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## **Ayurvedic Research - Certain Rational Understanding**

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### ABSTRACT

From a pilot view through the Ayurvedic Research Scenario, One can see that there are five fields predominantly working upon this agenda. They are academic institutions, Private R and D units, Govt. Ayurvedic Research bodies, Govt. Non Ayurvedic Research bodies and international firms and establishments. But the deficiency in the utilization of outputs of all these works is, there is no concomitant, co-ordinated works and is without central regulations. The lack of co-ordination among these fields reduces the growth rate of our researches. One can't deny the fact that several researches are having only an eagle eye to commercialise the name "Herbal" and to fill certain pockets. Research scholars with fundamental attitudes towards Ayurveda, are trying to substantiate whole ancient texts and this leads to unidirectional researches and there by satisfying certain hidden political agendas. Lack of productive researches in the fundamental principles will definitely lead to the deterioration of Ayurvedic popularity. Present study cover problems of present Ayurvedic Researches, need of co-ordinate perspective researching planning, need of multi centre researches with long term planning, need of negative studies in the development of science, need of adaptation of current research output in academic syllabus and curriculum.

Key words: Ayurveda, Research, Research Methodology.

#### INTRODUCTION

Even the literary meaning of "science" means the knowledge about the structure and behaviour of the natural and physical world based on facts that you can prove by experiments. If one knowledge satisfies this definition then it will be productive or creative otherwise that knowledge will be unproductive. The one and only method to treat this unproductivity is nothing but research. This unproductivity of science is somewhat reflecting in *Ayurvedic* fields with diverse

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facets. Lack of full confidence to treat the patients is a common feature among the *Ayurvedic* scholars who just completed his U.G. and P.G. studies. Reasons of which are with academic syllabus and curriculum and up to certain extend with science too. Scholars who are coming towards the academy of *Ayurveda* having basement of physics, chemistry and biology but not *Tarka, Vedanta, Darshana* etc. *Ayurvedic* principles and practices has to be updated and taught in terms of their scientific knowledge. Hence they can assimilate the principles and their thinking will become provocative for the scientific development.

Renewal of theories according to the time is mandatory for the science. Changes may occur both in principles and practices. Scholars should develop such a mentality that they can receive new outputs which are producing after several trials with convincing evidences. The scholars are not supposed to fear that science will extinguish if one basic theory is proved as wrong.

Department of Indian System of Medicine imparts its importance to education, standardization of drugs,

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enhancement of availability of raw materials research and development, information, education and communication.

As much as 9000 licensed manufacturers of traditional medicines are working in India. This has to be read in connection with the report of centers for disease control and prevention that 29% of adults used CAM (Complementary and Alternative Medicine) in 1999. Still we didn't deny such steps that government is adding to traditional medicines in to family welfare program funded by the World Bank and Indian Government for anaemia, edema during pregnancy, Post Partum problems such as pain, uterine and abdominal complications, difficulties with lactation, nutritional deficiencies, childhood diarrhea.<sup>[1]</sup>

#### Problems of Present Ayurveda Researches

On analyzing the different faces of current Ayurvedic researches, we can see that maximum researches are conducting in drugs not in Basic Principles of the science. Most of them are aiming to commercialize Ayurveda. Each and every day a good number of new combination drugs are marketing in the name of "patent and proprietary medicine". This is happening why because we are in lack of such infrastructures and research methods to find out each component of а compound drug both qualitatively and quantitatively, in facilities to re-analyze the authenticity of clinical trials.

Ayurveda is not advocating one disease one drug paradigm of modern medicine plants have a heterogeneous composition. "This mixture of chemicals" in the plants are needed for optimal efficacy as well as safety. Many of these chemicals may be inert but they can influence the pharmacokinetics of the active principles or play or a role in imparting stability.

On searching the literatures of several research trials, most of them are uncontrolled, open studies. Resistance for conducting randomized controlled blind study has emerged because of difficulties associated with :

Selection of controls

- Appropriate blinding techniques
- Determining sample size
- Dose and duration
- Assessment parameters
- Whether to individualize therapy or not
- Lack of pre clinical data

#### Lack of suitable Research Methodology

So many lacunas are emerging if one follows the methodologies of modern medical science as well as pure *Ayurvedic* methodologies. This is the root cause of present *Ayurvedic* research problems. In fact we are in need of a combination of both of these. So that it can be applicable in fundamental research, clinical research and pharmacological research. Since 1991 W.H.O. has developed and issued a series of technical guidelines such as "Guidelines for the assessment of Herbal medicines, Research guidelines for evaluating the safety and efficacy of herbal medicines and Guidelines for clinical research on acupuncture". However, these guidelines are still not sufficient to cover the many challenging issues in the research and practices.

#### Current Research Setup of Ayurveda

In precise, there are five fields which are working predominantly in this agenda.

- Academic institutions of India P.G. Centers & U.G. Colleges
- 2. Private R & D units
  - Dabur Pharmaceutical
  - Charaka Pharmaceutical
  - Zandu Pharmaceutical etc.
- 3. Government Ayurvedic Research, bodies
  - Indian System of Medicine and Homeopathy (ISM & H)
  - Central Council for Research in Ayurveda and Siddha (CCRAS)
  - Pharmacopial Laboratory for Indian Medicine, Ghaziabad U.P. (PLIM) etc.

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- 4. Government non-Ayurvedic bodies
  - Council for Scientific and Industrial Research (CSIR)
  - Indian Council for Agricultural Research (ICAR)
  - Indian Council for Medical Research (ICMR)
  - All India coordinated Research Project on Ethno biology.
  - Department of Science and Technology (DST), Govt. of India etc.
- 5. International Research Establishment
  - World Health Organization (W.H.O.)
  - National Center for Complimentary and Alternative Medicine (NCCAM)
  - University of Texas Center for Alternative Medicine Research.
  - American Botanical Council.

#### **Coordinated Perspective Research Planning (CPRP)**

Human genome project is an international cooperative effort involving 18 countries and 250 laboratories. The principal aim of the project is to create a map of the entire set of genes in the human cell. Like wise a long term principal aim should be formulated first. The total works have to be divided among different centers of global community. All these works should be maintained and managed by a central authentic committee. Disease irradication programmes can be taken as an example of such plan. In Ayurveda, among the basic principles like Tridosha theory, Dashavidha Pariksha, etc. we are not having sufficient statistical data, which can be applicable in population world wide. By aforesaid perspective planning, first of all we should prepare such preclinical data.

All the researches in the *Ayurvedic* field must be under a super central authority which will evaluate the research out put and should publish it time to time. For the recognition of each and every *Ayurvedic* research, the validation by this authority should make necessary. Ultimate aim of these researches are nothing but updatement of out texts. In our *samhitas* plenty of observations are narrated in ancient parameters, which are invaluable and unrecognized to the contemporary scientific community. Through C.P.R.P. the authorities should convert those observations into conventional data and parameters by appropriate clinical trials. A multi disciplinary multi center research approach can help to achieve this goal properly.

It might be argued that conventional medicine relies on anecdotes, too, some of which are published as case reports in peer-reviewed journals. But this case reports differ from anecdotes of Alternative Medicine viz *Ayurveda*. They describe a well documented new finding in a defined setting. In contrast, anecdotes about *Ayurvedic* remedies (usually published in books and magazines for the public) have no such documentation and are considered sufficient themselves as support for therapeutic claims.<sup>[2]</sup>

CPRP if it is properly implement in *Ayurvedic* research we can remove the prefix "Alternative". Because medicine is only one, conventional and alternative is just nearly a fake classification. Once a treatment has been tested rigorously, it no longer matters whether it was considered alternative at the out set. If it is found to be reasonably safe and effective it will be accepted. But assertions, speculations and testimonials do not substitute for evidence. So, through CPRP all the *Ayurvedic* principles and practices should be subjected to scientific testing, no less rigorous than that required for conventional treatments. In nutshell CPRP gets significant as;

- Many early clinical trials have had serious flaws.
- Clinical investigations are made difficult by factors such as use of compound drug, individualized treatments and lack of standardization of herbal remedies.
- Difficulties in accruing, randomizing and retaining patients and in identifying appropriate placebo interventions.
- Despite these complexities, rigorously designed clinical trials are possible including pragmatic studies of Ayurveda.

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 Strong commitment is required from the research community to provide information about *Ayurvedic* system of medicine to the public and health professionals.<sup>[3]</sup>

#### Negative Study - necessity to the science

Principles are framing from repeated observations by scholars after proper reasoning and justification. On a search through contraindications of our different therapies like Snehana, Swedana, Vamana, Virechana etc. we can understand that Acharyas have experienced such complications which were narrated in the texts e.g. Vamana in Kshatakshina will cause severe bleeding problems, death by Virechana in chronic alcoholism are not simply an assessment or speculation but they experienced all these. These are the unbiased results of ancient studies. This is essential for the proper understanding of principles, science, limitations of science and hence for the development. But in current Avurvedic researches we are not giving proper attention to this mode of studies. At what extend problems will generate if we administer Haritaki to an Ajirna case, How much percentage of importance should be given to Vipaka of a drug with respect to a disease - drug, patients, such things are still unknown to the scholars with experimental or clinical experience or with sufficient statistical data. Unless this type of studies are not happened in Ayurveda, one could not understand his science's restrictions.

# Incorporation of New Research Results in Academic Syllabus

The future of a science is vested in the student of that discipline. All we know updating of *Samhitas* are essentials and several methods towards this motto had taken place today, as standardization, discovery of new drugs etc. However, none of that work had included in B.A.M.S. syllabus. Still the students are studying those obsolete topics, which are replaced now by experiments or by modern technologies. These pernicious trend is found to be making this developmental momentum, tardy e.g. *Gaja Puta, Maha Puta,* etc. are now doing by muffle furnace, after determining proper temperature duration and

other parameters of ancient techniques. Still the students of *Ayurveda* are studying *Rajahasta, Vitasti* measurements and number of *Vanyopalas* from mula granthas because this renewed modern technology are not incorporated in the syllabus.

Researches should not for the substantiation of complete narration, even in our *samhitas* and if so, it is a bias. If one basic theory or practice is proved as wrong after rigorous experiments it should be taught as negative and the same should be deleted from the syllabus. Unfortunately, no such new interventions had incorporated in our syllabus till date. This trend mothballs the intellect of scholars and are being thrown out to the platform of olden era.

Safety and efficacy is a prime matter of concern especially in our medicine, which is now subjecting to several discussion and experiments world wide. Incorporation of results of such researches and discussions in syllabus is highly essentials. For example in 1992, congress established within National Institute of Health, American office of Alternative Medicines to evaluate alternative remedies (NCCAM). Of the 30 research grants, the office awarded in 1993, 28 have resulted in final reports that are listed in the office's public on line database.

#### **CONCLUSION**

It is doubtless to say that Ayurveda is facing identity crisis among medical world. Still herbal medicine acquiring its developmental momentum for particularly since 2 decades. Conducting new researches through the assimilation of contemporary technology, can only save this grave condition. Because technology has increased not just mans capacity for destruction but also his ability to not only answer the previously unanswerable but to ask previously unaskable. It is not too late to understand the gravity of the problem and to react. In this context, we humbly request to all to remember the narration given in the Charaka Samhita that an ideal science should be great enough, most famous easily understandable remove the darkness of ignorance. Most reputed medical persons will reside in such

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science and ideal scholar should review the science time to time. (C. S. Vi. 9/3).

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