



A SYSTEMIC REVIEW ON BASIC FUNDAMENTAL PRINCIPLES OF RACHANA SHARIR ACCORDING TO ACHARYA SUSHRUTA

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ABSTRACT

The Sushruta Samhita is one of the first books that established the foundation for Ayurvedic treatment in India. Sushruta is the most well-known surgeon and doctor in India. Even though he was a surgeon and physician in the fifth century B.C., many of his advancements in these domains were developed before Western counterparts. Acharya Sushruta was not only one of the first surgeons in history, but he was also a forerunner in the study of human anatomy. In his writings, Acharya Sushruta explains the dissection procedure during the period when modern anatomy was in use. Acharya Sushruta detailed the dissection in addition to defining the anatomical components and their positions in great detail.

KEYWORDS - fundamental concept, Sushruta Samhita, Ayurveda, etc.

INTRODUCTION

Acharya Sushruta devoted close attention to the anatomy of the human body. It was highlighted in point that no surgeon should begin his surgical career without having a solid understanding of human anatomy. From the beginning of the cosmos, cellular structure, through the development of different tissues and organs, beginning with intrauterine life, Acharya Sushruta has offered a thorough account of everything. Additionally, he has described the anatomical circumstances of many structures. He has firmly said that sperm and ovum merge to generate an embryo (uterus) in the Garbhashaya. Sushruta has covered the anatomical parts of the body individually. The Sharira sthana, which is a portion of the Sushruta Samhita's study of the human body, includes a section on anatomy. He recommended that students study embryology, which he saw as an extension of the embryo, then the anatomy of the human body, which he viewed as an extension of the genesis of the cosmos in connection to the physical and metaphysical qualities of the body. He emphasized the importance of surgical observation and hands-on instruction.1

This portion of the Sushruta Samhita is referred to as Sharira sthana (section on the study of the human body) because it completely describes life from conception to death and investigates the beginning of the world. Atma (soul), the relationship between nature and the eternal body, the Trigunas (3 characteristics), Panchamahabhutas (5 subtle elements, including earth, water, fire, air, and space), and how living things were produced from these fundamental elements of the universe are all covered in the opening of the Sharira sthana. It's noteworthy to notice that after treating Artava and the abnormal Shukra with the appropriate medicine, he talks about the normal Shukra. Anatomy of abnormal and unhealthy menstrual blood (Artava) and sperm.

METHODOLOGY

Information was gathered for this review article from a variety of textbooks, websites, and articles.

PROPERTIES OF SUDDHA SHUKRA

Shuddha Shukra (healthy semen) Lakshana should have the following qualities: it should be a clear liquid with a honey-like aroma and hue, similar to oil or honey. Similar to how healthy menstruation shouldn't stain clothing, it should resemble liquid lac or rabbit blood. A kid born under these conditions will have a long, healthy, and successful life. The acharya also covers fertilization, which is one of the four crucial elements in the development of Garbha (the fetus), as well as the old-fashioned theories of twin pregnancies and congenital defects in fetuses.³

ACCORDING TO ACHARYA SUSHRUTA

The amount of observation and reporting by Acharya Sushruta is noteworthy since it accords with contemporary findings. For instance, the healthy sperm and ovum as well as the uterus, which is in charge of implanting the fertilized ovum, should be present during fertilization. Modern gynecologists continue to discover the reasons of infertility in couples and take action when necessary. For example, in endometriosis, the damaged uterus has to be treated as such since it isn't ready for implantation or pregnancy. The word "embryology," also known as "Garbhavakranti Sharira," describes the process from conception to the healthy delivery of offspring as well as sex determination (here, we shall learn about the genetics' secret basic principles).⁴

Acharya Sushruta was particularly interested in investigating and documenting the length of ovulation, which is still true according to modern science, as well as the closing and opening of the cervical os, which is delightfully connected with the lotus flower before and during ovulation. Menstruation: the duration, dos and don'ts during the cycle, and signs and symptoms of pregnancy, such as nausea, vomiting, and other manifestations referred to as emesis gravidarum in modern medicine. According to Dos and Don'ts during Pregnancy (umbilical cord), contemporary research reveals that the exchange of gases and nutrients occurs through the nabhi naadi.⁵

THE DEVELOPMENT OF THE GARBHA

The detailed description of the fetus' growth from the first to the ninth month. Without any help, the pioneer Acharya Sushruta said magnificently that advancement happened month by month in the past and that it still holds true now..⁶

- In the first month, the kalala (small mass) develops.⁷
- In the second month, the mass will be unevenly shaped if the developing embryo is a hermaphrodite, elongated if it is a female, and spherical if it is a male.⁸
- During the third month, five buds for the head and neck, lower limbs, and upper limbs will form in the mass.⁹
- At this stage, the mother is referred to as Douhridini (two-hearted lady) and displays longings or demands for certain items like food or jewelry, which must be satisfied to prevent congenital defects like dwarfism, mental retardation, or blindness in the newborn. At this moment, one may also hear one's heartbeat.¹⁰
- In the fifth month, the brain starts to develop.¹¹
- Growth of the Buddhi in the fifth month (Intellect).¹²
- Your complete body is appreciated in the seventh month.¹³
- In the eighth month, oja (immune power) fully develops.¹⁴
- In the ninth month, the kid is born.¹⁵

CONCEPT OF AVEDHYA SIRA

Acharya Charaka claims that the name "sira" alludes to the blood vessels where "saran kriya" is performed. A delicate, opposing blood flow is referred to as "saran kriya". Acharya Sushruta claims that Sira is a direct descendant of Nabhi. The benefits of Nabhi Sira are felt throughout the entire body. All of the doshas are carried by the 40 main Siras, sometimes referred to as the sarvavaha. There are two types of siras: those that should not be venesected and those that can be pierced to cure sickness.¹⁶

There are 700 siras in the human body, 602 of which are vedhya and 98 of which are avedhya. Siravedhan is one of the several Raktamokshana variations. This method eliminates the doshas that are firmly ingrained in the tainted blood, curing the sickness. A particular Sira must be pierced in order to treat a certain illness.¹⁷

It is forbidden to puncture certain siravedhan since doing so ends in death and deformity. There are 98 Avedhya Siras, of which 16 are in the extremities, 32 are in the koshtha, and 50 are in the Urdhvajatrugata area.¹⁸

Anga Pratyanga	Vedhya Sira	Avedhya Sira	Total
Shakhagata	384	16	400
Kostha	104	32	136
urdhwajatrugata	114	50	164
Total	602	98	700

(Reference - Rashmi Tiwari and Sunita Temhuna, Anatomical and Medico –Surgical Relevance of Avedhya Sira of Urdhva Shakha, Wjpmr, 2019,5(6), 296-30, Issn 2455-3301)

AVEDHYA SIRA AND ITS ANATOMICAL CORRELATION

AVEDHYA SIRAS IN EXTREMITIES

- The branches at each extreme total 100, Where Jaldhara Sira is internally, there are two siras—two urvi and one lohitaaksha—and the other legs are similarly affected.

- Urvi Sira's brachial vessels are in the upper limb
- Lohitaksh Sira's profunda femoris is in the lower limb.

AVEDHYA SIRAS IN KOSHTHA

AVEDHYA SIRAS IN SHRONI PRADESH

- 32 siras in Shroni, of which 8 are avedhya siras; 2-2 siras in Vitap marma; and 2-2 siras in Katiktaran.
- Vitap Sira is regarded as ovarian or testicular vessels or gonad vessels.
- Katiktaran is regarded as a vessel in the gluteus.

AVEDHYA SIRAS IN PARSHWA,

- Eight eight siras on either side of Parshwa
- Parshwasandhigata refers to the vessels of the abdomen and thorax that are situated laterally at the point where they meet. Urdhwagata vessels are vessels that climb from the side.

AVEDHYA SIRAS IN PRISTHA, (BACK)

- 24 siras in each Prashtvansha
- Some vrihati are termed subscapular vessels.

AVEDHYA SIRAS IN UDARA (ABDOMEN),

- 24 siras also in Udara region
- Medhropari romrajimubhayato: These vessels are epigastric.

AVEDHYA SIRASI IN VAKSHA (CHEST)

- There are 40 siras in Vaksha, 14 of which are not for surgical operations.
- Hrudya has two, Stana moola has four, and stanarohit has four.
- Aplap having two, Apsthamb having two, Stanmul, and Stanrohit are lateral thoracic vessels, internal mammary vessels, intercostal vessels, and coronary vessels, respectively.

URDHWAJATRUGATA AVEDHYA SIRAS

- Of the 164 Siras in the area above Jatru, 56 were in Greeva, where 12 Marmasangyaka Siras, 2 Krikatika, and 2 Vidhur were discovered.
- Marma sangya: the jugular veins and internal and external carotid arteries.
- Occipital vessels: Krikatika.
- Post auricular arteries and veins are described by Vidhur.

AVEDHYA SIRA IN HANU (TEMPOROMANDIBULAR JOINT)

- In hanu having 8 siras
- Sandhidhamanyayu: Internal mammary vessels.

AVEDHYA SIRA IN JIVHA (TONGUE)

- A Jivha with 36 Siras, 16 of which are below the Jivha, two of which are Rasavahas, and two of which are Vagvahas, which have not been operated upon for surgical karma.
- Rasvahe and vagvahe are examples of Profunda linguae vessels.
- Aupnasikaschya: These arteries and veins have angular shapes.

AVEDHYA SIRA OF TALU (PALATE)

- Mriddavuddeshe (soft palate) is considered as artery supplying to the soft palate.

AVEDHYA SIRA OF NETRA (EYE)

- Netra having 38 Siras
- Apangyorekek (outer canthus): considered as a zygomaticotemporal artery.

AVEDHYA SIRA OF KARNA (EAR)

- Karna having 10 Siras
- Shabdavahini: considered as posterior auricular and tympanic vessels.

AVEDHYA SIRA OF NASIKA

- In nasika having 24 siras

AVEDHYA SIRA OF NETRAGATA LALATA AND NASIKA (NETRANASAGATASTU)

- Lalata and Nasika had 60 siras in Netragata.
- Supraorbital and the frontal branch's terminal of the superficial vessels are two of the four siras in Keshanugatachya.
- The frontal branch of superficial vessels in Avarta with 1-1 Siras.
- In Sthapani, the nasal branch of the frontal veins has one Sira.

SHANKHASANDHIGATA AVEDHYA SIRA (TEMPORAL JOINT)

- In Sankha Region having 10 Siras
- Superficial temporal vessels.

AVEDHYA SIRA OF MURDHA (HEAD)

- In Forehead having 12 Siras
- In Utkshap marma having 2-2 Siras: parietal branch of superficial temporal vessels.
- In Simanto having 5 siras and in Adhipati having 1 sira: Occipital and superficial temporal vessels.

CONCEPT OF MARMA

The word "marma" is used to describe the vital organs of the body. The Sanskrit term "Marayate It Marmani" also means death or major bodily or mental injury after being inflicted to the point of their position. "Marma" is derived from the Sanskrit letter "s," which stands for "death." These places are hence referred to as Marma. In the Siddha medical system, they are referred to as Varma.¹⁹

Marma is the term for "secret" or "hidden" in Sanskrit. A Marma point is a location on the body where two or more distinct types of tissue, such as muscles, veins, ligaments, bones, or joints, connect. Marma was unknown to anyone save monarchs and soldiers in ancient times. It was used to the utmost extent during combat to harm and kill foes.²⁰

There were medical and military uses for this technology. Marma therapy can be used to treat everything from minor symptoms to severe neuromuscular problems. Marma Chikitsa includes the treatments Swedana, Abhyanga, Pizhichil, and Kizhi (bolus), which can restore common ailments including headaches, body aches, misaligned vertebrae, and joint discomfort. Herbs are cooked briefly as part of the kizhi treatment, wrapped in muslin, and knotted into a bolus. After being fried in therapeutic oils in a frying pan, the bolus is then administered to the troubled region. After the initial massage, a targeted massage utilizing the fingers, heel, or palm is given. Different pressure levels are used, depending on the region and the severity of the condition.²¹

The 107 Marma sites on the human body are explained in the Sushruta Samhita. There are 108 Marma points listed in Tamil traditions, compared to 365 Marma points in Kerala's Kalari tradition. Major marma points line up with the body's seven Chakras or energy centers, while lesser marma points are dispersed throughout the trunk and limbs. There are 12 points on the chest and stomach, 37 points on the head and neck, 22 points on the lower extremities, 22 points on the arms, and 14 points on the back. (It is claimed that the mind is the 108th Marma.) Based on each's specific location, a distinguishing name is given to it.²²

CONCEPT OF SROTAS

The vast majority of Srotas (channels) in the human body, according to Ayurveda, are in control of all physiological and functional functions. These Srotas assist all the doshas, dhatus, and malas in performing their functional responsibilities. Recognizing the entire vyadhi laskhana has long been a tradition. Based on its primary purpose or structure, the body is divided up into little pieces. Each unit is made up of many avayavas (Organs), and each organ is made up of many srotas. As a result, these tools are usually referred to as Srotas.²³

The medical system Ayurveda was the first to recognise and explain the existence of several Srotas within the human body. The name "Srotas" derives from the root "Susravana," which means "to exude, ooze, flow, or filter." Sravana, or the flow of bodily substances, occurs through Srotas, which are either those through which materials pass through the body or those from which it does so. They thereby act as the body's conduits or channels for moving nutrients, other substances, and the elements required for tissue creation. To put it another way, these Srotas facilitate the transfer of materials from the site of production to the location of demand.²⁴

DISCUSSION

The Kalala (small mass), according to Acharya's explanation of the first trimester's discussion of organogenesis, might be interpreted as the amorphous gastrula stage of the fertilized ovum. The seven layers of skin, the seven inner linings of internal cavities, the formation of organs, the definition of the heart, the seven types of body composition, and their features are further discussed in relation to the fetal body architecture. The way acharya Sushruta describes the fetus' growth month by month and his fervent concern for the risks connected with late deliveries distinguish him from other acharyas.²⁵

Organogenesis can be related to the cardiac jelly of embryological heart development, such as the creation of the hrudaya (heart) from shonita (blood) and kapha (phlegm) in ayurvedic medicine. Acharya emphasized the need of cataloging all the various bodily components. The merging of the sperm and the ovum, as well as the Atma (soul) and Prakruthi (five subtle components in addition to intellect, ego, and consciousness) that comprise the Garbha (embryo), were all explained by him. Along with listing the number of bones, muscles, ligaments, joints, and divisions, subdivisions, and subparts of the body, it also compares the mouth of the uterus to the conch shell of a fish. The additional muscles present in female breasts, the uterus, and other bodily parts, as well as the myology, are all mentioned by Acharya.²⁵

Every procedure for getting the corpse and keeping it preserved has been properly documented during dissection. If a doctor or surgeon wants to fully understand Shalya shastra (Surgical science), they need carefully study every portion of the body once it has been preserved. The importance of combining academic and practical knowledge cannot be overstated. Therefore, a corpse that contains all of the body parts, was not poisoned, had no chronic sickness before to death, was under 100 years old, and had the fecal contents of the intestines removed should be chosen for dissection. In all of its portions, such a body was covered in grass, bark, kusa (a kind of grass), and other items.²⁶

Only the Sushruta Samhita makes reference to mruta shodhana (dead body preservation) and the procedure of dissection. The meaning, traits, and number of Marma (important points), as well as how they are mistreated and injured. Due to battle field injuries, where one troop targets the precise vital spots of the opposing troop (enemy) (Regional anatomy), Marma (vital points) knowledge may be associated with surface anatomy, where even we can grasp the topographic anatomy, and was widely known in the ancient era. Acharya has spoken on the definition of many organs, including the heart, the rectum, and others, in a number of different places.²⁷

The idea of marma may be observed in everyday life in sports like cricket, where players put on safety gear to protect important regions like the jaanu, indrabasti, and gulpha, among other things. Therefore, marma vijñana (the study of vital places), also known as applied anatomy, may be used. The science of acupressure and the art of kung fu were developed from our ancient Marma (vital points) system and its use in Chinese medicine as a method of healing. Kerala and southern Karnataka also practice the combative art of kalari payattu, which is comparable to marma vijñana.²⁸

CONCLUSION

The Ayurvedic tradition, which is still widely practiced today, is founded on the Sushruta Samhita, a creative work by Acharya Sushruta. One of the numerous cultures that has significantly contributed to our current understanding of the globe is ancient India. Reading classical works like the Sushruta Samhitha can help one comprehend how anatomical knowledge evolved over time. From this, we might infer why Acharya Sushruta is regarded as the "father of Indian surgery". Sushruta's Sharira Sthana is the best among all the Brihatrayis. three main Samhitas.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

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