INDIAN KNOWLEDGE SYSTEMS

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**Medical Sciences in India**

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**ABSTRACT**

The story of man's battle with illness is the chronicle of medicine.A comprehensive healing system known as Ayurveda was developed in India as early as 5000 BC.Between 4500 and 1600 BC, such traditional healing was first documented.Ayurveda is thought to have been first practiced by wise men between 2500 and 600 B.C.They considered health to be an essential aspect of human existence and dedicated the practice to God.They used herbs and gave advice on nutrition based on a system of medical knowledge that was the foundation of the practice.

For many generations, Ayurvedic treatments have been documented in books.The information was also passed down orally, but most of it was written down in palm-leaf manuscripts.The principles of Ayurveda combine the elements of nature:Vayu means air, Jala means water, Aakash means space, Prithvi means earth, and Teja means fire.The Pancha Mahaboota is the name given to these five elements.The three fundamental principles of Vata, Pitta, and Kapha, collectively referred to as the Tridoshas, are formed by these natural elements.It was believed that imbalances in the Tridoshas led to disease.Dependability between the Tridoshas and the five regular components brought about a legitimate condition of wellbeing.

Ayurveda offers two types of treatment:therapy for purification (Shodhana) and treatment for pain or death (Shamana Chikitsa).Shodhana treatment eliminates dangerous doshas, which are the root causes of illnesses that can be fatal.Ayurvedic medicines are used in Shamana therapy, which follows Shodhana therapy.In the fourth century BC, the Caraka Samhita, Astanga Hrdaya, and Sushruta Sahmita established the eight branches of medicine.Internal medicine, surgery, pediatrics, toxicology, reproductive organ purification, health and longevity, psychiatry and spiritual healing, and cosmetic surgery were first mentioned in the epic Mahabharat.In India, these manuscripts are well-known and are still consulted today.

**INTRODUCTION**

The classic writings by Sus'ruta and Charaka, among others, serve as examples of the significant medical advancements accomplished by the ancient Indians. In addition to authoritative books, an intriguing pedagogical strategy was used in ancient India to transmit knowledge through the use of stories. As long as one could unlock the metaphors built into the folklore, the wisdom became clear. Understanding remained at the mythical level due to a failure to recognise the analogies.

According to Sitaram Ayyagari, a Vedic scholar, the tale of Karkati from Yoga Vasistha, a compilation created over a number of years and variously dated to the Ramayana period, transmitted the lesson of good cleanliness and a healthy lifestyle. In this symbolic tale, the main character, Karkati, was a monster that took on enormous size and devoured people with an insatiable appetite, with the exception of those who were shielded by mantras, healing herbs, austerities, and good actions. The demon, who had attained the "anAyasi-Ayasi" blessing, transformed into an iron-pin-like thing through which it could suck the blood of those who ate undercooked food, ate when they shouldn't have, indulged in gluttony, had loose morals, and lived in unclean environments. The needle-tip object entered through the ears and nose, reached the heart, disturbed sleep, and had an impact on other organs.

The hidden lesson in this narrative is the value of proper hygiene, a sensible diet, and physical and mental health, according to even a superficial reading. It is amazing that the sages of old discussed intricate knowledge of the causes of disease and even described the likelihood of hereditary transmission pathways. This tale serves as an example of how metaphors were used in ancient Indian storytelling to encode wisdom.

**LITERATURE REVIEW**

## Chronology of Ancient Indian Medical Knowledge

The Atharvaveda, a body of oral tradition passed down from antiquity, contains the earliest corpus of medical writings. In the Atharvaveda, there are parts on maintaining health and longevity, treating ailments, finding specific disease treatments, eradicating germs, treating poisons, and living a healthy lifestyle. As demonstrated in Patanjali's Yoga Sutras (fountainhead), which advocate good deeds, positive thoughts, asanas (yoga postures), pranayama (breath control), and meditation to achieve physical and mental well-being and, eventually, Samadhi (meditative contemplation to attain higher consciousness). Medical knowledge and philosophical ideas coexisted peacefully. The origins of Ayurveda can be found in Atharvaveda, which attributes illness to either an unhealthy lifestyle or Karmaphala (fruits of deeds committed).

Ayurveda viewed human health in terms of three doshas (fundamental energies or governing principles of the body), each of which is composed of five elements: Vata (air (Vayu) + space/ether (Aakash), Pitta (fire (Agni), and Kapha (earth (Prithvi) + water (Jala), an imbalance of which results in illness and calls for remedy. The Pancha Mahabhootas, or five major elements, were thought to make up the universe, together with the bodily processes governed by the doshas. The seven basic principles or tissues that make up the human body are known as the saptadhatus: Rasa (tissue fluids), Rakta (blood), Mamsa (muscle), Meda (fat), Asthi (bones), Majja (marrow), and Shukra (reproductive tissue). In northern India, worshipping Sheetala Mata or Ma Durga, and in southern India, worshipping Mariamman, people frequently prayed to the gods for health and healing.Sheetala Mata is depicted in the iconography carrying a broom and pots to symbolize cleanliness;For its antiseptic properties, the water was stored in bronze or copper pots, and turmeric and neem leaves were used as herbal remedies.

## Archeological record of medical practice

The archaeological finds can be used to trace the beginnings of Indian medical practices.A tooth from 9000 BCE was discovered in Baluchistan6 with what appeared to be drilling to remove decayed dental tissue. Additionally, several skulls from Mehrgarh and Harappa Cemetery from 2300 BCE showed trepanation and bone healing. A skeleton with a bitumen prosthetic eye was unearthed from a grave near Baluchistan in the Burnt City in yet another find from 2800 BCE.

In the medical compendium known as the Sus'ruta Samhita (code of practice), which Western scholars have erroneously dated between 600 and 200 BCE, the use and construction of surgical instruments are mentioned.The Bower Manuscript, a birch bark document written in Gupt Prakrit (a vernacular), was found in the Xinjiang province and is one of the earliest extant scriptures of Indian medicine. It was discovered around 200 CE. Copper surgical instruments were found in Taxila from this early period.One might wonder how the date of Sus'ruta was set.Osteologist Rudolf Hoernle, who translated the Bower Manuscript, also tried to date Sus'ruta by looking at the descriptions of bones and altars in the Satapatha Brahmana (100 paths of vedic commentary).

## Contributions to cardiology

It is believed that the Sanskrit word Hridaya gave rise to the earlier terms used in Europe to describe the heart.The word "heart" came from the word "heorte," which means "breast," "soul," "spirit," "will," "desire," "courage," "mind," and "intellect."It could also be related to Proto-Germanic hertan, the old Saxon herta, the old Frisian herte, the old Norse hjarta, the Dutch hart, the old high German herza, the German Herz, and the Gothic hairto.18 The spelling with the -ea-, which reflects what was then a long vowel, could indicate that it originated before about 1500. The spelling was retained even when the pronunciation changed.The greater part of the cutting edge metaphorical faculties were available in early English, including the thought of heart as the seat of deepest sentiments, feelings, love and warmth, or boldness from late 14c.

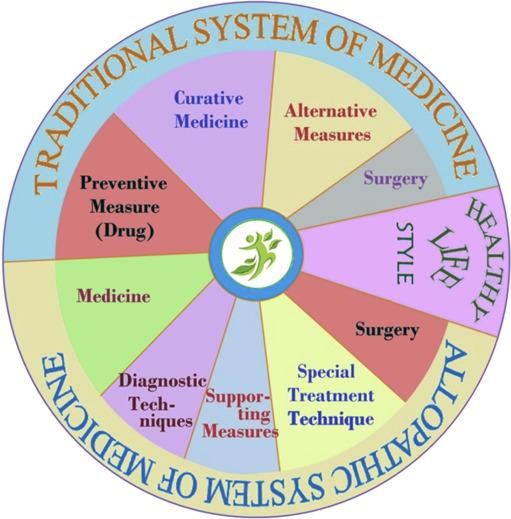
According to Satpath Brahman and Brihadaranyak, three verbs are what gave rise to the Sanskrit word "Hridaya."i) HRU for "harati," which means "to receive from" or "to abduct," ii) DA for "dadati," which means "to give" or "to donate," and iii) YA for either "yagati," which means "to control through self-generated rhythmicity," or "yama," which means "maintaining balance for contraction and relaxation," or "to circulate." As a result, the word "hridayaThe chapters Arthe Dash Mahamully Adhyaya and Trimarmiya Adhyaya illustrated the concept of hridaya in the Charak Samhita.The hridaya was referred to as the organ that was constantly contracting and relaxing during waking and sleep.Hridaya was first described in the Atharva Veda as an organ system that included the brain and the heart, respectively.In addition, Yogvashishtha made explicit references to a thoracic and cranial hridaya, as well as the emotional aspect of the heart.

The essence of the shonita (feminine genotype), i.e. rakta and kapha, gave rise to the hridaya, which was regarded as a maternal organ in terms of genetics. Myocardium's high mitochondrial content also supports maternal origin, drawing a parallel to the development of a muscular organ similar to myometrium.The regenerative function-related Shukra or masculinity genotype was not considered an important player;cardiomyocytes are not equipped for replication.The development of the heart was considered to be complete by the fourth month of pregnancy, when the mother was referred to as dvihridaya (dual hearted), and it began to function inside the womb.hridaya was described as a type of sira-marma (sira = vessel, marma = vital part)24 in the Garbh Vyakarana (embryology) Shariropkramnitya Adhyaya of Sharir Sthana in the Sus'ruta Samhita. Sus'ruta reported hridaya as Marmasthan, Pranayatan (seat of vitality).

## Hridroga and pathophysiology of circulation

In the 43rd chapter, Sus'ruta talked about the symptoms and treatment of heart disease (Hridroga) in a section about Kaya Chikitsa Tantra, which is a physical medicine doctrine.In addition, hridaya was linked to avalambak kapha (i.e., the structural integrity of the heart and lungs), oja (metabolism or energy distribution), and sadhak pitta (heart-mind balance, consciousness). The hridroga were reported to be caused by dysfunction of vayu (wind or circulation).

Blood purification and acceptance of the heart's rasa–rakta complex (aadaan), valve closure, and the generation of praspand (cardiac impulse) were all linked to pranayama.With each breath, Pranavayu brought amberpiyush (oxygen), and Udanavayu supplied cardiac muscles with bala (energy).The latter was responsible for the force that moved the rasa–rakta complex along the mahadhamanee (aorta) and circulated it (vyana).Imperfections of pranavayu and udanavayu could bring about broadening or coming up short of heart.The mandala sandhis, or valves, that controlled the unidirectional flow of the rasa–rakta complex into and out of the heart were described by Sus'ruta.Valve function may be compromised in amavata (arthritis).The vyanavayu was in charge of both the contraction and relaxation phases of the hridaya and its rhythm.The rasa–rakta complex was thought to circulate from the heart to the body in three directions—upward (heart to head and back), horizontally (portal circulation), and downward (peripheral circulation), according to Vyanavayu.By transporting the nutrient-rich fluid from the digestive tract to the heart, Samanavayu had an indirect impact on the heart.Avalambaka kapha, on the other hand, accounts for lubrication and is now thought to be associated with pericardial effusion, pleural effusion, and pulmonary edema. In contrast, sadhakapitta could affect the rhythmic control of the heart.



**CONCORDANCES AND DISCORDANCES**

A holistic approach to patient care in modern medicine aims to incorporate the social, psychological, and pathological aspects of a disease.In line with this, the concept of "concordance," which respects the integrity of the patient, autonomy, and self-determination, has replaced the traditional model of improving treatment outcomes through improved compliance or adherence.A patient with self-consciousness actively and equally participating in their comprehensive healthcare can alter perceptions and the way the healthcare industry works.It is anticipated that medication concordance will play a significant role in enhancing patient well-being, clinical outcomes, and healthcare delivery.However, there are a lot of questions that need to be answered, such as what to do about medicolegal complexities, cultural and linguistic barriers, illiteracy, and a lack of time, resources, and infrastructure.

The effective implementation of this initiative, which has the clear potential to be beneficial in Indian healthcare settings, faces significant obstacles.This novel approach can only be successful with coordinated, inclusive, and persistent efforts from all healthcare participants to cultivate a trust, belief, and communication environment.Using key words from relevant articles and MeSh terms from Google Scholar and PubMed, a comprehensive literature search was carried out.Data were abstracted based on how relevant they were to the review's subheadings, and concepts were synthesised by at least two reviewers for each subsection through multiple reviews.

**CONCLUSION**

Numerous physicians and surgeons have made significant contributions to Indian medical systems throughout history.In this brief paper, we discuss the ancient Indian medical systems, their influence on ancient, medieval, and modern medicine, and our hypothesis that significant knowledge of the heart's function existed in BCE.

It is common knowledge that Traditional Medical Systems have always played a significant role in meeting global health care requirements.They are doing so right now and will continue to do so in the future.According to Prasad (2002), Indian Systems of Medicine are systems of medicine that are thought to be Indian in origin or that were brought to India from outside and assimilated into Indian culture.India is unique in that it has six recognized medical systems in this category.Ayurveda, Siddha, Yoga, Naturopathy, and Homoeopathy are among them.According to Prasad (2002), despite the fact that homoeopathy first arrived in India in the 18th century, it was able to fully integrate into Indian culture and become more sophisticated than any other traditional system. As a result, it is included in the Indian Systems of Medicine.In addition to these systems, the folklore stream contains a large number of healers who are not categorized.In order to make it easier for readers to acquire additional information, the current review will attempt to provide a brief profile of three systems.

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