

CHAPTER V

CONCLUDING OBSERVATIONS

The forgoing accounts make it amply clear that ancient Indians had made substantial strides in medical science. India is very much rich for diversity of medicinal knowledge. Among them *Āyurveda* is the most ancient and authentic system of Indian medicine. *Āyurveda*, the science of life, is a system of treatment for promoting health, prevention and curing of illness. Right from antiquity, this is in practice among Indians. It is highly effective and advanced method of treatment with deep insight to the root causes of ailments. The effectiveness has not diminished with the time. Rather people are paying more interest now a days on this science. It has gained worldwide popularity. Various treatises are available on *Āyurveda*; among them three are regarded as the milestones of this literature. For the significance and popularity these three works are known as *Bṛhat Trayī*. And three others are available by the name *Laghu Trayī*. In Indian literary works we find many references of various scientists on this field. The eminent scholars on medical science have great contribution to this literature. With the writings of them we possess such a store of knowledge and able to stand proudly among the people of the world. Now people from every corner of world are anxious to know this science and applying Ayurvedic medicines without any worry. These happen mainly for the attempt of those masterminds of ancient India. Salutations to them! to make us feel proud as Indians.

Caraka Saṃhitā, on which this research work has prepared, is the most important and trustworthy work on medical field, as each and every one related to this field are well acquainted with this work. It is considered as the most ancient and authoritative writing on *Āyurveda* available today. Though the original work was written by great Ayurvedic scholar *Agniveśa*, this has popularized by the name *Caraka Saṃhitā*; this question often arises why it is so. It is for the great efforts that *Caraka* has done to take the same to the light. Unless his efforts we would unaware of having such a great treasure in our country. He composed this with his own edition. So, the nomenclature has done after the name of the redactor. We should pay respect to *Agniveśa* for composing this treatise and secondly; *Caraka*, who redacted this treatise and make it popular among the human beings. For the hard work of them we now get opportunity to receive this kind of treatment and able to cure of any disease. At a later period, *Drdhabala*, the talented mind, has redesigned; of course with some modification and some new

editions made completed the work. But nomenclature remained the same what is today available to us.

What we have got from the research, the writer is *Agniveśa* and the redactor is *Caraka*. But, about the identification of the two and their time and place still under mystery as there are divergence of opinions among scholars. There we see in ancient Indian history various persons with the same name. Besides, the authors provided a little information about them; even some of them were not ready to mention even their name. With the little information it is very hard to ascertain the identity of a person. We gather by means of this research whoever the great master minds, had done immense deed. The information provided a few thousands of years ago still applicable today.

The first part of the compendium is *Sūtrasthāna* containing thirty chapters is a compact form of the whole treatise; provides the preliminary information on the basic principles of *Āyurveda*. Here, the fundamental rules of therapeutics are available in *Sūtra* form; full of various kinds of knowledge which are applicable from many aspects. It gives acquaintance of day today life. By following these valuable words one is able to keep him away from the insecurity of health.

This research work represents a careful response to the demands of the present era. For the efficacy of this science, people are moving towards *Āyurveda*. Doctors also use to prescribe herbal medicine and diet according to disease. *Sūtrasthāna* deals with diet in some extant for the treatment of diseases as well as for maintaining a healthy life. Ayurvedic medicines are predominantly herbal. These medicines are very effective and have no side effects. This section of the compendium deals with many plant drugs for the treatment of different types of diseases and some plants used in daily lives. The uses of these are growing more day by day. These things are highlighted in this work. Now people use many drugs; and among them some are using traditionally. They get the knowledge from their ancestors orally and using those medicines unquestioningly. The need of the society is to become acquainted with the real nature of the contents of *Āyurveda*. The present research tries to go into the matter with the letters of the text so more meaningful and beneficiary to the human wellbeing.

In the treatise, we have found discussions on the entire aspects of therapeutics. *Caraka* has discussed the qualities and importance of physician as occupies the first place among the four

pillars of treatment procedure. We give honour and place the physicians in highly respectable position. The qualities in a particular physician are assessed by other persons now by observing his/ her qualities. But, in ancient days they assessed themselves their eligibility for the work. Whatever we got from the study; though physicians were very honest in those days yet dishonesty among some physicians also are referred in the pages of *Caraka Samhitā* and *Suśruta Samhitā*. For this class of physicians healing was not their duty; it was only a means of acquiring money. Today also it is seen.

Attendant or nurse is also one of the important parts of therapeutics. *Caraka* has used the word *Paricārikā* implies the nurse; and nourishing patients are the main duty of them. Carefulness and kindheartedness are the main qualities expected in an attendant. But today in various places have seen of ill-treatment to patients by using improper and harsh words. At the time of *Caraka*, the healing of diseases was regarded as holy practice, which in the present day context is highly commendable for physicians. If these are followed today then will definitely progress towards better healthcare system. To highlight on those teachings of the great master mind an attempt has done in this research.

The second chapter of this research work reveals some information on physicians, their duties and importance, and about other persons of the field, like medical nurses, pharmacist and attendants. At the very beginning of the system of medicine, the ascetics were involved in the art of healing but in the later period, when caste system was evolved, some deviations had arisen. As per the duty, the physicians touch all people beyond of caste during treatment. For that they were regarded as untouchable community in the society. In the time of *Manu*, this tradition was in the pick and the physicians suffered a lot. *Manusmṛti*, the book on Indian law and custom, supports this view of avoiding physicians. According to the first law giver, the physicians should be excluded from social customs to be performed and banded from performing sacrifices. Adding with these, he asserts the view of non taking of food from physicians as these foods were considered as '*Pus and blood*'. They were avoided from the societies. Thus, this profession was started to be avoided and neglected. Needless to say, were able to gain a very respectable and honoured place in the society as the time flows and now, physicians are regarded as the second god. There have found about many physicians, specialized in various fields in the ancient Indian literatures.

What have got from the study, people of that time were honest to their duty; but we cannot say dishonest and undutiful men were not there; of course there were. The proficient and the submissive physicians were given respect and honour in the society.

The physicians were entitled with various names according to their knowledge. It is some sort of designation of that particular person. A physician having knowledge of one hundred diseases with their remedies is called *Vaidya*; one having two hundred is called *Bhiṣaka*. And, one who acquainted with not less than three hundred kinds of diseases along with the treatments is called *Dhanvantari*. *Dhanvantari* is considered as the god of medicine; and it is not a simple matter for obtaining this designation.

Caraka presented many teachings about the physician which has great relevance to the modern society. The whole ninth chapter of *Caraka Saṃhitā* is on ethics of medical science and qualities of physicians. At the time of *Caraka*, healing of diseases was regarded as holy practice and now it has been commercialised in today's mechanical society. In describing the treatment of diseases, he mentioned various qualities of a physician.

Self examining is remarkable feature that we have found in this research. A good physician is that who examines first himself whether he is able to provide treatment to the patient. Have all the criteria of a good physician fulfilled by him. In present scenario, there is no time of self examining whether he is good or bad. In this crucial society most of the persons have the thinking that he is the best from all sides. Though he knows his knowledge limit, but not ready to show before others. The physicians should endow with full knowledge on medical science. Pretending of knowing is very much dangerous in this profession. Because of these characters many cases appear of wrong treatment; and the patients have to suffer a lot and sometimes come the situation of losing the life. In that case, they should take the help of other physicians or better to refer to another one.

At the completion of degree certain promises are taken by the physicians known as Hippocratic Oath; but how much these are fulfilled. As a holy duty they promise to care of the patients very smooth and politely. But in some cases it has been seen of disruptive behaviour with patients. So, this work presents various discussions on qualities and duties of physicians. The profession a physician is a noble profession. Everyone respect them as the second god. So, they should not

misuse their power of position and should not neglect their duty and responsibility. If, these are followed today, it will be very helpful in the up gradation of the department of health.

The third pillar is the patient; which has not discussed earlier much. He should have trust on the physician and strong will to be cured. A patient should obey his physicians' word. He should not neglect medicines.

As the fourth and the most important pillar, medicament, is discussed briefly in this research work. In Ayurvedic system of medicine, the uses of plant drugs are more. It is given prominent place in *Āyurveda* though metallic preparations and the animal originated drugs are also used. In many times food are also seen as medicine. Proper food keeps one away from diseases. So, in the third and fourth chapter there are elaborate discussions on plants; like classification and uses for different purpose mainly for the purpose of medicine. What have got from the study *Parāśara's* classification of plants is applicable till today. *Dvimātrka* (Dicotyledons) and *Ekamātrka* (Monocotyledons) are described by *Parāśara* several hundreds of years ago and the classification of families depending on the morphology *Samīganīya* (Leguminaceae), *Puplikavarga* (Rutaceae) are still followed by the scientists; of course incorporated now some new families there.

Caraka has classified the plants based on three aspects- *Udbhida* or botanical; these are the classifications based on morphology; and are six in number. Next one is *Virecanādi* or medicinal. On the basis of properties and action, *Caraka* has classified the plants in to fifty categories; like rejuvenator, strength promoter.

Then, on the basis of dietetic principles are divided into seven groups, *Annapānādi* such as *Śūkadhānya* (Cereals), *Samīdhānya* (Pulses), *Śākavarga* (Pot herbs), *Phalavarga* (Fruit bearing plants), *Hāritavarga* (Vegetables), *Ahayogīvarga* (Oils), and *Iksuvarga* (Sugarcane). *Caraka* has mentioned ninety nine numbers of plants under the group *Śākavarga* that can be used as vegetable; sixty three under *Phalavarga* that the edible fruits and eighteen plants that can take freshly as salads known as *Hāritavarga*.

More than 350 names of plants have found in the *Sūtrasthāna* of *Caraka Samhitā*. Priyavrata Sarma has shown 39 plants that are available only in *Suśruta Samhitā* among the *Bṛhat Trayī*. And another list of plants (54nos.), that can be found only in two among *Bṛhat Trayī Suśruta*

Samhitā and *Aṣṭāṅgahṛdaya*. (P.V. Sarma, *Ayurved Ka Vaijnanik Itihas*, p. 83-84). According to him, those are not mentioned or did not used by *Caraka* for medicinal or other purposes. But, if, we notice the treatise of *Caraka* very minutely, then will find various among those are mentioned; not only mentioned for name sake; but used for major applications. It is true that names are varied from *Caraka Samhitā*. It is not a big matter for a plant having various synonyms. In Sanskrit literature, it is often seen the use of various names either in case of person or other things. For example, *Kuṭaja* and *Indravrkṣa*, *Kitarī* and *Viḍanga*, *Nāgakeśara* and *Nāgapuṣpa*, *Malayaja* and *Candana*. In his book, P.V. Sarma mentioned the point of non availability of those plants in *Caraka Samhitā*. He has mentioned names of some plants among some of them which are the synonyms of some other plants that we found in *Caraka Samhitā*. And, those synonyms signify the availability of those plants in *Caraka Samhitā* also.

These plants are used for various purposes like food, decoration of body, skin care, making of utensils, in religious performances, building of house; the most important is the use of those for the treatment of diseases. The herbs and plants form an important mainstay in Ayurvedic therapeutics. These have been used in Indian traditional medicine for several thousands of years. These are used either wholly or partly in various forms like decoction, powder, infusion, liquid, semi liquid for the preparation of medicine. Among them treatments of diseases like *Kuṣṭha* (leprosy) along with all skin diseases, *Prameha* (urinary diseases including Diabetes mellitus), cardiac problems, gout, fever, piles, abdominal problems, vomiting are frequently seen in the work. With the use of plant drugs the treatment of gynecological problems including pregnancy, children and mother care are also discussed. Though the compendium is on *Kāyacikitsā*, toxicology- poisoning, snake bite, insect bite and animal bites are also discussed here. *Āyurveda* is that type of medical system even can treat the fear of snake and insect bites also.

One thing should be made clear here is that most of those plant drugs are not used individually. They are used with another plant drugs or other drugs for the treatment of diseases and also for promotion of health. Individual uses are very rare in Ayurvedic preparations. The extracts which are a mixture of several ingredients and the active principles when isolated individually fail to give desired activity. Some drugs with other drugs lose their toxic effects and works as good medicine. Here, the method of processing also depends.

Indian people are very much fond of various types of foods from the very ancient period as well as very much conscious regarding their diet and what described are very much scientific. In diet, carbohydrates, protein, various minerals and vitamins are essential for maintaining proper health. *Caraka* says- “*Ṣaṣṭhikānchālimudgāśca saindhamālake | Antarikṣam payaḥ sarpijangal madhu cabhyaset ||*” (*C.S. Sūtra. 5.12*). *Vāgbhaṭa* also in his *Aṣṭāṅgasamgraha* described various food ingredients that supplies energy, and nourishment to health- “*Silayechāligodhumāyava.....rogochedakaram ca yat |*” (*Aṣṭāṅgasamgraha Sūtra. 8.42-43*). They were so much scientific that we have found in one place of the treatise that we should take those foods that help in the growth and development of our health. Each and every essential nutrient we get from food. Though not directly, but *Caraka* mentioned in one verse of *Caraka Samhitā* about those nutrient ingredients. *Śāli* and *Ṣaṣṭhika*, the best types of rice are the suppliers of Carbohydrates; gives energy to the body. Without Carbohydrate in diet the development of physical growth stops working. *Mudga* (the various types of pulses) supplies protein that helps in the growth of our body and protects health from diseases and controls hormones.

As a work on medical literature the work has presented various plant drugs used for the treatment of diseases. *Caraka* has presented many plant drugs like *Candan*, *Keśara*, *Lodhra* for enhancing of beauty also. Many plants are described here. They give strength, youth and potentiality to a person who used those drugs in prescribed form. Some of the drugs are so much effective that can give the power of reproduction even to a person who has not the capacity of reproduction of child. *Caraka* has given importance to woman care in the pregnant and lactating period also. Such incurable diseases like leprosy, diabetes mellitus are also cured by the application of plant drugs. Poisoning of different animal, insects and artificial are also cured. Sometimes, due to ignorance or darkness we cannot ascertain which insect has cut and worried very and frightened; treatment for such types of conditions are also presented by *Āyurveda*. We can say *Āyurveda* is a complete system to provide healthy and peaceful lives.

From the study we come to know that Ayurvedic physicians should have clear cut knowledge regarding food along with their behaviour and also on medicines and their utilization. Selection of any herb or diet for a particular disease follows the fundamental principles of *Āyurveda*.

Cakrapānidatta (*Cakrapānidatta's* comm., *C. S. Sūtra*. 2.17) comments - “*Vīryapradhānam auśadham tathā rasapradhānam Āhāradravyaṅca*”. It means- *Ośadha* or medicines are *Vīryapradhāna* and *Āhāra* is *Rasapradhāna*. While *Caraka Saṃhitā* says certain drugs and diets manifest their action by virtue of *Rasa* means taste, some are by *Vīrya* means potency and some by *Guṇa* means qualities. (*C.S. Sūtra*. 26.71)

There are vast literatures on *Āyurveda* and medicinal plants in Sanskrit; however translating the technical Sanskrit and Indian word into English may cause errors. Another problem arises regarding the identification. In Sanskrit, a particular name is used to signify various things and for a particular thing various words are used. For example, *Caraka* used the word *Candan* for Sandal whether *Suśruta* used *Malayaja*. In various places the word *Pītāpuspa* has been found. There are innumerable plants having yellow flowers. This multiplicity of name and multiple use of the same name is a great problem in *Āyurveda*. Non availability of drugs creates problems in identification. Various drug species elude proper identification because of such reasons like passages of time, inadequate description. There is a big gap of period. The Ayurvedic works were the writings of more than 3000 years ago. Whatever described about the drugs in those writings may have undergone or the characters or morphology may be varied now for the big gap or climate change. Or rather there are not adequate descriptions too regarding the morphology of those plants. In ancient period, the physicians had direct touch with the raw drugs.

Here at the end of the work we come to know the importance of green vegetation of the world. How they help us in surviving a peaceful and happy life.

Vanaspatijagat or in short *Vana*, *Vipina* is used for forest or plant kingdom. A large area covered chiefly with trees and undergrowth is called forest. *Rudra* or *Śiva*, the divine physician is regarded as the guardian of medicinal herbs (*auśadhīnāmpataye..Y.V. 16.19*), trees (*Namo rohitāya sthapataye vṛkṣāṅnāmpataye ..Y.V. 16.19*) and the forest guard (*Vanānāmpataye namo..Y.V. 16.18*). Forests are the inseparable part of life. Sanskrit literatures refer innumerable instances on conservation, preservation and management of forests. In India, trees and plants have been adored not only with devotion but have been affectionately fondled and almost treated as member of family. It is found in the drama *Abhijñānam Śakuntalam* that *Śakuntala* had motherly affection to the plants and trees by watering them in time and refuses to drink a

sip of water without watering them- “*Pātuṃ na prathamam vyavasyati pīteṣu*” (*Abhijñānam Śakuntalam*, Ch. 1). About the importance of plants *Surapāla* told that a plant is equal to ten sons. *Padmapurāṇa* also mentioned the same thing- “*Daśaputrasamo drumah*” (*Padmapurāṇa* 1.44.455). In *Ṛgveda*, *Araṇyāni Sūkta* is in praise of plants. She, the queen of forest, is praised for her charm as well as the gifts to the worldly survivors – “*Araṇyānyaranyānyasau yā preva naśyasi*” (R.V. 10.146). *Auśadhi Sūkta* also has done praises to the herbs and plants. “*Yā ośadhīḥ pūrigvedaā jātā devebhyastriyugham purā* |*Manainu babhrūṇāmahaṃ śataṃ dhāmāni sapta ca* ||” (R.V. 10.97.1). The plants are addressed as mother. “*Śataṃ vo amba dhāmāni sahasramuta vo ruhaḥ*” (R.V. 10.97.2). It tells that the plants came to the earth before the existence of the animal kingdom. (R.V. 10.97.1) Plants have the power to eliminate diseases – “*Adhāśatakratvo yūyamimaṃ me aghadam kṛta*” (R.V. 10.97.2). Herbs give nourishment and strengthening power – “*Aśvāvatīm somāvatīmūrjayantīmudojasam* |*Āvitsisarigvedaā ośadhīrasmā ariṣṭatātaye* ||” (R.V. 10.97.7). They help us in surviving a peaceful and happy life. *Vedas* and *Upaniṣadas* – the best compilation of the Aryan period by the masterminds mention about the conservation and protection of plants. *Ṛgveda* instruct not to destroy plants. It says- “*Vanāni na prajahitānyadrivo duroṣāso amanmahi* ||” (R.V. 8.1.13). If we want to enjoy the fruits and happiness of life for thousands and hundreds of years then we should plants trees. Trees help in preventing land- slide of river banks and mountain areas. Often we see widespread destructions in the river coasts and mountain ares. To come up from such worse and danger situation, trees standing on the coasts should not be cut off or uprooted. Rather, we should do more and more plantation on river banks. Trees help in preventing land- slide of river banks and mountain areas during flood and heavy rain. With the help of roots they reduce soil loss and property damage by slowing the flow of water. The root network stabilizes huge amount of soil, bracing the entire ecosystem foundations against erosion by wind or water. There is the full chance of widespread destruction like flood, land slide and many more if the coasts of river are damaged or destroyed. Therefore, trees standing on the coasts should not be cut off or uprooted.

Atharvaveda tells about the relation of plants with earth. It tells that the earth is keeper of creation, container of forests, trees and herbs – “*Mandāgretvarī bhuvanasya gopā vanspatīnām gṛbhiroṣadhīnām*!” (A.V.12.1.57). It mentions about the importance of plants. Green plants are essential for the existence of human being. Plants and herbs destroy poisons (A.V. 8.7.10). For respiration oxygen are provided by plants. They help in balancing the proportion of gases and controls pollution. They have great role in stopping sound pollution as well.

Plants provide us food though meats and other products are consumed as food. They help in the maintenance of food chain of the worldly beings. *R̥gveda* hinders to uproot nourishing trees. Plants grow on soil. They are the producers of food. They with the help of sun rays in a certain process called photo synthesis produce food. The herbivorous animals live by eating them. And, they are the foods of the omnivorous. The carnivorous animal takes the both as food. The detritivores eat the dead bodies; and the rest parts are decomposed in soil. Plants grow in that soil. Thus, the circle running and helps in smooth running of the eco system. There is link among one another. In the absence of one among them, the food chain will break and the entire universe will come to an end and again lack of abundant green vegetation the earth will fall in danger. The green leaves through the process of photo synthesis controls carbon dioxide and oxygen in balanced. But, the lack of those plants the quantity of carbon molecules will be increased and thus the problem of global warming will be exceeded and whole creation will come to an end. This concept is found in *Atharvaveda* also. The Earth provides surface for vegetation which controls the heat buildup. The herbs and the plants having union with the sunrays provide congenial atmosphere for the life to survive. *Atharvaveda* tells- “*Annasya Bhūma.....*” (A.V. 5.28.3-5). Thus the plants are helping in reducing global warming. It is a crucial problem of present day society. In the absence of these green vegetations the entire ecological balance of the universe would be jeopardized. The main ingredient of plant take part in photo synthesis is the chlorophylls. This is the element of trees that keeps greenness in trees. Chlorophyll is referred as *Avi devatā* in *Atharvaveda* – “*Avirve nāma devatā tasya rupeṇeme vṛksāḥ haritāḥ haritasrajaḥ*!” (A.V. 10. 8.31). *Yajurveda* also tells about the protection of plant kingdom – “*Vanaspatiravasṛṣtau.....*” (Y. V. 20. 45;) and in another place – “*Vanapamanyatoraṇyāya.....*” (Y.V.30.19). These are the thinking of people more than four thousand years ago.

Plants give us food for our survival, medicines to cure diseases, shade and shelter for our rest and comfort, solace at moments of despair, and ensure ecological balance in diverse ways. They even spread their loving shade on those who want only ruthlessly cut them down. In the construction of a house, we clear the plot and have been making big buildings. These are the violence against nature. They help us and give protection. But when it would be understandable to us ‘*TREES PROTECT US WHEN THEY ARE PROTECTED*’; Manu says ‘*Vṛkṣo rakṣatirakṣataḥ*’.

Plants are the precious gift the Nature presented to us. We are strongly dependant on these in our day today life. Since ancient times, human societies all over the world have been using plant resources for fulfilling their basic needs like, food, medicine and shelter. The plants generated in food. *Chāndogyopaniṣada* tells- “*Tā annamasṛjat | Tasādyatra kvacan varṣati tadeva bhūyiṣṭhamannamm bhavati |*” (*Chāndogyopaniṣad* 6.2.4). And we are living by taking them in various forms. The plants make significant contribution on diets of people. All parts of plants are used somehow. The different part of the plants like; barks, secretions, fiber, juice, tender leaves, alkali preparations, latex, fruits, flowers, ashes, oils, thorns, matured leaves, roots, rhizomes, sprouts are used for the purpose of medicine. From roots to shoots are used; all parts are useful. They make free from death and misery (A. V. 8. 7. 13). In ancient days, the raw products were used to collect from the forests without hitting them – “*Mā te marma vimṛgvarī ...*” (A.V. 12. 1.35) and prayed for their quick growth – “*Yat te bhūme vikhanāmi kṣipram tadapi rohatu. ...*” (A.V. 12. 1.35). Of course, some of them grew in gardens. The sun helps in the growth of plants “*Ito jāto viśvamidaṃ vi caṣṭe vaiśvānaro yatate sūryeṇa || Prṣṭo divi prṣṭo aghniḥ pṛthivyāṃ prṣṭo viśvā oṣadhīrā viveśa |*” (R. V. 1.98.1- 2) and ripening of ripening of medicinal herbs (Y.V. Ch. 33). *Atharvaveda* tells about the conservation forests – “*Yat te bhūme vikhanāmi kṣipram tadapi rohatu |*” (A.V. 12.1.35). In the process of harvest no danger should be done to the earth. Human should not go against nature. They should not overuse and abuse natural products.

Kauṭilya’s *Arthaśāstra* provide detailed description on afforestation. The word *Vana* is used for forest by him and defined as- “*Paśu mṛga-drvaya-hasti-vana-parigaho vanam*”

(*Arthaśāstra*. 2.6.6). He told- A revenue village should have a forest along with various trees like *Śamī* and *Śālmali* (*Arthaśāstra*. 2.1.3). In those days penalty (*Ātyāyam*) was imposed for cutting of a forest tree without permission (*Arthaśāstra*. 2.17.3).

Forests are important to people for a wide variety of reasons. They provide habitat for animals. Millions of peoples also live along or near forest areas and are totally dependent for food and shelter. They regulate the climate and store moisture in air and provide rain. We depend on trees to cleanse our atmosphere.

We could not exist as we do if there were no plants. These should not be cut off as they remove pollution from air. *Ṛgveda* says- “*Mā kākambīramud vṛho vanaspatimaśastīrigveda hi nīnaśaḥ | Mota sūro aha evā cana ghrīvā ādadhate veḥ ||*” (*R. V. 6. 48.17*). Plants are the giant filters. They help us in breath. Forests are the key source of breathable air. They absorb carbon dioxide that we exhale and provide oxygen to inhale. It lessens the harmful chemical effects from air and soil.

Rigveda prohibits destroying of trees. (*R. V. 6. 48.17*). As these are the home and mansions – “*Ośadhīriti mātaraśtaḥ vo devīrupa bruvē | saneyamaśvaṃghāṃ vāsa ātmānaṃ tava pūruṣa ||*” (*R.V. 10. 97.5*). We should protect them as these are the treasures for generation “*Caniṣṭaṃ devā ośadhīṣvapsu yad yoghyā aśnavaithe ṛṣīṇām | Purūṇi ratnā dadhatau nyasme anu pūrigvedaāṇi cakhyathuryughāni ||*” (*R.V. 7. 70. 4*). We praise them as mothers and goddesses “*Ośadhīḥ prati modadhvaṃ puṣpavatīḥ prasūvarīḥ | Aśvāiva sajīvarīrigvedaīrudhaḥ pārayiṣṇvaḥ ||*” (*R.V. 10.97.4*). Oblations are offered to them (*Taittiriya Saṃhitā*. 1. 8.13). One should protect habitation. *Ṛgveda* tells- “*Adabdhebhīḥ savitaḥ pāyubhiḥ tvam śivebhiradya pari pāhi no ghayam | Hiraṇyajihvaḥ suvitāya navyase rakṣā mākirnoaghaśaṃsa īśata ||*” (*R.V. 6.71.3*) and specially the sacred grasses from exploitation – “*Nū no ghomad vīravat dhehi ratnamuṣo aśvāvad purubhojo asme | Mā no barhiḥ puruṣatā nide karyūyam pāta ... ||*” (*R.V. 7.75.8*). *Varāhmihira* in his *Bṛhatsaṃhitā*

advises to plant trees in the banks of water reservoirs to enhance the beauty of the sight (*Bṛhatsaṃhitā* 55.1; 54.119)

If we peep through our glorious past, *Rgveda*, one of the oldest repositories of human knowledge written between 4500-1500 B.C. mentions the use of various plants for therapeutic use and *Yajurveda* enlists 81 plants whereas *Atharvaveda* before Christian era describes 290 plants of medicinal values, *Caraka Saṃhitā* describes not less than 350 medicinal plants and the next land mark in *Āyurveda*, *Suśruta Saṃhitā*, mentions 395 medicinal plants. Needless to say about the importance of the plants in healing system as the previous chapter has elaborately discussed the utility of plants for the treatment of various kinds of diseases. India unquestionably occupies the top position in the use of herbal drugs, It is one of the foremost countries exporting plant drugs and their derivatives, and excels in home-consumption too and this is not all surprising because Indian systems of medicine dwell heavily on medicinal plants.

The use of plants as source of medicinal agents lies deep in the roots of antiquity. No one will ever know what led primitive man emerging from his ancestral, origin, to select certain plant material for the treatment of various ailments and diseases though it may be assumed that during the long transition from instinctive behaviour to more rational action, there was a conscious realization that certain roots, leaves, bark, fruits and even plant exudations had some beneficial action. This knowledge and the characteristics of the plant material, or even the entire plant itself, would be remembered for future occasions and the information passed on to others by word of mouth. Later, as different civilizations developed, man was able to communicate his knowledge and ideas, first by carving into stones or clay and later by writing on paper with the result that his knowledge became known to the coming generations. History of medicine practically dates back to existence of human civilization.

Our country is very much rich for its vegetative character. From the evergreen deciduous forests to thorny cactus are available here. Himalayan region is one of the richest repositories of medicinal and aromatic plants. The Himalaya has been fountain head of yogic wisdom and spirituality of millions of Indians, not withstanding their differing religious beliefs. The mountain chain has influenced the life, culture and history of India. The holy epics like *Rāmāyaṇa* and *Mahābhārata* carry excellent descriptions on plants. As mentioned earlier, to save the life of *Lakṣmaṇa*, the younger brother of Lord *Rāma*, *Hanumāna* travelled to the

Himalaya in search of *Saṅjīvanī*. Thus the Himalaya is well known for a whole range of medicinal and aromatic plants.

The plants encourage for meditation and mindfulness. So, in ancient days the people used to go to the forest in the last days of their life in search of ways to attain salvation; known as *Vānaprasthāśrama*. The sages also cut years and years in the midst of the forest in deep meditation. The educational institutions were also in the lap of nature. They heal from grief and thus improve health.

By imposing of religious beliefs people has been trying to protect the green world. The forest as the highest expression of earth fertility and productivity is symbolized in yet another form as the earth mother, as *Vanadurgā* or the Tree Goddess; in Bengal of India is worshiped. She is associated with *Sāla* and *Aśvattha* tree. Thus, Mother Nature is worshiped indicating the importance of the plants. In folk and tribal cultures specially, trees and forests are worshiped as *Vanadevatās* or forest deities. In *Uttarāmacarita* of *Bhavabhuti*, we found reference of *Vanadevī*, the Goddess of forest. *Kālidāsa* in his *Abhijñāna Śakuntalam* has mentioned about the Goddess of forest and shown the importance of forests in our daily lives; how they provide us everything without the desire of getting anything in return. In the ancient period and now also we have seen sacred forests; and sacred groves are created and maintained throughout India as a cultural response for their protection. Even today also they remained as valued elements of cultural heritage and the site of ritual healings and habitat of endangered species of medicinal plants. It is seen in India, various hill tops are dedicated in the name of God. The plants in those places and around are not use to cut. Sacred grooves dwelling the most important religious and ritual relics. Thus, this is a way for the protection of plants. In Indian tradition, plants are live. *Brhadāranyakopaniṣada* tells- “*Yathā vṛkṣo vanaspatistathev puruṣo mṛṣā* |” (*Brhadāranyakopaniṣada*. 3.9.28). These are counted among living beings because of their behaviour of growth and their response to various conditions like light, darkness, heat, cold, dry and wet (*Mahābhārata*, *Śāntiparva* 184. 11-18). *Cakrapāṇidatta* also tells the same thing – “*Vṛkṣāstu cetanāvantoapi tamasācchannajñānatayā śāstropadeśaviṣayā eva* ||” (*Bhānumatī of Cakrapāṇidatta*). *Bhagavat purāṇa* tells about the dormant consciousness

(*Tamaḥprāyā Avyakta caitanyāḥ*) and the sensation of touch (*Antāsparśā*). (*Bhagavat Purāṇa* 3.10.19-20)

The people of India have traditionally recognized the dependence of human survival on the existence of forests. In ancient Indian traditions, scientific knowledge on plant kingdom is available in the texts like *Bṛhat Saṃhitā* of *Varāhmihira*, *Kṛṣi Parāśara*, *Kāsyapīyakṛṣisukti*, *Udayana's Kiraṇāvalī*, *Surapala's Vṛksāyurveda*. Thus we know about our dependency on plants. Plants give us food for our survival, medicines to cure diseases and maintenance of positive health, shade and shelter for our rest and comfort, refreshment in our despairing moments. They stand and stand for years and give us shade, yields milk and water for us, bear fruit and we feel sweetness by taking those ripe fruits, for them we are getting the edible products which give us energy to live. Rain comes for those trees and we are enjoying different seasons which take freshness to our life and keep ecological system in balance.

In ancient India, kings according to their *Rājadharmā* (*Kauṭilya's Arthaśāstra* Ch. 2) protected the plants and trees; and work for their well being (*Manu Saṃhitā* Ch.3) by understanding their importance; but in today's society it is not happening. Today what are everything are pen and paper based but how much these are worked out these is not a matter to be paid attention.

Some hurdles are faced during the research can be summed up here. *Caraka Saṃhitā* is used as the primary of data. Here, discussions on about the treatise with its authorship, medical system in the ancient period of India are done. Regarding the plants, the names are being collecting from the text with the description of the plants with the names in Sanskrit as well as scientific name as per Ramkaran Sharma and Vaidya Bhagwan Das, and Assamese names; whatever available. It has been seen that the treatise is very much popular and the persons related to this field is eager to know about it as the work provides basic knowledge on *Kāyacikitsā* or Internal medicine. Undoubtedly, this work is very much popular and contains various informations with many significant ideas. But problem with the authorship and date; as we know people working with Sanskrit literatures are suffering severely from this issue. It is very hard to establish the date of the treatises; and often, arisen the problem regarding the authorship and their identities as mentioned earlier. In India, each and every science, the creator is *Brahmā* and everywhere it is found that he had composed one *lākh* verses, and handed over to *Indra* and *Indra* had handed it over to the great sage *Bharadvāja*. Of course, other persons are also there; but the presence of

Indra and *Bharadvāja* is compulsory. In the same process it had come to *Ātreya* from the hand of *Bharadvāja*. On the instruction of Preceptor *Punarvasu Ātreya*, *Agniveśa* had composed this work and so on. But a clear identification of authors is not found anywhere. History of medicine practically dates back to existence of human civilization. There is vast literature on *Āyurveda* and use of medicinal plants in Sanskrit; however translating the technical Sanskrit and Indian word into English may cause errors. Another problem arises regarding the identification. In Sanskrit, a particular name is used to signify various things and for a particular thing various words are used. *Caraka* himself mentions about this problem. (*Ekantu nām prathitam bahunām ekasya nāma tathā bahuni.... C.S. Sūtra. 1.51-53*). For example, *Caraka* used the word *Candana* for Sandal whether *Suśruta* used *Malayaja*. In various places the word *Pītapuspa* has found. There are innumerable plants having yellow flowers. *Amritā* is used for *Āmalaki* and *Haritaki* as well and for several other herbs also. *Dhanvantari Nighaṇṭu* says that sometimes several herbs bear one name; sometime one plant bears several names according to its class, external feature, colour, potency, function, effects, properties and others. He tells- “*Nānāvidhaṣadhi rasāhvaya vīryyapāka pratyeka samyagavavodhakṛta śramopi muhyatyavaśyamanavekṣa nighaṇṭumetam | tasyādayam viracito bhiṣajām hitāya*!” (*Dhanvantari Nighaṇṭu*).

In India, the nomenclature of some plants are done after certain criterias like special association (*Bodhidruma*), special medicinal property (*Avyathā* that which takes away pain; *Arśoghna*, which destroy piles), particular uses (*Dantadhāvana*, *Khadira* used as toothbrush; *Agnimantha*, to lit fire), for special characteristics (*Phenila*, the seeds gives foam with water), special morphological features (*Saptaparṇa*, with seven leaflets; *Dīrghapatra*, with long leaves; *Dīrghaparva*, with long knots), on locality *Sauvīra* (*Badara*), *Māgadhi* (*Pippalī*), *Vaidehī* (*Marīca*), environmental association (*Nadīsarja*, *Arjuna* grows on the bank of the river; *Pañkaja*, lotus grows on mud; *Kuṭaja*, grows on mountain peaks). These things create problems in choosing the proper medicine. And, the taxonomic works are also rare. Whatever descriptions are found most are not matched today. Due to climatic conditions, there might the changes appear to the plants and herbs.

Most of the plants have therapeutic value. They are used for the treatment of various diseases and of course some of them are for maintenance of positive health. They give nourishment and

strengthening power. Rgveda tells- “*Aśvāvatīm somāvatīmūrjayantīmudojasam | Āvitsisarigvedaā ośadhīrasmā ariṣṭatātaye* ||” (R.V. 10. 97.7). Plants are very much required in our day today life. The three primary needs –food, shelter and cloth are provided by plants. For respiration also oxygen is provided. The whole ecological balance is maintained by the green vegetation means plants. We should protect them.

Majority of the plants described in the *Sūtrasthāna* of the *Caraka Saṃhitā* are available today as per the identification given by Vaidya Bhagwan Dash and Ramkaran Sharma and the by consulting the floras. But there have been seen of non uniformity regarding identification in literatures. Identification of something by following Sanskrit name is not an easy task. Various hurdles come out regarding the task. It is hard to understand the real information that *Ācāryas* wanted to convey us through a particular sentence. In fact, there is every possibility of misunderstanding it readily. Thus, the documentation of knowledge in *Āyurveda Saṃhitā* is an indicatory but not explanatory. And, thus each statement of *Saṃhitā* demands further explanation to understand its content. There is lack of uniform knowledge. As the *Saṃhitās* were written in indicatory form; to understand them of course we have taken the support of the explanatory works like commentaries. There also we have experienced non uniformity in the explanations. As in the commentary of *Manusmṛti Kulluka* presents *Mallikā* as the example of *Gulma*, shrubs; while *Nandana* shows this as *Pratāna*, creeper. As the source of medicine though there are references of medicinal plants are availed in the Vedic passages. They appear as literary passages with a little scientific information. We find in *Atharvaveda* “*Devī devyāmadhi jātā pṛthivyāmasyaṣodhe Keśebhyo dr̥mhaṇāya khanāmasi* || A. V. 6. 136. 2-3; *Kesśavadhīnam..... Yāmaṣadhe* |” (A. V. 6.137.3). Likewise, to understand the Vedic words *Sāyaṇabhāṣya* is followed; to get the meaning of the aphorisms of medical treatises also the commentaries are needed. *Nighaṇṭus* are also helpful. The details are not available in the texts. The texts quoted are synopsis of a synopsis. There is lack of direct meaning. The meaning depends on the interpreter.

The result of our research is that various observations of medical science which are of scientific value are contained in different works. We appreciate the keenness of spirit shown in them.

Unfortunately this spirit was not rigorously separated from fanciful and myth making associations. We see in the *Cikitsāsthāna* of the *Caraka Saṃhitā* about the origin of such diseases like *Jvara*, *Kuṣṭha* and others for the wrath of god. But the actual causes are not shown.

By keeping aside these hurdles, summarizing all we can say that this is the popular system of medicine at present in the world. The reason behind the popularity of this system is; *Āyurveda* is the most authentic system in the field of medicine. By helping from various aspects, it tries for all round development of human being. Presently, it gains worldwide popularity among the worldly survivors. Those persons related to medical field are eager to know about this science. The reason behind the popularity is the authenticity and effectiveness; and now everyone wants to apply this treatment for health, both physical and mental.

Āyurveda is not only a medical system but also a healthy lifestyle system that people in India have been using for more than five thousand years. In *Āyurveda*, health is defined as “A balance between body, mind, spirit and social wellbeing.” In modern view, “Health is defined as a state of physical, mental, and social wellbeing, not merely absence of diseases or infirmity”- is according to World Health Organization. It works both from curative and preventive aspect. (*C.S. Sūtra*. 30.26; *S. S. Sūtra*. 13-14). Aim of removing the cause of illness and not just curing the diseases is the very impressive aspect of this system.

Āyurveda is a complete system for health. Ayurvedic medicine is holistic, which means viewing the body and mind as a whole. As we know disease-free condition is the best source of virtue, wealth, gratification and emancipation. (*C.S. Sūtra*. 1.15). And, the dictum is well known that Health is Wealth. It discusses about regimens for positive health. Proper diet, exercise, and using of herbal remedies are the three main steps of Ayurvedic system of medicine. *Āyurveda* says about mixed and balanced diet; means balanced proportion of carbohydrates, fats, protein, vitamin, minerals. (*C.S. Sūtra*. 5.12-13)

He is a healthy person-

“He whose *Doṣas* are in balance, appetite is good, all tissues of the body and all natural urges are functioning properly, and whose mind, body and spirit (self) are cheerful or full of bliss, he

is a healthy person.” (*Samadoṣa Samāgniśca Samadhātumalkriyāḥ Praśannātmendriyamaṇaḥ Swāsthaitiabhidhiyat* || *S. S. Sūtra.15. 10*)