

Efficacy of Homoeopathic Prophylaxis in Chikungunya

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Key words:- , Chikungunya, Homoeopathic Prophylaxis

Abstract:- 'Chikungunya' a viral disease spread by Aedes mosquito is characterized by the presence of fever with chills, arthritis and rash. The arthritis is severe and it usually acquires the sub acute form. It may persist for 3-4 months in some cases. Old aged individuals usually succumb to this disease.

Homoeopathic medicine mainly Rhus tox 200 was administered as genus epidemicus. The remedies like Eupatorium perfoliatum, Ledum pal, Belladonna and Bryonia alba were also used in some cases. Medicines were distributed for around 42,000 individuals. A random sample of 100 was taken and Chi-square test was conducted to evaluate the effectiveness of the prophylaxis which proved beyond doubt that it provided an effective prophylaxis against chikungunya.

TEXT

Introduction:- 'Chikungunya' a viral disease caused by Arbovirus genus is transmitted by Aedes mosquito. This disease is characterized by chills with fever, arthritis and rash. The arthritis is one of the major symptoms of the disease which usually cripple the patient from few days to few months. Old aged individuals usually succumb to this disease due to its complications which are pneumonia and encephalitis. The chikungunya outbreak was notified in Puttur taluk of Dakshina Kanara district of Karnataka during April 2008.

Genus epidemic medicine which was Rhus-tox was distributed to around 38,232 individuals. Medicines like Eupatorium perfoliatum(849 individuals), Belladonna(729individuals), Bryonia alba(1564individuals) and Ledum palustre(626 individuals) were also distributed to those who did not require Rhus-tox. This endeavour was implemented by the joint effort of Preventive & Social Medicine department of Fr. Muller Homoeopathic Medical College and Dept of Health, Govt of Karnataka.

Objective:- To find out the efficacy of Homoeopathic prophylaxis.

Null Hypothesis: Homoeopathic drugs are not effective prophylaxis for Chickungunya.

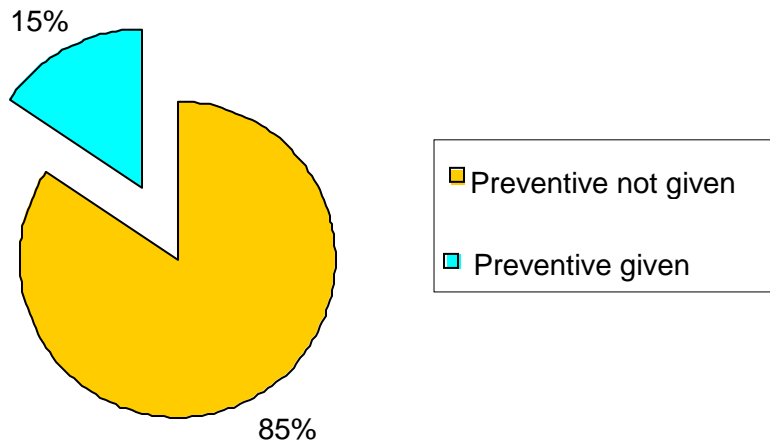
Alternative Hypothesis: Homoeopathic drugs are effective prophylaxis for Chikungunya.

Materials and Methods:- The preventive medicine was given in 200c potency, four pills thrice a day for seven days for adults and two pills thrice a day for seven days for individuals below 15 years of age. Infants were not given medicine. Follow ups were taken after one month. A random sample of 100 was subject to Chi-square to test the efficacy of the prophylaxis. The observation was as follows. See table 1

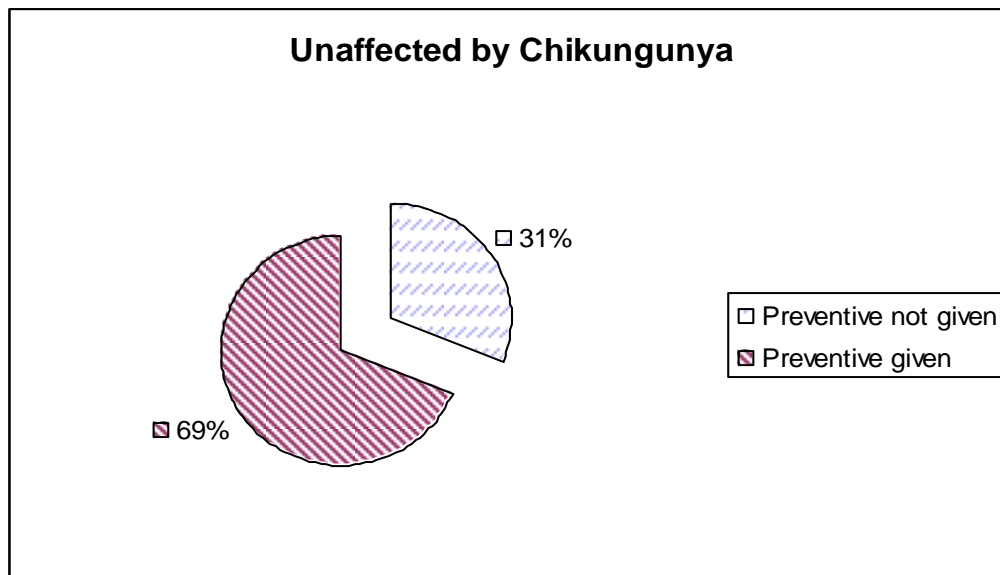
	Chikungunya affected	Unaffected by chikungunya	Total
Preventive not given	60	09	69
Preventive given	11	20	31
Total	71	29	100

Table:1

chikungunya affected



Unaffected by Chikungunya



χ^2 test results for the following table

i) The expected value 'E' for chikungunya affected individuals who have not taken preventive medicine is

$$\frac{71 \times 69}{100} = 48.99$$

Therefore the χ^2 value for this group is $\frac{(60-48.99)^2}{48.99} = 2.47$

ii) The expected value 'E' for Chikungunya unaffected individuals who have not taken preventive medicine is

$$\frac{29 \times 69}{100} = 20.01$$

Therefore the χ^2 value for this group is $\frac{(9 - 20.01)^2}{20.01} = 6.057$

iii) The expected value 'E' for chikungunya affected individuals who have taken preventive medicine is

$$\frac{71 \times 31}{100} = 22.01$$

Therefore the χ^2 value for this group is $\frac{(11 - 22.01)^2}{22.01} = 5.50$

iv) The expected value 'E' for chikungunya unaffected individuals who have taken preventive medicine is

$$\frac{29 \times 31}{100} = 8.99$$

Therefore the χ^2 value for this group is $\frac{(20 - 8.99)^2}{8.99} = 13.70$

Total value of χ^2 is the sum of all the four groups which came out to be **27.72**

The degree of freedom is $2 - 1 = 1$

On referring to χ^2 table, as 1 degree of freedom, the value of χ^2 under probability **0.05** is **3.84**
Since the obtained value is greater than table value, the Null hypothesis is rejected.

Conclusion : Homoeopathic remedies are effective prophylactic for Chikungunya.