The modus operandi of Differentiating Homeopathic Medicines by Measuring physiological variability in Human Body temperature -"Research work Ready for open Challenge"

-Dr.Devendra Kumar Munta MD (Homeo)

Abstract: Homeopathic Medicine of 200c potency are given to Human subjects. Temperature variability is measured from skin of fore arm. Temperature variability data is subjected to parametric reconstruction and Auto regressive spectrum with the help of statistical software to identify the remedy specific action. Autoregressive coefficient's of different remedies are compared with one another by using correlation coefficient formula. Similar remedies taken their appropriate place in the correlation chart.

Keywords: Biorhythm, Physiological variability, Hypothalamus, Temperature Variability, data logger, Water soil temperature sensor, Parametric Reconstruction and Prediction, AR Spectrum, AR Spectral Coefficients, Correlation coefficient.

Aims and Objective:

Primary Objective:

To differentiate Homeopathic remedies from one another. To identify an unlabelled Homeopathic medicine i.e, given to a person To select right Homeopathic remedy for a diseased person.

Secondary Objective:

To know the relation between Homeopathic Remedies.

To verify Homeopathic basic principles and other observations made by stalwarts.

Introduction and Review of Research works:

Homeopathic medicines produce great impact on Hypothalamus, influence biorhythm this intern effect the physiological phenomenon in human body which are the cause for health and disease. Modern science called Homeopathic medicine as placebo due to absence of substance in Homeopathic dilutions. Research work on physiological variability is conducted to explore the possible mechanism under the action of Homeopathic medicines. This research may further explain the complexes in Homeopathic dilutions which might have a path for modern trends in Homeopathic Research.

The low concentrations of homeopathic remedies, often lacking even a single molecule of the diluted substance, 1 lead to an objection that has dogged homeopathy since the 19th century: how, then, can the substance have any effect? Modern advocates of homeopathy have suggested that "water has a memory"—that during mixing and succussion, the substance leaves an enduring effect on the water, perhaps a "vibration", and this produces an effect on the patient. However, nothing like water memory has ever been found in chemistry or physics^{2,3}, Furthermore, the claims of homeopathy contradict pharmacological science, which shows that higher doses of an active ingredient exert stronger effects.

Homeopathic remedies have been the subject of numerous clinical trials, which test the possibility that they may be effective through some mechanism unknown to science. While some individual studies have positive results, 4,5 systematic reviews of published trials have failed to demonstrate efficacy.^{6,7,8,9}

What is dynamic influence,--dynamic power?¹⁰ Our earth, by virtue of hidden invisible energy, carries the moon around her in twenty eight days and several hours, and the moon alternately, in definite fixed hours (deducting certain differences which occur with the full and new moon) raises our northern seas to flood tide and again correspondingly lowers them to ebb. Apparently this takes place not through material agencies, not through mechanical mechanical contrivances, as are used for products of human labor; and so we see numerous other events about us as results of the action of one substance on another substance without being able to realise a sensible connection between cause and effect. Only the cultured, practised in camparison and deducation, can form for himself a kind of supra-sensual idea sufficient to keep all that is mataerial or mechanical in his thoughts from such concepts. He calls such effects dynamic, virtual, that is, such as result from absolute, specific, pure energy and action of the one substance upon the other substance. 10

Biases are present in placebo-controlled trials of both homoeopathy and conventional medicine. When account was taken for these biases in the analysis, there was weak evidence for a specific effect of homoeopathic remedies, but strong evidence for specific effects of conventional interventions. This finding is compatible with the notion that the clinical effects of homoeopathy are placebo effects.11

Central council for research in Homeopathy conducted a research work on physiological variability concluded results as such Aconitum napellus produced a response in heart rate variability (HRV) with 30c potency and in blood flow variability with 1M potency. Sulphur 200c and 1M, Gelsemium 200c and Pulsatilla 200c, produced a 62.5% response in HRV against the placebo response of 16.6%. Gelsemium, Phosphorus, and Sulphur produced a response in blood flow variability with a 1M potency, similar to the response of Aconitum napellus 1M. These data suggest that it is possible to record the response of homeopathic medicines on physiologic parameters of the autonomic nervous system. 12

Material and Methods:

1. Equipment:

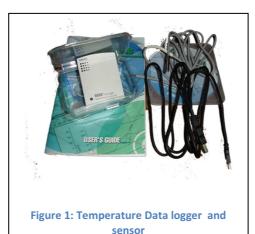
- A. Temperature Data logger,
- B. Water/Soil Temperature Sensors ,
- C. PC & Green line data logging software.
- D. Human Subjects.
- E. Homeopathic Medicines of 200c Dilution.
- F. Statistical Processing Software for Data Analysis.

2. Temperature Data logger Specifications:

- Measurement range: -4° to 158° F i.
- Accuracy: $+ \text{ or } 0.63 \, ^{0}\text{F} \text{ (from } 32^{0} \text{ to } 122^{0} \text{ F)}$ ii.
- Resolution: 0.05° F at 77° F iii.
- Response time in airflow of 1 m/s: 6 minutes iv.
- Operating temperature: -4° to 158° F(logging), 32° to 122° F(Launching/Readout) ٧.
- vi. Memory: 64 bytes Weight: 46g(1.6 oz) vii.

3. Water/Soil Temperature Sensor Specifications:

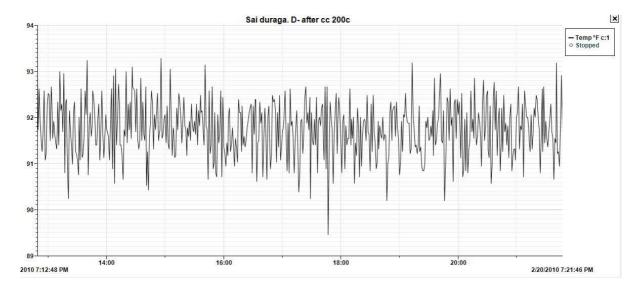
- Measurement range: -40° to 122° F in water, -40° to 212° F in air. i.
- Accuracy: $+ \text{ or } 0.45^{\circ} \text{ at } 65^{\circ} \text{ F}$ ii.
- Resolution: 0.05° F at 68° F iii.
- Response time in airflow of 1 m/s: 3 minutes, 30 seconds in water. iv.
- Operating range: sensor tip and cable immersion in fresh water up to $+122^{\circ}$ F. ٧.
- Material: Housing stainless steel sensor tip. vi.
- vii. Probe dimensions: 0.5cm X 2.5cm



4. Method of differentiating Homeopathic Remedies:

4.1 Measuring Physiological Variability:

Homeopathic remedy of 200c potency is used for the experiment. Freshly medicated Homeopathic pills of 200c are given to healthy volunteers.



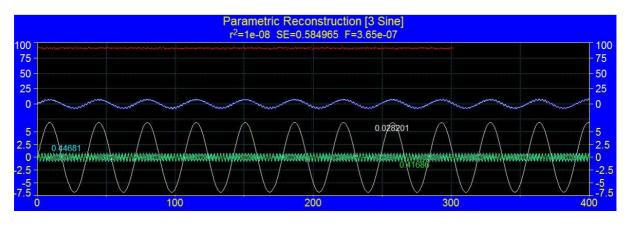
Temperature Variability Graph

Used data logger and temperature sensor for measuring physiological variability that is temperature variability from skin of Human body. Sensor is connected to forearm by means of cellophane tape. Cotton wool is used for insulation.

Temperature is measured for every one second for 30 minutes.

I have explained the method of measuring temperature variability from skin by connecting sensors with the help of data logger in my previous paper.¹³

4.2 Identification of Remedy peak within the data by using statistical technique parametric reconstruction and prediction.



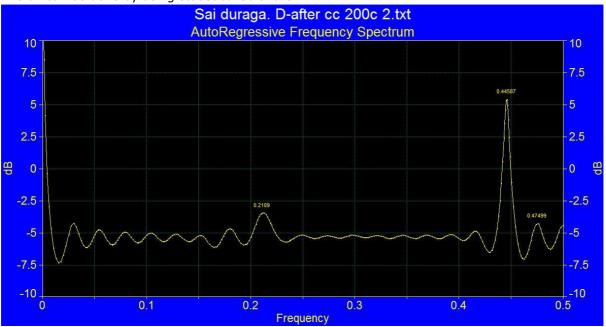
Smooth cures represent The Remedy action.

Once after measuring temperature variability, data must be test for peaks which represent the specific action of Homeopathic remedy. This can be done by using statistical procedure like parametric reconstruction and prediction (PRP). The data range which represented the action of remedy in PRP must be saved for further analysis.

Temperature variability data must be tested from starting to end to fix the data range which represent the remedy action. Data must be tested for every five minutes range until the appearance of smooth curves.

4.3 Obtain AR Spectral Co efficient.

Autoregressive spectrum (AR) must be obtained from the above saved data of temperature variability. AR Spectral confidents from the AR Spectrum are used for comparison of remedies. This all can be done by using statistical software.



Auto Regressive Spectrum

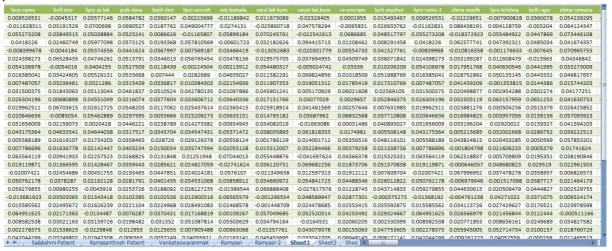


AR Co-efficient's

This is the procedure to be adopted to obtain AR Spectral Co-efficient's of all the Homeopathic remedies.

4.4 Comparison between Remedies: (Relationship between remedies):

The AR Spectral co-efficient of remedies must be compared with one another to know the relation between the remedies. For this purpose correlation coefficient formula must be used. This procedure can be done in excel office.



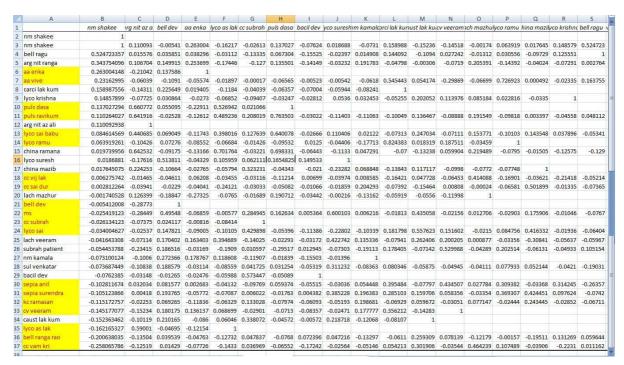
AR Coeffient's for different remedies proved on different persons.

4.5 Set master key for identification of Remedy.

AR Spectral co-efficient of any polycrest remedy cab be used as master key in identifying the remedy.

Sort the correlation coefficient's in descending or ascending order with the master key.

Look at the final step similar remedies occupied their appropriate place in Correlation Chart. Same remedies stand side by side in the chart.



Final Step for Identification of Remedy -Correlation Co efficient Chart.

In the Above picture Natrum Muriaticum is used as master key for comparison of remedies. Same remedies have taken their appropriate place. Similar remedies have maintained their relation.

This procedure can be used for identification of unlabelled remedy as well similar remedy for suffering patient.

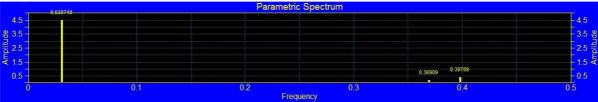
Observations and Results:

We have analyses the data collected during years 2009 and 2010, Following are the details of remedies tested on various persons.

remedies tested on various persons.					
S.No	Remedy	No of Persons	Used for Analysis	No of Persons Included in Final Analysis	No of Persons showed Remedy specific action
1	alumina200c	1	No	0	0
2	antim crude 200c	2	No	0	0
3	arg nit 200c	2	Yes	2	2
4	arsenicum alb 200c	10	Yes	2	2
5	B.carb 200c	1	No	0	0
6	bacillinum 200c	1	No	1	1
7	belladona 200c	10	Yes	2	2
8	bryonia 200c	3	No	0	0
9	calcarea carb 200c	5	Yes	4	4
10	cantharis 200c	1	No	0	0
11	carbo veg 200c	4	Yes	1	1
12	carcinosin 200c	1	Yes	1	1
13	causticum 200c	1	No	1	1
14	china 200	6	Yes	2	2
15	ferr met 200c	1	No	0	0
16	gelsemium 200c	1	No	0	0
17	hepar sulph 200c	1	No	0	0
18	Kali bich 200c	2	No	0	0
19	kali carb 200c	4	Yes	1	1
20	lachesis 200c	3	Yes	2	2
21	lycopodium 200c	8	Yes	6	6
22	medorrhinum 200c	2	No	0	0
23	merc sol 200c	3	Yes	1	1
24	Natrum mur 200c	13	Yes	2	2
25	nux vom 200c	4	No	0	0
26	phosphorus 200c	1	No	0	0
27	pulsatilla 200c	10	Yes	2	2
28	Raustox 200c	1	No	0	0
29	sepia 200c	4	Yes	2	2
30	silicea 1m	1	No	0	0
31	silicea 200c	3	No	0	0
32	sulphur 200c	5	Yes	1	1
33	Veratrum album 200c	1	No	0	0
Total	33	116	-	33	33

Discussion:

Appearance of two small waves of equal amplitude in Parametric spectrum is considered as remedy specific action for the given remedy.



Parametric Amplitudes

Many persons have not showed remedy specific action, the reason is temperature variability data is not collected for long time. Data is only measured for five minutes the same data is tested for action of remedy. If measured data is for a long time, we would have tested and included the data which represent the remedy specific action.

If looked at Correlation Co efficient Chart CALCAREA CARB, LYCOPODIUM, PULSATILLA, SEPIA have appeared side by side. This shows the efficacy and accuracy of the method.

The analysed remedy data is collected during the period of two years. Even though temperature variability is measured at various times during two years of time, similar remedies have taken appropriate place in the Correlation Chart.

Conclusion:

Homeopathic medicines produce great impact on physiological variability. Change in pattern of physiological variability is used for differentiating Homeopathic medicines. The procedure explained is certainly a valuable method to identify unlabelled individual Homeopathic medicines as well as identifying remedy for diseased individual. The automatic arrangement of remedies in correlation chart shows the relation between Homeopathic remedies. This procedure of measuring physiological variability and differentiating remedies by correlation formula will verify the basic principles and other observation in Homeopathy made by start warts. This procedure can be developed to a great extent to write a computer programme (annexure 1) to identify Homeopathic remedy in a single click.

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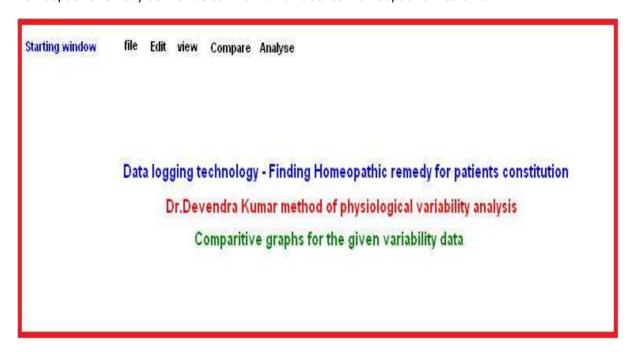
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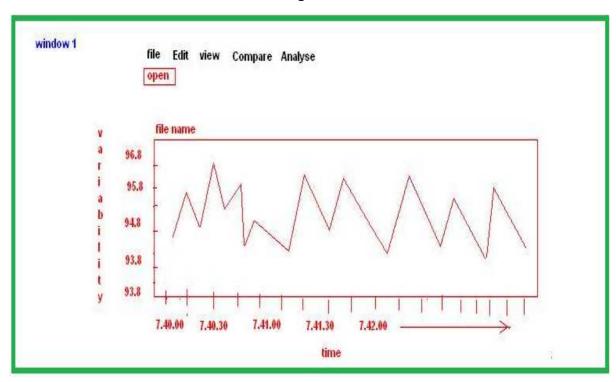
Annexure:

Annexure 1:

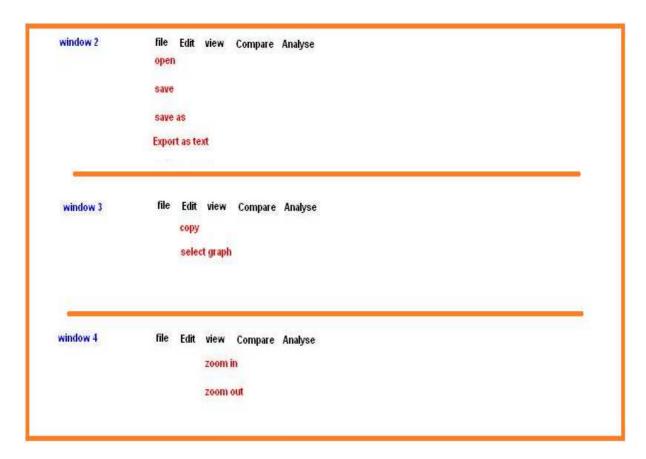
A Proposed computer programme based on above research work for selection of similar Homeopathic remedy as well as to know an unlabelled Homeopathic medicine.



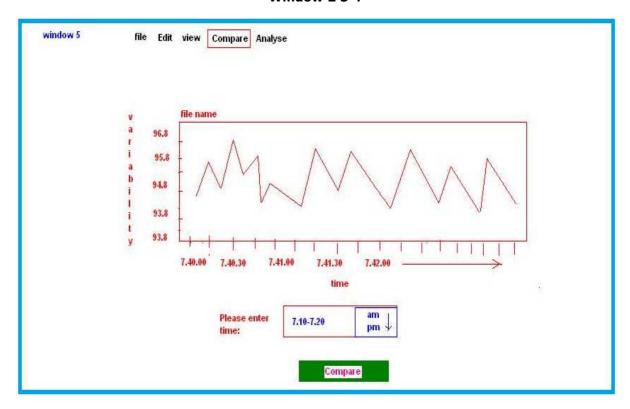
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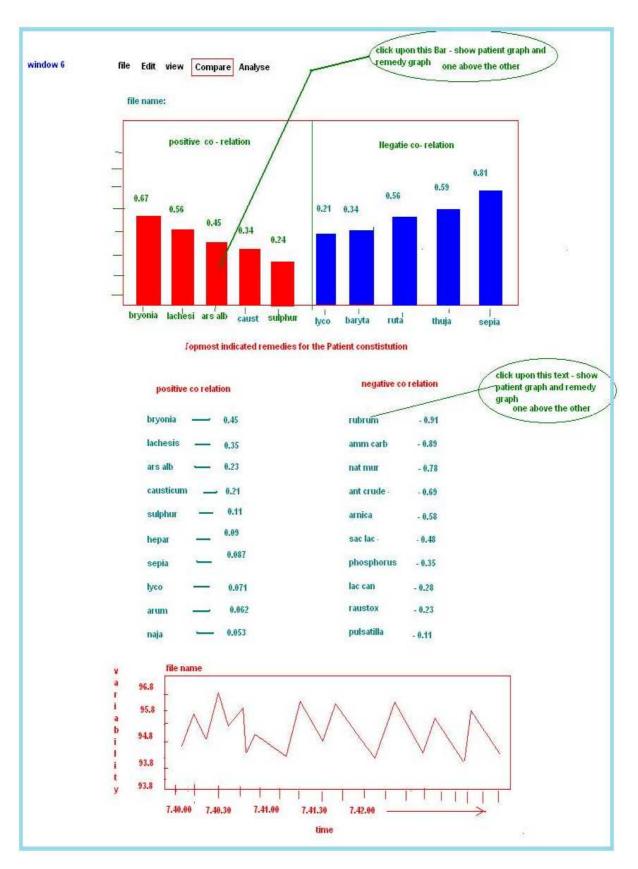
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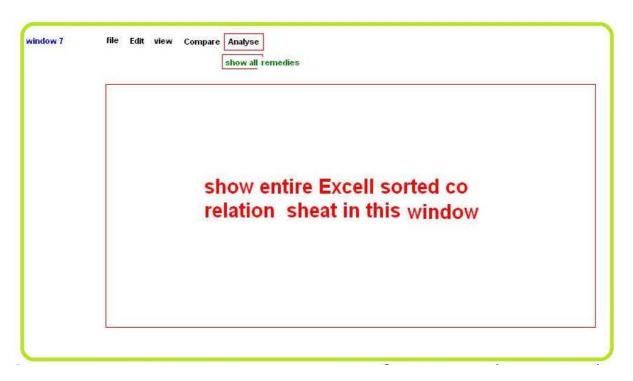
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Window 5



Window 6



Window 7

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