CHAPTER-2

Review of Literature
Ever since its appearance on the face of the earth, mankind has been plagued by death and diseases. It has tried many indigenous methods, using almost every source of animate and inanimate matter surrounding it, for the cure of its ailments. Plant material being readily and abundantly available has been extensively used in the indigenous methods of treatment. It appears that the selection of plants did not have any rational basis, except the observations and experiences of priests and tribal chiefs, who also often worked as physicians. In the absence of anatomical or physiological data, the medicine men of the time perhaps thought that plant material possessed some action on that organ which it resembled in shape, size and colour.

Although all plants have medicinal value but only those plants whose medicinal value have actually been established or used in any system of medicine, are termed as Medicinal plants. A complete understanding of medicinal plants involves a number of disciplines including commerce, botany, horticulture, chemistry, enzymology, genetics, quality control and pharmacology. The World Health Organization (WHO) estimates that, up to 80% of the world populations rely on plants for their primary health care. Western pharmaceuticals are often expensive, inaccessible or not suitable. Global interest in medicinal plants, especially in the western countries has increased recently. The international medicinal plants market is worth US$ 60 billion per year, and growing at the rate of 7.0 per cent per annum (Bhojwaid, 2003). In the United States from 1959 to 1980 it has been observed that about 25 per cent medicines contain plant extracts or active chemicals derived from higher plants, and at least 119 chemical substances were derived from 90 plant species, which can be considered as important drugs currently in use. In one or more countries, out of these 119 drugs, 74 were discovered as a result of chemical studies directed at the isolation of the active substances, from plants used in traditional medicines.
It appears that the people of India were acquainted with a far greater number of medicinal plants than the people of any other country. The vegetable Materia medica of the Greeks, Romans, Egyptians, Jews, Babylonians, Persians, Chinese, and Arabs do not display such an extensive knowledge of medicinal plants and drugs as does any of the authoritative medical works of the Indians. India’s vast territory, varied climatic conditions, physical features and the fertility of the soil have made it a rich nursery of medicinal herbs. Out of 15,000 species of plants, belonging to about 340 families nearly 2,500 plants have provided the basis for Indian system of medicine (Kirtikar and Basu, 1975 and Sharma, 1980).

From literature it is found that the medicinal value and industrial stimulus has been provided by natural active constituents isolated from the plant material and are used in oriental folk medicine. It is likely that, still other substances with more significant and valuable pharmacological properties, could be isolated from plants and that, incidentally clues to some of these, may be found in the folk medicine of primitive man. There are ample proof for the application of crude plant extracts and decoctions in therapy world over, as well as in India. But the rationalization of the science of therapeutics as we know is comparatively of recent origin.

If we trace the history of medicine, we find that ‘Rigveda’ is the oldest repository in which, we have some record of medicines used by the earliest civilized man. Besides other materials used as medicines, it also mentions ‘Soma’ a medicinal plant and glorified it as the divine drug of Gods, who used its juice for the miraculous qualities of giving health, preventing old age and death and bestowing even mortality. The proper identification of this miraculous plant is doubtful (Udupa et al., 1970; Singh et al., 1972 and Wasson, 1971).

Most of the medicinally active substances, identified in the nineteenth and twentieth centuries were used in the form of crude
extracts. In China many medicinal plants had been used since 5000 B.C. The oldest known herbal is Pen-t's-sao written by Emperor "Shen Nung" around 3000 B.C., it contains 365 drugs, one for each day of the year. Indians also, worked meticulously to examine and classify the herbs they came across, into groups called Gunas. "Charaka" made fifty groups of ten herbs each of which according to him, would suffice an ordinary physicians need. Similarly "Sushruta" arranged 760 herbs in 7 distinct sets, based on some of their common properties. A large portion of the Indian population even today depends on the Indian system of medicine – Ayurveda 'an ancient science of life'. It gives a complete list of medicinally important plants and other sources of medicines, useful for the cure of various diseases. Other books on the subject like 'Charaka samhita' and 'Sushruta samhita' written during the same period lay down the principles necessary for living a healthy life and treatment for all known human diseases. Theophrastus of Erasus, also well documented the plant kingdom during 372-286 B.C., in his publications “Historica planatarum”, “De Causis planatarum”; he is considered as the 'Father of modern botany'. Important contribution to medicine has been done by Hippocrates, also known as 'Father of medicine' (460-360B.C.) and Aristotle (384-322B.C) too gave his contributions to the medicine world.

Compilation on Indian medicinal plants started in the early 19th century. The earliest contributions are by Sir William Johnes 'Botanical observations on selected plants' (1799) followed by Johan Fleming's catalogue of medicinal plants (1810), Ainslies Materia Medica of Hindoostan (1813, 1826), Roxburgh's 'Flora indica' (1820-1832) and Royle's An Essay on antiquity of Hindu medicine (1837). O'Shaughnessy's The Bengal Dispensatory (1841) is the first book dealing exclusively with the properties and uses of medicinal plants; the important document on, Indian Medicinal Plants is given by Kirtikar and Basu (1918).
The very important contributions on Indian medicinal plants include: Indian Materia medica (Nadkarni, 1926), Indigenous drugs of India (Chopra, 1933), Bharatiya banaushadhi (Biswas and Ghosh, 1950-1952), Monographs on pharmacognosy of root and rhizome drugs and Pharma of leaf drugs by Dutta and Mukherji (1950-52). A review of Indian medicinal plants by Chopra et al., (1955), Glossary of Indian medicinal plants by Chopra et al., (1956), Indigenous drugs of India by Chopra et al., (1958), are considered important in the field of medicine.

The important plant extracts for treating various illness, is well documented during the course of our cultural advancement through centuries. One of the oldest herbal as a medical text was attributed to the Chinese emperor Shen Nung as far back as 2700 B.C. (Castiglioni, 1958). Egyptian inscriptions on the pith of papyrus (Cyperus papyrus) depicting the herbal extracts in medicinal use goes back to over 2000 B.C. (Dowson, 1953; Castiglioni, 1958 and Forbes, 1964). A large number of research papers are added to the wealth of Literature on Indian Medicinal plants, the study included ancient and recent literature on medicinal plants. Sharma (1968-69) has enlisted 248 botanical drugs, which are mentioned mainly in Atharvaveda and Rigveda. Singh and Chunekar (1972) published a glossary of medicinal plants. The systematic study of Indian medicinal plants, were started in the beginning by Chakravarty (1975).

Dioscorides the famous Greek physician in his herbal "Materia medica" (100AD) included over 500 medicinal plants for various medicinal purposes and their herbal preparations were used for over 1500 years in Europe (Morton 1981). The Chinese herbal 'TZU-I-Pen Tshao ching' dates back to 500BC, the philosopher/physician wrote many books and treatise on Greco-Arab medicines, during 980-1037AD of which "The canon of medicines" written in Arabic in five volumes, was taught in many western universities of medicine and had an impact on European medicinal practice for over 500 years (Ahamed and
Farooqi, 1989). More recently the book called HERBALs became popular in the western world especially in Europe with the invention of printing in the 14th century. "Phytognomonica" the famous herbal of Porta, depicting the importance of various plants for medicinal purposes, time of their flowering, parts used in medicines and where to find these plants growing in nature was used for centuries in Europe (Nair, 1989).

India with its varied climate, soils and agro-ecology possess immense plant diversity, with over 15,000 species of higher plants. Both our Indian civilization as well as our diverse tribal heritage has gone a long way in conserving the wild weedy species, native land races and primitive cultivars. The Indian gene centre is endowed with rich flora, especially with regard to several less known yet economically important plants, ca.160 cultivar species of economic plants, plus 56 species of lesser known cultivated food plants. Further there are ca.320 species of wild and weedy economic types, (Paroda, 1979; Arora and Nayar, 1984; Kumar, 1998).

Borthakur (1993) has reported thirteen native plant remedies for child diseases, and 21 for women diseases present among the different groups of Assam. The virgin field of psychoactive plant research by Oommachan and Masih (1987-1991), Brahman and Saxena (1990), Schultes (1993), Park (1993) and a large number of research papers has added to the wealth of Literature on Indian medicinal plants.

The Indian Himalayan Region (IHR) is known for its unique, natural, representative biodiversity (Samant et al., 1998a). This biodiversity is being utilized by the inhabitants of the IHR in various forms, i.e., medicine, food (wild edibles), fuel, fodder, timber, making agricultural tools, fibers, religious and various other purposes (Samant and Dhar, 1997, Samant et al., 1998b). In the remote areas of IHR where primary health centers are located far from the villages, the inhabitants mostly depend on plants for the treatments of various ailments, i.e., liver
complaints, bronchitis, cancer, piles, blood purification, cold, cough, asthma, skin diseases, toothache and throat disorder. Among the various diseases/ailments, liver diseases/ailments are the most common and detrimental problem among the inhabitants of the IHR. The various parts such as roots, rhizome, tubers, bulbs, leaves, seeds, flowers, fruits and barks of the plants are used for treating liver diseases/other ailments. The use of various plants for liver diseases/other ailments with active ingredients have been mentioned in the ethnobotanical studies by various workers (Shah and Joshi, 1971; Anonymous, 1997; Hajra and Baishya, 1980; Dam and Hajra, 1980; Kak, 1983; Chopra et al., 1986a and 1986b; Rawat and Pangtey, 1987; Pangtey et al., 1989; Jain, 1991; Jain and Saklani 1991; Chatterjee and Pakrashi, 1992; Asolkar et al., 1992; Dhar and Siddique, 1993; Samant et al., 1996; Samant et al., 1998 and 2001; Pande et al., 2000; Joshi et al., 2001; Samant and Palni, 2001; Uniyal et al., 2002; Samant and Sreekar, 2006). A traditional use of medicinal plants among the tribal community of Chota Bhangal, Western Himalaya has also been studied by Uniyal et al., (2006).

Around 40 million people are affected due to the Human Immuno-deficiency virus globally. During the past decades, a large number of anti-viral screening experiments on medicinal plant extracts have been reported and have led to the selection of several extracts, which are also active towards herpes viruses. The findings show that natural products are still potential sources in search for new anti-therapeutic agents (Hattori et al., 1995). Various plant extracts used in Ayurvedic medicine for inhibitory effects on HIV viruses have been studied (Hattori et al., 1993; Kusumoto et al., 1995). A large number of such plants occur in semi-arid and arid climate of Rajasthan (Roy and Kumar, 1995). In search of anti-HIV active agents from natural products, many attempts at screening traditional medicines have been made (Chang and Young, 1989; Okate et al., 1995; Wan et al., 1996). However Indian and other tropical region plants with their vast
diversity have not been investigated for their antiviral activity. Hussein et al., (1999) investigated forty eight methanol extracts from Sudanese plants which were screened for their inhibitory activity on viral replication. The methanol extracts of the desert plants *Acacia nilotica* (bark and pods), *Euphorbia granulata* (leaves), *Maytenus senegalensis* (stem-bark) showed, and considerable inhibitory effects against HIV-1PR (Hussein et al., 1999). Some of the plants are common within the Indian desert region of Rajasthan and generally they grow on wastelands. They have potential use as bio-energy plantations (Kumar et al., 1995; Kumar, 1998). However a large number of them are used in the medicines of Ayurveda. They were also found effective against HIV-1 (Hussein et al., 1999). Some of the active principles against anti-HIV are triterpenoids, which are abundant in laticiferous plants of Rajasthan. Besides this, several other plants like *Abrus precatorius* L., Leguminosae (Chao-mei et al., 1998), *Datura stramonium* L., *Belanites aegyptiaca* L., etc. commonly found in Rajasthan show anti-HIV activity (Kawahata et al., 1996). In China, its seeds have been used as an insecticide and for skin diseases since ancient times.

According to the current literature many eminent scientists have worked on the different properties of medicinal plants, Farombi et al., (2000), Farombi (2000); Farombi et al., (2002) studied the properties of medicinal plant *Garcinia cola*. Khan and Shukla (2000) have described some ethnomedicinal plant species belonging to 49 genera and 34 families of angiosperms. Brahman (2000) discussed some of the important drugs developed recently by taking leads from tribal uses of plants. Studies of some medicinal plants of Darjeeling hills and their silvicultural practices were done by Saini (2000).

Now a days surgical procedures are the most widely used methods of interrupting early pregnancy (Ververst and Harpels, 1985), but the habitual abortions cause many side effects (Unader et al., 1985). Attempts to develop anti-fertility drugs from plants have also
been made. The problem underlying the research for natural antifertility drugs basically concern deciding which of the approximately 750,000 species of higher plants should be examined for their potential antifertility and abortifacient activity. Large number of plants has been tested for their antifertility activity in laboratory animals (Dhar et al., 1968; Bhakuni et al., 1969; Garg et al., 1978; Dhavan et al., 1980). Ayurvedic physicians use Rivea hypocrateriformis (convolvulaceae) to prevent fertility in women, (Shivalingappa et al., 2001). Many anti progestins are currently being used in clinical trails (Bygdemna et al., 1997) but there are no marked side effects (Vverest and Haspels, 1985; Sanchez et al., 1997). Leaf extracts of Phyllanthus urinaria Linn, in water is taken to regularize menstruation and it contains inulin, fat, oil, saponin, starch and tannin (Karatella et al., 1991). Plumbago indica Linn, commonly known as sitaparu among the Jani tribes of Orissa is known for its abortifacient properties (Dhal et al., 2000). Feeding 50% ethanolic root extract of Achyranthes aspera Linn, resulted in reduced sperm counts, weight of epididymis, serum level of testosteron and testicular activity in rats (Sandya Kumary et al., 2002). The effect of ethanol and distilled water extracts of Carica papaya Linn, seed powder were tested for anti-implantation and abortifacient activity in female Albino rats, (Trivedi, 2005).

Currently Acharya, Deepak (2004) studied the medicinal plants for curing common ailments in India. Studies on medicinal plants were also done by (Cal, 2004), Dwivedi, (2004), studied Unnurtured and untapped super sweet nonsacchariferous plant species in India, which also included the studies on Abrus precatorius. Important studies on medicinal plants by (Rain-tree, 2004), studied the seeds of Abrus precatorius and assumed it to treat diabetes and chronic nephritis. Dhushara (2004) studied the properties of medicinal plants and emphasized on the medicinal importance of Gloriosa superba. Donnel et al., (2006) studied the phytochemistry and antimicrobial activity of

The essential oil extracted from clove (Syzygium aromaticum) is used as a topical application to relieve pain and promote healing in herbal medicine and also finds use in the fragrance and flavoring industries. Clove oil has two major components, engenol and Beta caryophyllene, which constitute 78% and 13% of the oil respectively (Prashar et al., 2006). Exploring Indian Medicinal plants such as Ocimum sanctum, Allophylus serrates, Desmodium gagenticum, Azadirachta indica, hemidesmus racemosus, Asparagus racemosus and Musa sapientum etc. for curing peptic ulcer disease which is a serious gastrointestinal disorder that requires a well targeted therapeutic strategy was studied by Dharmani and Gautam (2006).

Sagar region of Madhya Pradesh is rich in its floristic diversity including that of medicinal plants and is inhabited by various tribes and other people secluded from urbanization and from the impact of modern technological developments, provide good scope for herbal medicinal and ethnomedicinal studies. Only a few preliminary reports

It is well known that traditional herbal medicines existed before the application of the modern scientific methods to health care; and even today majority of the world population depends on herbal health care practices. Exploring traditional herbal medicines in the context of modern science is the need for optimum and proper utilization of traditional plant drugs. About the progress of medicinal plants it can be said that there is no end of medicines, and, natural medicine is obtained from the medicinal plants, which are further called as Herbal products (creams, waxes, tablets etc.) Therefore we can say that there is no end or saturation of the medicinal plants.

Indian medicine has a long history. Its earliest concepts are set out in the sacred writings called the Vedas, especially in the metrical passages of the Atharvaveda, which may possibly date as far back as the 2nd millennium B.C. According to a later writer, the system of medicine called Ayurveda was received by Dhanvantari from Brahma, and Dhanvantari was defined as the God of medicine. The period of Vedic medicine lasted until about 800B.C. The Vedas are rich in magical practices for the treatment of diseases and in charms for the explosion of the demons traditionally supposed to cause diseases. The chief conditions mentioned are fever, cough, diarrhoea, dropsy, abscesses, seizures, tumors, and skin diseases. The herbs recommended for treatment are numerous.

The Golden age of Indian medicine, from 800B.C. until about 1000A.D. was marked especially by the production of the medicinal treatises known as the Charaka-Samhita and Sushruta-Samhita, attributed respectively to Charaka, a physician and Sushruta, a Surgeon.
THE HERBAL SYSTEM OF MEDICINE – AN INTRODUCTION

1. Ayurveda:

The most wonderful thing nature has gifted to the mankind, is the greenery for the eyes, that is the plants with colorful flowers and fruits, which provides health and happiness to the human world. One of the most important features of the plant is their medicinal property, it has tried to cure human illness and further provided with good results and remarks.

In Indian system of traditional medicine, it is presumed that Gods of different world document the knowledge of Ayurveda, which came into existence in about 900BC. It is accepted as the oldest written medical system that is also supposed to be more effective in certain cases than modern therapies. We need not to go in any controversy regarding its origin, as Ayurveda is an independent and self sufficient medical system, which has stood the test of time. The origin of Ayurveda has been lost in pre historic antiquity, but their characteristic concepts appear to have been nurtured between 2500 and 500BC in India (Mukherjee, 2001).

The word Ayurveda derived from ‘Ayur’ meaning life and ‘veda’ meaning science. Thus, Ayurveda literally means science of life. According to Indian Hindu Mythology there are four veda written by the Aryans- Rigveda, Sham veda, Yajur veda and Atharva veda. Amongst these the Rigveda, the oldest one was written around 1500BC. The Ayurveda is said to be an Upaveda (part) of Atharva veda, whereas the Charaka Samhita (1900BC) is the first recorded treatise fully developed to the concept of practice of Ayurveda. This describes 341 plants and plant products for use in medicine. The next landmark of the ayurvedic literature was the Sushruta Samhita (600BC), which has special emphasis on surgery. It describes 395 medicinal plants, 57 drugs of animal origin, 64 minerals and metals and therapeutic agents. Sushruta, the father of surgery as claimed by Indian traditional
medicine lived and practiced surgery at Varanasi, India approximately 2500 years ago. Another important authority of Ayurveda was Bagbahtta of Sind, the present day Pakistan, who practiced Ayurveda in around 17th century AD and his work Astanga Hridaya is considered unrivaled for the principles and practice of medicine. The Mabhab Nidana (800-900AD) was the next important milestone and is the most famous work on diagnosis of diseases as per Ayurvedic concept. Bhava Mishra of Magadha is the last writer on Hindu medicine whose treatise Bhava Prakash, written around 1550 is held in high esteem by modern Ayurvedic practitioners for its description of approximately 470 medicinal plants.

Almost all the ancient texts in Ayurveda divide the medical knowledge into eight sections (Astanga) as described later. Plant derived drugs were classified for the treatment and evolution based on their therapeutic action from the ancient time itself. Thus, Ayurveda from its prime itself is scientifically organized discipline. Ayurvedic text are much respected in neighboring countries and has been translated into Greek (300BC), Tibetan and Chinese (300AD), Persian and Arabic (700AD) and several languages of other Asian people. Charaka Samhita classified plant drugs into 50 groups based on its Sanskrit name.

Ayurveda is based on experiences which are experimented. After full development of Ayurveda, it has branched into eight wings, which are called Astanga Ayurveda:

- Kaya chikitsa (Medicine)
- Salya chikitsa (Surgery)
- Salakya chikitsa (ENT treatment)
- Bala chikitsa (Pediatric treatment)
- Jara chikitsa (Treatment related to genetics)
- Rsasyna chikitsa (Treatment with chemicals)
Vajikarana chikitsa (Treatment with rejuvenation and aphrodisiacs)

Graham chikitsa (Planetary effects)

Visha chikitsa (Toxicology)

Out of all these, Kayachikitsa, comprised of 70% Ayurveda, remaining all the branches of the system are also actually rooted from Kayachikitsa. Kayachikitsa can be said as internal medicine or general medicine, which comprises of treatment of sareera agni i.e., digestion and metabolism. Ayurvedic science deals with its pre-blem of swasthasya Rakshanam, Aturasya Roganuth. Regarding Swasthy Rakshanam (maintenance of health and prevention of disease), Ayurvedic science dealt with more elaborately. It was advocated from Bramha Muhurte Uthisata to retiring on bed, as Dinacharya, Ritucharya is to maintain health according to seasonl climatic variations, apart from this, Swasthasyorjaskarm dealt with Rasayana vajikrana. This concept of Dincharya, Ritucharya, Rsayana, Vajikrana are sole contribution of Ayurveda to medical science.

The second aspect of Ayurveda is Aturasya Roganuth that deals with the cure of disease (Medical); before discussing the medical superiority of Ayurvedic science, let us discuss briefly regarding philosophy of Ayurveda, which deals about Tridosha (vata, pitta, kapha); sapta dhosas (Rasa, Rakta, Mansa, Medo, Asthi, Majja, Sukra); Trimalas (Purusha, Mootra, Sweda). The imbalance of these three is aprasanna atmendriyamanas and results in disease. Similarly, functional aspect of life is agni, which is the factor for all these actions into balance is called Aturasyaroganuth and maintenance of the balance is called Swasthaya rakshana. The diagnostic methods of Ayurveda are far better. Ours is based on trividha Pariksha which is purely linked with intellectuality of the physician, it completely depends on the Manah, Budhi Indriyas of a physician, not necessarily depend on other like laboratory and other investigations.
For formulations and assessment of action of the drugs, the theory of rasa- guna- veerya- vipaka was established, with which it is more convenient for a physician to formulate the medicine according to need and not necessarily depend on pharmaceutical preparations. The formulations are made in the form of panchavidha kashaya kalpana to suit the palatability of the patient and to elicit the required potency of the drug; and the system is also advocated in administration of drugs, to have synergetic action and to act as vehicle for the drug to reach the target organ. The theory of Raktadusti in causing many skin disorders is most convincing and by correction of this dusti, we are able to control many uncontrollable and chronic skin disorders. There are innumerable theories and principles of Ayurveda regarding samprapti (pathology), chikitsa (treatment) including formulations to get relief from many chronic and incurable disorders, which are far excellent.

Diseases according to Ayurveda can rise from the body and/or the mind because of internal factors or intrinsic causes. Ayurvedic treatment is aimed at the patient as an organic entity and treatment consists of salubrious use of drugs, diets and practices. Ayurvedic medicinal preparations are complex mixtures including plant and animal derived products, minerals and metals. The concept of Dasha dhatu mala theory is the basic philosophy of Ayurveda, which deals about 'Tridoshas'. The basic concept of diagnosis and drug development in Ayurveda is based on Tridosha theory which includes vayu, pitta and kapha (Sastri, 1996).

The primary position relegated to the equilibrated state of doshas as far as healthy living is concerned, indicates their importance in the maintenance of the health and well being of the human body. It is also understood that the disturbance in equilibrium of the doshas should be considered as leading to the development of the disease. The health according to Ayurveda can be visualized, as the physiological maintenance...
of all the functions of the living being and the disease is the disturbance in the physiology.

2. Unani Medicine:

Unani system of medicine owes its origin to Greece. It was the Greek philosopher-physician Hippocrates (460-377B.C.) who freed Medicine from the realm of superstition and magic, and gave it the status of science. The theoretical framework of Unani medicine is based on the teaching of Hipocrates. After a number of other Greek Scholars had enriched the system considerably, Galen (131-210 A.D.) stands out as one who stabilized its foundation. On these foundations Islamic physicians such as Al-Razi (Rhazes) (850-925A.D.) and Ibn Sina (Avicenna) (980-1037A.D.) Al Zahravi (Albucasis) the surgeon and Ibn-Nafis (to name only a few) constructed an imposing edifice. Unani medicine got enriched by imbibing what was best in the contemporary system of traditional medicine in Egypt, Syria, Iraq, Persia, India, China and other Middle East and Far East countries. The Unani system received great impetus during the reign of the Abbasids and became a respectable and 'rational' science.

In India Unani system of medicine was introduced by Arabs, and soon it took firm roots in the soil. When Mangols ravaged Persian and central Asian cities like Shiraz, Tabrez and Geelan, Scholars and physicians of Unani medicine fled to India. The Delhi sultan, the Khiljis, the Tughlaqs and the Mughal Emperors provided state patronage to the scholars and even enrolled some as state employees and court physicians. During the 13th and 17th century Unani medicine had its hey-day in India. Among those who made valuable contributions to this system in that period was Abu Bakr Bin Ali Uman Ksahani, Sadruddin Damashqui, Bahwa bin khwas Khan, Ali Geelan, Akbal Arzani and Mohammad Hashim Alvi khan. The scholars and physicians of unani medicine who settled in India were not content with the known drugs. They subjected Indian drugs to clinical trials. As
a result of their experimentation they added numerous native drugs to their own system further enriching its treasures.

During the British rule, unani medicine suffered a setback and its development was hampered due to withdrawal of Governmental patronage. Since the system enjoyed faith among the masses it continued to be practiced. It was mainly the Sharifi family in Delhi, the Azizi family in Lucknow and the Nizam of Hyderbad due to whose efforts unani medicine survived during the British period. An outstanding physician and scholar of unani Medicine, Hakim Ajmal Khan (1868-1927) championed the cause of the system in India.

The development of unani medicine as well as other Indian systems of medicine gained considerable momentum after independence. Even prior to independence, several committees were appointed which underscored the future role to be played by the indigenous system of medicine.

The Government established in 1969 a central council for research in Indian medicine and Homoeopathy (CCRIMAH) to develop scientific research in different branches of Indian system of medicine viz., Unani medicine, Ayurveda, Siddha, Yoga, Naturopathy and Homeopathy. The research activities in these systems continued under the aegis of the CCRIMH till 1978 when it was split up into four separate research councils, one each for Unani medicine, Ayurveda and Siddha, Yoga and Naturopathy and Homeopathy. This was done to further develop these systems in consonance with the basic philosophies of the respective systems. Ever since the establishment of the Central Council for Research in Unani Medicine (CCRUM), it has been making concerted efforts, to provide scientific basis to this age-old system and to come up with viable solutions to health problems of the people.

At present the Unani system of medicine, with its own recognized practitioners, hospitals and educational and research institutions, forms an integral part of the national health care system. Today, India
is considered a world leader in Unani medicine. The government is providing increasing support and funds for the multipronged development of Unani medicine to draw the fullest advantage of this system in providing health care to the masses.

3. Siddha medicine:

Siddha is one of the ancient medical systems of the world. Its foundation was laid by the Siddhars (Saints) who were highly talented Scientists and who perfectly understood the human mind and body during health and illness from embryonic life to death. The founders, who were known as siddhars, lived in various parts of India, in general and southern India in particular, especially around Tamil Nadu. This system of medicine developed within the Dravidian culture, which is one of the pre-vedic periods. The siddha system is largely therapeutic in nature.

The medical literature of Siddha which are mostly in the form of Cudjan leaves in Tamil language are scientifically and systematically codified into various subjects starting from embryology, pediatrics to geriatrics including the intermediary subjects like ophthalmology, gynecology etc. This is the only system, which deals leprosy under separate topics. This system also deals with the concept of salvation of life. The exponents of this system consider achievement of this state is possible by medicine and meditation.

Government of India has set up pharmacopoeia committee for Siddha system of medicine for preparing official formularies/pharmacopoeias with a view to prescribe working standard for preparation of drugs and to prescribe working standard for compound formulations including test for identifying purity and quality of the drugs. Central council of Indian medicine, constituted under IMCC act, 1970, regulates the education of Siddha system and central council for research in Ayurveda and Siddha was established in 1978 with a view to initiate, undertake and regulate the research work in Siddha system of medicine also.