

# **AYURVEDA IS NOT MERELY A TRADITIONAL BUT SCIENTIFIC MEDICINE**

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The diagnosis and treatment of Ayurveda is based on well-established principles, which begin from the evolution of Universe to the transformation of Pancha Mahabhuta, wherefrom all the matters are derived. As Ayurveda deals with only living beings so to differentiate between non-living substances, the doctrine of three Dosha; Vata, Pitta and Kapha was evolved which is again based on the Pancha Mahabhuta theory. The living cells have three basic functions to perform; first it must have its own movement, for which it must produce its own energy and have a living structure. Of these Vata is responsible for all types of movement in the body, Pitta is responsible for digestion and metabolism wherefrom energy is produced and Kapha provides living structure for performing both of these functions. For human body, tissues are required to perform the multiple functions. So the concept of seven major tissues (Dhatu) viz. nutritive tissue (Rasa), blood tissue (Rakta), muscular tissue (Mmasa), fatty tissue (Meda), bone tissue (Asthi), bone marrow tissue (Majja) and reproductive tissue (Shukra) is available. For other functions the concept of sub-tissues (Upa-Dhatu) and metabolite waste (Mala) is present.

The detailed human anatomy beginning with embryology is well described and correlated with physiology. The process of digestion (by Jatharagni), catabolism (by Bhuta-Agni) and anabolism (by Dhatu-Agni) are detailed and also well explainable in the scientific terms. For the transportation of the nutrition to the cells and metabolite wastes from the cells, there is a detailed concept of micro and macro channels. Proper functioning of digestion and metabolism (Agni) and channels is very important for maintaining the health and its disturbance leads to the unhealthy state.

The major functional units of the living cell-Vata, Pitta and Kapha are very much affected by the environmental, diurnal variations, ingested foods, regimens, habits and macro and microorganisms (Krimi). However they fluctuate in a normal range to keep the body healthy. But excessive and prolonged adverse effects of these factors may lead to their disturbance resulting in unhealthy state. In the disease process first the accumulation of functional errors occurs, which further leads to the vitiation state. When these circulating vitiated body humors (Dosha) interact with such tissues, whose micro-channels are disturbed resulting to the production of the disease. In this way these three Dosha depending upon the site of the disturbed channels may produce

innumerable diseases, as each tissue and cell has macro or micro channels for the transportation of nutrition and evacuation of metabolite wastes.

The detailed anatomy and physiology of mind (Mana), senses (Jnanendriya) and motor organs (Karmendriya) and their relation with body are dealt with in detail. Mind controls the functions of the senses and the motor organs. Psychological processes like memory, intellect, decision, thinking, fear, anger, grief, greed, passion are described in detail and their role in production of various psychological, psychosomatic and physical diseases are described.

The Ayurvedic concept of physical and psychological constitutions and their relation with health, diseases and their prevention is unique and is being very much appreciated and practiced by the scientific world of today. Similarly the Ayurvedic principle of psychosomatic diseases is well accepted by the recent development of psychosomatic concept in modern medicine. Other unique Ayurvedic concept of affecting the mind by somatic factors and Somato-psychic diseases if explored properly may lead to develop a new approach in treating the mental diseases in modern medicine. In this way practice and propagation of Ayurveda in British in friendly atmosphere may provide many avenues for development of both the sciences. For the examination of the patient the methods of questioning (Prashna), inspection (Darshana), palpation (Sparsha), Shravana (percussion and auscultation), and smelling (Ghrana) are mentioned. On the basis of these methods the local and systemic examinations of the patient are done. The diagnosis of the disease is based on the etiology, symptoms, therapeutic tests and pathogenesis that are mentioned for each and every disease described in Ayurveda. In the diagnosis due weightage is given to the findings obtained from the examination of pulse, eyes, tongue, palpation, percussion, gait, urine and stool. In practice a physician may some times feel difficulty in arriving a proper diagnosis due to close similarity of symptoms. To deal with such situation therapeutic test are mentioned for differential diagnosis. This is a clear example that Ayurvedic diagnostic procedures are reliable and reproducible.

The treatment is mainly relied upon the reasoning of principles and action of the drugs. The first and foremost importance is given to eliciting the etiological factors as the first line of treatment in Ayurveda is to advise the patient to refrain from etiological factors. Then the complaints of the patient in the form of prodromal symptoms and symptoms are analyzed to understand the disease properly as well as to construct the pathogenesis as the disintegration of the pathology is main aim of the treatment. Based on the aetio-pathogenesis of the disease, the condition of the patient and properties of the drug the management is prescribed.

In the Ayurvedic texts the principle of treatment of each disease is given in brief at the outset. Then each measure of the management is discussed in detail and single and compound preparations in the different pharmaceutical forms like

powder, tablet, decoction, fresh juice, extracts, Spirituous form of Asava and Arishta, medicated oil, ghee etc along with Do s and Don ts (Pathya and Apathya) are prescribed, taking care of every minor fluctuations in the given situation.

Prognosis of each and every disease has been mentioned under the headings like easy to cure, difficult to cure, maintainable with drugs and incurable, which is the result of analysis of multiple factors like the constitution and strength of the patient, condition of digestion and metabolism, stage and chronicity of the disease and so on.

Classical texts and specific treatises on the drugs known as Nighantus have given description of more than 500 herbal drugs in detail in classified manner. In addition to the physical properties of each drug its pharmacological actions based on its taste, post digestion transformation, potency, specific action and other such factors are defined. Various pharmaceutical forms of the drugs are also mentioned along with their properties and therapeutic actions. The physician while prescribing the drugs takes all these properties into consideration. Accordingly such drugs are prescribed which have opposite action to the factors of etio-pathogenesis as well as symptomatology and disease as a whole. The dosages of the drugs and duration of the treatment are determined on the basis of condition of the disease and strength and response of the patient.

The treatment comprises of internal medication, external application and surgical measures. A unique concept of bio purification at the cellular level by Panchakarma is very effective method of managing the chronic, degenerative, allergic and metabolic disorders. By using the specific drugs the permeability of the capillaries of a specific part of the gastro-intestinal tract is enhanced whereby the toxins responsible in the circulation are excreted wherefrom they are thrown out of the body through the nearest routes i.e. by vomiting, purgation, enemata and nasal secretions. The oil massage of Ayurveda is well accepted all over the world.

During classical period the Ayurveda was using mainly herbal drugs with few animal products such as milk, ghee, meat and few minerals such as iron, ochre (Gairika), black bitumen (Shilajita), copper pyrite. But in medieval period many more minerals were added such as mercury, sulfur, gold, silver, tin, mica, diamond and animal products like shell of aquatic animals, pearl, etc. Some of these products are toxic if used as such, but Ayurveda has invented the methods of their purification, by converting them into ash form, so that they may be assimilated well into the body and become harmless. These products as well as many herbo-mineral compound preparations made from them are being used for centuries with out any visible side effects. However at present there are many Ayurvedic physicians who use pure herbal preparations while others are also using herbomineral preparations wherever necessary.

Ayurveda has the two distinct aims of maintenance of health and cure of diseases. Accordingly treatment (Chikitsa) is also classified as health promotive (Urjaskara Chikita) dealing with the promotion of health and Disease Curing (Rognut Chikitsa) concerned with the cure of the diseases. With these aims Ayurveda has been maintaining the following eight branches.

1. Kayachikitsa: The living body is the product of a continuous process of digestion and metabolism (Agni), the disturbance to which leads to many disorders like fever, diarrhea, skin diseases, diabetes and so on. The branch dealing with diagnosis, prevention and management of diseases is known as Kayachikitsa.

2. Shalya Tantra (Surgery): It describes surgical procedures performed with a variety of surgical instruments and includes the para-surgical measures such as application of alkali (Kshara) and cauterization (Agni).

3. Shalakya Tantra (Ophthalmology and Ear, Nose and Throat Diseases): Shalaka is a probe like instrument and the science treating the diseases through the use of Shalaka is known as Shalakya Tantra. It deals with the management of diseases situated above the clavicles such as of the throat, nose, ear, eye and head. The use of various types of operations and drugs for the management of these diseases is described in detail..

4. Kaumara-bhritya (Pediatrics): Kaumara denotes child and Bhritya indicates care, so, Kaumara Bhritya is the specialty of medical care of infants and children. This branch deals with lactation and the care, nutrition and disorders of children.

5. Bhuta- vidya (Psychiatry): Bhuta Vidya essentially deals with both major and minor psychological disorders caused by endogenous (Nija) and exogenous factors (Agantuja) manifested in various forms. The patients of these exogenous disorders behave and present in such a way, which resembles the characteristics of certain demons or gods and so they are named accordingly.

6. Agada tantra: This medical branch describes the management of disorders caused by various types of acute or chronic poisoning due to natural, synthetic, mixed poisons or poisoning caused by animal and insect bites.

7. Rasayana Tantra (Rejuvenation therapy): It deals with the prevention of aging and diseases, promotion of physical and mental health and longevity. It seeks to improve general immunity and resistance of the tissues, and strength of the body to combat disease by producing tissues of the highest quality. The role of Rasayana in prevention of recurrence of the disease is commendable. For the promotion of mental health a separate group of drugs under the heading of

Medhya Rasayana is mentioned. The memory boosting effect of these drugs have attracted the attention of Hon ble members of Parliament of India. .

8. Vajikarana (Andrology): Vajikarana deals with the promotion of sexual health and the management of seminal disorders and male sexual disorders.

## **2. Ayurvedic Education**

At present Ayurveda is essentially a part of the university academic curriculum at graduate, post graduate and Ph.D. levels. All the courses are of minimum definite regular time frame embodied with practical and clinical training and work. No correspondence course is legally permitted in Ayurveda. The standard of the teaching Institutes recognized by the respective State and Centre Universities is under full control of central statutory body-Central Council for Indian Medicine constituted by the Parliament of India The admission to all these courses is given on the merit basis or entrance tests.

Graduate Education: A student after obtaining Higher Secondary education (10+2) with Science and Biology subjects has to under go five and half years course which comprises four and half years of theory and practical training and one year for Internship prior to obtaining Bachelor of Ayurveda Medicine and surgery (BAMS) degree. The whole course is divided in three professions each comprises of one and half year. All the subjects taught are mainly based on Ayurveda but supplemented with modern knowledge wherever necessary.

First Profession: Anatomy, Physiology, Basic Principles of Ayurveda, Sanskrit and Hygiene.

Second Profession: Ayurvedic Materiamedica, Ayurvedic Minerology (Rasa Shastra), Medical jurisprudence and toxicology, Pathology and Ayurvedic Diagnosis

Third Profession: Internal Medicine (Kaya Chikitsa), Surgery (Shalya), ENT and Eye diseases, Pediatrics, Gynecology and obstetrics.

On passing of above-mentioned University examinations, the candidates are eligible for the BAMS degree after completion of one-year internship.

Postgraduate Education: The BAMS graduate are entitled for postgraduate education the aim of which is to prepare good teachers, research scholars and specialist in their respective specialization. M.D. (Ayurveda) degree is full time three year course conducted in the Institutes having full infra structures, recognized by the University and CCIM. In the following sixteen branches of Ayurveda

- Kayachikitsa (Internal Medicine)

- Panchakarma (Bio-Purification)
- Pathology and Diagnosis
- Mental Diseases and Psychiatry
- Surgery (Shalya)
- ENT and Eye Diseases (Shalakya)
- Pediatrics
- Gynecology and Obstetrics (Prasuti tantra and Stri Roga)
- Ayurvedic Materiamedica (Dravya Guna)
- Ayurvedic Mineralogy (Rasa Shastra)
- Toxicology (Agada Tantra)
- Anatomy
- Physiology
- Hygiene (Svastha Vritta)
- Basic Principles of Ayurveda
- Ayurvedic Classical Literature (Samhita)

PhD Degree: After M.D. (Ayu ) degree the scholar can take up a research topic for a period of two to five years, extendable by another two years.

### **3. Literature**

Ayurveda has a rich heritage of literature. Its classical literature comprises of Charaka Samhita- a treatise on internal medicine supported by various aspects of medicine, Sushruta Samhita-a valuable text mainly on surgery along with ear, nose, throat and eye diseases and Kashyapa Samhita a classic on pediatrics. Two treatises Ashtanga Sangraha and Hridaya are good texts for general physician covering all the aspects of Ayurveda. It is followed by an exclusive book on the diagnosis of various diseases written by Madhava and other text Chakradatta exclusively deals with the management of the different diseases. The classical literature has been enriched by various commentators by way of mentioning very contemporary views and explanations.

During medieval period literature comprises of Gada Nigraha, Sharangadhara, Rasa Ratna Samucchaya, Bhava Prakasha, Yoga Ratnakara and various Nighantus that deals with the detailed properties and therapeutic action of more than 500 plants, various minerals and animal products. From the nineteenth century itself subject wise writing of books started with the Pratyaksha Shariram (anatomy) by Gana Natha Sena and in the twentieth century when Ayurvedic education took to university; books on each and every subject were made available and many more new volumes are also being added. With the acceptance of Ayurveda internationally many books in English are also available in addition to the English translation of the Ayurvedic classics.

At present more than 5000 publications in various languages on different aspects and subjects of Ayurveda in Sanskrit, Hindi, English and regional languages are available. In addition the students, physicians, teachers and research workers of Ayurveda take the advantages of the knowledge in modern scientific and medical texts to enrich their knowledge as well as to explain their viewpoints. It is mandatory for each institution of Ayurveda to have a good library equipped with all the necessary facilities.

#### **4. Research**

Even during the British rule of India a need was felt to have research on Ayurvedic plants to prove their benefit effects on the scientific parameters. After independence Ayurvedic research institutes were established and Indian Council of Medical Research also carried out research on the indigenous plants under its Composite Drug Research scheme where Ayurvedic and Modern Doctors worked hand in hand. The encouraging result of this research scheme lead to the establishment of an independent Council for Research in Ayurveda and Siddha by the Government of India which has done commendable work in proving the efficacy of Ayurvedic drugs on scientific lines. In addition the research is also going on in the form of Postgraduate Doctoral theses as well as individual research project. On the basis of these researches many new indications of the Ayurvedic drugs have come in light and its efficacy claimed in the texts has been proved scientifically. Many Scientific Journals in Ayurveda has come up, which publish and high-light these findings.

#### **Recommendations**

On the basis of above-mentioned facts I firmly believe and further recommend that

· Ayurveda is not merely a Herbal Therapy but a complete branch of Medicine for curing the ailments of the patients and preserving and promotion of health and requires separate category in Complementary and Alternative Medicine.

- Ayurveda is a scientific Medicine as its diagnosis procedures are reliable and reproducible and the treatment is based on well-established principles and time-tested effects. Ayurvedic herbal medicines do not have any side effect and can safely be practiced to provide relief to the patients.
- The well-planned Ayurvedic education in India at graduate and postgraduate level makes an Ayurvedic physician capable of providing health care scientifically based on Ayurveda and are eligible to be registered in any country to prescribe Ayurvedic management based on reasoning.
- Ayurvedic graduates qualified from the Universities of India may therefore be allowed in UK to be registered as legally accepted Ayurvedic Medicine practitioners.