

CHAPTER I

INDIGENOUS AND TRADITIONAL MEDICAL SYSTEMS OF INDIA

i. AYURVEDIC MEDICINE

India has a long tradition of medical practices which stretch from its pre-historic period. The diseases are as much older in this world: there is evidence of Rheumatoid Arthritis and Tuberculosis in the fossils of Paleolithic and Neolithic periods.¹

The excavations at various sites of Indus valley Civilization have revealed the prevalence of medical practice in remote past by the priest physicians who practiced it in the manner of magic, rites and rituals.² People of Indus valley civilization had great concern for their health and hygiene which is evident from the systematic town planning at Harappa and Mohenjo-daro. The maintenance of public wells, bathrooms and efficient drainage system contributed to the robust health of the inhabitants.³ Evidence from the

¹ S. L. Bhatia, *A History of Medicine with Special Reference to the Orient*, Office of the Medical Council of India, New Delhi, 1977, p.4.

² Farokh Erach Udawadia, *Man and Medicine: A History*, OUP, New Delhi, 2000, p.31; See also Zysk

³ *The History and Culture of Indian Public*, Bhartiya Vidya Bhawan, Bombay, 4th revised edition, 1965, Vol. I, pp. 172-76; See also P.V. Sharma, "Development of Ayurveda from Antiquity to AD 300", in Debi Prasad Chattopadhyaya and Ravinder Kumar(ed.), *Science philosophy and Culture : Multi-Disciplinary Exploration*, Part 2, PHISPC, New Delhi, 1997, p. 127; See also Shereen Ratnagar, "The Drainage Systems at Mohenjo-daro and Nausharo: A Technological Breakthrough or a Stinking Disaster?", Paper presented in the

excavations at Harappan sites also suggests the practice of surgery, and thus by inference the presence of surgeons in the Harappan civilization.⁴

The people of Indus valley Civilization it appears were aware of the medicinal aspects of various drugs.⁵

With the coming of the Aryans around 1500 B.C., *Rig-Veda* and *Atharvaveda* came to be considered as the main source of knowledge of medical science for that period. ‘Vedic’ medicine was a mixture of superstitions, magic and herbal medicine. According to it the diseases were cured through enchantments which liberate one from evil spirits which caused the diseases:

“Charms to cure diseases and possession by demons (*bhaisajyani*).- The medicinal charms of the *Atharvaveda* go by the name of *bhesajam* ‘remedy’, the healing plant is *bhesajl*, the waters are *bhesajih*.”⁶

The *Atharvaveda* dealt with the treatment of diseases by advising propitiatory rites (*Swastyana*), auspicious oblation (*mangala homa*), Penances (*Niyama*), purificatory rites (*prayaschita*), fasting (*upavasa*), and incantations

Panel on ‘Science and Technology in India’s Past’ Indian History Congress, 68th Session, Delhi University, Delhi, December 2007 and included in *Papers from The Aligarh Historian Society*, ed. Irfan Habib, 2007, pp.1-6 (memio-graph).

⁴ See for example Suraj Bhan and K.S. Dahiya, “Disease, Surgery and Health in the Harappan Civilization”, *Disease and Medicine in India A Historical View*, ed. Deepak Kumar, Tulika, New Delhi, 2001, pp. 3-14; S. Rao, *Lothal: A Harappan Port Town (1955-62)*, Vol. I, New Delhi, 1979, pp. 145-46.

⁵ P.V. Sharma, “Development of Ayurveda”, op. cit., p.127. See also, J. Filliozat, *The Classical Doctrines of Indian Medicine: Its Origin and its Greek Parallels*, English tr. D. R. Chanana, Munshiram Mahohar lal, New Delhi, 1964, p.34.

⁶ Maurice Bloomfield, *The Atharvaveda*, Strassburg, 1899, p.58.

(*mantras*). The practice of medicine was mostly in the hands of priests, but existence of ‘doctors’ prescribing herbs had also started.⁷ According to *Atharveda* there were two systems of medicine: the magico-religious medicine and empirical medicine; Magico-religious practice referred to *mantras*, charms, rites, rituals, incantations, animal sacrifices and even human sacrifice. The empirical school of medicine on the other hand used drugs to combat disease. These drugs were mainly herbs and plants.⁸

In the post Vedic period extending from the period from 800 B.C. to 200 A.D., medicine became more and more rational. The School of Atreya and Dhanvantari were probably established in the 6th century B.C.⁹

It was during the early centuries of the Christian era that the next important text of Indian medicine was finally given shape. The *Charaka Samhita* was edited by Dridhabala of Kashmir in 9th Century A.D. The text was to emerge as the main source for the knowledge and understanding of medicinal science in ancient India.

For surgery and anaesthesiology our main source of information is the *Susruta Samhita*. Subsequently were compiled the *Ashtanga Samgraha* and *Ashtanga Hridaya Samgraha*, both composed by Vagabhata in 7th Century A.D. The former dealt with both medicine and surgery, while the later is concerned with surgical knowledge.

⁷ S. L .Bhatia, op. cit., p.15.

⁸ Farokh Erach Udawadia, op. cit., p.31; See also Poonam Bala, *Medicine and Medical Policies in India: Social and Historical Perspective*, Lexington Books, UK, 2007,p.14.

⁹ S. L .Bhatia, op. cit., p.15.

However, the origin of this ancient art and science of medicine is uncertain, controversial and clouded in legend.¹⁰

According to Hindu mythology, the creator, Brahma, whilst creating the universe, extracted knowledge from the four directions and created *Vedas*. Brahma then carried the knowledge of *Ayurveda* to Prajapati Daksha. Daksha passed it on to Ashwinikumaras, the twins who were the physicians of the gods. The Ashwinikumaras then proffered this knowledge to Indra. Dhanvantari was instructed by Indra to spread it on the earth. Thus, the origin of Ayurveda claims that the deity of this celestial science is indeed Dhanwantari, an incarnation of Vishnu.¹¹

The *Ayurveda* is divided into eight parts called *astanga* which denote the science of medicine. They are:¹²

1. *Salya* or Surgery which includes the removal of external substances from the body. It was revealed by Indra to the human school of Divodasa (the King of

¹⁰ Farokh Erach Udwadia, op.cit, p.37.

¹¹ Gabriel Von Loom (ed.), *Carak Samhita: Hand Book on Ayurveda*, Chaukhambha Orientalia Publishers, 2002, Vol. I, p.106; See also P.N.V. Kurup, "Ayurveda" in Robert H. Bannerman, John Berton and Ch'en Wen Chieh, *Traditional Medicine and Health Care Coverage: A Reader for Health Administrators and Practitioners*, World Health Organization, Geneva, 1983, p.51. See also, J. Filliozat, op.cit., pp.2, 15.

¹² *Sushruta Samhita: Sutrasthanam, An English Translation, Of the Based On Original Sanskrit Text*, Kaviraj Kunja Lal Bhishagratna, Kashi Ghose Lane, Calcutta, 1907, Vol. I, pp. 3-5; See also T. A. Wise, *Review on the History of Medicine*, Vol. I, Adam Black &co. London, 1867, pp.16-18; Gerand James Larson, "Ayurveda and the Hindu Philosophical Systems", *Philosophy East and West*, Vol. 37. No. 3 (July 1987), p.246; See also J. Filliozat, op.cit. p.1-2. (Filliozat mentions that the Charaka and Susruta were unaware about this division. These divisions are done by recent authors)

Kasi) and passed on to Dhanvantari and finally culminated in the Susruta tradition of Ayurvedic surgery.

2. *Salakya* dealt with the diseases and the treatment of eyes, ears, mouth, nose and throat.

3. *Kaya chikitsa* or Internal medicine described the complete body diseases. It was revealed by Indra to the human school of Atreya Punarvasu and finally culminated in *Charaka* tradition of Ayurveda.

4. *Bhutavidya* or psychiatric disorder which included the mind disorder.

5. *kaumara-bhritya* or Pediatrics, dealt with the treatment of child diseases.

6. *Agada tantra* or Toxicology which dealt with the antidotes and poisons.

7. *Rasayan* or Geriatrics which dealt with the treatment of diseases in general and preservation of health.

8. *Vijakarara* or sexology, the sexual diseases and their treatment.

Philosophy of Ayurveda:

The etiology of *Ayurveda* is based on humoural theory or the concepts of *tridosha* which constitutes the bodies of all living creatures from microbes to man. According to it the *vatta* controls the anabolic and katabolic activities and all functions of the body. *Pitta* provides heat and energy to the body and responsible for biochemical and metabolic activities. *Kapha* constitutes the cellular as well as intracellular structure of the body and maintain internal

environment of the body.¹³ Thus the philosophy of *Ayurveda* postulates the existence of three humours in the human body viz.:

1. *Vata* (gaseous elements or wind), responsible for respiration and control of movement.
2. *pitta* (fiery elements or bile), responsible for maintain heat of the body. And
3. *kapha* or *slesman* (liquid element or phlegm) responsible for maintenance of body and form structure.

These together comprise the fundamental elements or *dhatu*s.¹⁴ The diseases are caused due to imbalance of these humours. When these humours are abnormal (*prakupita*), the various waste products of the body tend to weaken or destroy the body. These are called *malas*. Within their proper measure even *malas* are called *dhatu*s (body constituents). *Mala dhatu*s and *parasada dhatu*s co-operate in maintaining body.¹⁵

Tridosha constituent complexes in the physiological system and there are seven *Dhatu*s which are as:¹⁶

- a) *Rasa* (body fluids)
- b) *Rakta* (Blood)

¹³ *Susruta Samhita*, op. cit., pp194-211; See also P.N.V. Kurup, op. cit., p.51; See also Steven Engler, "Science" vs. "Religion" in Classical Ayurveda", *Numen*, Vol. 50, No. 4, 2003, pp. 416-463.

¹⁴ Priyadarajan Ray and Hirendra Nath Gupta, op. cit., pp. 10-11; See also, Zaheer Baber, *The Science of Empire: Scientific Knowledge, Civilization, and Colonial Rule in India*, OUP, New Delhi, 1992, p.38; See also P.N.V. Kurup, op. cit., p.51.

¹⁵ Priyadarajan Ray and Hirendra Nath Gupta, op. cit., pp. 10-11.

¹⁶ P.N.V. Kurup, op. cit., p.51.

- c) *Mamsa* (muscular tissues)
- d) *Meda* (adipose tissue)
- e) *Asthi* (bone tissue)
- f) *Majja* (nerve tissue and bone marrow) and
- g) *Shukra* (generative tissue including sperm and ovum).

This system of medicine also mentions that the body of human and all matter in the universe is composed of *panchamahabhutas* (five elements):

- i) *akasa* (Vacuum),
- ii) *vayu* (Gas or air),
- iii) *tejas* (radiant energy),
- iv) *ap* (Liquid), and
- v) *prithvi* (earth).

These *panchamahabhuta* reveal five subtle characteristics i.e. nonresistance, motion, heat, fluidity, and hardness. The *panchamahabhuta* together with spirit, mind, time and space constitute the totality of all substances.¹⁷

The *Ayurveda* also cover the treatment of animal and plants diseases. The texts like *Asvayurveda*, *Hastyayurveda*, *gavayurveda* deals with the treatment of horses, elephants, cattle while *Vrksayurveda* dealt with the treatments of trees.¹⁸

Classification of Diseases in Ayurveda:

¹⁷ Priyadarajan Ray and Hirendra Nath Gupta, op. cit., p.6

¹⁸ Brahmananda Gupta, "Evolution of Ayurveda through the Ages", in Chittabrata Patil and Achintya Kumar Dutta (ed.), *History of Medicine in India: The Medical Encounter*, Kalpaz Publication, Delhi, 2005, p.211.

The *Ayurvedic* texts classified the diseases into three categories¹⁹:

- i. *Sadhya*: the diseases which can be cured
- ii. *Yapya* : the diseases which cannot cured but can be improved and
- iii. *Asadhya*: the diseases which an incurable.

During the Mauryan period with the rise of Buddhism the medicinal knowledge took a further leap. This is evident from the Buddhist religious texts like *vinaya pitaka*, *deepavamsa*, *mahavamsa*.²⁰ According to Mahavagga, Jivaka was a famous physician and contemporary to Buddha. He learned the medicine at Taxila for seven year. It is said to have treated Buddha as well. The Buddhist monasteries also often had a sick room and it is likely they also doubled as hospital. Such services were provided by the monks. Among the Buddhist monks, medical knowledge became an integral part of the religious doctrine and monastic disciple and thus, there *sangha* played an important role for transmission, preservation and development of this knowledge.²¹ Under Asoka (c.269-232 B.C.) the Buddhist monasteries had developed into medical establishments and hospices. The second Rock Edict of Asoka proclaimed that there were medical treatments for humans as well animals provided through

¹⁹ Dominic Wujastyk, *The Roots of Ayurveda: Selections from Sanskrit Medical Writings*, Penguin Classics, India, First edition 1998, Second revised edition 2003. p.13.

²⁰ Farokh Ekach Udwadia, op. cit., p.31.

²¹ Ibid. p.32. for Excellent study about Jivaka see, Giridharanth Mukhopadhyaya, *History of Indian Medicine*, Munshiram Manoharlal, New Delhi, Second edition 1974, Vol. III, pp. 681-744.

medicinal plants and herbs.²² A *pali* text refers to a “hall of sick” (*gilansasala*). An inscription from *Nagarjunikonda*, a famous Buddhist monastery, dating from the third century A.D., mentions such as a health house attached to the main structure, Buddhist pilgrim Fa Hsien who visited India during the fifth century A.D. described a house meant for dispensing medicine to the poor and destitute at which had been established at Patliputra. He also mentions another such structure which may have been the health house (*arogyavihara*) of a Buddhist monastery in the same city. The canonical literatures of Buddhism thus go to prove that medicine and healing were essential parts of Buddhist monasticism from its inception.²³

Charaka Samhita and *Susruta Samhita* however were the key texts of *Ayurvedic* system of medicine. These texts along with some other minor treatises contain a discussion on the relationship of human beings to nature, theories of diseases, diagnosis, preparation of drugs, and methods of treatments through the pharmacological and surgical procedures.²⁴

Charaka Samhita is the ancient medical text based on the discourse of *Atreya Punarvasu*. The text appears in the form of a dialogue between the teacher and *Sisya* known as *guru-sisya* discourse. This classical text

²² Bein Madhab Barua, *Inscription of Asoka*, Translation, Glossary and General Index, Part II, University of Calcutta, 1943, p.180; See also G. Kenneth Zysk, *Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery*, OUP, New York, 199, p.41; See also Zaheer Baber, op. cit., p.42.

²³ Ibid. p.50.

²⁴ Zaheer Baber, op. cit., p.38.

concentrates on therapeutics.²⁵ This text of Charaka also marked the transmutation of the magico- religious therapeutics into rational therapeutics.²⁶

The French orientalist Sylvain Levy discovered the Chinese translation of an old Buddhist manuscript written in Sanskrit *tripitaka* which mentioned that the Kanishka had three close companion and friends i.e. Charaka, Asvaghosa Bohisatva and his Prime Minister Mathara in late fifth century A.D. However the date of Kanishka is considered to be the first and Second century A.D.²⁷ As per the Rabatak Inscription in Northern Afghanistan Kanishka existed either between 100-126 A.D. or 120-46A.D.²⁸ Zysk provided further evidence to suggest that the origin of *Ayurveda* had its roots in the ascetic milieu of Buddhism that prevails in India in the fifth or Sixth century B.C.²⁹

The *Charaka Samhita* deals with different medical subjects and offers a code of ethics, describes the classification of plants, medical botany, and classification of animal kingdom, customs, traditions, diets, exercise, the way of living and good and bad habits useful for the ordinary man.³⁰

²⁵Brahmananda Gupta, "Evolution of Ayurveda through the Ages", in Chittabrata Patil and Achintya Kumar Dutta ed.), *History of Medicine in India: The Medical Encounter*, Kalpaz Publication, Delhi, 2005, p.212; See also Giridharanth Mukhopadhyaya, *History of Indian Medicine*, Munshiram Manoharlal, New Delhi, Second edition 1974, Vol. III, p.610; Farokh Erach Udwadia, op.cit., p.39; Dominic Wujastyk, op.cit., p.1.

²⁶ See V. K. Thakur, "Surgery in Early India", in *Disease and Medicine in India*, ed. Deepak kumar, op. cit., p.15.

²⁷ Dominic Wujastyk, op.cit., p.1.

²⁸ Ibid., p.4.

²⁹ G. Kenneth Zysk, op.cit. cf. Farokh Erach Udwadia, op.cit, p.39

³⁰ Farokh Erach Udwadia, op.cit, p.39.

The Classical compendium of Charaka consists of 120 chapters divided into eight parts viz.: (i) *Sutra* (rules) on pharmacology, (ii) *Nidana* (Causes) on cause of eight main diseases, (iii) *Vimana* (arrangements) on various topics such as taste, general pathology etc. (iv) *Sarira* (body), (v) *Indriva* (the senses), (vi) *Cikitsa* (therapies), (vii) *Kalpa* (pharmacy) and (viii) *Siddhi* (completion).³¹

Susruta on the other hand has a lineage from Vishvamitra: *Mahabharata* represents him as a son of that royal sage. *Garuda Puranam* places Divodasa as fourth in descent from Dhanvantari, the first propounder of medical science on earth, whereas the *Susruta Samhita* describes the two as identical persons. But this apparent inconsistency in the *Samhita* can be accounted for, if we consider that in some parts of India the custom still prevails of appending, for the purposes of better identification, the name of one's father, or of a glorious ancestor to one's name, and it is therefore not surprising that Divodasa (the preceptor of Susruta), who was a firm believer in the doctrine of psychic transmigration, should represent himself as an incarnation of Dhanvantari, and assume his name and style in the usual way. Beyond this meager genealogy we possess no trustworthy information regarding the life and personality of Sushruta, the father of Indian Surgery.³²

The last chapter of *Susruta Samhita* presents the text as being the teaching of Dhanvantari to his pupil Susruta. Dhanvantari is identified as the

³¹ Dominic Wujastyk, *op.cit.*, p.5.

³² *Sushruta Samhita: Sutrasthanam, An English Translation, Of the Based On Original Sanskrit Text*, Kaviraj Kunja Lal Bhishagratna, Calcutta, Kashi Ghose Lane, 1907, Vol. I, p.ii.

king of Kashi (Vanarasi), but it is vague. Through the Bower manuscript we find the date of compendium as the beginning of sixth century A.D.³³

The *Susruta Samhita* mentions that the aim of *Ayurveda* is not only to cure the diseases but also preserve health and ensure long life. It further divides *Ayurveda* into eight parts.³⁴ The *Susruta Samhita* contains one hundred twenty chapters which are divided into six large sections viz.: (i) *Sutra* (rules) on origin and organization of medicine, medical training, and theory of therapeutic substances, diet, surgery, wounds treatments and the extraction of splinters, (ii) *Nidana* (Causes) on symptoms, pathology, prognosis and surgery, (iii) *Sarira* (related to the body) on philosophy, embryology and anatomy, (iv) *Cikitsa* (therapies) on therapy, (v) *Kalpa* (procedures) on poisons, (vi) *Uttara* (last) on ophthalmology, the care of children, diseases ascribed to demonic attack, dentistry, and parts of medicine not dealt with elsewhere.³⁵

It also describes the 120 surgical instruments (See plates I, II, III and IV) and contains an elaborate discussion and description on surgery and its procedures.³⁶ The text divided the drugs into two categories, *samosadhana* (purificatory) and *Samsamana* (pacifying) on the basis of their type and action. The text also mentions two types of surgical interventions, one regarding the

³³ Dominic Wujastyk, op.cit, p.63.

³⁴ Priyadarajan Ray, Hirendra Nath Gupta and Mira Roy, *Susruta Samhita: A Scientific Synopsis*, INSA, New Delhi, First edition 1980, reprint 1993, pp. 4-5.

³⁵ *Susruta Samhita*, op. cit. pp.14-15; See also Priyadarajan Ray, Hirendra Nath Gupta and Mira Roy, *Susruta Samhita: A Scientific Synopsis*, op. cit., pp.5-7; Dominic Wujastyk, op. cit., p.64.

³⁶ Clark, "Science" in G.T. Garratt (ed.), *The Legacy of India*, Clarendon Press, Oxford, 1962, p.354.

removal of foreign bodied embedded in the system and the second regarding the treatment of diseases not sustaining to pharmacological treatments.³⁷

The proceedings of surgical treatment are divided into three stages, viz.

- i. *Purvakarma* (Preparatory measures)
- ii. *Pradhanakarma* (principal measures or act of surgery) and
- iii. *Pascatkarma* (postoperative measures mainly to ensure proper healing).

The surgical procedures are also mentioned in details and are categorized into eight parts:

- a) *chedana* (excision),
- b) *bhedana* (incision),
- c) *lakhana* (scraping),
- d) *esana* (probing),
- e) *vedhana* (puncturing)
- f) *aharana* (extraction),
- g) *visravana* (draining of fluids), and
- h) *sivana* (suturing).

The main goal of all these surgical procedures and their divisions is to maintain the balance of *dhatu*s in the body.³⁸

³⁷ *Susruta Samhita*, op. cit. p.11 See also Mira Roy, "Ayurveda" in P. Ray and S. N. Sen (ed.), *The Cultural Heritage of India*, Ramkrishna Mission, Calcutta, 1986, p.170. See also Debiprasad Chattopdhyaya, *Science and Society in Ancient India*, Research India Publication, Calcutta, 1977, pp.23, 96-97, 119-20.

³⁸ *Ibid.*

It has been argued, and quite rightly, that the distance between the physician and the surgeon in ancient period can be understood if one compare and analyses the formulations of Charaka with those of Susruta:

“Charaka, in his writings, has a combined role of moralist, philosophers, and above all a physician; whereas Susruta has tried to cast off whatever shackles of priestly domination remained at this time, and created an atmosphere of independent thinking and investigation, which later characterized the Greek medicine”.³⁹

The importance of these medical texts can be further understood if one takes into consideration the fact that they attracted a large number of scholars to write glosses and commentaries on them through the centuries. Further, around 8th century A.D. both the texts were also translated into Arabic and then into Latin and other European languages. The *Charaka Samhita* was translated into Arabic and finds mention in writings of Ibn Sina, Ibn Zuhr and Ibn Rushd. In Latin it is mentioned as *Sharak Indianus*. The *Susruta Samhita* was translated into Arabic as *Kitab-i Susrud* which was also subsequently translated into Latin and German by the thirteenth century. Filliozat has suggested that the interactions between India and the Greek medicine were in fact facilitated with Persia as the intermediary.⁴⁰

³⁹ N. H. Keswani (ed.), *The Science of Medicine and Physiological Conceptions in Ancient and Medieval India*, New Delhi, 1974, p.16; See also D. P. Chattopadhyaya, *Science and Society in ancient India*, op. cit., p.35.

⁴⁰ See J. Filliozat, *The Classical Doctrine of Indian Medicine*, op. cit., p.233; See also Tom Patterson, “The Interaction of Indian Medicine and Modern Medicine (colonial Period),” in *Medicine and life Science in India*, being Vol. IV Part 2 of *History of Science, Philosophy*

Thus we see that though the earliest texts like the *Vedas* had a very primitive knowledge of medicine as it was more superstitions than scientific, by 1600 BC at least, by when the schools of Atreya and Dhanavantari had come into existence, the *Ayurvedic* System was established. By the early centuries of the Christian era this system was fully evolved and established.

ii. UNANI SYSTEM OF MEDICINE

Unani medicine was also an ancient medical system. It is said to have originated in the Mediterranean World, developed in the Middle East and brought to India with the establishment of the Turkish rule in the twelfth century.⁴¹ It began with Greeks (thus its nomenclature, *Unani*) and the system was formulated around 600 to 300 B.C. The Greek scholars made successful attempts to systematize healing knowledge but during this period the healing tradition, as elsewhere, was possessed by religious heads and the priests.⁴² Hippocrates who contributed to the separation of medicine from the realm of magic and religion believed that all diseases were due to natural causes.⁴³

and Culture in Indian History, ed. B. V. Subbarayappa, New Delhi, PHISPC Series, 2001, pp. 574-605.

⁴¹ Charles Leslie, "The Professionalization of Ayurvedic and Unani Medicine", *Trans New York Acad. Science*, Series II, 30, 1968, p.565; See also Dunn, Fredrick L. Dunn, "Traditional Asian Medicine and Cosmopolitan Medicine as Adaptive Systems", in C. Leslie, (ed.) *Asian Medical Systems: A Comparative Study*, University of California Press, Berkeley, 1976, p.149.

⁴² Syed Zillur Rahman, "Unani Medicine in India: Its Origin and Fundamental Concepts" in B.V. Subbarayappa (ed.), *Medicine and Life Sciences in India*, Project of History of Indian Science, Philosophy and Culture, Centre For Studies in Civilization, Vol. IV, Part 2, New Delhi, 2001.p.292.

⁴³ *Ibid.*, p. 295.

Aristotle on the other hand gave a new direction to the philosophy of medicine when he wrote an account of anatomy.⁴⁴ Aelius Galenus or Claudius Galenus popularly known as Galen in the English speaking world and *Hakim* Jalinus in the Perso-Arabic texts, gathered medicinal knowledge and systematized the work in hand. During the period of Arab enlightenment, Abu Bakr Muhammad Ibn Zakariya Al Razi (Razes) came into prominence. He wrote about two hundred treatises dealing with various aspects of medical science. His most important work is *Al Hawi* in Arabic. Abu Ali Ibn Sina (Avicenna) was another great authority of medical science who compiled the encyclopaedia of medical knowledge *Al Qanun fi al Tibb* (the canon of medicine) to reconcile the doctrine of Galen and Aristotle.⁴⁵ No one individual can be identified as the founder of *Unani* system of medicine. A large number of physicians contributed to the developments of the system.⁴⁶ Medical care in the Islamic world was pluralistic with different types of needs which allowed pre-Islamic tradition and magical practices side by side with inherited theories of the Hellenistic world. The medical practices of pre-Islamic Arabia appear to have continued as the dominant form of care into the early days of the Umayyad Caliphate. The nature of this medical care is known primarily through various

⁴⁴ Ibid.

⁴⁵ Ibid., pp.296-301.

⁴⁶ For a discussion on this theme See Helen E. Sheehan and S. J. Hussain, "Unani Tibb: History, Theory, and Contemporary Practice in South Asia", *Annals of the American Academy of Political and Social Science*, Vol. 583, Global Perspectives of Contemporary and Alternative Medicine, September, 2002, p.123

hadiths which later form the basis of medical writing called *al-Tibb al Nabawi* (*Tibb-i Nabawi*).⁴⁷

A famous *Bayt al Hikmat* (house of wisdom) flourished in ninth century Abbasid Baghdad. It was not only for translation but also for specialized scholarly study and investigation.⁴⁸ During this period many Indian scholars are reported to have been present in Baghdad. At that time, Bermecides attained the highest position in the court of Abbasid and supported to translate Sanskrit medical text into Persian. Caliph Haroon Al Rashid of Baghdad also invited several Indian physicians to cure him.⁴⁹ Amongst them one finds mention of Ibn Saleh popularly known as Saleh Bin Bhalla⁵⁰ who treated Ibrahim the cousin of Al-Rashid. His original name was probably *Sali* which after his conversion to Islam became Saleh.⁵¹ Similarly Manka (Manikya) was well versed in Indian as well as Persian (Pahlawi) and translated many books from Sanskrit into Persian or Arabic language. These works included *Sushruta*

⁴⁷ P.J. Bearman, Th. Bianquis, C.E. Bosworth, E. Van Donel and W.P. Heinrichs, *The Encyclopaedia of Islam*, New edition, Leiden, Brill, 2000, p.452.

⁴⁸ H. R. Turner, *Science in Medieval Islam: An illustrated Introduction*, OUP, New Delhi, 1999, p.30.

⁴⁹ M. Z. Siddiqi, *Studies in Arabic and Persian Medical Literature*, Calcutta University, Calcutta, 1959, pp. 35-36; See also, Seema Alavi, *Islam and Healing: Loss and Recovery of an Indo-Muslim Medical Tradition 1600-1900*, Permanent Black, Ranikhet, 2007, p. 21.

⁵⁰ S.H Askari, "Medicine and Hospitals in Muslim India", *Journal of Bihar Research Society*, Vol. 43, Parts 1-2, 1957, p.9; See also Hakim Syed Muhammad Hassan Nagrami, *Tarikh Tibb*, Qaumi Council Brai Farog Urdu Juban, New Delhi, 1989, pp.204-05.

⁵¹ M. Z. Siddiqi, *Studies in Arabic and Persian Medical Literature*, op. cit., pp. 37-38; See also S.H. Askari, "Medicine and Hospitals in Muslim India", op. cit., p.9

on surgery⁵² and *Sarat* a Sanskrit work translated into Persian.⁵³ Ibn Dhan translated many Indian works into Persian and Arabic like *Astankar* (*Ashtangahridaya*) into Arabic,⁵⁴ *Sameeka* on the cures of Poison into Arabic,⁵⁵ *Sindhastaq* or *Sindhshan* into Arabic.⁵⁶ He was also appointed as the director of *Shifakhana* (hospital) in Baghdad.⁵⁷ Bazigar, Qalbarqal, Bahlah and Khatif Hindi were also noted physicians of India who were in Baghdad.⁵⁸ The thirteenth century Pharmacologist, Ibn-i-Baiter also shows his indebtedness to Indian sources.⁵⁹

Unani system of medicine reached India in 12th century A.D. and, emerged as one of the prominent Indian medical systems. The term *Unani* (*Yunani*) originated from the term ‘*Ionia*’, which literary means Greek. This system was a synthesis of indigenous *Ayurvedic*, Greek and West-Asian systems of medicinal science and doctrines.⁶⁰ Like in the *Ayurvedic* System,

⁵² M. Z. Siddiqi, *Studies in Arabic and Persian Medical Literature*, op. cit., pp. 36, 40, However Seema Alavi mentioned that the *Susruta* was translated by Ibn Dhan.; See also Hakim Syed Muhammad Hassan Nagrami, *Tarikh Tibb*, op. cit., p.201.

⁵³ Hakim Syed Muhammad Hassan Nagrami, *Tarikh Tibb*, op. cit. pp.199-201.

⁵⁴ M. Z. Siddiqi, *Studies in Arabic and Persian Medical Literature*, op. cit., p. 40; However Ibn Dhan mentioned as “Appan Dhan” in, S.H. Askari, “Medicine and Hospitals in Muslim India”, op. cit., p.9.

⁵⁵ Seema Alavi, *Islam and Healing*, op. cit., p. 21.

⁵⁶ M. Z. Siddiqi, *Studies in Arabic and Persian Medical Literature*, op. cit., p.41.

⁵⁷ *Ibid.*, p.37, Also See, Seema Alavi, *Islam and Healing*, op. cit., p. 21.

⁵⁸ Hakim Syed Muhammad Hassan Nagrami, *Tarikh Tibb*, op. cit., p.199.

⁵⁹ S.H. Askari, “Medicine and Hospitals in Muslim India”, op. cit., p.9; For Details Studies of Ibn-i-Baiter see, Hakim Syed Muhammad Hassan Nagrami, *Tarikh Tibb*, op. cit., pp. 357-59.

⁶⁰ Zaheer Baber, op. cit., p.78.

the notions of humours and elements were important in this system as well. In this system the four humours of blood, phlegm and yellow and black bile were considered to correspond with the four elements of the earth, water, air and fire. Illness thus, was a sign of imbalance between them.

One of the first known *Unani* physicians who came to India was Ziauddin Ahmad Rafe of Herat. He was appointed as the special physician of Sultan Khusru Malik (A.D.1160-86).⁶¹ This system of medicine became popular among the masses and spread all over the country and remained unchallenged until Mughal period and even later.⁶² The *Unani* system enjoyed great popularity during the early medieval period and seems to have dominated over indigenous system of medicine like *Ayurvedic* during the Sultanate period.⁶³

The word '*Tibb*' is derived from Arabic and the root word '*tbb*' means healing, treating, sorcery, magic, spellbinding, bears a special resemblance of Islamic religion and medicine. The term *tabib* has been interpreted as one who is a learned person in almost all fields and thus, he is a skilled person in craft or science and therefore medicine. The term can also be interpreted as one who not only has knowledge and skill of medical treatment but one who also has

⁶¹ Hakim Syed Zillur Rahman, *Dilli Aur Tibb-i Unani*, Urdu Academy, Delhi, 1995, p.24.

⁶² Hakim Syed Khaefathullah, "Unani Tradition", *The Hindu, Folio*, Oct 2000, p.18.

⁶³ T. Siddique, "Unani Medicine in India during the Delhi Sultanate", *Indian Journal of History of Science*, Vol. 15(1), May 1980, p.18.

knowledge about philosophy, Alchemy etc. An anonymous Persian author claims the *tabib* as one who calms and reassures the mind of a patient⁶⁴.

An eighteenth century Persian writer defines *tabib* as a person having skill in science and related fields and thus techniques in general. The knowledge of the human body in health and illness according to him were contending in the terminology of physicians.⁶⁵

The basic concept of *Unani* medicine is based upon the Pythagorean theory of four proximate qualities i.e. hot, cold, wet and dry.⁶⁶ This system, with its humoural philosophy, views nature and mankind as ideally coexisting in a balanced manner. Since nature is as variable as climate and can change from hot to cold, from dry to wet; terrain can vary from arid and brown to wet and green and since conditions like these affect the human disposition, efforts must be made to keep the human body vary familiar to the various changes in climate and geography by regulating diet, sleep, bating, and so forth. Difficulty or failure to regulate these behaviors leads to imbalance and hence to sickness and diseases.⁶⁷ According to the *Unani* Medicine, disease was a natural process

⁶⁴ Anonymous, *Resalah dar tebb*, Library of Vaziri in Yazd, No.2428, undated. cf. Hormoz Ebrahimnejad, "Religion and Medicine in Iran: From Relationship to Dissociation", *History of Science*, Vol.XL, 2002. p.91.

⁶⁵ Mohammad Hosein b. Mohammad Hadi al-Aqili al-Alavi, *Kholasat ol-hekmat* (The Gist of Medicine), written in Persian in 1782, lithograph edition in Bombay in 1261/1845, pp.1-2; cf. Hormoz Ebrahimnejad, "Religion and Medicine in Iran: From Relationship to Dissociation", *History of Science*, Vol. XL, 2002, p.91.

⁶⁶ Syed Zillur Rahman, "Unani Medicine in India", op. cit., p.305.

⁶⁷ Helen E. Sheehan and S. J. Hussain, "Unani Tibb : History, Theory, and Contemporary Practice in South Asia", op. cit., pp.124-125

while the symptoms were the reactions of the body to the disease. It believed in the humoral theory, which presupposes the presence of four *akhlaat* (humours) i.e. *dam* (blood), *balgham* (phlegm or mucus), *safra* (Yellow bile) and *sauda* (black bile) in the body, which influences the temperament of a person. A healthy person possesses a balanced humoral constitution maintained by a power of self-preservation or adjustment, called *quwwat-e-mudabbira* (*medicatrix naturae*), in the body. If this power weakens, for any reason, imbalance in the body's humoral composition occurs, and this causes disease. Medicines are used in this method of treatment to help the body to regain this power to an optimum level, thereby restoring humoral balance and helping to cure the disease.⁶⁸

Unani System of medicine recognizes the influence of surroundings and ecological condition and is based on the six essential pre-requisites or *asbab-e-sitta zaruriyat* mentioned as air, food, drinks, body movement and repose, Psychic movement and repose, sleep and wakefulness, and excretion and retention.⁶⁹

It gives emphasis to diagnose the disease through *Nabz* (pulse), felt by the fingers and other methods of diagnosis include organoleptic examination of *Baul* (Urine), *Baraz* (Stool), etc.⁷⁰

⁶⁸ Hakim Syed Khaefathullah, "Unani Tradition", op. cit., p.18; See also Bhatia, op. cit., pp.109-110; G. Attewell, *Refiguring Unani: Plural healing in Late Colonial Period*, Orient Longman, New Delhi, 2007, p. 23.

⁶⁹ Hakim Syed Khaefathullah, "Unani Tradition", op. cit., p.18.

⁷⁰Ibid.

In the *Unani* therapy, depending on the diagnosis made, the *hakim* or physician may elect one or more of the following treatments: regimental therapy (*ilaj bit tadbir*) which includes venesection (*fasad*), cupping (*mohajim*), massage (*dalak*), cauterization (*kai*), counterirritation (*imala*), vomiting (*qai*), purging (*ishaal*), leeching (*taaleeq*), and exercise (*riyazat*). Other treatment options include dietotherapy (*ilaa bil ghiza*), and pharmacotherapy or drug therapy (*ilaa bid dawa*), and surgery (*ilaa bilyad*).⁷¹

The regimental therapies are described and their uses indicated. According to *Unani Tibb*, venesection is useful for (1) Correcting an excess of blood and relieving high blood pressure, (2) Preventing toxicity and accumulation of waste matter, (3) Stimulating metabolic processes, and (4) Treating piles, inflammation of testes and uterus, scabies, and boils.

The Cupping is useful for (1) cleaning the skin of wastes, (2) stopping excessive menses, and (3) correcting diseases of the liver and spleen.

Diaphoresis is a means of excreting waste materials from the skin and blood. Dieresis is used to excrete waste products from the body through urine; it is useful for diseases of the hearts, liver, and lung.

Turkish bath is used to eliminate waste materials, increase sweating, apply a light heat to the body, and increase the rate of metabolism. There were three types of massages, viz. (1) Soft massage acts as a sedative and relaxant,

⁷¹ Helen E. Sheehan and S. J. Hussain, "Unani Tibb: History, Theory, and Contemporary Practice in South Asia", op. cit., p.126; Hakim Syed Khaleefatullah, "Unani Tradition", op. cit., p.18.

(2) Dry and hard massage increases the blood supply, and (3) Soft massage with oil relaxes muscles and softens skin.

Cauterization prevents tumour in one organ from moving other organs, strengthens an organ with a cold temperament, and is helpful for the pain of hip joints.

Counter irritation provides relief from pain, burning sensations, and irritation; reduces inflammation; and heals tumours. Vomiting by the use of emetics is useful in curing headache, tonsillitis, migraine, bronchopneumonia, and bronchial asthma; it cures mental diseases such as mania and melancholia.

Purging by purgatives and laxatives is used for intestinal evacuation of the treatment of various diseases.

Leeches were applied to the skin to remove toxins from the blood. They were also used to treat skin disease such as ringworm. Exercise, used for maintenance of health, may also be used in the treatment of disease; the amount and timing of exercise is determined by the type of illness.⁷²

The pharmacy in *Unani Tibb* is highly developed. Histories of the development of Arabic and Persian medicine indicate the extensive efforts their physicians made to collect products (herbs, spices, animal parts, fruits, etc.) from all parts of the world, as well as from their own lands, to evaluate their usefulness for medical treatment. Natural drugs are viewed as the most suitable for treatment since they produce little or no harmful side effects. It is best if drugs do not disturb the humoral equilibrium. If drugs do produce change, it is

⁷² Helen E. Sheehan and S. J. Hussain, "Unani Tibb: History, Theory, and Contemporary Practice in South Asia", op. cit., pp.126-127.

considered to be a result of the dominating humour in the drug and the temperament produced by its excess. Thus, the selection of drugs is based on the specific action of the drug, its temperament and the temperament of the patient in his or her diseased condition. Potent fast acting and poisonous drugs cause chemical stress and may harm the body. Such drugs are resorted to only when their use is inevitable. They are used with maximum care to minimize adverse effects. Even today, in countries where Arabic medicine has been eclipsed, shops are selling perfumes, spices, and herbs will also stock (and prepare) simple drugs based on the Arabic drug formulas.⁷³

The field of surgery was also not quite as neglected a field as has generally been made out. The institution of *jarrah* was very similar in *Unani* medical system to that of a Barber-surgeon in the European model.

⁷³ Ibid., pp.127-28.