#### Homoeopathy in view of Modern Science

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#### **Indroduction:**

Homoeopathy is a therapeutic system introduced by the German physician Samuel Hahnemann (1755-1843). The idea of this new system of medicine strucked to his mind In 1790, when he was translating Cullen's Materia Medica. The observation of Cullen was that "Cinchona Bark" helps in the case of intermittent fever because it is a "tonic for stomach". He objected that the quick antipyretic effect of cinchona bark administered immediately prior to an attack couldn't be explained in that way. The book had been applied to a considerable degree and helped randomly or did damage.

He thought why cinchona will not produce similar symptoms of intermittent fever when taken by healthy human being. For the sake of the experiment, he took four grains of good cinchona bark twice daily for several days. After repeating the doses, he developed symptoms of intermittent fever one after another without tremors. Thus, Hahnemann was able to form his judgment on intermittent fever and it's with cinchona bark. Furthermore, he pointed out that substances like Arsenic are able cause a kind of fever, are of capable of alleviating this in the patients. This is how the Hahnemann's new principle "Similia Similibus Curanter" took the shape. In 1796, Hahnemann published, "Essay on a new principle to determine the healing powers of medicinal substances" in Hufeland journal. His book "Medicine of Experience" published in 1805 where a basic idea of Homoeopathy was given.

Organon of Rational system of medicine was published 1810, Hahnemann laid down the basic principles of Homoeopathy. The ideas were elaborated / modified in subsequent editions 1819,1824,1829, & 1833. Sixth edition was published in 1921 long after the death of Hahnemann. (Sukul, N.C. "High dilution Pharmacology and Homoeopathy" 1997 published by Shyambati Shantiniketan WB-India).

The scientific evidence for the efficacy of Homoeopathy can be delineated in following points:

#### **□Anecodotal evidence:**

Anecdotal evidence is not accepted as "Scientific"; yet when it comes from a reliable and trustworthy source it demands attention. Homoeopaths see their patients getting better, sometime quiet dramatically while their patients experience noticeable improvement and it is that attendants observe that patients are being cured. Similarly, for understanding disease conditions Hahnemann told "he notices the only deviations from former healthy state to disease individuals which are felt by the patient, remark by those around him and observed by the physician himself".

In middle of 19<sup>th</sup> century when entire Europe was swept with Cholera epidemic Homoeopathy proved to be very effective. The expansion of Homoeopathy in America in 2<sup>nd</sup> half of the 19<sup>th</sup> century and the growth seem in India from early part of 20<sup>th</sup> century. For last 20 years, Homoeopathy in Britain fueled almost entirely by people's is visualized experience of its effectiveness.

The death rate in Homoeopathic hospitals, hospitals and institutions supervised by Homoeopathy in 19<sup>th</sup> century at America were a half to an eighth of what they were in

conventional institution. [Ullman Dana, what skeptics say about Homoeopathy and how to respond to them, town stand letter 195, 124, 8 October 1999].

### The Test of Time:

The Homoeopathy has stood the test of time makes it hard to ignore. Many cures and therapeutic modalities come and go with remarkable rapidity. Even in conventional medicine, most treatment and drug therapies are out of date and replaced within a few years. If principles were not as effective as they are would require continual adjustment to keep them fitting the facts of the time. But Homoeopathy is continuing with the same old axioms:

- 1. Similia Similibus Curenter
- 2. Doctrine of Vital force
- 3. Drug dynamisation
- 4. Theory of Chronic miasms
- 5. Doctrine of Drug proving
- 6. Doctrine of single remedy
- 7. Doctrine of minimum dose
- 8. Doctrine of Individualization
- 9. Doctrine of suppression
- 10. Doctrine Obstruction to Cure

These principles are found to be time tested and are never changing since its inception.

## **Experimental Evidence**

A. **Human experiment:** The Knowledge of ancient physician, about the curative power of drugs was based on empiricism, hearsay and limited extent to clinical experiences. With advancement of knowledge in Anatomy, physiology, pathology, biology etc the knowledge of medical science depended on animal experimentation. Thus, the study of chemical action of drugs became the source and basis of curative properties of drugs and ground application.

Knowledge of chemistry and botany helped in studying the extreme features/ form/identification/ composition/ active principles/ drug contents of drugs etc.

Knowledge of physiology/ biochemistry/ rationalized the knowledge of normal healthy composition/ function of living body.

Development of sophisticated instrument like microscope, x-ray, imaging system, various techniques gave better visibility and understanding, so the laboratory became the shrine of drug knowledge. Whatever laboratory could detect to be enlarged, atrophied, surplus and deficient, the science of therapeutic, would attend to cut, supply, remove and supplant medical science rested upon materials in science what is learnt by experimenting on healthy animals was applied on sick human beings to treat. On a cursory look, it seems to be perfectly rational method when judged from scientific trios.

- Experimentation
- Observation
- Inference

But to an analytical mind, there is more than one lacuna in this edifice of drug knowledge; many elements have been overlooked such as:

- a. The action of drugs in small quantities i.e. quantities lesser than those producing detectable effects.
- b. The changes that are perceptible but not detectable through sensory organs/ instruments.
- c. Objects of treatment on human beings and action of drugs on human beings are not exactly what they are in lower animals.
- d. Structurally there may be resemblance in cell/ organs/ systems of animals and man but there are many higher faculties which are absent/ such as desire/ aversion/ will/ ambition/ memory/ love/ hatred etc.
- e. Action of drug is different from large quantity to small and very small quantities.

f. Studying organs, the sensation and function cannot be overlooked.

Albrecht Von Haller who raised his voice against the hallowness and irrationality of such knowledge and it was Hahnemann who pointed out the alternative method of experimenting on healthy human beings.

Main source of the drug pathogenesis of Homoeopathic Materia Medica is from human proving. Today homoeoapthic Materia Medica is enriched with 3700 odd number of drugs where Guinea pigs are Human beings.

## B. Animal experimentation

With Homoeopathic preparations/ dilutions/ several animal experimentation's have been conducted both in vivo and in vitro few of them are discussed below.

- 1. **Study of Anti-fertility effects of some homoeoapthic drugs on experimental animals:** "Preliminary studies mentioned above indicates that these Homoeoapthic drugs possess anti-fertility activities in experimental animals" -.E.N.Sundaran, etal (1999).
- 2 "Effect of Nux Vomica mother tincture and 30C on the alcohol addiction of albino rats"

"Both Nux Vomica mother tincture and its potency counter alcoholism in albino rats"-Sukul N.C, Ghosh S and Sinhababu S.P., British Journal of Homoeoapthy-July 2000

Anti-Tetanus activity of Hypericum perforatum –An experimental approach "Hypericum perforatum 6, 30 & 200C potencies in experimental mice and accordingly it was observed that the mice pretreated with test drug especially in 30 & 200 potencies provided complete protection"- *Sunil Kumar* & *V.A.Balachandran*, *Etal*(1994)

## 4 "Cataleptic effect of Agaricus"

- **a.** Modulation of catalepsy by Agaricus 30C. It enhances significantly the cataleptic effect with Apomorphine and Bromocriptine when given combined with Agaricus
- **b.** Anti cataleptic effect of agaricus 30 by pre-treatment with Agaricus 30, catalepsy induced by halocridol was significantly reduced.
- c. Dose response with agaricus 30 from this it is concluded that only the dilution 1:20,000 was effective in countering haloperidol catalepsy. The higher dilution are ineffective and also Homoeoapthy acts good only through oral routes.
- **d.** Effect of Agaricus 30 on androgenic catalepsy, Agaricus 30 suppressed catalepsy significantly (Ghosh etal 1997) IT is effective only when given through intra peritoneal route.

## 5 "In vitro effect of potentised Nux vomica on alcoholic rat"

- **a.** Effect of Nux vomica 30 given orally reduced consuption of alcohol (Paul et al 1992, Batu et al 1995, Sukul et al 1995)
- **b.** Effect on hypothalamic neurons Nux vomica1000 increased the neuronal activity in the lateral hypothalamic area (LHA) of alcoholic rats.
- **c.** Effect of adrenergic nerve plexus- treatment with Nux vomica30 restored the degenerative lesions in the adrenergic nerve plexus to a great extent and reduced alcohol consumption *Nirmal C.Sukul*

## Anti Haemorrhagic activity of Homoeoapthic Drugs Symplocus racemosa Q- An experimental approach

"Symplocus racemosa Q possess significant anti-haemorrhagic potentiality by decreasing the whole blood coagulation time, prothrombin time and fibrinolytic activity""- Rastogi D.P, nagpaul V.m, Sundaram E.n and sunil kumar, etal (1995)

## An in vitro study of the bactericidal and bacteriostatic effects of Calendula officinalis – A Homoeopathic mother tincture – Prof.(Dr) Niranjan Mohanty

These researches validate the efficacy of biological weak dilutions of Homoeopathy too. Now it is an accepted therapy for the animal kingdom in very many diseases.

- **C. Plant experimentation:** Similarly with Homoeopathic preparation/ dilutions several plant experimentation were carried out both in vivo and vitro. Few of them discussed below:
- 1. "Abidi etal (1977) tried some homoeo drugs against PDRV and Chimaphilla and Lachesis prevented the virus infecton in papaya seedlings treated prophylactically.
- 2. "Goswami and Das in 1980 found that diseased Begonia plants having collar stem and leaf rotting symptoms and shaggy look recovered upon soil drenching treatment with Thuja Q"
- **3.** "**Khanna and Chandra in 1976** also observed that some potencies (between 1-200) of Arsenic alb, Blatta orientalis, kali iod, and Thuja either absolutely or temporarily inhibited the spore germination of four isolates of Alternaria alternata causing wheat leaf blight disease".
- **4.** "Verma and Awasti (1978) found biochemic salts (6Xpotency) to effect Tobacco mosaic Virus (TMV) injection/ by rubbing the leaves of test hosts 24 hrs prior to innoculation. Kali sulph, calc.flour and Ferrum phos, prevented TMV infection by 75, 72, 70%.
- 5. "In vitro evaluation of 10 homoeo drugs (in various potencies) against common leafspot pathogens, Alternia teius, Cuvularia has been tried by singh & Gupta (1981). They found that Bacillinum (30, 200, 1000), Lycopodium (200, Fagopyrum 200, 1M & Mezereum 1M caused 100% inhibition of Alternaria tenius while Fagopyrum 200; Ustillago 6, Petroleum 200 and Sulph Iod.6, 1m only caused 100% inhabitation of C.lunata showing a drug and potency level specifically against different pathogenic fungi".
- **6.** "**Kumar & Kumar** (**1980**) also screened 5 homoeo drugs for their effect on Alternaria, cuvularia and Dreschlera. They found that Spigelia 30, Sulphur 30, 200 and Teurium 200 inhibited spore germination of the test fungi".
- 7. "Goswami and Das (1980) recorded control and eradication of scale insects on Cymbidium (A lovely Orchid) plant by wetting the infested plant parts with Staphysagria Q".
- **8.** "Khurana (unpublished) found Nux vomica Q, 30 to be aphicidal (against myzus perciae) when applied as we weekly sprays on cabage tobacco plantlets while Nicotine Q/30 has no such effect".

The above information reveals that homoeo drugs can definitely prevent various plant diseases. Treatment with these drugs is also safe, economical and feasible even in fields.

-Proceedings of 1<sup>st</sup> National Seminar on development of Alternative safer therapeutics, 1984-these researches validate the efficacy of biologically weak dilutions of Homoeopathy in vivo and vitro.

#### **D.** Clinical Evidences:

### 1. Clinical research in Filariasis:

"Filariasis has confirmed that efficacy of Rhus tox., Bryonia alb.,and Apis mellifica"- Dr. D.P. Rastogi (1991)

## 2 Role of Arsenic iodatum during acute attack of Asthma

"Tuberculinum has a complementary relationship with arsenic iodatum and enhance its action if given as an intercurrent remedy" —Bhatia Anil R, Bhatia Amer K., & Kothari S.R., etal (1982)

## 3. A pilot study on effect of Arsenic Album on alcohol dependants

"Effects of Arsenic Album in alcoholic dependants was informative and encouraging"-S. Gopinadhan & V.A. Balachandran, etal (1994)

# 4. "Statistical evaluation of the effect of Xanthophyllum americanum & Viburnam opulus on the symptom complex of dysmenrrohoea"

"Clinical trial Viburnam opulus and Xanthoxyllum americanam on symptom complex associated with primary dysmenorrhoea was statistically analized".- T.K.Chakravarty, etal (1981).

## 5. "Clinical research study on Japanese Encephalitis"

"CCRH in 1991 conducted a preliminary study to see the effect of Belladonna as prophylactic in Japanese Encephalitis ha been initiated"- *Anita Sharma & Parveen Oberai*, etal (1998).

# 6. "Clinical trial with Holerrhaena anti-dysentrica and Glycosmis pentaphylla (Atista indica) the indigenous Homoeopathic remedies"

"Holerrhaena anti-dysentrica and Glycosmis pentaphylla is more effective in mother tincture and 3X then higher potencies. Frequent repetition of doses required to get a prompt and steady result".- Dutta Dr. B.N. & Das Dr. S, etal (1998).

## 7. "Preliminary acute and subacute toxicity study of some homoeopathic drugs"

"Care may be exercised while presenting Calotropis gigantea and Acidum formicum to the patient and preferably they should not be given in form of tincture and should be prescribed in dilution only"- *Singh K.P & Verma P.N, et al (1984)* 

### 8. Indian medicinal plants for the Homoeopathic treatment of various skin ailments

"The medicine prepared from plant origin play an important role for the treatment against various clinical indications related to skin affection"- Rastogi D.P. Gupta H.C, Rajan S & Ssuil kumar, etal(1995).

### 9. Research study of Homoeoapthic drugs Conjunctivits epidemic

"The high rate of improvement, although in varying degrees substantiate the fact that the Homoeopathic drugs are effective in conjunctivites epidemic"- De T.k & Pramanik M.S etal (1983)

#### 10. Study of Homoepathic drugs in Encephalitis Epidemic in Uttar Pradesh

"This study shows that medicine Belladonna was found the most specific remedy for this particular epidemic"- Rastogi D.P & Sharma V.D, etal (1992)

### 11. Exotic medicinal plants useful in Homoeopathy found in Nilgiri

"The plants useful in the Homoeopathic system of medicine are tested for the use by research workers in Pharmacognosy and other botanical works"-Baburay Suresh D, Mathew G.k. & Briio S John, tal (1995)

### 12. A meta- analysis of the homoeopathic treatment of Pollinosis with Galphimia glauca

"The Homoeopathic preparation of Galphimia glauca is very much effective in the treatment of pollinosis. The major advantages of this drug are the absence of side effects and the simple per oral application"-Wiesenauer M.l. & Ludtke R, British homoeopathic Journal, Julu 2000

## 13. Homoeopathic treatment of patients with persistent mild traumatic Brain Injury.

"Homoeopathy have role in the treatment of Mild traumatic brain injury (MTBI) reported by a study conducted by Splauding Rehabilitation hospital Boston, M.A, U.S.A."-Chapmann, E.H., british homoeopathic Journal, july 2000

# 14. The effects of Ecballum elatherium juice and its homoeopathic dilutions on oxidative bursts of human polymorphneutrophils:

"The Ecballum elatherium juice has the strong anti inflammatory action for all subjects whereas Homoeopathic dilutions stimulate phagocytosis; only in cases, which imply a large quantity of reactive oxygen intermediates (ROI) products. These are inhibited so as to prevent to the start up of a super acute inflammatory dangerous for the human body"-*M.Chirila and A.Ollinasus, British journal of Homoeopathy, July 2000*.

- 15. Effectiveness of homoeopathic medicines in the treatment and control of Filaria organised by the Council of research in Homoeopathy in 1985
- 16. A pilot project study on Chicken Pox with Homoeopathic treatment- Mohanty. N (1988)
- 17. Retrospective and prospective studies on Malaria with homoeopathic medicines- $Mohanty.N\,(2001)$
- 18. "Homoeopathy in rheumatic fever; Acontrolled study". Mohanty. N
- **19.** Effect of arnica montana; A homoeopathic medicine for the post operative management of extraction of teeth; "Arnica montana has the role to play in controlling hemorrhage combating infection climinating the stiffness and swelling aborting pain etc". *Mohanty. N*

## Physico evidences

Allopathic medicine is based on chemistry; Homoeopathic medicine is based on Physics which is related to the interaction of electrons. Electrons are one of the molecules sub elements along with protons and neutrons, which together form the substrate of matters.

Hahnemann presented his masterwork Organon on 1810. One year later Avagadro presented his hypothesis that there are  $6.023 \times 10^{23}$  molecules of a substance in 1 gram of molecular weight.

A basic tenet of homoeopathy is that solutions, which are no active drug molecules, can still have effects on the human organism.

Since one molar solution diluted serially to 12C potency is unlikely to contain even one molecule of solute, Homoeopathy has met it with substantial opposition from pharmacology. Hahnemann noticed that higher dilution not only had therapeutic properties but their effect increased with dilution level.

1. NMR (Nuclear magnetic resonance) study reveals that succussion not only induces changes to substances in the molecular region, it induces changes to substances containing no molecules.

- 2. Beta spectrum Analysis studies also reveals that there is clear differentiation between different dilution of Homoeopathic medicines.
- 3. Measuring a range dilution-the diluted product continues to change at each CH level. The phenomenon first witnessed by Hahnemann is measurable but the chaotic appearance of the data doesn't lead to a clear interpretation. Therefore, a statistical tool is required to determine the impact. The author of the theory of High dilution has developed a new statistical tool called Contonian statistic to solve it.

## **Conclusion**

From above study, it is evident that Homeopathic preparations are not fictitious but has Physico evidence, clinical evidence, biological evidence (animal experimental, plant experimental evidence and human experimental evidence) that the drug has scientific basis of its contents/ medicinal properties. Above allows and leaves no room to scientific world that "Homoeopathy is unscientific". Rather it claims not will the scientific but its superiority over other therapeutic modalities for its other qualities like no side effects/ do not depress natural immune system of body etc.