

CURRENT METHODS AND MODELS

- NECESSARY TOOLS TO UNDERSTAND AND EXPLAIN AYURVEDA

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Ayurveda is an ancient behavioral science for health. The facts are presented in the form of *sutras*. The age-old experience proved the *sutras* to be true in all respects. The *sutras* are not merely experience based, but have been framed based totally on scientific background. But the question arises, what is the basis of this statement that *sutras* are based on scientific background? To get answer to this question, a deep logical thinking with perfectly designed experimentation is essential. Some work in this regard (by the author) appears in the proceeding verses .

To work with any subject, the fundamental need is to understand its basic concepts. Presently all those involved with Ayurveda are physicians, working in applied field. The subject totally lacks persons with interest in basic principles. Some individuals who occasionally talk about basics, have only logic and references with them. Logic without experiments does not produce scientific impact, resulting Ayurveda to be called as traditional system by a portion of the society; which is major misunderstanding about Ayurveda. Modern concepts are taken as standard models, which is another major drawback and misunderstanding about Ayurveda. A simple example regarding *Panchmahabhuta* explains the controversy between modern concepts and Ayurveda. As per modern concepts it is a characteristics of gases and liquids to take the shape of the container, which is not the reality if we think deeply, but it is only a traditionally accepted fact. The concepts of *Panchmahabhuta* only explains it satisfactorily. Many such examples can be quoted.

The research in Ayurveda becomes important to understand and explore Ayurveda. Experiments are not to prove something, but they are to get a clear picture about the logic / hypothesis . As per Rene Descartes, the significance is given to the reaction to scholastic subtleties, which enforces in noticing and precisely understanding things, done in a clever but understated way and so precisely as to be difficult to describe . The emphasis is for the radical doubt i.e. the basic and fundamental nature directing towards departure from tradition towards new horizon; and the postulate of cogito i.e. first step in demonstrating the attainable knowledge and the realization of existence to be taken as starting point with its proclamation of mathematical certitude i.e. the feeling of complete certainty as an ideal metaphysical demonstration with dualistic distinction between thought and extension or mind and matter.

As shaped mud is vessel, worked out logic is science. It should not be misinterpreted here that Ayurveda is logic, but since presently we do not have original experiments with *sutras*, *sutras* now require their experimental extension. Logical thinking does not include the observation of laboratory experiments only, but more emphasis is to be given to the natural events, where as experiments are performed to understand and interpret natural events, and to examine the extent of truth in one's logic or hypothesis. There are enormous chances of misinterpretation of Ayurvedic text as per one's logic and it is the utmost need to support our logic by experiments, since Ayurveda is not only logic but it is a full proof science.

Some such experiments in this dimension (performed by the author) can be quoted here

- 1) The experiment with respect to concept of *Laghu / Guru* milk of goat , cow and buffalo was performed . Where kinetics of enzymatic *invitro* hydrolysis was studied and the results were in accordance with

मही पीणां गुस्तरं चतम । च. सू. 27 / 216

छागं क्षयकासज्वरावहम । च. सू. 27 / 221

Apart from original samples of milk, packaged samples and samples of condensed milk were also studied. Initially the experiment was designed and the method was established after study of several such samples to authenticate the method

- 2) The concept of *Shadarasha siddhanta* regarding their immediate effect on body have been also demonstrated in laboratory

तेवां पीणां रत्यास्यामः । च.सू. 26 / 42

कशायोरसः रूक्षः भीतोऽलघुश्च । च.सू. 26 / 43

अम्लो रसो लघुरुक्षणः स्निग्धश्च । च.सू. 26 / 43

लवणो रसः स्निग्ध उश्णश्च । च.सू. 26 / 43

कटुको लघुरु णो रूक्षश्च । च.सू. 26 / 43

तिक्तो रस रूक्षः भीतो लघुश्च । च. सू. 26 / 4

Though glucose is the instant source of energy but according to Ayurveda sweet substances have deactivating effect . Similarly, the deactivating effect of *Kashay Rasa* and

activating effect of *Amla* , *Lavana* , & *Katu Rasa* have been also demonstrated which exactly matches with their *Panchamahphautik* composition i.e *Madhur* and *Kashay are Pruthvi* dominating, where as *Amla* , *Lavan* and *Katu are Agni* dominating in common, where as *Tikta Rasa* which is *Vayu* dominating, but its activation was found to be statistically insignificant with respect to control; differentiated activation due to *Agni* and *Vayu*

3) It is considered as consumption of fat increases fat in body, but in an experiment with *Goghrut* (*Bruhan Snehan*), it actually decreased esterified fatty acids from 400mg / dL to 280mg /dL in alcoholic subjects and from 290mg/dL to 250mg/dL in non alcoholic subjects, showing *deepan* and *pachan* character of *Goghrut*

मृहणात्यंबु सपति चाधिकः। च.सू. 13 / 96

4) Experiment on albino rats have shown that consumption of *dravya* having dominance of any of the *Mahabhuta* increases *Dhatu* or other situation in the body having dominance of same *Mahabhuta*. The experiment was carried out with *Dravya* having *Agni Mahabhut* in dominance, increased hemoglobin in rats under the experimental condition

Many other such model experiments have been designed and performed demonstrating the scientific nature and validity of Ayurvedic principles, mainly with interpretation of basic concepts of *Panchmahabhuta* and *Panchatanamatras*.

Thus it is drawn beyond doubt that experiments can be designed and must be performed for perfect interpretation and demonstration of Ayurvedic facts, i.e. mind and body working together as per Cartesian system. It is considered in science that any fact that can not be demonstrated, has been not understood properly. Non clinical basic Ayurvedic scientists are the urgent need for the purpose. The study to such a depth is required, where even basic and fundamental researches are differentiated from each other. The idiom is “ As you sow so you reap”. The hidden part of idiom is to be paid attention i.e. watering and addition of manure is essential along with sowing , for better crop.