

Exploring Quantum Logic in Ayurveda with special reference to *Srotovijnana* of Ayurveda

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ABSTRACT : Ayurveda, the ancient science of life, health and cure originating from India adopts its own holistic biology based on the theory of *Triguna, Tanmatra, Tridosha, Saptadhatu, Ojas, Agni, Ama and Srotas*. It is distinctly different than the conventional modern biology which is largely based on reductionistic approach of classical Newtonian Physics, in contrast to Ayurvedic Biology - seems to be based on an integrative vision resembling Quantum logic of modern science. The present conceptual study aims to explore related issues with special reference to *Srotovijnana* of Ayurveda depicting a quantized inner transport system responsible to transport of the entire range of biological fluids, nutrients, energies, impulses, emotions, thoughts and all bio-factors, tangible or intangible. There is a need to study the fundamental and applied aspects of Ayurvedic Biology in depth with genuine interface of Ayurveda with science of today.

Key words : Ayurveda, Quantum Logic, Ayurvedic Biology, Srotas, Quantized inner transport system, Samshodhana.

INTRODUCTION

Ayurveda is the most ancient science of life, health and cure in the world, its antiquity going back to the *Vedas* in India¹⁻⁶. Some scholars believe that Ayurveda represents the world view of its time on the subject, although India is the principal holder of this knowledge-base where it has remained in an unbroken practice for thousands of years, in spite of repeated unfavorable circumstances down the ages. During the emergence of the conventional western modern medicine during last 200 years there has been a continued tendency among the policy makers in India and elsewhere to marginalize this ancient knowledge and to promote the new science. However, the recent years have exhibited glaring examples of inadequacies and un-sustainability of the conventional modern medicine, warranting a re-look to the ancient wisdom which has been gathering more and more scientific evidence. The recent discoveries in science and medicine indicate that many of these facts were already fundamentally known in ancient times.

Though Ayurveda is essentially the science of life and longevity, it was also a fairly advanced system of professional medicine practiced through its eight specialty branches even during the *Samhita* period⁷⁻¹¹. Such advances of specialization are very recent in western modern medicine. The Eight professional specialties of classical Ayurveda are as mentioned below.

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| 1. <i>Kayachikitsa</i> | Internal medicine |
| 2. <i>Shalya tantra</i> | Surgery |

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| 3. <i>Shalakya tantra</i> | Ophthalmology and ENT |
| 4. <i>Kaumarabhritya</i> | Pediatrics, Obstetrics and Gynecology |
| 5. <i>Agadtantra</i> | Toxicology |
| 6. <i>Bhutavidya</i> | Psychiatry |
| 7. <i>Rasayana tantra</i> | Nutrition, Immunology and Geriatrics |
| 8. <i>Vajikarana</i> | Sexology and Reproduction |

The fundamental and applied knowledge of classical Ayurveda has survived to the present times in the form of two sets of authentic ancient texts, each of the two sets comprising of three books each. Their authorship, historicity and subject matter are mentioned below. Both the sets of these books are popularly called *Brihatrayi* and *Laghutrayi* respectively i.e. three big books and three small books as enlisted below. All these texts have been originally written in *Sanskrita*, now translated in many contemporary languages including English⁷⁻¹¹.

| <i>Brihatrayi</i> | Authority | Histo-ricity | Subject |
|-------------------------------|-----------------------------|--------------|-----------------------|
| 1 <i>Charaka Samhita</i> | <i>Agnivesha / Caraka</i> | 700 BC | Philosophy & Medicine |
| 2 <i>Sushruta Samhita</i> | <i>Sushruta / Nagarjuna</i> | 600 BC | Anatomy & Surgery |
| 3 <i>Samhitas of Vagbhata</i> | <i>Vagbhata</i> | 300 AD | Therapeutics |

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| <i>Laghutrayi</i> | Authority | Histo-ricity | Subject |
|-------------------------------|---------------------|--------------|--------------|
| 1 <i>Madhava Nidana</i> | <i>Madhavakara</i> | 900 AD | Diagnostics |
| 2 <i>Sharangdhara Samhita</i> | <i>Sharangdhara</i> | 1300 AD | Therapeutics |
| 3 <i>Bhavaprakasha</i> | <i>Bhava Mishra</i> | 1600 AD | Drugs |

The Approach :

Ayurveda is considered as *Upaveda* of *Atharva Veda*. Ordinarily Ayurveda follows the basic teachings of *Vedic* traditions, although it develops its own applied tenets for understanding of the phenomenon of life, its meaning, nature and considerations of health, possible causes of ill health, methods of diagnosis and promotive, preventive and curative care. It develops its own diagnostics and therapeutic technology including a rich *Materia Medica* and pharmaceuticals. It draws its wide range of medicare from herbal, mineral and biological sources of the Nature¹²⁻¹⁴.

As regards the tools of health care and cure, Ayurveda emphasizes the role of healthy diet, positive life style and nutraceutical medication. Ayurveda always considers promotion of health and prevention of disease with greater emphasis than therapeutic care. In tune with the *Vedantic* view on life and universe, Ayurveda propounds the theory of *Loka-Purusha Samya* i.e. Macrocosm-Microcosm continuum. It also propounds the theory of *Swabhavoparama vada* suggesting the self cessation of the cause of the disease and auto-healing. Since antiquity, Ayurveda believes that the living being has inherent power of self protection from disease and morbid factors. In this paradigm a physician is expected to play a subsidiary role in health care, working more to assist the Nature which is already helping the individual in auto-healing¹⁴.

In view of the above broad-based facts Ayurveda seems to adopt a positive holistic approach in contrast to the reductionistic approach of western modern science. The structure and function of the human body have been described in Ayurveda in a distinctly different premise than modern medicine to allow quantized consideration in physiology, pathology and pharmacophysiology^{15,16}.

It can not be over emphasized that the conventional modern terminology and approach to describe the structure and function of mind-body system is not the only possible approach. There can be many alternative approaches used by thinkers working in different fields of perceptions like philosophy, physics, chemistry and

biology. The currently available approach is suited only to the reductionistic approach based on the principles of classical Newtonian physics to the life phenomenon. The emerging quantum consideration of science and its practice in life science and medicine, can not be logically applied to the conventional biology. This is why Ayurveda developed its own holistic approach to biology with quantum logic. Thus Ayurvedic biology, as projected in terms of *Triguna*, *Tanmatra*, *Panchamahabhuta*, *Tridosha*, *Saptadhatu*, *Ojas*, *Agni*, *Agnibala*, *Ama* and *Srotas*, is better suited to the practice of biology and medicine with quantum logic. This holistic approach is gradually gaining scientific strength.

The Quantum Logic :

Quantum physics is the branch of science that deals with discrete, indivisible units of energy called 'quanta' as described by the quantum theory which represents a set of new ideas viz. 1. Energy is not continuous but come in small but discrete units, 2. The elementary particles behave both like particles and like waves, thus there is particle wave duality, 3. The movement of these particles is inherently random, 4. It is physically impossible to know both the position and the momentum of a particle at the same time, 5. The atomic world is nothing like the world we live in¹⁷. In this premise nothing is real, we have got only probabilities. These notions modern physics have notable resemblance to the *Vedic* ideas of Reality and the illusion or *Maya*²². The principle of wave particle duality, the uncertainty principle and many worlds or multiverse theory also display similar notions¹⁹. All these newer notions of quantum theory are in conflict with the conventional classical physics. The Newtonian physics²⁰ which originated in 17th Century is often referred to as classical physics after the development of modern physics (Quantum physics) in 1920s²¹. It would be seen that modern biological sciences and medicine are still largely based on classical physics. Many scientists feel that there is a need of major paradigm shift in this field and in this context ideologically Ayurveda is more modern than conventional modern medicine. In contrast, as stated by Goswami (2001) conventional science is grounded in the idea that matter is the building block of all things; life, mind and consciousness, accordingly, are held mere epiphenomena of matter. However, such notions now stand largely challenged^{26,27}.

One may recall that Boyle and Newton founded the classical physics in 17th century as the beginning of western conventional science, before which it was all oriental science which formed the matrix of all knowledge about Reality. Newtonian physics held that that the world is ultimately made up of small solid atoms or corpuscles.

The corpuscles have definite position and size and within their volume are solid and impenetrable. They are the ultimate atoms, since they can not be broken up. It was claimed that all phenomena in Nature could be explained in terms of movements and collisions of the corpuscles²⁰. But now we realize that Nature is not so simple.

According to Ayurveda, *Ayu*, the life is a four dimensional entity and is comprised of : (1) Physical body, (2) Senses, (3) Psyche and (4) the Soul. Thus Ayurveda addresses life as the body-mind-spirit integrative continuum. In other words life is comprised of physical, mental and spiritual phenomenon in a quantized continuum. The third dimension as mentioned above relates to the Consciousness factor directly derived from the cosmic consciousness, meaning there by that the individual and the cosmos exist in a unified field. The recent discoveries in the field of modern physics speculating on the newer knowledge about the theory of unified field of energy and quantum nature of matter, greatly simulate the *Vedantic* views mentioned above. According to *Vedanta* the essence of the Universe is the cosmic consciousness. In terms of philosophy, the same is termed as *Brahman*. The *Brahman* extends itself in each individual being with limited attributes and then it is termed as *Atman*. Thus the *Brahman* and *Atman* are a continuum and function in a unified field of consciousness. However, it is postulated that the above said continuum remains masked due to individual ignorance often termed as *Maya* in the language of philosophy. Hence to allow fuller functioning of body-mind-spirit system with quantum logic, it is considered necessary to unveil the "Reality" from the mask of "*Maya*" which is possible by the power of spiritual *Sadhanâ* with *Abhyasa* and *Vairagya* i.e. continued practice and renunciation. Thus Spirituality is the apex of the science²².

This idea of *Brahman-Atman* continuum is yet to be understood by the western mind. As rightly pointed out by certain spiritual activists, the entire ongoing scientific exercise in the field of material science and modern biology is nothing more than a mere exploration of the secrets of *Maya*. The exploration in to the nature of the fundamental Reality, the Ultimate Truth, is yet to begin. It can not be over emphasized that modern science has made tremendous advances in its own way but the next big breakthrough in science is expected to happen in the inner world i.e. in the realm of *Chetana*, the consciousness, not in the realm of external material world. Such a big breakthrough would free the mankind from all conflicts and dualities. Obviously the science and spirituality are gradually converging.

Quantum Continuum of *Sharira Traya* :

Ayurveda in tune with the *Upanishadic* traditions considers that living being is a three dimensional entity comprising of (1) *Karana Sharira* or causal body, (2) *Sûkshma Sharira* or Subtle body and (3) *Sthûla Sharira* or the gross body, the three being in a quantum continuum. The *Sthûla Sharira* refers to gross physical body while the *Sûksma Sharira* is the energetic body which exists in the form of non physical energy and transcends sensory perception, although it possesses the quantum attributes of all aspects of a living being such as the five *Tanmatras* representing the *Pancha Mahabhûtas*, attributes of Five *karmendriyas*, Five *Jnanendriyas*, the *Manas*, *Buddhi* and *Ahamkara*. Thus *Sûkshma Sharira* is a comprehensive *Ashtadhaûatattvatmaka* entity which operates through the assembly of *Sthûla Sharira*. It is understood that it is the *Sûksma Sharira* which transmigrates from one physical body to the other during rebirth. The *Karana Sharira* signifies the causal factors which are held responsible for creation of the *Sûkshma* as well as the *Sthûla Sharira*. In view of creation of the divergent factors involved in creation, the *Karana Sharira* is viewed as different conceptual entities in different schools of thought viz. the *Gunas* and *Samskaras*, the creator *Chetana* and/or the illusive *Maya*.

Theories of *Loka-Purusha Samya*, the four dimensional concept of *Ayu* and the theory of *Panchakosha* and *shatecakras* are overlapping view points with the above mentioned concept of *Sharira Traya*. All these concepts justify the scope of application of quantum phenomenon in life sciences.

The Alternative approach to Biology :

As stated by Nobel laureate BD Josephson (2009)²³ the basic premise of western science is that of an objective reality that can be reduced to an uniform formula. Eastern philosophy on the other hand places emphasis on conscious experiences and subjective reality. There is difficulty in reconciling the two approaches because reality is too complex to be reduced to an objectively identifiable formula. Subjectivity plays important role²³⁻²⁸.

According to Ayurveda the gross physical body is made up of five categories of matter namely- *Akasha*, *Vayu*, *Agni*, *Apra* and *Prithvi*. These five categories of matter are initially created by the impact of *Trigunas-Sattva*, *Raja*, *Tama*. *Sattva* is the state of existence in balance, while *Rajas* is responsible for activity and the *Tamas* which signifies the inertia, is responsible for creation of five categories of matter. The initial creation

The Gross Channels :

Besides the above mentioned fundamental considerations in *Srotovijnana* the Ayurvedic texts identify a set of gross channels for the purpose of the study of pathology and clinical medicines. The so identified gross channels simulate the physiological systems ordinarily described in conventional system of medicine. *Charaka Samhitâ* describes such thirteen channels, where two major visceral organs have been identified in the course of each *Srotas*. Such visceral organs related to the respective *Srotamsi* are called *Mulam*. *Chakrapani*, the chief commentator on *Charaka Samhita* describes *Mulam* as- '*Mulamiti prabhava sthanam*', meaning thereby that the *Mula* of a *srotas* is the anatomical seat of the respective *srotas* as well as is the main seat of the pathology of that channel and is also the principal seat for manifestations of the disease. This set of channels is apparently described as the major seat of diseases which can be clinically examined in a patient by a physician for the diagnostic purposes. These gross channels along with their main *Mulas* as described by *Charaka* (CS.Vi.5) are enlisted below, for reference to routine clinical methods⁷:

The Srotas

Manovaha
Udakavaha
Pranavaha
Rasavaha
Raktavaha
Annavaaha
Purishavaha
Mutravaha
Shukravaha
Medovaha
Mamsavaha
Asthivaha
Majjavaha
Swedavaha

The Mulam

Hridaya/brain
 Oropharynx /Talu,Kloma
 Hridaya/brain & heart
 Hridaya/heart
 Liver and spleen
 Stomach, Left flank
 Colon and rectum
 Urinary tract
 Testes/ovaries
 Omentum, perirenal fat
 Skin, tendon, ligam
 Big bones
 Marrow
 Hair follicles

The Gross Srotas Physiology :

As stated above the *Srotamsi* and *Agni Vyapara* are the basic matrix of gross Ayurvedic physiology of all systems of mind-body organisation. A brief account the *Annavaaha - Rasavaha Srotas* is given below as a random instance. *Ahara* or food ingested by an individual is digested in the *Annavaaha srotas* with the help of *Pacakagni* and is converted into *Ahara Rasa* suitable for absorption and transportation for tissue perfusion

with bioavailability of the required nutrients to the respective *Dhatu*s i.e. tissues. The digested and absorbed nutrients are further processed by higher *Agnis* i.e. *Dhatvagnis* located in tissues and are transformed into seven *Dhatu*s in a sequential manner- *Rasa, Rakta, Mamsa, Meda, Asthi, Majja, Shukra*. This process of *Dhatu Poshana* and *Dhatu Nirmana* culminates into the genesis of vital essence of the body called *Ojas*. The *Ojas* as described in Ayurveda is of two kinds (1) *Para Ojas* and (2) *Apara Ojas*. *Para Ojas* is minute in quantity symbolically measuring eight drops, located in the heart. *Para Ojas* if injured leads to instantaneous death indicating the extreme vital nature of this category of *Ojas*. *Apara Ojas* is relatively gross and is spread all over the body. It is believed to be responsible for immune strength of the body. This *Ojas* functions as *Bala* or biological strength. The Ayurvedic classics describe three kinds of *Ojo Bala* namely (1) *Sahaja Bala* simulating innate immunity, (2) *Kalaja Bala* i.e. naturally acquired immunity due to the impact of time and other environmental factors, (3) *Yuktikrita Bala* i.e. artificially induced immunity procured by therapeutically planned intervention. The formation and functioning of *Ojobala* seems to depend notably on the integrity of the *Srotas* system.

The Ayurvedic texts also describe the pattern of the *Bala Dosha* i.e. immune disorder which can be of three categories namely (1) *Ojovyapada* or early reversible immune disorder, (2) *Ojovisramsas* or dislodged immunity as is often seen in cases of autoimmune diseases and similar other immune disorders, (3) *Ojokshaya* which refers to the real immunodeficiency. Such disorders of *Ojas* system seem to be greatly associated with endogenous factors like loss of integrity of *Srotas* and *Agni*, besides a range of exogenous factors operating through the environment and life-style incompatibilities.

Ayurveda describes amazingly interesting mechanisms of *Dhatu Poshana* in terms of the theory of *Nyaya Traya*. *Agni* and *Srotas* are the master facilitators of tissue nourishment operating through following three mechanisms which are complimentary to each other :

1. *Kedari Kulya Nyaya* i.e. microcirculation and tissue perfusion : This *Nyaya* suggests that the living body is provided with innumerable micro vascular channels which carry nourishment to the respective sites in *Dhatu*s. The cells and tissues are literally perfused with nutrient plasma. But the mere tissue perfusion is not enough to complete the process of nourishment. This needs the complementary play of the subsequent two *Nyayas* .

2. *Khale Kapot Nyaya* - The *Khale Kapot Nyaya* refers to selective uptake of nutrients by the respective cells and tissues in the same way as the birds of different species pickup selective grains and cereals from the common harvesting ground because the *Kedari Kulya Nyaya* provides total pool of nutrients at the site of all tissues but the different *Dhatus* require different specific nutrients and hence there is a need of active selective uptake. For example the *Asthi Dhatu* will uptake only the amino acids and the minerals like Calcium - Phosphorus, while the *Rakta Dhatu* will uptake specifically the nutrients like Iron etc. which is necessary for formation of blood.
3. *Kshira Dadhi Nyaya* refers to the final transformation and assimilation of the uptaken nutrients into the tissue system and life process. This essentially is comparable with conversion of milk into yoghurt, hence the term *Kshira Dadhi Nyaya*.

The Fundamental Causes of Morbidity :

Ayurveda conceives fundamentally two categories of the causes of disease: (1) *Karmaja / Sahaja* factors consisting of hereditary and epigenetic errors. (2) *Loka Purusha Vaishmya* i.e. disharmony between the individual and his environment. According to the theory of *Loka Purusha Samya*, there is a continuum and coexistence between the individual and the environment i.e. Man and the Nature. So long this continuum and harmony continue the health prevails. The moment this harmony is disrupted ill health and disease ushers. These two are the fundamental causes of disease, rest all other causative factors including microbial infections, nutritional diseases or immune disorders are secondary factors and do not have the primary role to play. Ayurveda also identifies three principal mediators of *Loka Purusha Samya* such as 1. Errors of *Kala* also known as *Kala Parinama* referring to the chronobiological errors and related stressful states, 2. Errors of *Buddhi* also known as *Prajnaparadha* which refers to volitional transgression, 3. Errors of sensorial perception also known as *Asatmyendriyarthamamyoga* essentially refers to sensorial stress. The above mentioned three wheels of *Loka Purusha Vaishmya* are essentially the three sets of stressful information bombarding the organism exposing it to a disease state. These three informational traits may be understood as ecological, intellectual and sensorial information / stress respectively.

The range of above mentioned causative factors precipitate a pathology mediating through the phenomenon of *Agni* and *Srotas*. If the strength of *Agni* and *Srotas*

is adequate inspite of the presence of etiological factors a disease state may not precipitate or even if it precipitates it may be delayed and slow. Evolution of disease through *Satkriyakala* (*Sanchaya, Prakopa, Prasara, Sthana samshraya, Vyakti, Bheda*) depends on status of *Agni* and *Srotas* to a great extent. If *Agni* and *Srotas* are in order *Kriyakala* may not take-off.

The *Srotamsi* and *Khavaigunya* :

The integrity of *Srotamsi* is always challenged due to the day to day wear and tear, aging process, disorders of digestion and metabolism, environmental (inner and outer) pollution, stress and a range of other factors such as *Srotodushti*, which is considered the sheet anchor of all pathologies in Ayurveda. Hence Ayurveda advocates to conserve the integrity of *Srotamsi*. There are four categories of pathological manifestations of *Sthula Srotas* system viz. 1. *Atipravritti* or hyperfunctioning, 2. *Sanga* or hypofunctioning, 3. *Sira-Granthi* or stagnation and distortion, 4. *Vimarga Gamana* or diversion. These four categories of *Srotas* pathology can be identified in different systems of the body, both at the gross as well as the subtle level warranting *Srotoprasadana* procedures of different kinds.

Before *Srotoprasadana* is attempted the cleansing process is initiated after mobilising the morbid factors driving them from the *Shakha* (the tissues and circulation) to the *Koshtha* (hollow organs) from where they can be easily expelled out by appropriate *Shodhana* procedures. The texts describe a set of therapeutic methods for this purpose.

Ama, the Principal Endogenous Factor in *Srotodushti* :

Mandagni i.e. hypofunctioning of biofire system inherently leads to production and stagnation of a range of unripe and incompletely processed byproducts in the system. Such products are called *Ama*. *Ama* is the byproduct of incomplete digestion and metabolism and it, being an incompletely processed substance, is ordinarily comprised of heavier molecules and hence stagnates in micro channels. Hence *Ama* is considered as the principal cause of *Srotodushti* and *Srotavarodha* i.e. micro-obstruction of channels. Simultaneously *Ama*, being an unwanted byproduct, carries toxic and antigenic property and hence often initiates auto immune reaction which further vitiates the *Srotas* system of the body. Such a *Srotas* morbidity needs therapeutic intervention such as *Langhan* or Fasting and promotion of *Agni* in order to exhaust the *Ama* state and further to cleanse the *Srotamsi* by way of appropriate biopurificatory procedures and *Samshodhana* measures.

The Concept of Samshodhana :

In view of the inherent tendency of *Srotodushti* or vitiation of the channels of body, Ayurveda propounds the unique theory of *Samshodhana karma* and emphasizes the need of periodical biopurification and cleansing of body channels in order to restore their integrity. This is the basic background of *Samshodhana karma* which is performed with the help of *Panchakarma* therapy which is essentially the therapeutic technology of *Samshodhana*. *Panchakarma* is indicated in both physical and mental diseases²⁹.

The classical therapeutic technology of *Samshodhana* popularly known as *Panchakarma* therapy is practiced in three phases; 1. *Purva karma* or Pre purification preparatory procedures like fasting, digestants, oleation, massage and sudation. Such *Purva karma* procedures exhaust the impurities of channels like *Ama* to some extent and mobilize the remaining impurities to shift from *Shakha* to *koshtha* from where they can be easily expelled. 2. *Pradhana karma* or main purificatory practices like Emesis, Purgation, Enemata, Blood letting etc. These procedures are used to expel the toxins and morbid factors from the body through external orifices. 3. *Pashchata karma* or post therapy dietary care is considered essential for all cases undergoing *Pradhana karma*.

In addition to the above mentioned classical *Panchakarma* procedure, one would find that a set of relatively non invasive purificatory and rehabilitative practices are traditionally prevalent in South India particularly in Kerala. The five prominent practices in this school are 1. *Dhara Krama*, 2. *Pinda Sweda*, 3. *Kaya Sheka*, 4. *Anna Lepa* and 5. *Shirolepa*. These practices seem to be more rehabilitative and physiotherapeutic than purificatory. However, there is a possibility of varying degrees of transdermal purification in these procedures.

The author is inclined to suggest that the act of purification/ *Samshodhana* in different practices of *Panchakarma* may have broadly two modes of effect viz. 1. Transmembrane purification in case of Emesis, Purgation, Enemata, etc. and 2. Transdermal purification during oleation, massage and fomentation. A properly planned *Samshodhana* therapy affords biopurification of the *Srotas* system and the purified *Srotamsi* facilitate improved inner transport function both at gross and subtle level leading to reversal of a disease and restoration of homeostasis leading to systemic and quantum healing.

DISCUSSION

Ayurveda (*Ayu*=life+*Veda*=science) is the most ancient science of Life, Health and cure. It makes a unique holistic approach to the life and its wellbeing. *Ayu*, the life as considered in Ayurveda is a Four-dimensional entity comprising of the physical body, the senses, the psyche and the Soul (the conscious). *Ayu*, the individual life entity is considered as the miniature replica (and a continuum) of the universe. This understanding is the basis of the doctrine of *Loka-Purusha Samya* ie. Macrocosm-Microcosm continuum. Ayurveda in tune with the basic *Vedantic* view considers *Chetana* or Consciousness as the primordial nonphysical cosmic power responsible for creation of the entire material and nonmaterial universe. In philosophical terms this cosmic power is called *Brahman*. The *Brahman* extends itself into each individual living being. This extended fractional consciousness is called *Atman*. Thus the *Atman* and *Brahman* are a continuum but this continuum ordinarily remains masked due to ignorance or *Maya* which can be unveiled by *Sadhana*. Such an united field of Consciousness as conceived in *Vedic* traditions simulates the contemporary theory of United Field of Energy in modern physics.

Based on the above cited fundamental *Vedic* understanding Ayurveda projects its holistic biology which forms the basis of practice of Health science and Medicine in Ayurveda. This is why Ayurveda apparently appears interwoven with philosophy and spirituality. But with the newer discoveries of modern physics such as the quantum theory and united field of energy, it becomes obvious that Ayurveda could be understood better in terms of higher physics and philosophy rather than in terms of developing / ever changing science of biology of today. The recent information emerging from quantum physics and united field of energy greatly validate the *Vedic* wisdom on the existence of the universe and the life.

However before searching the tenets of parallance in physics it will be imperative to outline the biological dimensions of Ayurveda, because in day to day practice of Ayurvedic medicine *Srotovijnana* is the principal matrix of Ayurvedic Biology.

As also referred earlier the term *Srotas* is derived from the *Sanskrit* root- '*Sru-Gatau*' (*Sru*+*Tasi*=*Srotas*) which means - going, moving, continuing, filtering, flowing, leaking, secreting etc. In common practice *Srotas* is defined as - '*Sravanat Srotah*'. The Ayurvedic classics proclaim - '*Srotomayam hi Sariram*' meaning that the body is a channel system and / or is comprised of

innumerable channels designed as a quantized inner transport system for divergent functions, both gross and subtle, tangible and intangible, biologic and energetic.

In clinical settings *Charaka Samhita*, the foremost Ayurvedic classic describes 13 major gross Srotamsi or channels simulating the major physiological systems of the body as known in conventional modern system of biology and medicine identifying two main principal organs each in the route of the respective *Srotas*, termed as the *Mulam* - "*Mulamiti Prabhavasthanam*". Each of these major channels function as the inner transport system for the respective biological materials. In addition to these gross material channels, the texts also describe another major channel called *Manovaha Srotas* which carries the impulses of thought and emotion. *Hridaya (Buddhervivasm Hridayam)* is the *Mulam* of *Manovaha Srotas*. The texts describe the causes of the morbidity of each of these channels and their manifestations and pertaining diseases.

Thus *Srotas* is a multi-meaning term referring to a range of structures, functions and concepts in different contexts. From extreme gross to most subtle the term *Srotas* could refer to the whole body as a single complex *Srotas*, or each gross physiological system such as the gastrointestinal system as one *Srotas* or a single tubular structure like a nephron as a *Srotas* or further ahead each single Cell of the body could be designated as a *Srotas* or even structures beyond the subcellular structures and receptor networks are the components of *Srotas* system.

Thus in the same way as modern physics is visualizing the entire universe in a single Atom²⁸, the entire gross body has been conceived in a single cell and as such the life entity functions in a real quantum fashion and this quantum function is governed by the Law of *Loka-Purusha Samya* and *Atman-Brahman union* which may not be difficult to understand in the light of recent theories of United Field of Energy and Quantum mechanics.

It is most essential to look to the full spectrum of the *Srotas* function rather than looking to the one or the other end (gross or subtle) of the spectrum. The *Sthula* and the *Sukshma* are the two extreme ends of the spectrum of the entity of *Srotamsi*. The *Srotas* System does define the phenomenon of Relationships in structural and functional biology both tangible and intangible i.e. both gross and subtle. Hence the *Srotamsi* as conceived in Ayurveda represent a quantized inner transport system of body-mind-spirit system²⁴. In view of the emerging facts cited above it appears essential to develop a new strategy and methodology for research in Ayurveda³⁰.

CONCLUSION

Thus *Srotovijnana* of Ayurveda, on one hand relates to gross pathology and cure while on the other hand it relates to the quantum nature of body functions, their vitiation and psychophysical and spiritual cure. *Srotovijnana* also relates to the microcosm-macrocosm continuum and is responsible for a unified field of life process. There is a need of adopting newer strategies for research in Ayurveda in the light of recent trends of science.

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