



## Guest Editorial

### COMPREHENDING EVIDENCE BASED AYURVEDA

#### INTRODUCTION

Science could be best defined as pure unbiased knowledge which possess a set of concrete rationale which when pertinently applied in accordance to the circumstance, would yield accurate intended results permanently. Ayurveda is such a “Science” of life which encompasses in-depth scientific theorems and principles which are evolved by close and constant experimentation in human beings in multiple ways (the methodologies of which are technically described in medical treatises) and best scientifically validated and approved constantly by the experts for the last many centuries. For this reason, it is undoubtedly clear that this scientifically validated medical theories and principles which are verified successful in every era is the best pertinent evidence base to precisely guide ayurvedic medical practice and research.

#### Evidence Based Medicine (EBM)

Evidence Based Medicine is defined as the integration of the best research evidence with clinical expertise and patient values. (Sackett 2000). It is to be noted here that EBM is originally Evidence Integrated Medicine (EIM) only, as it is aimed at gathering and sorting of information (data) constituted by biomedical scientific workers and clinical epidemiologists for use in clinical practice. Thus in modern medicine, an “unknown compound is validated by modern applied techniques by multidisciplinary workmen resulting in the constitution of certain evidences. At the same time, the nature of evidence base in Ayurveda does not allow the interference of statisticians or biochemists owing to the fundamental alteration in the nature and approach of both. So applied medicine / research in Ayurveda is to be ideally led by the solid evidence base of basic research done in ayurveda itself and not based on any alien applied sciences like statistics or biochemistry.

The point which is to be made clear here is that Ayurveda is fundamentally “Basic Evidence

Based Medicine (BEBM) unlike the modern Medicine which is only Evidence Integrated Medicine (EIM). These integrated evidences are based on “testing an unknown compound” for drug action in isolated tissues, animal models or Double Blind clinical trials and evaluation of observed action. At the same time, there are no established theories from basic science to accurately guide the research. What is being acquired in the end of such research is only “Medicine based data “which is counted as “evidence base “for clinical use. The medicine based data are then judged by the principles of Probability based statistics and approval is done based on “Risk- Benefit analysis “. This kind of research is the unstable Applied Research with no back support of stable back ground evidence to guide the research. The golden standards of EBM are formulated from “Randomised Controlled Trials “(RCT) which are merely concentrated on “whether the compound works only “ and not whether “ why, how and when the drug is appropriate in the situation. Randomised controlled trials information does not answer to the questions related to etiology, diagnosis and prognosis of the clinical situation and how the specific drug affects the specific pathophysiological changes in the particular individual. At the same time, the scientific evidence base of Ayurveda which elaborates Roga- Rogi – Bheshaja tatwas applicable in every clinical situation of every disease are the pertinent evidence base to validate a therapy or regimen in a clinical situation. On the other hand, the Evidence Integrated Approach (EIA) of modern medicine does not mean the best “scientifically approved treatment “in a clinical situation.

#### Evidence strength of Ayurveda

The strength of a medical system is truly based on the clarity and objectivity of its background science. In fact a medicine which is “modern” does not always mean that is “valid”.

Modernity of a medicine has no relation to validity for its use in a situation. If any currently accepted rationale behind the most updated medicine is later proved to be changing, uncertain or contradictory especially after it has been used by thousands of people and thus already exposed to the risks of them, then how and why such kind of drug development rationale be considered scientific? If a currently used evidence based medicine is showing teratogenic effects, what justification can be given to those unfortunate patients who have succumbed to the drastic side effects of the drug? Will themselves and their dear ones be gratified by the fact that they are suffering by the side effects which are “proven?? “

It is really important to remember that ayurvedic texts are not documented in the form of Materia Medica which blindly explains the sources of different drugs and formulations, but rather there is solid background scientific knowledge of anatomy, physiology, pathology and diagnostics, pharmacodynamics (Dravya Prabhava) and pharmacokinetics (Dosha – Bheshaja Prabhava). It is not blindly the drug efficacy that requires testing in ayurveda, but on the other hand, the effectiveness of treatment principles in a specific well identified clinical situation. The encoded treatment principles are the best validated evidence base in ayurveda.

### **Science Based Evidence of Ayurveda**

Ayurveda incorporates the evidences of basic research to scientifically validate the parameters of patient, disease and treatment protocol which should be the ideal imperative basis for medical decision making for ayurvedic physicians.

Currently the blind mimicking of the reductionistic Medicine Based Evidence (MBE) approach of modern medicine in ayurveda is the reason for inability for accurate exposure of scientificity of this medical system. Our ancient scientist proposers who have developed the basic science by conducting basic research had the sole desire of Lokasangraha (universal wellbeing) and never tried to create spin on the data while formulating the treatment principles for economic gains. If they had done it ever, the entire science would have been terribly biased and would not have been in vicinity today.

### **Practice of Evidence Based Ayurveda – Need of the hour**

Evidence Based Ayurveda is a core component which is often poorly recognised by today's ayurvedic health care professionals. The major difficulty in implementing EBA is the above reason itself. Ayurvedic basic science based standards and science based appraisal techniques are currently ignorant to ayurvedic physicians and faculties. This necessitates an urgent compulsory training programme on EBA for ayurvedic medical professionals to improve their quality of standards of health care.

With this prime objective in mind, after conducting literary and clinical research for some years, the author has developed a scientific technique called “Evidence Triad Approach (ETA)” to standardize the process of diagnosis and treatment protocols of ayurveda physicians all over the world. The technique is elaborated in author's book “evidence based ayurveda & rational prescribing”, published in 2012. Evidence based guidelines and policies should be endorsed by the government through AYUSH and training programmes should be initiated on appraisal techniques of ayurvedic evidences for ayurvedic physicians as well as faculties. The author humbly invites attention to the content of the pre- mentioned book which explains the scientific techniques and standards for this. Also at present, there is no prescription audit system in ayurveda as currently no standards are evolved for the same. Irrational prescribing is left unnoticed because of this. Besides unscientific prescribing results in financial loss for the patient apart from delay or absence of cure of the condition. All these are creating a negative impact on this medical system.

### **CONCLUSION**

Planned development of EBA is extremely important to remove the existing beliefs and misconceptions in about ayurveda in general public. If EBA is developed as a specialty and the beneficial effects of scientific ayurveda is rendered to the society, it would eventually result in enhanced affinity of non EBA ayurvedic practitioners also towards EBA. These standardized ayurvedic evidence based guidelines will be adopted by ayurveda practitioners all over the world resulting in overall progress of health status of the public. Pilot studies have revealed that the protocols of

Evidence Based Ayurveda prove to be equally beneficial in both Acute as well as Chronic ailments

The development of EBA requires intensive planning, funding, accurate regulatory policies etc. Accurate implementation and undertaking of this project will result in a revolutionary positive

change in today's health care scenario. The best scientifically optimized ayurvedic health care protocols target at the judicious utilization of our scarce medicinal plant resources and implementing the best scientific and cost effective solutions for all acute and chronic health problems.

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