CHAPTER – 4

Status of Traditional Herbal Medicine
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STATUS OF TRADITIONAL KNOWLEDGE IN HERBAL MEDICINE

The world is endowed with natural resources. And the continued existence of humanity depends upon these available resources. From time immemorial Human communities is always generating, refining and passing on knowledge from generation to generation. Traditional knowledge has played, and is still playing, a vital role in the daily lives of the vast majority of people.

The term "traditional" used in describing this knowledge does not imply that this knowledge is old or nontechnical in nature, but "tradition based." It is "traditional" because it is created in a manner that reflects the traditions of the communities, therefore not relating to the nature of the knowledge itself, but to the way in which that knowledge is created, preserved and disseminated.¹

Traditional knowledge (TK) is used as the basis for decisions pertaining to food security, health, education, natural resources management, and other vital activities. IK is a key element of the social capital of the poor and constitutes their main asset in their efforts to gain control of their own lives. These all are not taught as a formal subject in educational institutes in India.

Medicine is the field where Indigenous Knowledge is taught as a formal subject in educational institutions. India has many Ayurveda, Unani, Siddha & Homoeopathy medical colleges and several university departments. All herbal drug based systems come under the control of Indian System of Medicine and Homoeopathy (ISM&H).

4.1 Contribution of traditional knowledge in Herbal medicine

4.2 Structure of Herbal medicine in India

THE UNANI SYSTEM OF MEDICINE

Unani system of medicine, one of the ancient medical system of the world, originated in Greece under the patronage of Buqrat Hippocrates and (460BC-377BC), a Greek physician who is also known as the father of medicine was further developed by Arabs and Persians.\(^2\) Scholars and physicians of Unani medicine From Persian and Central Asian cities fled to India when these cities were ravaged by Mongols. The scholars and physicians got state patronage and were enrolled as court physicians. They subjected Indian drugs to clinical trails and as a result added numerous native drugs to their own system, and this way enriched it. This way the medicinal system was soon spread all over the country and continued to hold unchallenged way for a long period even after the downfall of Mughal Empire.

Unani medicine was enriched with traditional knowledge in Egypt, Syria, Iraq, Persia, India, China and other middle East and Far East countries. It was also benifitted from the native medical system at the time at various parts of central Asia. That is why the system is known in different parts of world by different names such as Greco Arab Medicine, Ionian Medicine, Arab Medicine, Islamic Medicine, Traditional Medicine, Oriental Medicine, etc.\(^3\)

During the British rule The Unani medicine suffered and its development was hampered due to lack of Government support. It was mainly the Sharifi Family in Delhi, the Azizi family in Lucknow, and the Nizam of Hyderabad due to whose efforts Unani Medicine survived in the British period. The Hindustani Dawakhana and the Ayurvedic and Unani Tibbiya College in Delhi are the two living examples of the immense contribution of Hakim Ajmal Khan (1868-1927) an outstanding physician and scholar of Unani Medicine, to the development of the two Indian systems of medicine, Unani and Ayurveda.\(^4\)

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2 Hakim Mohammad Khalid Siddiqui, “Tibb-e-Unani Ek Taaruf”, Central council for Research in Unani medicine (CCRUM), New Delhi, Pg. 1-5
4 Mohammed, Shoib Akram “Rahnuma-e-Rex Matab” Rex Remedies Pvt. Ltd., Delhi, Pg. 1-2
As far as Unani medicine is concerned, today India is the world leader. The government of India is providing increasing funds and support to the indigenous medical system.

**Basic Principles**

The unani system of medicine is based on Humoral theory, namely Dam (Blood), Balgham (Phlegm), Safra (Yellow bile) and Souda (Black bile) in the body. All human being has got a different humoural constitution, which represents the healthy state of the humoural balances of the body. According to Unani System of medicine, the human body is composed of seven components. These seven components are known as AL-UMUR-AL-TABIYA. These components are responsible for the maintenance of the health of the human body.

These components are:

1. Al-Arkan or Al-Anasir (Elements)
2. Al-Mizaz (temperament)
3. Al-Akhlat (Humours)
4. Al-Aza (Organs)
5. Al-Anwah (Vital Spirit)
6. Al-Quwa (Powers)
7. Al-Afal (Functions)

**Al-Arkan (Elements):**

According to Unani system of Medicine Arkan or Anasir (Elements) are simple and undividable matter which provide the primary components for the human body and other creations. The various substances in nature depend for their existence on their imtizaj (Chemical Combination). The great unani physician and Scholar Democritus (50 A.D.) said, “All matters were made up of small and undividable units called atoma or atom”. The term atom has been derived from the unani word. It is provided that atoms are combined in different ways, the cells to form tissues, the tissues to form organs and organs to form organism. According to Unani system of medicine, it starts from very
lowest level of matter. The number and properties of Arkan have always been changing from time to time. According to great Unani Physicians, Hippocratus (460-377 B.C.), Aristo (384-322 B.C.), Galen (130-200 B.C.) and Avicenna, that there are four primary Elements. According to this concept all these four Elements contribute to the formation of things in nature. The human body is also made up of these four elements. These elements are (i) Al-nar (Fire), (ii) Al-hawa (air), (iii) Al-ma (Water), (iv) Al-Ardh (Earth).

AL-MIZAJ (Temperament)

The meaning of mizaj is intermixture. Mizaj indicates the properties of the Unsur (Element), a molecule, a cell, a tissue, an organ, and of the organism as a whole. Each and every element (atom) molecule (murakkab), khilt (Humour), cell, organ and body as a whole is furnished with a mizaj upon which their properties function and life depends. Mizaj is also defined as new form of a matter, having something different from that present in the elements or components before coming in to Imtezaj (inter mixture or chemical combination, which results from the action and reaction of the different qualities and powers present in the different element or atom (or molecules of different components), when they are combined together, and it results in new form or quality after combination of more than one elements is called Mizaj. According to Unani system of medicine Mizaj is classified in 9 types. Only one is Motadil Mizaj (Normal temperament) and other eight are Gair motadil (abnormal temperament). Mizaj Mutadil is further classified in two types (i) Mutadil Haqiqi (Real normal temperament) (ii) Mutadil Tibbi (Medically normal temperament). The gair Mutadil mizaj is classified into two groups (i) Su-al-Mizaj-Sazij (Simple abnormal temperament) (ii) Su-al-Mizaj-maddi (abnormal temperament due to change in matter).

Al-Akhlat (Humours)

Akhatat are fluid part of human body which are product after metabolism of food. Akhlat’s main function are two serve the nutrition, growth and repair produce energy and preservation of human being and his species. This humoral theory was introduced by great Unani scholar and Phisycian Hippocratus (460 B.C.). The concept of Humours is one of the basic
psychological principles in unani System of medicine. According to Unani Medicine which is based on Humoral theory, are Dam (Blood), Balgham (Phlegm), Safra (Yellow bile) and Soda (black bile) in Human body.

According to Hippocratus the term Akhlat means all the fluids of the body and it is proved by him. He said that human body is composed of three things (i) Solid part of Jamidaj, Which is known as Aza (Organ) (ii) Liquid part or sayal are known as rutubal asliya ar real fluids or Akhlats (ii) Gaseous part or hawaiyah, which is known as arwah (vital spirit). The Ratubat asliyah are of 4 types. (i) Dam, (ii)Balgham (iii) Safrah (iv) Soda. Hence the term Akhlat is applicable to all fluid of Human body. The temperament of Dam is Har and Retab (Hot and Moist), of Balgham is Barid-Ratab (Cold and Moist), of Safra is Har-Yabis (Hot and Dry) of soda is Barid-Yabis (Cold and Dry). According to Akhlat theory of Hippocrates, the cause of disease is change of quantity and quality of Akhlat or change of temperament of any Khilt. In Unani system of medicine diagnosis and temperament of any disease is based on Akhlat. Unani medicine plays a vital role when the individual experiences humoral imbalance. The correct diet and digestion can bring back the Humoral balance. Use of Unani medicine, results balance of humours by activating self preservation mechanism of the body. The Unani medicine not only normalise the exceeding imbalance but also improves the natural defence mechanism of the body.

Al-Aza (Organs)

Aza (Organs and tissue) is fourth most important component in Unani System of Medicine. According to some of Unani Physicians Aza are most important than Akhlat because Aza are composed of Akhlat. Aza has been divided into two groups (i) "Aza" basitah or Mufardah (simple organ or cell and tissue) (ii) Aza Murakkabah (compound organs).

Aza Basitah (Simple Organ) means, the smallest part of organ which exactly resembles the whole. The Unani Physicians call the tissues as Aza Basitah. Aza Basitah are bones, cartilage, ligaments, tendons, membranes, fat, muscles, nerve etc. Aza Murakkaba are composed of many Aza Basitah e.g. hand, foot, stomach, intestine, heart, liver, brain etc.
Al-Arwah (Vital Spirit)

The word Arwah is plural of Ruh, which means gas or air (Pneuma). Ruh is a gaseous substance, obtained from the inspired air, it helps in all the metabolic activities of the body, it burns the Akhlat Latifah to produce all kinds of quwah (powers) and hararat ghariziyah. It is the source of vitality for all the organ of the body. According to the unani physician, the all gaseous part of the human body are called Arwah. This include specially to gaseous in the body, (i) Ruh (Oxygen) (ii) Dukhan (Carbon dioxide). Both these serve important function in the body even dukhan, which is waste product of human body, serve some important function in the body e.g. maintenance of P.H. of blood.

Al-Quwa (Powers)

Quwa provides different functions of Human body. Each and every organ is furnished with a power, quwat (Faculty) through which specific physiological functions are performed by that particular organ. These quwa are performed by that particular organ or tissues on which the specific functions of that organ depend, such as, liver can only perform the functions of Quwat-tabiyah (Metabolism) it cannot perform of brain or the heart. Hence, every organ especially Aza Raisah (Vital, Organs)) have to perform the functions pertaining to their respective quwa.

There are Three types of quwa.

(i) Al-quwa al-tabiyah (Natural Powers)
(ii) Al-quwa al-Nafsaniyah (Psychic or mental powers)
(iii) Al-quwa al-haiwaniyah (vital Powers).

Al-Afal (Functions)

It is difficult to separate Afal and Quwa (Powers). If there is function than quwa will be there because without quwa no function will start.

Al-Afal are classified into two groups:-

(i) According to Quwa
(ii) According to the number of quwat (power) participating in a function.
Al-Afal again are classified according to quwa

(i) Afal Tabiyah (natural Functions)
(ii) Afal Nafsaniya (Mental or psychic function)
(iii) Afal hayasaniyah (vital functions)

Al-Afal also classified according to number of quwat participating in a function

(i) Afat Mufradah (Simple Function)
(ii) Afat Murakkabah (Compound Function)

ADDITIONAL FACTORS

There are some additional factors which directly or indirectly affect the health of human body. These factors are known as Asbab Sitta Zaruriya (six essential causes).

In the concept of Unani Medicine; if there are causes for disease to develop than there are causes for preservation of health also.

The six essential causes are

1. Al-Hawa Al-Muhit (Atmospheric Air)
2. Al-Makul wal-mashrub (Foods and Drinks)
3. Al-Harkat Wal-Sukun-Albadniya (Movements and responses of the body)
4. Al-Harkat Wal Sukun-Al-Nafsiyat (mental/Psycological movements and response)
5. Naum-Wal-Yaqzah (Sleep and Wakefulness)
6. Al-Istifrag wal intibas (Evacuation & Retention)

There are some non-essential factors that are not related with every human being and hence, these factors do not necessarily influence each and every human body. For example, Profession, Habits, Sex, Temperament, Social factors etc.

These non essential factors are known as Asbab Ghair Zaruriya. These factors, influence to those individuals who come to introduce with these factors. These factors are as follows:
(i) Geographical condition of the country/city (Albilad)
(ii) Residential conditions (Al-masakin)
(iii) Occupation (Pesha)
(iv) Habits (Al-Adat)
(v) Age (Al-Asan)
(vi) Sex (Al-Ajnas)
(vii) Any Other Factors (Umur-muzadaltabi).

The Ayurveda System of Medicine

Origin

Ayurveda originated in India and is one of the oldest medical systems in the world. The word Ayurveda means science of life. It is the combination of two words — Ayus (Life) & Veda (Knowledge). It is said to have been taught by the creator, Brahma, to Daksha Prajapati, who taught it in turn to the divine twins called the Ashwinikumars. Ashwinikumars were the heavenly healers who taught this science to Indra. The personages mentioned were deities of early Vedic times. When mankind started suffering from various diseases, the wise men like Bharadwaja learnt from Indra the knowledge of medicine.

References of illness, cures and other health-related issues are found in vedas, the oldest recorded compendium of wisdom on the earth (6000 B.C.). The main source of knowledge of Ayurveda today is two sets of texts each consisting of three books viz.

1. Brihattrayi i.e., the three major classics
   o Caraka Samhita (1500-1000 B.C.)
   o Susruta Samhita (1500-1000 B.C.)
   o Vagbhatta (600 A.D.)

2. Laghuttrayi i.e., the three minor classics
   o Madhava Nidana (700 A.D.)
   o Sarangdhara Samhita (1300 A.D.)

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6 Central council for research in Ayurveda http://ccras.nic.in/
Besides these classics, there are many more books, both ancient and contemporary, which carry the information on this Indian medical system.

**Basic Principles**

The objectives of Ayurveda are preservation and promotion of the health of a healthy person and restoration of health in the diseased. Good health is the fundamental pre-requisite to acquire materialistic, social and spiritual upliftment of human being.

The Universe, according to Ayurveda is composed of five basic elements — Pancha Mahabhootas viz. Earth (Prithvi), Water (Jala), Fire (Agni), Air (Vayu), and Space (Akash). As the human body is similarly constituted, there is a fundamental similarity between universe and man. A healthy balance between the microcosm (human being) and the macrocosm (universe) is the basis of health.

Ayurveda is based on the theory of three humours (Tridosha) i.e. Vata, Pitta and Kapha, seven body tissues (Saptadhatu) i.e., fluid components of the body (Rasa), Blood (Rakta), muscle tissue (Mamsa), adipose tissue (Medas), bone tissue (Asthi), bone marrow (Majja) and reproductive elements (Sukra) and three bio-wastes (Trimalas) i.e. Urine (Mootra), Faeces (Pureesha) and Sweat (Sweda). The essence of saptadhatu called Ojas is responsible for immunity and strength.

**Branches of Ayurveda**

Ayurveda is also known as Ashtanga Veda (science with eight branches) because it is classified into eight different branches. Ayurveda provides comprehensive preventive, promotive and curative aspects of health through eight major clinical specialties.

1. Kayachikitsa (Internal Medicine)
2. Bala chikitsa (Paediatrics)
3. Graha chikitsa - Bhoota Vidya (Psychiatry)
4. Urdhvanga chikitsa (Treatment of eyes, ears, nose, throat and head)
5. Shalya chikitsa (Surgery)
6. Damstra chikitsa - Agada tantra (Toxicology)
7. Jara chikitsa-Rasayana (Gerontorology)
8. Vrishya chikitsa - vajikarana (Aphrodisiacs)

These major eight specialties have been further developed later into many sub-specialties of Ayurveda.

Therapies and Regimen

In Ayurveda the process of learning, research and clinical practice are experiential and scientific. Like other systems of ancient Indian learning, Ayurveda is discovered through most recognized schools of acquiring knowledge and producing evidence (Pramanas) viz. (1) Direct perception through sense organs (Pratyaksa), (2) Inference (Anumana) (3) Verbal texts from many of the trustworthy persons, who knows truth and communicate correctly (Aptopadesha) and (4) Logical/rational interpretation (Yukti), etc.

Every individual has a peculiar body-mind constitution which is responsible for the health or disease pattern of an individual. Ayurvedic concept of examination of constitution (Prakriti pareeksha) is to know body, mind constitution while selecting diet, medicine or treatment regimen. The human mind has three components i.e. Sattva, Raja and Tama, which interact with the biological components Vata, Pitta & Kapha and decides the psychosomatic constitution of an individual (Prakriti).

The diagnosis in Ayurveda is based on a two-fold approach to diagnostics viz. (1) Examination of the patient i.e., Rogi-pareeksha; and (2) Examination of the disease i.e., Roga-pareeksha. Therefore, Rogi-pareeksha is essentially concerned with ascertaining the constitution of the individual and status of his health and vitality.

This is achieved through ten fold examination of patients (Dasavidha pareeksha) comprising of (1) Constitution (Prakriti) (2) Disease susceptibility (Vikriti), (3) Essence (Sara), (4) Compactness (Samhanana), (5)
Anthropometry (Pramana), (6) Compatibility (Satmya), (7) Mind (Sattwa), (8) Digestion capacity of food (Aharasakti), (9) Physical strength (Vyayamasakti) and (10) Age (Vaya).

The general examination is made through popular eight types of examination of patient (Ashtasthana pareeksha) comprising examination of pulse (Nadi), urine (Mootra¹), faeces (Mala), tongue (Jihva), voice (Sabda), touch (Sparsha), eye/vision (Drik) and stature (Akriti) and also considering the state of pathways of internal transport systems (Srotas) and digestive faculty (Agni).

Ayurveda conceives life as a four dimensional entity. Ayu, the living entity is the sum total of physical body, senses, the psyche and the soul. The health is defined as balance of the three doshas, the agni, seven dhatus and the three malas, as well as the sensorial, mental and emotional and spiritual well being (prasanna). Ayurveda, the Science of Life lays great emphasis on preservation and promotion of health, thereby preventing diseases.

Elaborate descriptions are available on personal hygiene, which includes diet and regimen during day (Dinacharya), during night (Ratricharya), seasonal routine (Ritucharya) and behavioural and ethical practices (Sadvritta). Observance of certain rules regarding suppressible and non-suppressible natural urges also paves the way towards positive health.

Ideal treatment according to Ayurveda is one, which cures the disease without causing adverse effect. Three classical therapeutic streams advocated by Ayurveda are (1) Therapies with inexplicable mode of action (Daivavyapasraya chikitsa), (2) Rationale treatment (Yukti vyapasraya chikitsa) and (3) Preventive and remedial measures to Psychic disorders (Satwavajaya chikitsa).

The rational Ayurveda treatment is carried out in four parts. They are (1) Dosha pacifying therapy (Samsamana), and (2) Bio-cleansing therapy (Samsodhana or Panchakarma) (3) Avoiding causative factors (Nidana Parivarjana) and (4) Dietetics (Pathya Vyavastha).
Ayurvedic treatments rely heavily on plant materials. Sometimes, botanicals are mixed with metals, minerals or other naturally occurring substances and the formulae are prepared according to specific Ayurvedic text procedures; such preparations involve several precise treatment to detoxify and potenciate the medicines.

Specific diet (Pathya) is prescribed along with the drugs and treatment. The diet regimen is as important as remedies since the former helps to restore the balance as much as the latter.

**Specialized Procedures**

Ayurveda emphasizes preventative and healing therapies along with various methods of bio-cleansing and rejuvenation. Some procedures are aimed at the management of the disease. Scientific studies have validated the efficacy and acceptability of these procedures.

**Panchakarma** - Panchakarma means the "five therapies"/five therapeutic means of eliminating toxins from the body are *Vaman* (emesis), *Virechan* (purgation), *Nasya* (nasal insufflation), *Basti* (enema) and *Raktamoskshana* (blood-letting by using leech and different instruments). This series of five therapies help remove deep-rooted stress and illness causing toxins from the body while balancing the *doshas* (energies that govern all biological functions).

**Kshara Sautra**- A procedure using medicated thread is a unique minimally invasive para-surgical measure being successfully practiced as a promising therapy for ano-rectal disorders since time immortal by Indian surgeons, widely cited in ancient medical literatures for its safety and efficacy. This technique was practiced by Sushruta (1000-600 B.C.), the famed ancient Indian surgeon. This technique was revived, developed and standardized in the early seventies by eminent scientists like Prof.P.J.Deshpande, Dr.P.S.Shankaran (Banaras Hindu University, Varanasi).

**Rasayana**- Literally, *rasayana* means the augmentation of *rasa*, the vital fluid produced by the digestion of food. It is the *rasa* flowing in the body that sustains life. *Rasayana* in ayurveda is the method of treatment through
which the rasa is maintained in the body. This is a specialized branch of clinical medicine meant for preventing the effect of ageing and to improve memory, intelligence, complexion, sensory and motor functions. Numerous rasayana medicines are reported to possess diversified actions like immuno-enhancement, free radical scavenging, adaptogenic or anti-stress and nutritive effects.

**Home Remedies**

Home remedies are medicines made at home by using natural ingredients such as spices, pulses, fruits, vegetables, seeds and commonly available herbs. This is a traditional practice and is closely linked to Ayurveda. Generally, homemade remedies are harmless and rarely cause reactions or side effects.

They work out less expensive when compared to other forms of medicines. Since ages, home made medicines have been used by our ancestors to cure common ailments like cold and cough, digestive problems etc. The link provides simple, easily preparable recipes for common ailments.

**Siddha**

The origin of Siddha System is attributed to Lord Siva himself. Lord Siva is considered as the first Siddha. He has preached to his consort Parvathi and in turn she handed down to Nandhi and he to the Siddhas. He taught Sage Agathiya and Agasthya to Pulathiyar, Bogar, Theraiyar and others of Pothigai Hills.

In Siva temples at various parts of Tamil Nadu, the Lord is named as Vaideeswaran, Marundeeswaran. The different cultural traditions in the world had profounded their medical system to cater to the needs of their society suitably like Greek, Chinese, Arabic and Indian. In India we had two distinct cultures one is vedic and the other one is tantric.

The sages of south India, who practised tantrism contributed and established a medical system to serve the humanity in general and their own

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7 Central council for research in Ayurveda http://ccras.nic.in/
society in particular. Those sages were called as Siddhars and the medical system profounded by them is called as Siddha system of medicine.

Though the creation of this system is ascribed to Lord Siva, the creator of the universe, the sage Agasthiya is considered as a father figure of this medical system. He is also considered to be the father figure to the Tamil language and culture.

Even today, Lord Siva is named as Vaitheeswaran, Maruntheeswarar. You all know that Tamil is one of the oldest languages in the world, which has got greater antiquity. It was nurtured and developed at different points of time by three Tamil academies (Tamil Sangam) of which the First Tamil Sangam dates back 3000 BC.

Fundamental Principles

1. Five elemental theory
2. Three humours
3. Seven thathus
4. Fourteen natural urges

Five elemental theories:

Siddha Vaidya physicians believed in three major life governing forces or doshas. These life-governing forces were deduced to be the extensions of the component elements that made life. These are not abstract concepts as many authors believe. These doshas—namely vatta, pitta and kapha—stand for some fundamental aspects of life: form, energy and movement.

Siddha Vaidya considers that the body is constituted mostly of the earth element and it is located in the space element. The elements of water, fire and air help it to function. These three elements that confer functions to the body are called Tri Dosham (three functional elements). In general, the health and illness of the body is evaluated as an imbalance of just these three elements of water, fire, and air.

Dosha Corresponding element

- Vatta Air
- Pitta Fire
- Kapha Water

The knowledge about the balances and imbalances of these functional elements are used in disease classification and in preventive health applications. The doshas are further classified into sub-doshas. Vatha is divided into ten, Pitha is divided into five, and Kapha is divided into five sub-doshas. When diseases are classified, the dosha that predominantly is involved may be mentioned. Therefore, a particular disorder can be a Vatha type, a Pitta type, a Kapha type, or a blend of all three.

Relative Proportion of the Five Elements:

The body is composed mostly of the earth element. The location of the body is in space. Think of your hand, the thumb standing for the earth element, the little finger standing for space, then the elements of water and fire and air, which are necessary for bodily functions, are represented by the pointer finger—Vatta (air), the middle finger—Pitta (fire) and the ring finger—Kapha (water), respectively. The basis of Siddha Vaidya understanding is body-bases and we can see this knowledge in our hands. Excess or deficiency of one or more of these elements causes diseases and disorders, since it reflects functional disabilities.

Summarizing in a chart may make the element/body/plant associates clearer, each element being stationed in a particular part of the body and corresponding to a particular part of any plant. This basic understanding in Siddha Vaidya assumes that, on an elemental level, humans and plants and animals are all the same, for each of them possess the same five elements in the same ratios.

Element Quality / In Nature In the body In plants

- Earth Form / Solid Limbs Roots
- Water (Kapha) Motion / Liquid Abdomen Stem
- Fire (Pitta) Heat / Plasma Chest Leaves
- Air (Vatta) Breath / Gas Neck Flowers
- Space Location / Head Seeds Emptiness
Therefore, Siddha Vaidya, based in the natural world, employs corresponding aspects of plants; for example, in human beings who have too much of the fire element, balance can come from eating the leaves of a specific plant. We, it is obvious; owe so much to plants (and to animals). In this way, there is no higher or lower, for all the three classes of plant, animal and human are equally important and, elementally and essentially identical.

Siddha Vaidya pre-supposes that the body is primarily structured out of the earth element. This body is located in space. Once its structure and location are established by earth and space elements, then its functions are determined by the elements of air (Vatta), fire (Pitta) and water (Kapha). It is these three functions that are susceptible to imbalance, which we experience as illness. Siddha Vaidya uses these elements or doshas in the classification of diseases and disorders.

Sapta Dathu or the Seven Tissue Types:

Siddha Vaidya recognises seven types of essential tissue in the body which support all other tissues in its life and functions. These tissue types are called the seven dathus, which are the following:

Rasa (lymph):

The importance of lymph was recognised by Siddha physicians from very early periods. Lymph is considered to be the carrier of nutrients from the digestive process, and disorders of the lymph is dealt with in a serious manner.

Kurudhi (blood):

Blood and human life are inter-woven with one another. Disorders of blood or its reduced ability to function is a prime cause of disease according to Siddha Vaidya.

Tasai (muscle):

Muscles are important to give strength to body activities. Loss of muscle strength causes immobility and imbalance in the body. Conversely, an imbalance of Vatta can cause muscle tissue to suffer from immobility imposed on it due to symptoms such as pain.
Kozhuppu (adipose tissue):

Fatty tissue plays a very important role in the human body. The human body in balance should have a certain amount of fatty tissue. Fat is part of lipoproteins and many hormones. It is the other half of proteins in the make up of the cell membrane, the most intelligent entity in the cell next to DNA.

Elumbu (bone):

Bone provides the primary physical foundation for a human being. Bone also acts as a safe area for the marrow tissue and is a depot of calcium, without which muscular activities are impossible.

Majjai (marrow):

A healthy marrow is important not only to manufacture healthy blood but also for a strong immune system, since bone marrow is the area of blood-cell formation—red, white and platelets.

Sukkilam and Artavam:

These are highly conserved tissues in the body according to ancient Siddha Vaidya teachings. Siddha Vaidya maintains that the emission of sperm should not happen more than once a day. This gives rest for the testis and adequately conserves valuable resources. Emissions more than once a day can cause many diseases and disorders generally called disorders of Madam. The same is the case of Arthavam or the menstrual fluids. A heavy menstrual flow or passing clots is considered a sign of imbalance and should be corrected without fail.

Branches of Siddha

1. Maruthuvam General medicine
2. Pillai pini Paediatrics
3. Mananalam Mental diseases
4. Thalai noi maruthuvam- Ear, Nose, throat and Head diseases
5. Aruvai maruthuvam Surgery
6. Nanju maruthuvam Toxicology
It is said in Siddha literature the diagnosis and the identification of the etiological factors are the very basic in prescribing the correct medications. The causative factors are grouped as the followings

- Vitiation of three humours
- Astral influences
- Poisonous substances
- Psychological causes
- Spiritual causes
- Hereditary

The process of the diagnosis of the diseases are based on three diagnostic parameters

- Poriyalarithal (Inspection through five sensual organs)
- Pulanalarithal (Inspection through five senses)
- Vinathal (Intoragation)

There are eight fold methodology (Envagai thervu) by which the exact diseases are diagnosed

- Naa
- Niram
- Mozhi
- Vizhi
- Mazham
- Moothiram
- Naadi
- Sparisam
Among them the oil spreading pattern on the surface of the urine along with the other parameters and pulse reading are very specific and sensitive in diagnosing the diseases. The other factors like the constitution or the somatotyping, seasonal factors, co-morbidity also play a vital role in assessing the prognosis and the treatment of the diseases.

**Treatment aspects**

Classification of disease principles (Influencing factors in treatment of individuals)

- Edaphic factors (Science of soil)
- Biotic factors (Constitutional and Somato typing)
- Seasonal factors
- Diet, Vehicle and adjuvant

Optimal results can be obtained if all these factors are taken into account in prescribing the treatments. Somatotyping or the constitution of the body, the influence of the land and the soil, the seasons, Diet based on the constitution and the diseases, the vehicle and the adjuvants are the vital factors in assessing the prognosis and the line of treatment.

**Promotive aspects**

- Kayakalpam is the procedure adopted in promotive aspects
- Kayakalpam (Gerontology) is of two types, Kalpa yogam (Yogic exercises) and Kalpa aviztham (drugs)
- Kalpa aviztham is divided into two types, Sirappu (specific) and Pothu Karpam (common)
- Kalpa yogam deals with eight yoga principles, such as Iyamam, Niyamam, Asanam, Pranayamam, Prathiyagaram, Tharanai, Thiyanam, Samathy

**Strength areas and Specialties**

Special areas in Siddha system of medicine are as follows
- Thokkanam
- Varmam
- Higher order pharmaceutical preparations such as Chunnam, Kattu, Sathu, Kazhangu and Gurukuzhigai

Thokkanam

Thokkanam is one among the treatment procedures used in Siddha system of medicine from time immemorial. Initially these procedures were used only for royal families to enhance rejuvenation and latter turned into a therapeutic application. An external remedy in siddha is classified as 32 in number. The unique remedy of its kind among all and which is subdivided into nine more procedures is thokkanam. Thokkanam as a whole focuses on treating diseases caused by aggravation of vatha the kinetic force of the body.

The humoral theory of Siddha states that vatha is the active force responsible for the physiological functioning of Neuro muscular as well as musculo skeletal systems. Thokkanam is also useful in pitta as well as kapha diseases. A simple thokkanam session wipes of sedentary feel which is a kapha aggravation.

Thokkanam is a word framed by combining two words Thokku and Anam. Thokku means skin, Anam mean support/tones/heat. Toning the skin, muscles and nerves where vatha lives. It is synonymously called as Marthanam. Marthanam is performed by mallars in older days. Mallars are masculine with calibre to perform martial arts including wrestling.

As per Siddha basic principles the meeting points of muscles, nerves, joints and skin including hair roots are places of flow of vital vatha energy. A depletion of vatha vital energy may lead to vatha. Which may result in Aggravations such as pain, altered tone, power, twitching, spasticity, rigidity, numbness and neuritis.

Varmam (Varmas or the Energy Points)

The other basic ingredient of importance in an over view of Siddha philosophy are the Varmas. Varmas are energy points in the body mainly located on the skin and adjacent tissue. Injury to these points is one of the
causes of illness in the body according to Siddha sages. Dr. Robert Becker provided the best explanation of energy points in his book, The Body Electric.

The electricity flowing through the individual Nadi is of very low voltage. Given the normal resistance of the skin, it would be impossible for the current to travel very far without the loss of signal strength. Here the Varmas come into play by acting as signal boosting stations! The functions of Varmas go much further than just step up transmitters. Varmas act as routing stations as well.

The branch of Siddha medicine practiced extensively in pockets of Tamil Nadu and Kerala and called Varma is intimately linked with the martial system of Kalari Payat, which was, and still is, taught in specialized schools called Kalari. This branch of science deals more with traumatology and accidental injuries. Meridians of energy flow exist throughout the body.

There are ten major energy trunks (Dasa nadi) and 72,000 minor energy channels (Nadi) that link every single one of the body's many trillions of cells. The energy that flows through these channels is focused in certain areas of the body. There are 108 of these Varmas where energy is focused. Disruption of energy flow in these Nadi and Varmas can lead to illness.

In order to revive the energy flow to its original state, the Siddha physician will apply massages, manipulations and stretches, in addition to external and internal herbal and herbo-mineral formulae. Varma science was instrumental in Siddha Vaidya, developing into the areas of trauma-associated blunt injuries and open injuries. Many local applications are used to address both open and blunt injuries, along with internal mediations. Fixed and removable casts were in use in Siddha Vaidya until the development of orthopedic facilities in India.

**Higher order pharmaceutical preparations**

- Chunnam - (Potent inorganic oxides)
- Kattu - (Combustible into non-combustible inorganic)
- Sathu - (Extraction of extractives of inorganic)
- Kazhangu - (Amalgamation of different inorganic)
Gurukuzhigai - (Mercury into non-combustible)

Home Remedies

The siddha system of medicine is based on the doctrine of Medicine is food and medicine is food (Marunthe unavu, Unave marunthu). To combat the common ailments they come across in their day to day life they have been using the common drugs used in their Kitchen. There numbers of recipes that can be used form the food. They are very safe and easy to prepare in common conditions like cough cold and stomach ailments.

Yoga

It is an Art and Science of living in tune with Brahmand- the Universe. Yoga has its origins in the Vedas, the oldest record of Indian culture. Swami Vivekananda defines Yoga as "It's a means of compressing one's evolution into a single life or a few months or even a few hours of one's bodily existence". By Yoga, Sri Aurobindo, meant a methodological effort towards self perfection by the development of potentialities latent in the individual. One of the classic definition of Yoga is "to be one with divine."

Yoga is a science as well as an art of healthy living. It is no way limited by race, age, sex, religion, caste, creed and any other boundaries and can be practiced by those who seek an education on better living and those who want to have a more meaningful life.

Maharishi Patanjali, rightly called as the "Father of Yoga", advocated the eight fold path of Yoga, popularly known as "Ashtanga Yoga" for all-round development of human personality. They are – Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana & Samadhi.

Streams of Yoga:

Swami Vivekananda has classified the methods of Yoga in to four streams such as Work, Worship, Philosophy and Psychic control.

Karma Yoga, the path of work, can be said as a way of enjoying work, or doing it effortlessly. The success or failure should not be allowed to cause
ripples in the mind. Bhakti Yoga, the path of worship is a systematic method of engaging the mind in the practice of divine love which softens our emotions and tranquillises our mind. Jnana Yoga, the path of philosophy, is a systematic way of tutoring the mind about the realities of life by contemplation so that this will strip off the garb of ignorance from our mind and the mind goes to its natural state of rest. Raja Yoga, the path of psychic control, is a systematic process of culturing the mind. It is based on the 8-limbed Yoga of Patanjali.

**Principles of Yoga**

According to Yoga, most of the diseases Mental, Psychosomatic and Physical originate in mind through wrong way of thinking, living and eating which is caused by attachment. So the basic approach of Yoga is to correct the life style by cultivating a rational positive and spiritual attitude towards all life situations.

Yoga in the way of treating, takes into consideration all the five Kosa’s (Sheaths) i.e. Manomaya Kosa, Annamaya Kosa, (grass Sheath) Pranamaya Kosa (Extral Body) (Psychic Body), Vijyanmaya Kosa (intellect Sheath) and Anandamaya Kosa (Bliss sheath).

Yoga takes up the cleansing of the body as the first measure to fight disease. The distinctive feature of Yoga is that it it performs the pancha karma by developing full efficiency and control of eliminative systems of the body. Yoga aims at preventing the disease and promoting health by reconditioning the psycho-physiological mechanism of the individual.

Yoga emphasises the development of brotherhood, harmony, fraternity and equality not only towards all human beings irrespective of colour, caste, nationality, age and sex but towards all living beings also. This attitude renders the thinking so positive that man is liberated from all mental malice and also all the mental, psychosomatic and physiological diseases arising thereof.

Yoga is not merely a system of treatment but has potential to develop alround health i.e. physical, social, mental and spiritual. For social health, it
prescribes the practice of Yama & Niyama and Karma Yoga. A man devoted to karma Yoga looks all the living beings as his bretherens and helps them getting rid of painful situations. This concept of "Vasudhaiv Kutmba Kama" is the basic Philosophy of Yoga.

The practice of Yama – Niyamas purifies the heart of practitioner from vices like attachment, aversion, avarice and infatuation etc. and generates higher ethical qualities like sincerity, honesty, straightforwardness, cheerfulness, courage, detachment, patience, perseverance, tranquility, self control, truth, harmony and uprightness.

Our ancient seers have very sagaciously designed the Yogic practices to invigorate the entire psychosomatic constitution of man. A set of Asanas, Mudras and Pranayamas practised with faith, perseverance and insight rejuvenates the brain, heart, lungs, liver, pancreas, kidneys, bowels, all nerves, muscles, tissues, glands of the body by ensuring oxygenated and balanced blood supply, kindless up the appetite, bestows control over seminal fluid, senses and mind and imparts increased vitality, vigour and longevity to the practitioners.

**Yoga Development and its Status**

In our country, generations of Yogis and Scholars have contemplated their life in order to realize that there is a meaning to life and some purpose beyond the human sufferings. They had come to the conclusion that there is a way to escape the tragic problems of life by diverting our mind to something more interesting and everlasting.

They use to live in forests and eat whatever is provided by the Nature in its natural form. Not only that the ever changing climate could not harm them a bit. They apply holy ash of Havana on their body to keep away the germs & bacteria. The great Yogis and Scholars gave rational interpretations of their experiences and brought these within every one’s reach by making a practically designed and scientifically prepared method of healthy living. Hence, the science of Yoga emerged to counter all these problems and human sufferings.
The greatest Physician in Greek medicine was Hippocrates, who is often called the "Father of Medicine". He studied climate, water, air, clothing, habits of eating & drinking and the effect they have in producing diseases. The Greeks believed that matter was made up of four elements - Earth, Air, Fire, Water and the same is applicable to body also. They also believed that the equilibrium among these elements maintains normal health status.

Despite spectacular bio-medical advances and massive expenditures, there is an increasing recognition of the side effects of existing health services. To provide health care, alternative ideas and methods have been considered and tried in large scale in the recent past. Contemporary medicine is no longer solely an art and science for the diagnosis and treatment of diseases. It is also the science for prevention of disease and promotion of health.

The sacred land of India, from the time immemorial contributed in its own way to the better living of mankind. Yoga & Naturopathy are the two of its kinds which can be the only answer to the rising levels of health care problems.

In recent times there is a growing awareness among the people about the efficacy and utility of Yoga and Nature Cure in keeping one fit at physical, mental, emotional, social and spiritual planes. These systems are emerging as the effective methods and means to improve the total personality and to build a healthy society. Above all, these systems are adopted as a way of life rather than a mode of treatment.

NATUROPATHY

Naturopathy

Vedas and other ancient texts explain how nature is a way of life. In ancient India these method of treatment were widely used. According to the morbid matter theory all the diseases arise due to accumulation of morbid matter in the body which can be cured if scope is given for its removal. The belief that the human body possesses inherent self constructing and self

9 http://indianmedicine.nic.in/naturopathy.asp
healing powers is one of its concepts. The distinctive quality of nature cure is that its theory and practices are based on the holistic approach. For treatment the nature cure Physician primarily stresses on correcting all the factors involved for diseases such as one's un-natural habits in living, thinking, working, sleeping, relaxation, sexual indulgence etc, and also considers the environmental factors involved which on the whole disturbs the normal functioning of the body and lead it to a morbid, weak and toxic state. The five main modalities of treatment are air, water, heat, mud and space.

The basic principles on which the naturopathy is based on are:

**Basic Principles**

1. Basic cause of a disease is accumulation of morbid matter
2. Chronic diseases are the outcome of wrong treatment and suppression of the acute diseases.
3. Nature is the greatest healer.
4. In Naturopathy patient is treated and not the disease.
5. Nature Cure treats physical, mental, social (moral) and spiritual all four aspects at the same time.
6. According to Naturopathy "Food is Medicine".
7. Doing prayer according to one's spiritual faith is an important part of treatment.

**Acupuncture**

**History of Acupuncture Worldwide**

Acupuncture is a very ancient form of healing which pre-dates recorded history. The philosophy is rooted in the Taoist tradition. Acupuncture, though originated in oriental countries in the ancient times but, its philosophical understanding is amazingly wide open to the modern medical science. Historically, records are there regarding its Indian origin. However, acupuncture practised today in Indian sub-continent mainly shows Chinese origin.¹⁰

Acupuncture is over 5,000 years old. It was not just practiced in China. The Egyptians talked about vessels that resembled the 12 meridians in 1550 B.C. in their medical treatises called the Papyrus Ebera. The South African Bantu tribesman scratched parts of their bodies to cure disease. The Arabs cauterized their ears with hot metal probes. The Eskimos used sharp stones for simple acupuncture. Brazilian cannibals shot tiny arrows with blow pipes to diseased parts of their bodies to cure disease.11

China and Taiwan today play a leading role in developing traditional Chinese medicine. In these countries there are some 232,000 traditional Chinese medical doctors and 50 institutes producing 30,000 traditional Chinese medical doctors annually. Korea has developed very effective hand acupuncture which compliments other acupuncture modalities. Russia since the end of the cold war has revealed research done behind the iron curtain that has contributed to sonic and reflexology treatments today. Japan has junior colleges of acupuncture. There are 8500 Japanese doctors in the Oriental Medical Association developing methodology in acupuncture to compliment western medicine.

In Europe oriental medical research is very active and quite advanced. Spain has an acupuncture school called Golden Clover. Germany, Austria and Italy all have very strong and active acupuncture centers. England has no organized acupuncture medical activity but there is a British Medical Acupuncture society which is quite active. France has pioneered ear acupuncture through its famous center in Lyons under the leadership of Dr. Nogier (he recently died).

In the United States more and more practitioners are now developing knowledge and new skills in acupuncture. Many are incorporating all the modalities from the various countries, using hand, ear, Chinese, Japanese and scalp acupuncture along with Russian reflexology and adapting these techniques to the modern times with use of modern technology to produce what is now called American Acupuncture. In 1996 in America, needles were removed from the "investigative" category to "accepted medical instruments".  

11 http://www.americanacupuncture.com/history.htm
Being investigative, allowed insurance companies to deny payment for medical acupuncture treatment. There is a bill before congress with 12 sponsors to allow Medicare to pay for acupuncture treatments. An organization the American Academy Of Medical Acupuncture (AAMA) based in California, has a membership of nearly 1000 physician members from the entire country. All physicians who are members must have been previously accredited by formal training and certification. About 25% of these physicians work in pain centers around America. The National Institute of Health for the first time has formed a department of Alternative Health care to provide needed research funding in alternative avenues of medical care. In America there are about 8000 acupuncturists. 16 acupuncture schools, and 2 medical schools teaching acupuncture. UCLA medical school has been teaching acupuncture to physicians under the leadership of Dr. Joseph Helms. In 18 states, only doctors can perform acupuncture. Border states like Florida, California, and New York allow non physicians to perform acupuncture. All require licensing. Times are changing and American Acupuncture is alive and well!12

Acupuncture's main use is intreating chronic and painful conditions such as arthritis, headaches and migraines. After dental caries (tooth decay) and the common cold, these are the most common afflictions of the human race. Its effectiveness has enabled acupuncture to survive against, at times, enormous odds. It was banned by law in China at the beginning of this century but continued to be practiced as folk medicine. Interest by Western doctors in acupuncture was stimulated by President Nixon's visit to China in 1972. Since that time medical interest in the subject has grown apace, underpinned by a number of important discoveries pointing to the effectiveness of Acupuncture.13

Basic Principles of Accupuncture

Approximately 8000 yrs ago, Fu His, a Chinese, by observing the nature, formulated two symbols, a broken line and an unbroken line, representing the two major forces in the universe- creation and reception. This

12 http://www.americanacupuncture.com/history.htm
duality was named as Yin-Yang and its fuse leads to a creative action giving birth to a third aspect. After a lot of ponder on this triplicity Fu His wrote a book called I-Ching means book of change which later on became the fundamental philosophy for all other writers.  

The ancient Chinese hypothesised that energy circulated in the body via specific channels, which they called meridians. The Chinese believed that in addition to being in balance, the energy or life force (which the Chinese called chi) had to be able to circulate freely around the meridians. If a break occurred anywhere in this circulation, illness would result. An example is backache, which is viewed by the Chinese as a blockage in the "chi" circulating in the bladder meridian. The remedy was, put in the simplest terms, to insert a needle at the point of discomfort, thus encouraging flow to re-establish itself. Each meridian refers to a particular organ, and the energy flowing through that meridian can be taken as indicating the functional state of that organ. Inserting a needle into a point on the liver meridian for instance could be expected to affect the function of the liver, the effect would depend on the actual point used and the state of the patient at the time of treatment.

HOMOEOPATHY

This traditional medicine system has been originated in Germany. Dr. Christian Friedrich Samuel Heinemann (1755-1843) is the father of Homoeopathy who discovered the fundamental principles of Homoeopathy. It came to India in around 1810 A.D, with a German physician and geologist and got official patronage in 1839 when Dr. John Marlin Honigberger, a disciple of Heinemann revisited India and successfully treated Maharaja Ranjit Singh of Punjab.

Basic Principles of Homoeopathy

The first principle – According to Simila simlibus curentur, a medicine which can induce a set of symptoms in healthy human beings, would be

14 (http://www.acupuncturecare.com/acupunct.htm)
capable of curing the similar set of symptoms in disease state.\textsuperscript{17} The second principle – Single medicine states that one medicine at a time for a particular patient during the treatment. The third principle – Minimum dose advocates least potent dose of the drug, which would provide full and complete cure without any side effects. Here treatment is patient specific in other words an individual patient is treated not the disease.

**PREPARATION of Homoeopathic Medicine**

Medicines are prepared from natural sources viz. Vegetable, mineral, animal, insects etc. There is no toxic effect of these medicines since it is not the chemical or physical properties that are acting on the human system.\textsuperscript{18}

**Strength of the system**

Homoeopathic has its own area of strength. It cures allergic manifestations, autoimmune disorders and viral infections. Many surgical gynaecological and obstetrical conditions, ailment affecting eyes, nose, ear, teeth, skin, sexual organs etc. are amenable to the homoeopathic treatment. Behavioral disorder, neurological problems, metabolic diseases etc are also handled. Homoeopathy has effective answer to addiction to drugs, tobacco and alcohol and highly efficacious in elimination of addicts and their craving for these harmful substances.

These all are institutionalised form of traditional medicine. But their rest a large part of non-institutionalised, non-coded traditional medicinal knowledge which is a potential area for the indigenous traditional people.

\textsuperscript{17} www.Altmed India.com, op. cit. 
\textsuperscript{18} Annual Report (2002-2003), op. Cit., Pg. 29-30