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CRITICAL CONCEPTUAL STUDY OF PRANAVAHA SROTAS WITH RESPECT TO IT'S MOOLASTAN

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ABSTRACT

In Ayurveda, Srotas is defined as the passages through which the various Dhatus are undergoing the process of several metabolic transformations. Srotas encompasses the major channels of the body like Gastro intestinal tract, Urinary tract, Respiratory tract etc besides the medium size channels of the body like the micro tubular structures such as Nephrons, Seminiferous tubules etc. The channels responsible for Nourishment, Circulation, Conduction, Excretion etc. By studying the Srotas Mulasthana, Nidana, Samanya Lakshana and Viddha Lakshana of Pranavaha Srotas and how it is related to Respiratory system, Central Nervous system, and Cardio Vascular system is elaborated in this article.

KEYWORDS: Srotas, Dhatus, Pranavaha Srotas, Respiratory system.

INTRODUCTION

Ayurvedic clinical foundation is based on thorough knowledge of srotas. Srotas are the Channels that convey the body elements, which are undergoing metabolic processes, sub serve the pur pose of circulation. The vitiation, depletion and maintenance of existed bodily structures are never possible without Srotas. The Srotas are that channels by which conduction of the respective nutrients to their respective destinations is possible. After that only that specific organ gets the pacification or depletion. Hence any organ cannot be maintained or can't get vitiated without Srotas, so there is a need to study the fundamental and applied aspect of Srotas in order to understand Ayurvedic biology and disease processes in depth. Srotas are the channel or structure through which Sravanam Karma i.e. flowing, moving, oozing and permeation of different constituents and nutrients of body takes place.

Pranavaha srotas is obviously the transport system of prana which has been narrated as vital air inhaled and also be the vital energy of the body responsible for each and every activity of living being. Most of the lakshanas explained in the dushti of Pranavaha srotas are related to the respiratory system so it has been related to respiratory system. Therefore concept of Pranavaha srotas also is understood in the light of these facts. Moolasthana is the place from where it is being distributed and regulated.[1] Right from birth to death Swasochchhvasa kriya is the one of major sign of life. The swasakriya is one of the main functions of pranavata. Pranavaha srotas is the channel, which carries the external air in to the body to sustain the life. Thus the pranavaha srotas is most important for life and longevity. Moolasthana of srotas is important area for proper functioning of srotas. Hence the treatment of any disease should also include intervention for the betterment of srotas. It implies the necessity of a thorough knowledge of srotas, its moolasthana, its normal functioning etc. In this respect here an effort is made to thoroughly understand the moolasthana of Pranavaha srotas.

MATERIALS AND METHODS

For this study, the basic and conceptual materials have been collected from the Ayurvedic classics i.e. Brihattrayee and Laghutrayee mainly the Susruta Samhita, Charak Samhita and other classics with the available commentaries, as well as various reference books to be reviewed been described as an attribute of Atma, It is also a subtype of Vayu.[2] There has been Charak and Susruta Samhita. Based on the description of the texts, the commentators express their own views in their own line of thinking. According to Charak, the Hridaya and Mahasrotas are at the Moola of “Pranavaha srotas”. The symptomatology described by Charak, regarding Pranavaha srotas when it gets deranged, appear to be supportive of Respiratory system of the body. The diseases like Swasa and Hikka have their origin from the Moolasthana of srotas. The organs de-scribed in Pranavaha srotas according to Gangadhar commentary are Hridaya and Vaksha (Phupphusa i.e. lungs.). Chakrapani says the passage through which “vayu” in terms of “pranavaha” passes through the body is known as Pranavaha srotas. In Susruta Samhita, the description of Pranavaha Srotas, its number, origin and location are somehow different than the description available in the Charak Samhita. According to Susruta, there are two pranavaha srotasa originating from Hridaya (heart) and Rasavahini dhamanis.[3] In connection with Rasavahini dhamanis, there is difference of texts, where we find Pranavahi Dhamanis in its place. Considering this Pranavahi Dhamanis, Dr B.G. Ghanekar states that there are just “Swasavahinis” representing the bronchi of respiratory tract. In this view these are the Pranavaha srotas in to which pranavayu gets in.

Almost all the ancient authorities opines that the head or moordha being the main seat of prana.

1) Moordha

In Charak samhita it was mentioned that, "Siras" (head) is the seat of all indriyas and the pranavahi srotas concern with these indriyas shoot out or diverge from this center controlling the life just similar to the rays of sun. Pranavata initiates impulses from siras and travels through nose, tongue, pharynx, neck till uras understood as reticular formation from medulla oblongata with higher center connected especially "respiratory center" which promotes intake of air, food and expulsion of phlegm, gas (respiration). The function of Prana is "Hridayendriyachittadruk", Pranavayu controls heart, senses and mind. It suggests the brain center in medulla oblongata does the control of respiration[4]. So moordha is the seat of Prana. Other active sites of Prana Vayu are: the chest and throat. It controls and regulates the intellectual functions, sensory and motor activities, cardiovascular, mental processes and activities such as spitting, belching, respiration and deglutition. Therefore Pranavaha srotas stands for the system concerned with the activities of Prana vayu. Head is the region where all Prana"s are situated and all the sensory and motor activities are controlled from. That is why the head is called the most superior organ of the body. All sensory organs along with their Pranavaha srotamsi are basically situated in the head region in a fashion similar to the connection between Sunrays and sun .Pranavaha srotas stands for the srotas which is concerned with the passage of the specific type of vayu, i.e. Prana Vayu, which is located in the head. The injury to Pranavaha Srotas leads to the manifestation of various neurological system and abnormal rate and depth of respiration. The treatment of many respiratory disorders is done using the drugs that act on nervous system hence; the protocol prescribed for the disorders of Pranavaha Srotas is that of Swasa.

2) Hridaya

Charaka and Sushruta both have mentioned Hridaya as a moola of Pranavaha srotas because of its role in pranvahan karma. Hridaya is responsible for taking impure blood and propel it to lungs for purification (oxygenation). After receiving this oxygenated or pure blood, heart propels it to all body tissues. From Acharya Sharangdhara's explanation about swasankriya, it is understood that "Hridaya" is the moolasthana of Pranavaha srotas.[5] According to him "PranaPavana" situated at Nabhi, after leaving Hritkamala comes out through Kantha mixed with Vishnupadamruta. Supporting Acharya Sharangdhar view the term "Pranvahadve" Prof.

Ghanekar says that both the lungs situated on either side in the thorax, should be regarded. In this view the term “Moolam Hridayam” signifies the pulmonary arteries originating from the heart and transverse towards the lungs. He also accounts the bronchioles branching out from both the bronchi. Thus the deoxygenated blood, brought by pulmonary arteries gets spread over the surface of the lungs and after getting oxygenated with the “Pranavayu” carried in by bronchioles the blood goes back in to the heart through the pulmonary veins. This description concludes that the take up and carry of the “Pranavayu” are mainly conducted by lungs and its accessory channels. The commentator Adhamalla, in his commentary “Gudharth Sandipani” over the above verse de-scribes that “Nabhisthapranpavana” means "Nabhistha-ItiHridayasth" Heart with vessels is called Nabhi in Ayurveda, not only lungs concern with the respiration but lungs along with heart are responsible for respiration. It is also known that heart has its own autonomous conduction system, which regulates cardiac cycle. The conduction system of heart and the respiratory center of brain ultimately govern the process of respiration, which is done by lungs. In many of cardiac diseases it is observed that Swasa and Kasa as common cardinal feature.[6] Which can be regarded as Partantra Swasa or Kasa, there are many of cardiac disorders resulting from Pranavaha srotovyadhis which are placed under Swasa particularly Maha, Urdwa and Chinnaswasa. In the context of Vegadharana also Acharya Charaka mentioned about Hridroga in Sramaswasadharana and kasadharana, which are having direct relation with Pranavaha Srotas. Lungs looks active during the process of respiration, but it is vitalized by heart, so there is a proportion with heart rate and respiratory rate in the ratio of 4:1. Therefore, Hridaya comes as the Moolasthana of Pranavaha srotas.

3) Mahasrotas

The Pranavayu is an utterly essential component of the Pranavaha srotas. The word Mahasrotas according to Acharya Charaka is one of the two moolas of Pranavaha srotas, which indicates that it is a large tube and large in diameter. The mahasrotas is associated with Phupphusa (lungs), the trachea, its two branches, bronchi and their further branching in to bronchioles to the alveoli; these entire structures can included under Mahasrotas.[7] According to Acharya Charaka, Mahasrotas is a synonym of Koshtha. Acharya Sushruta has mentioned Koshtha includes Amashaya, Agnyasaya, Hridaya, Unduka, Phupphusaetc. Therefore, it can be concluded that, Mahasrotas is an organ of respiration. While explaining the organogenesis of the body – Acharya Susruta opines, Phupphusa as “sonitaphenaprabhava”. Here the phenadhatu resembles the lightest part of blood which is rich in Vayu and Aakashamahabhutas, by that the lungs resembles a cluster of bubbles or multiple air filled

sacs for providing a large surface area for gaseous exchange as in alveoli. So it is clear that shonitaphenaprabhava indicates the functional anatomy of lungs. Acharya Charaka while explaining Pranavaha srotodushti lakshanas, all lakshanas clearly shows the functions of lung hence indirect reference to involvement of lung in the Pranavaha srotas is there. Further he told that pranavaha srotovyadhis should be treated similar to Swasaroga, which establishes Lungs and function of breathing are integral to pranavaha srotas. In Sharangdhara samhita it is mentioned that Phupphusa is the adhara for Udanvayu. Moreover, Udanvayu is the one, which helps in ucchwasakriya. This also supports Phupphusa as Mahasrotas.

4) Rasavahi dhamani

It is the name given to the arteries which helps in taking pure and nutritionally rich blood from phuphusa to Hridaya and then to all body tissues. Hridaya is the seat of Ojas, Prana and root of the Rasavaha srotas also. Hence, it is clear that these siras carry the Ojas or the Prana from heart to the smallest unit of body as they further divide into numerous branches and attain the name Mahaphala. Prana reaches to every corner of the body through Rasavahi dhamani and then performs the categorical functions. So thereby Rasavahi dhamani is considered as Moolasthana as mode of transportation.

5) Phupphusa

Phuphusa is an organ that is situated on the left side of the heart while Kloma is an organ that is situated on the right of it. Todaramalla, in his commentary on Trishna Nidana of Astanga Hridaya, has mentioned that „Klomameans Phupphusa'. Therefore it seems that these terms have been used to indicate the left lung and right lung respectively.[8] Further, Kloma is also the mula of Udakvaha srotas. The role of lungs is water and electrolyte balance, acid-base balance. Dryness of the structures such as tongue, pal-ate, lips, throat and kloma along with severe thirst has been mentioned by Charaka as the symptom of the pathological manifestation in the Udakvaha srotas. The dryness in the lower respiratory tract is a symptom that is seen in many conditions associated with excessive water loss through lungs. Thirst is a physiological mechanism that helps in the water and electrolyte homeostasis in terms of regulating plasma osmolarity. This homeostasis, in turn can have influences in respiration.[9]

CONCLUSION

Concept of Srotas, in all different contextual meaning, is still relevant in the present scenario and might give further insights if revisited. Hridaya, Mahasrotas and Murdha are Moolasthana of Pranavaha srotas and Rasavaha dhamani are involved in transportation of

pranavayu in the body. Neuronal control of respiration falls under the purview of Pranavayu whereas chemical control of respiration, acid-base balance and water electrolyte balance fall under purview of Udakvahasrotas. Pranavahasrotas should not be studied only with the correlation of respiratory system but it must be studied in context to other major systems like nervous system, cardiovascular system and alimentary canal.

REFERENCES

1. Pandit K. Shastri & G. Chaturvedi, Charak Samhita of Agnivesha, Chaukhamba Bharati Acadamy, Varanasi, 1993; 19,709: 5-4.
2. Pandit K. Shastri & G. Chaturvedi, Charak Samhita of Agnivesha, Chaukhamba Bharati Acadamy, Varanasi, 1993; 19, 710: 5-7.
3. Vaidya Jadavji Trikamji Acharya, Susruta Samhita, commentary of Dalhanacharya, Chaukhamba Orientalia, Varanasi, 1997; 6, 386: 9-12.
4. Pandit K. Shastri & G. Chaturvedi, Charak Samhitaof Agnivesha, Chaukhamba Bharati Acadamy, Vara-nasi, 1993; 19, 776: 28-4.
5. Dr. Anna Kunte & Vd. KrishnaShastri Navre, Ashtanghridaya with Sarvangsundari commentary by Arundatta, Chaukhamba Orientalia, Varanasi, 2002; 9, 193: 12-4.
6. Pandit K. Shastri & G. Chaturvedi, Charak Samhita of Agnivesha, Chaukhamba Bharati Acadamy, Varanasi, 1993; 19, 714: 6-26.
7. Pandit K. Shastri & G. Chaturvedi, Charak Samhita of Agnivesha, Chaukhamba Bharati Acadamy, Varanasi, 1993; 19, 70: 5-4.
8. Tripathi Brahmanand, Sarngadhara samhita Purvakhanda, Chaukhamba Prakashan, third edition, 1998; 68: 5-89.
9. Pandit K. Shastri & G. Chaturvedi, Charak Samhitaof Agnivesha, Chaukhamba Bharati Acadamy, Varanasi, 1993; 19, 332: 17-17.