



## RESEARCH ARTICLE

### CO-RELATION OF PRANAVAHA SROTAS AND RASAVAHA SROTAS WITH REFERENCE TO THEIR MOOLASTHANA

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#### ABSTRACT

॥Pranavahe dwe tayormoolam hridayam rasavahinyaschya (pranvahinyashchya)dhamanya: ॥  
su.sha.9/12

॥ tara pranavahanam srotasam hridayam moolam mahasrotasam ch ॥  
॥Rasavahanam srotasam hridayama moolam dasha cha dhamanya ॥  
cha.Vi. 5/7

Sharir Rachana is basic subject of medical science. Hence concepts of Sharir should be cleared. Ayurveda gives various ideas of Sharir, which should be explained on the modern basis. Srotas is one of Ayurvedic term & one of the basic concept of Ayurveda. Acharya Charak had explained srotas as medicinal view while Sushrut had explained srotas according to surgical aspect. Pranavaha srotas and Rasavaha srotas are important srotas, which carry Prana and Rasa all over body. By studying these srotas mulasthana, vidha laxanas & vahana, also by studying concern reference regarding pranvaha & Rasavaha srotas etc. idea of these srotas are explained, how they are related to respiratory & cardiovascular system. It will be helpful to people concern to ayurveda to clear ideas regarding srotas as well as Pranavaha & Rasavaha srotas. How Pranavaha & Rasavaha srotas are correlated to heart, lungs and other structures like pulmonary artery and pulmonary vein is elaborated in this article. In modern science this correlation of Pranavaha & Rasavaha srotas may called as cardiopulmonary system.

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## INTRODUCTION

### Defination of Srotas

- A Channel that transport only dhatu under metabolic transformation is called srotas.
- There are a many number and types of SROTAS mention by different authors.
- Each SROTAS is attached to a specific anatomical structure called Moola Sthana.
- As per Acharya Sushrut- A srotas is tubular structure or organ which initiate the flow of the fluid material from the inner of the body to its outer opening
- SU. SHA. 9/13
- As per Acharya Charak- There are srotas as much organs are there in our body.
- CHA. VI. 5/2

**Panchabhautkatva of srotas (Constituion):** Srotas are Panchabhautik with predominans of akash mahabhoot.

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### Utpatti of srotas

In intrauterine life, due to pradhmana ( movements) of vayu in embryo (pittadwara pachit mansakhanda) srotas are produced.

### Functions of srotas

- STRAVAN (Secretion)
- PARINAMANA (Reproduction and Recycling)
- UTSARJANA (Excretion of Waste Products)

The normal functioning of the particular srotas is depends upon its moolasthan. Any abnormalities in these periphara lsrotas ultimately can affect the moolasthan of SROTAS.

### Types

As per Charaka-

- A) BahirmukhaSrotas- 9
- B) Antarmukha srotas- 14

## AS PER SUSHRUTA

- He stated 11 pairs that is 22 SROTAS
- He had not consider *Asthivaha, Majjavaha and Swedvaha srotas*
- Because these are *sarvashahir vyapi* (involved all over body)

### Determination of Moolasthan of srotas

For the determination of moolasthanana of srotas some points have been logically and categorically counted in the various classics. Such as-

- *Utpatti sthana* (moolasthan related with origin point of view)
- *Sangraha sthana* (moolasthan related with storage)
- *Vahana sthana* (moolasthan related with conduction)
- *Naidanic drishtikon* (moolasthan related with diagnostic point of view)
- *Chikitsatmak drishtikon* (moolasthan related with clinical point of view)

But the clinical standpoint has been considered in all the cases of determinations of the *moolasthan*. Observation as per clinical point of view it is clear that, the *moolasthan* of *srotas* can be divided basically into two types-

- *Sthaniya niyantrak* (local controller), b) *Pramukha niyantrak* (unique controller).

It can be considered that, all above explained *moolasthan* are local controllers of their corresponding *srotas*.

**Pranavaha srotas and its Moolasthanana:** *Pranavaha srotas* is one of the most important systems in the body. *Prana* is said as *pavana* or *anila*. Life sustenance relies on Oxygen *Ambara peeyusha* and water in the body. The word *Prana* is derived from the Sanskrit root "An" with a prefix "Pra". "An" means to breathe, to live. One of the meanings of the root „Pra" is to fulfill, where as one of the meaning of „Na" is the nasal. Thus, the whole word *Prana* means the fulfillment through the nasal part, which is necessary for the prolongation of life. *Acharya Chakrapani* has explained that *Pranavaha srotas* are the channels through which the *Pranavayu* flows. *Charak* stated that *Hridaya* and *Mahasrotas* is the root of *Pranavaha srotas*, while some others believe *Hridaya* and *Rasavahani dhamani* to be the roots of *Pranavaha srotas*. In a human body, *nasa* or nose is said to be the gateway of head and as such, it can be assumed that *Pranavaha srotas* is a structure made up by various organs right from the tip of *nasa* up to the *maha srotas*.. *Sushruta* seems to have indicated this aspect by stating that the *Hridaya* (in this context, the thoracic heart) and *Rasavahani dhamanies* are the *moolas* of the *Pranavaha Srotas*. From *Acharya Sharangadhara* explanation about the total physiology of Respiration, it is understood that *Hridaya* is the *Moola Sthana* of *Pranavaha srotas*. According to him, "Prana Pavana" situated at *Nabhi* (Heart), after leaving *Hritkamala* (Lungs) comes out through *Kantha* mixed with *Vishnupadamruta*. After having *Ambara Peeyusha* (oxygen), it comes back quickly into the body to nourish the whole body and to enliven the digestive fire in the stomach. With

cardiovascular system. The process of respiration is— governed by the conduction system of heart and by brain. Therefore, *Hridaya* comes as the *Moola Sthana* of *Prana vaha srotas*.. In *Sharngadhara samhita*, it is mentioned that *Phupphusa* is the adhara for *Udanavayu*. Moreover, *Udanavayu* is the one, which helps in *ucchvasha kriya*. This also supports *Phupphusa* as *Mahasrotas*. *Rasavahi dhamani* is the name given to the arteries which helps in taking pure and nutritionally rich blood. from *Phupphusa* to *Hridaya* and then to all body tissues. *Hridaya* is the seat of *Ojus*, *Prana* and root of the *Rasavaha srotas* also. Hence, it is clear that these *siras* carry the *Ojus* or the *Prana* from Heart to the smallest unit of the 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 there by *Rasavahi dhamani* is considered as *Moolasthanana* as mode of transportation

### Rasavaha Srotas and its Moolasthanana

**According to Charak and Vagbhatta:** The *moola* of *Rasavaha srotas* is *hridaya* and related ten *dhamanis*.

*Dhatuvaha srotas* are called as *abhyantara pranas* of the body. The first question is why *hridaya* and *rasavahini dhamanis* are considered as *moola sthana* of this *srotas*? No doubt *hridaya* is essential in transporting all the nutrition of the body to the tissues, but still why it is considered only to this *srotas* and to *pranavaha srotas* only what might be the reason beyond this? Among these two *moola sthanas*, first one is very clear and where as second one is not much clear.

In *Sutra sthana Charaka* mentioned a *Arthedashamahamooliya* chapter in which he explained about the *hridaya* regarding the importance, structures related to it and how to protect it from external and internal factors. But in this chapter he did not mentioned about the ten *dhamanis* which are related to *hridaya* in detail. Some people have related the ten *dhamanis* as follows:

- Right coronary artery
- Left coronary artery
- Superior vena cava
- Inferior vena cava
- Pulmonary trunk
- Aorta 7-10. Four pulmonary veins.

Totally these 10 have been considered as ten *dhamanis* as per some authors.

As per *Sushruta* the *moola sthana* of *rasavaha srotas* are *hridaya* and *rasavahini dhamani*. Here *Sushruta* has said that one *lakshana* as extra than the *pranavaha srotas viddha lakshana* which is 'shosha' and the remaining all are same which are explained in *pranavaha srotas*. Because *srotas* has a main role in nourishing the body parts and also essential in formation of remaining *dhatu*s in the body.

## DISCUSSION AND CONCLUSION

As per *sushruta* the *moola sthanas* of *pranavaha srotas* are *hridaya* and *rasavahini dhamani*. So what is *rasavahiniya dhamanis*? It can be considered as the vessels which carry *rasa*

in the body. In the body *prana* and *rasa* are moving in same channel so *Acharya* has used the word as '*rasavahiniya dhamanis*' for both *pranavaha* and *rasavaha srotas*. the vessels which carry the fluid which is more predominant of nutrition and oxygen should be considered as *rasavahini dhamanis*. In case of *Pranavaha Srotasa*, *Moolastahana* is the place from where it is being distributed and regulated. The Heart and the Respiratory centre of the Brain ultimately govern the process of respiration, which takes place in the Lungs. *Rasavahi dhamani* is considered as *Moolasthana* as mode of transportation. Therefore, it can be concluded that *Mahasrotas*, *Hridaya*, *Rasavahi dhamani* and *Moordha* works together in the functioning of *Pranavaha srotas* .whereas the *hridaya* and *rasavahi dhamni* are the *moolasthana of rasavaha srotas* also. It means from this we can conclude that *moolasthana* of *pranavaha srotas* and *rasavaha srotas* are strongly co-related as a functional units of *pranavaha srotas* and *rasavaha srotas*. In many of the cardiac diseases it is observed that *Swasa* and *Kasa* as common cardinal feature. Which can be regarded as *Paratantra Swasa* or *Kasa*, there are many of cardiac disorders resulting from *Pranavaha sroto vyadhis* which are placed under *Swasa* particularly *Maha*, *Urdwa* and *Chhinna swasa* In the context of *Vega dharana* also *Acharya Charaka* mentioned about *Hidroga* in *Sramaswasa dharana* and *Kasa Dharan*, 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.

Thus by considering all these views of our great saints, it can be concluded that there is deep relation of respiratory system and cardiovascular or circulatory system. This process of respiration is governed by the conduction system of heart and brain .therefore, *Hridaya* comes as the *moolasthana of pranavaha srotas*.

From all above discussion and review of literature we can conclude that the *Moolasthanas* of *Pranavaha* and *Rasavah srotas* are strongly co-related.

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