Strengthening the Ayurveda ecosystem

In 500 BC, the Greek philosopher Heraclitus said “Change is the only constant in life”. Later Charles Darwin through his theory of evolution based on principles of biology and genetics further added that the survival of any species does not merely depend on strength but its capacity to adapt to changes. Darwin argued that strong species like dinosaurs became extinct because of their resistance to change. Like other species, humans and their knowledge have evolved continuously over millennia. Advances in science and technology have led to several changes in natural ecosystems, human lifestyle and behavior. The socio-cultural, geo-climatic, agricultural and economic environments accompanied by genetic and epigenetic modifications are part of the dynamic evolutionary process. The nature of many processes still remains unknown.

Spectacular advances in biomedical sciences have led to increased human life span, while because of human induced environmental changes; the existence of many species is threatened. The trends and practices in current science have become extremely anthropocentric, which are in contrast to Ayurveda teaching.

During the last few centuries, we have witnessed eradication of life threatening diseases like small pox, but many diseases like tuberculosis have reemerged. Adding to these challenges, several new diseases like HIV/AIDS, Ebola, and Zika have emerged during the last few decades. Ironically, increased human longevity has been countered by decreased quality of life. Many scientists and philosophers think that our present problems related to health and disease cannot be managed merely with the help of modern biomedicine. As a result new approaches to disease prevention, integrative medicine, holistic health, wellness and longevity are being considered. Therefore, in the present situation, knowledge and wisdom of Ayurveda is being valued and appreciated. However, it is important to understand the true meaning of Ayurveda.

Recently, in an international seminar, a young researcher asked the question ‘What is Ayurveda?’ She knew its Sanskrit meaning as ‘science or knowledge of life’. This simple sounding loaded question made many of us introspect. Is Ayurveda an Indian traditional system of medicine? Can classical Ayurveda be confined to Charaka, Sushruta, Vaghbata — the Brihat triay? Can Ayurveda be limited to 57 books in the schedule of Indian Drugs and Cosmetic Act 1940 or graduates from Ayurveda colleges?

During the process of evolution everything around us has changed. The environmental ecosystems have changed, plants and animal species have changed, adapted or became extinct. Our anatomy, physiology and behavior have also changed. In such dynamic, changing and evolving ecosystem how can one believe that Ayurveda ecosystem has not changed. Unless we observe, report, study, experiment and validate, how we can assume that the properties of different substances will be the same after so many centuries. Agreeably, there will be some eternal components related to basic principles, however the materials and practices of Ayurveda must be revisited in light of contemporary scientific knowledge. Today’s Ayurveda ecosystem must consider the nature of materials and practices, which are present realities – be it food, medicine or behavior. For instance, according to a recent study, around 35% of what Indians eat today is of ‘foreign’ origin, including food grains such as wheat, and vegetables such as onions, potatoes and tomatoes. Many of these food stuffs are not mentioned in Ayurveda classics. Such realities cannot be ignored for long. Present thinking must maintain the legacy of sages like Charaka who proclaimed that ‘the entire world is a teacher for the wise’. Ayurveda is open to new knowledge and ideas. Such an inclusive approach will remain crucially important to maintain contemporary relevance of Ayurveda. When the world is facing epidemic of lifestyle diseases, Ayurveda has much more to offer than herbal medicine. It is indeed a way of healthy life.

1. Ayurveda beyond medicine

History and science teaches us that in this ever changing world, a traditional knowledge system like Ayurveda cannot remain rigid, stagnant and cloistered. It has to change as per the time. The philosophy, logic and practice of ‘Ayurveda System’ involves a variety of concepts like Mahabhoota, Dosha, Dhatu, Mala, Dravya, Guna, Dhatu, Agni, Ama, Rasa, Ojas, and hundreds of intra and interactions amongst these variables [1]. Such a vast knowledge-base is a treasure, which needs to be explored, expanded, experienced and experimented.

Ayurveda is not just a materia medica or herbal medicine. It is not even limited to set of classics, procedures, colleges and universities or a mere compilation of verses. Ayurveda is a study of continuous association between the living and its surrounding environment to maintain the state of balance and health. Ayurveda is about bringing balance of mind-body-spirit, a state of good health and wellness. Ayurveda is an approach, a thought process and practical guide that teaches us what is beneficial and what is harmful for our health. Ayurveda talks about broader goal of universal care and

Peer review under responsibility of Transdisciplinary University, Bangalore.

http://dx.doi.org/10.1016/j.jaim.2016.07.002
planet, planetary health. Ayurveda needs to be understood at two levels — as a knowledge system and as a clinical practice.

2. Knowledge system and practice

Anthropologically Ayurveda is a great tradition that has its own epistemology, ontology, theory and practice. As a knowledge system, it is very open and inclusive of various philosophies, approaches, views and information sources. To attain the goal of health protection and disease treatment, it draws from various Durshanas. This inquisitive, inclusive and dynamic nature differentiates Ayurveda from folklore practice or mere herbal medicine. Many folklore practices, which are part of little traditions may become obsolete or ritualistic when their practitioners restrict themselves in shells of secrecy.

Ayurveda’s knowledgebase has been continuously expanding and must continue to do so in future as well. Ayurveda as a knowledge system has attracted scholars from various disciplines like Sanskrit, botany, physics, pharmacology, pharmaceutical science, molecular biology, clinical medicine, computing and epidemiology. However, bonds of Ayurveda with other disciplines like environmental sciences, ecology, oceanology, soil science, geology, atmospheric science; humanities and social sciences like anthropology, psychology, economics, political science, languages, history, geography, arts, music, philosophy; mathematics engineering and technology need to be strengthened. Ayurveda philosophies and basic principles can offer new approaches and ideas to the modern sciences especially to biology, chemistry and physics. The Ayurvedic Biology program initiated by eminent scientist M S Valiathan is an excellent example of multidisciplinary collaborative research involving molecular biology, neurosciences, immunology, material science and biophysics [2]. The scientific outcomes of some of these projects have inspired many young scientists and funding agencies.

In general, Ayurveda practice has followed its knowledgebase. Clinical practice is an important subset of the Ayurveda knowledgebase. Ayurveda practice is expected to get continuously enriched from careful observations and systematic documentation while learning from other knowledge systems including modern science and medicine. The local health traditions based on little traditions and classical Ayurveda practice based on great tradition both need to draw from each other. At present, various schools of Ayurveda practice and follow specific thoughts, skills, procedures and medicines. Ayurveda practice in particular region is influenced by the environment, flora and fauna, cultural and socioeconomic factors. Therefore, while the broad knowledgebase may be the same, practice of Ayurveda may be different in different geographical or climatic regions. Vaidyas from coastal parts of India use more oils, fresh juices, and kashayas, whereas those from the North use more stable dosage forms like pills or bhasmas. Such regional variations of southern or northern practices are shades of Ayurveda practice, which represent its ever expanding knowledgebase.

Ayurveda’s knowledgebase has been continuously expanding and must continue to do so in future as well. Ayurveda as a knowledge system has attracted scholars from various disciplines like Sanskrit, botany, physics, pharmacology, pharmaceutical science, molecular biology, clinical medicine, computing and epidemiology. However, bonds of Ayurveda with other disciplines like environmental sciences, ecology, oceanology, soil science, geology, atmospheric science; humanities and social sciences like anthropology, psychology, economics, political science, languages, history, geography, arts, music, philosophy; mathematics engineering and technology need to be strengthened. Ayurveda philosophies and basic principles can offer new approaches and ideas to the modern sciences especially to biology, chemistry and physics. The Ayurvedic Biology program initiated by eminent scientist M S Valiathan is an excellent example of multidisciplinary collaborative research involving molecular biology, neurosciences, immunology, material science and biophysics [2]. The scientific outcomes of some of these projects have inspired many young scientists and funding agencies.

In general, Ayurveda practice has followed its knowledgebase. Clinical practice is an important subset of the Ayurveda knowledgebase. Ayurveda practice is expected to get continuously enriched from careful observations and systematic documentation while learning from other knowledge systems including modern science and medicine. The local health traditions based on little traditions and classical Ayurveda practice based on great tradition both need to draw from each other. At present, various schools of Ayurveda practice and follow specific thoughts, skills, procedures and medicines. Ayurveda practice in particular region is influenced by the environment, flora and fauna, cultural and socioeconomic factors. Therefore, while the broad knowledgebase may be the same, practice of Ayurveda may be different in different geographical or climatic regions. Vaidyas from coastal parts of India use more oils, fresh juices, and kashayas, whereas those from the North use more stable dosage forms like pills or bhasmas. Such regional variations of southern or northern practices are shades of Ayurveda practice, which represent its ever expanding knowledgebase.

The 7th World Ayurveda Congress to be held in Kolkata during December 1–4, 2016 has very apt focal theme ‘Strengthening the Ayurveda Ecosystem’. It is very heartening to note that eminent biomedical scientist Dr Soumya Swaminathan, Secretary, Department of Health Research and Director General, Indian Council of Medical Research has accepted to be Chairperson of the Organizing Committee. Already, she and AYUSH Secretary Shri Ajit Sharan have initiated AYUSH-ICMR Mission for collaborative scientific research. This is very promising example of integrative approach where confluence of traditional and modern systems of knowledge can
strengthen the Ayurveda ecosystem to shape the future global health.

References

[1] Tillu G, Gangadharan GG, Vaidya A, Patwardhan B. Systems Ayurveda. A Theme poster published by Foundation for Revitalization of Local Health Traditions, Bangalore. 2010.

[2] Valiathan MS. Ayurvedic biology. Curr Sci 2016;110(11):2043—4.