug in the Treatment of Paucibacillary Leprosy. *Indian J Res Homoeopathy* 2015;9:158-66.
19. Chakraborty PS, Kaushik S, Debata L, Ram B, Kumar R, Shah M, *et al*. A prospective multicenter observational study to evaluate the role of homoeopathic therapy in Vitiligo. *Indian J Res Homoeopathy* 2015;9:167-75.
20. Ganesan T, Ravi DB, Vasavan J, Khurana A, Nayak D, Periandavan K, *et al*. Homeopathic preparation of *Berberis vulgaris* as an inhibitor of calcium oxalate crystallization: An *in vitro* evidence. *Indian J Res Homoeopathy* 2015;9:152-7.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online

Quick Response Code:	Website: www.ijrh.org
	DOI: 10.4103/0974-7168.166371

How to cite this article: Manchanda RK. Dengue epidemic: What can we offer?. *Indian J Res Homoeopathy* 2015;9:137-40.