



Contributions of Sage Charaka to Dentistry - A Review

K Chandrasekharan Nair^{1*}, MV Anil Kumar² and Pradeep Dathan³

¹Professor Emeritus, Department of Prosthodontics, Sri Sankara Dental College, Akathumuri, Thiruvananthapuram, Kerala, India

²Superintendent and Professor, Women and Child Care Hospital, Govt Ayurveda, College, Poojappura, Thiruvananthapuram, Kerala, India

³Professor and Head of the Department of Prosthodontics, Sri Sankara Dental, College, Akathumuri, Thiruvananthapuram, Kerala, India

***Corresponding Author:** K Chandrasekharan Nair, Professor Emeritus, Department of Prosthodontics, Sri Sankara Dental College, Akathumuri, Thiruvananthapuram, Kerala, India.

DOI: 10.31080/ASDS.2022.06.1373

Received: April 18, 2022

Published: May 05, 2022

© All rights are reserved by **K Chandrasekharan Nair, et al.**

Abstract

Sage Charaka is considered as a father figure of the renowned treatment system of Ayurveda. He lived any time between 2nd century BC to 1st century AD. Scholars of Charaka Samhita states that the Sage lived in the north west India. Charaka Samhita had many commentaries and still remains to be the widely accepted text of Ayurveda amongst students and practitioners.

Keywords: Charaka; Charaka Samhita; Charaka Sapadh; Oath of Charaka; Gandoosha

Introduction

The most ancient medical treatise is believed to be Charaka Samhita and it is named after Charaka who lived between second century BCE (BC) and first century CE (AD). The meaning of the word Charaka is 'wandering scholar' or 'wandering physician'. The name is also believed to be derived from his village of birth 'Charekh' which is situated in the upper Himalayas of Garhwal. Various assertions have been made that he lived either in Takshasila (Taxila) or in Kapisthal (now known as Jalandhar), located between Iravati (Ravi) and Chandrabagha (Chenab) rivers in Panchanada (Punjab) (Figure 1) [1-7].

Agnivesa, the chief disciple of Punarvasu Atreya, had written an encyclopedic Ayurvedic treatise in the 8th century BCE. However, it was only when Charaka revised this treatise that it gained popularity and hence in the later periods it was known as Charaka Samhita. Many people believe that Charaka and Patanjali are the same person. Patanjali who lived in first century BCE wrote Yoga Sutra (science of yoga), Mahabhashya (treatise on Sanskrit grammar) and contributed to Ayurveda too and hence the belief

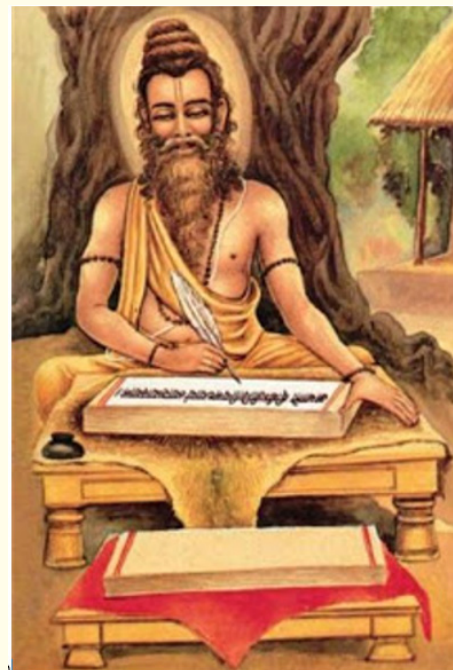


Figure 1: Sage Charaka.

that both the persons are the same. Buddhists believe that Charaka was the physician of Kanishka who lived in first century CE.

Charaka adopted Sanskrit as the language of the samhita and its style is poetry, with meter and melody. Poetry served as a memory aid. Charaka Samhita contains over 8,400 metrical verses, which are often committed to memory, in toto, by the students of Ayurveda. Charaka divided the treatise into eight parts, or ashtanga sthanas: *sutra*, *nidana*, *vimana*, *sarira*, *indriya*, *chikitsa*, *kalpa*, and *siddhi* and each part contained multiple chapters (Figure 2).

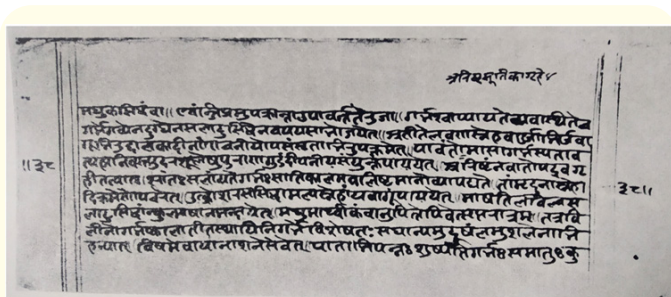


Figure 2: A leaf of Charaka Samhita.

- Sutra Sthana is the first section dealing with fundamental principles of Ayurveda
- Nidana Sthana deals with principles of diagnosis of diseases. The term Nidana is applied for knowing the origin of disease (vyadhijanaka) and comprehensive information of disease (vyadhibodhaka)
- Vimana Sthana is about quantification of vitiation of dosha and other specific factors responsible for causing disease or impair health of an individual. It also describes dietary regulations, causes of epidemics, basic body systems, acquiring knowledge of disease and patient, and medical education.
- Sarira Sthana deals with the study of holistic human being
- Indriya sthana deals with the study of specific signs related to Prana (vital life force) perceived by sense organs.
- Chikitsa Sthana deals with the study of preservation of health, prevention and management of various diseases
- Kalpa Sthana deals with the study of formulations used in therapeutic purification procedures.
- Siddhi Sthana deals with the standardization and successful administration of various therapeutic purification procedures.

Charaka comprehensively dealt with all the aspects of health care, including the logic and philosophy of Indian medicinal system. Special emphasis was given to diagnosis of disease along with preventive and curative aspects. Embryology, anatomy of the human body and function and malfunction of the body according to the *tridosha* (the three humors of the body: *vata*, *pitha*, and *kapha*) were also discussed. Classification of various diseases is also a subject of Charaka Samhita. The following statements are attributed to Acharya Charaka

“A physician who fails to enter the body of a patient with the lamp of knowledge and understanding can never treat diseases. He should first study all the factors, including environment, which influence a patient’s disease, and then prescribe treatment.”

“It is more important to prevent the occurrence of disease than to seek a cure.”

Charaka Samhita does not describe dental diseases and their treatment. However, in Suthra sthanam, Vth chapter (Mathrasitheeyam) of Charaka Samhita, daily routine of body care is described. Care of teeth comes after that of the eyes (Figure 3).

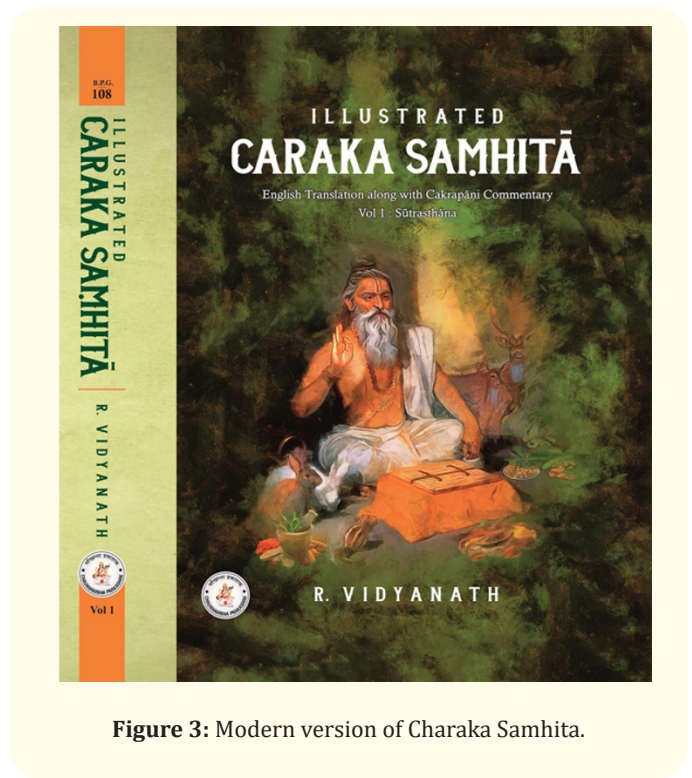


Figure 3: Modern version of Charaka Samhita.

Oral Hygiene: Method of Cleaning Teeth, Tongue and Directions for Toothbrush Use

Prayujjāno yathākālam yathoktānaśnute guṇān |
 āpothitāgram dvai kalau kaṣāyakatutiktakam || 71||”
 Bhajñayed dantapavanam dantamāmsānyabādhayan |
 nihanti gandham vaurasyam jihvādantāsyajam malam || 72||”
 Niṣkr̥ṣya rūcimādhate sadho dantavisodhanam |
 karañjakaravīrākamālatīkakubhāsanāḥ || 73||”
 Śasyante dantapavane ye cāpyevamvidhā drumāḥ |
 suvarnarūpyatāmrāṇi trapurītimayāni ca || 74||”
 Jihvānirlekhanāni syuratiḥṣṇānyanirjūni ca |
 jihvāmūlagataṁ yacca malamucchvāsarodhi ca || 75||”
 “Daugandhyaṁ bhajate ten tasmājjihvām vinirlikhet |
 Ghāryāṅyāsyen vaiśadharūcisaugandhyamicchatā || 76||”
 “Jātikaṭukapūgānām lavamgasya phalāni ca |

(Charaka Samhita, Suthra Sthanam, 5th Chapter)

One should clean the teeth with herb sticks having a crushed end and these should be either *Kashaya* (astringent), *Katu* (pungent), or *Tikta* (bitter) in *Rasa*. The twigs are known as *Dattuna* (Chewing sticks) and its length should be 12 *Angul* (9 inches), while thickness should be equal to *Kanshtika anguli* (little finger). This removes halitosis, dysgeusia, induces taste for food by removing the impurities from the tongue, the mouth and the teeth, and cleans the teeth instantaneously. *Karanja* (*Pongamia pinnata* Pierre-Indian beech), *Karavira* (*Nerium indicum*), *Arka* (*Calotropis gigantea*), *malati* (*Jasminum grandiflorum*). Ayurveda recommends various other plants also for oral hygiene like - *Neem* (*margosa* or *Azadirachta indica*), Fresh stems of *Yastimadhu* (*Glycyrrhiza glabra*), *Arjuna* tree (*Terminalia arjuna*), *Vata* (*Ficus bengalensis*), *Vijaysara* (*Pterocarpus marsupium*), *Arimeda* (*Acacia farnesiana*), *Apamarga* (*Achyranthus aspera*) or such other known herbs which possess the above-mentioned tastes should be used. For scraping and cleaning the tongue, metal strips made of gold, silver, copper and brass are recommended. Charaka states that cleaning the tongue avoids halitosis. (Charaka - Suthra sthanam - Chapter 5: Verses 71 - 75). What Charaka observed centuries ago about oral hygiene are valid even today.

Mouth fresheners

“Daugandhyaṁ bhajate ten tasmājjihvām vinirlikhet |
 Ghāryāṅyāsyen vaiśadharūcisaugandhyamicchatā || 76||”
 “Jātikaṭukapūgānām lavamgasya phalāni ca |
 kakkolasya phalam patram tāmbūlasya subham tathā || 77 ||”
 Tatha karpūraniryāsaḥ sūkṣmailāyāḥ phalāni ca |

(Charaka Samhita, Suthra Sthanam, 5th Chapter)

One, desirous of securing cleanliness, taste and fragrance should keep *jati* (*Myristica fragrans* Houtt. -nutmeg), *katuka* (*Hibiscus abelmoschus* Linn. -musk-mellow), *puga* (*Areca catechu* Linn. -betel-nut), *lavanga* (*Syzygium aromaticum* -cloves), *kankola* (*Piper cubeba* Linn. -cubeb-pepper seed), *tambula* (betel-leaves), *karpura* (*Cinnamomum camphora* Nees and Eberm.-camphor), and *sukshma ela* (small cardamom) in the mouth. (Charaka - Suthra sthanam - Chapter 5: Verses 76-77)

Gandusha (Oil gargling) and its benefits

hanvorbalam svarabalam vadanopacayaḥ paraḥ || 78||”
 Syāt param ca rasajñānamanne ca rūciruttamā |
 na cāsya kañṭhaśoṣaḥ syānauṣṭhayoḥ stunādbhayam || 79||”
 Na ca dantāḥ kṣayaṁ yānti dṛḍhamūlā bhavanti ca |
 na śūlyante na cāmlena hṛṣyante bhakṣayanti ca || 80||”
 “Parānapi kharān bhakṣyāṁstailagaṇḍūṣdhāraṇāt |
 nityam snehādrśirasāḥ śiraḥśūlam na jāyate || 81||”

(Charaka Samhita, Suthra Sthanam, 5th Chapter)

Oil-gargling (*Gandoosha*) imparts strength to the jaws (*hanubalam*), strength to the voice (*svarabalam*) and excellent fullness to the face, improves gustatory sensation and good taste (*ruchayam*) for food. One does not suffer from the dryness of the throat, or from the fear of the lips getting chafed. One's teeth do not become carious and become firmly rooted, they do not ache and resist sensitivity while taking sour food. Teeth become strong enough to chew even the hardest eatables.

Dental education

Till the fifth century AD, *Takshasila* was considered as the seat of higher learning including medicine. However, Sage Charaka does not make a mention of the *Takshasila* University in his text probably by that time *Takshasila* did not enjoy popularity. Education through Gurukuls were popular and Charaka might have taught his students through his own gurukul.

Students were admitted after the completion of 16 years of age. They should have obtained general education in religion, philosophy, literature, astronomy, astrology, mathematics, technology, science of plants etc. Students were required to have contended frame of mind, should be well mannered and highly intelligent. Students were first evaluated by a group of scholars who were called 'Dwara pundits' and successful students were provisionally admitted.

They were under probation for a period of twelve months. Amongst those students, only one fifth were successful in getting admission.

Oath of Charaka (Charaka Sapadh)

Students were then initiated in front of the holy fire and the guru gave instructions on the basic behavior befitting for a medical student. The detailed narration can be found in Chapter 8, Vimana sthana of the Charaka Samhita. Some of the important statements were as follows:

Figure 4: The oath of Charaka.

- Observe celibacy (brahmacharya)
- Always speak the truth
- Stick to vegetarian food
- Food should be conducive to promote intellect and mental health
- Refrain from jealousy
- Do not carry any weapons
- Always obey the instructions of the preceptor
- Act without ego
- Act with utmost care and affection
- Keep away from finding faults with wise and learned persons

- Should put extreme and sincere efforts to cure the patients
- Should never cheat or mistreat the patients just to make a comfortable living.
- Should not even think of committing adultery and should not aspire for any property belonging to others.
- Should have looks, appearance and apparel that make the student look modest and noble.
- Should always make efforts for the upliftment of the knowledge and adoption of such methods which would bestow with good health
- Should not treat women in the absence of their husbands or guardians. Women should not be treated without their consent.
- While entering the patient’s residence make sure that you are well clad, with the head bowed down
- Should not disclose the customs, practices and secrets of the patient’s family to outsiders.
- After having known that the patient’s life span is decreasing, he or she is close to death and the disease has bad prognosis you should not disclose this to the patient or his family if you suspect that it might cause shock or grief to the patient or his family members.

Students were instructed to learn by heart the passages from texts and discussions were held in detail. Understanding and pronunciation of the passages were closely observed by the teachers. At the end of graduation, students were ordained with the title ‘Snataka’. Later they have to apply to the King for permission to practice and they will be given the title of ‘Vishikha’.

Hippocratic Oath

Hippocratic Oath is an ethical code and it is administered to all fresh medical graduates. It is believed to be written by ancient Greek physician Hippocrates. This oath has been revised from time to time by different agencies viz. World Medical Association (WMA) and it is promoted in the Declaration of Geneva in 1948. The professional duties of physicians are outlined in it and affirms ethical principles in a global context. The oath dictates the obligations of the physician to students of medicine and duties of pupil to the teacher. The physician pledges to prescribe treatments that are beneficial to the patients according to his abilities and judgment; to refrain from causing harm or hurt; and to live an exemplary personal and professional life.

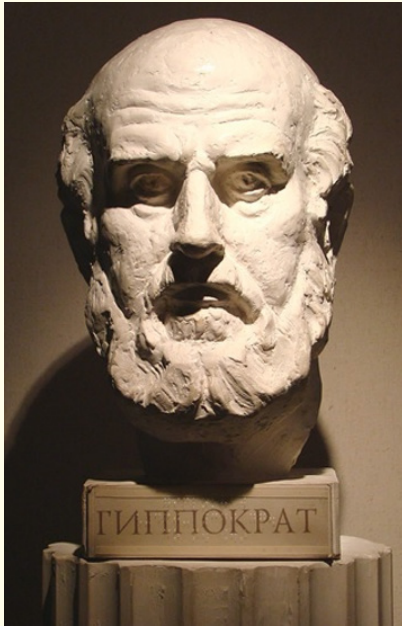


Figure 5: Hippocrates

Both Charaka and Hippocrates have framed the oaths to ensure the commitment of the medical professional to the society. Like Hippocratic oath, the oath of Charaka also requires modifications and adaptations to suit the needs of the civilized society. A debate is going on in India about the replacement of Hippocratic oath with Oath of Charaka. Oath of Charaka has an Indian origin whereas Hippocratic oath has a Greek origin and both have evolved during almost the same period of time. Sage Charaka needs to be given due recognition by the Indian medical profession.

Conclusions

Sage Charaka was a master physician who stipulated the qualities of students who are desirous of practicing medicine. Teachers' qualities are also narrated in Charaka Samhita. Oral health was duly recognized in Charaka Samhita especially the preventive care. However, references to dental diseases are very scarce in Charaka Samhita compared to other masterly text books.

Bibliography

1. Krishna warrier NV. "Contribution of India to dentistry. *Vijnana kairali* 3 (1972): 827-834.
2. Choksey KM. "Dentistry in ancient India, 1st edition". Popular Book Depot, Bombay (1953).
3. Valiathan MS. "The legacy of Charaka, 1st edition". Orient Longman India (2003): 32.

4. Jaggi OP. "Indian systems of medicine". Atma Ram and Sons, Delhi, India 4 (1973): 11-16.
5. Garg Gunjan., *et al.* "Ayurvedic approach in oral health and hygiene". *IJAPR* 4 (2016): 17-20.
6. Gabriel Van Loon (Ed), Charaka Samhita (2002): 207-208.
7. Charaka Samhita, Sanskrit text, Publisher: Choukhambha Orientalia (2012).

Figure Credits

- Figure 1. Exotic India art.com
 Figure 2. O P Jaggi, Indian system medicine
 Figure 3. Choukhamba.com
 Figure 4. Times of India, April 2, 2022
 Figure 5. Medicaltourismgreece.com