

Conceptual Study of *Rasavaha Srotas* In Relation To *Karshya*

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Abstract

Ayurveda, often regarded as the oldest healing science, emphasizes prevention and maintenance of health. A key concept in *Ayurveda* is *Srotas*, the channels that transport nutrients and other materials essential for tissue building and nourishment throughout the body. Among these, *Rasavaha Srotas* plays a vital role, as it is responsible for transporting nutrients to the *Dhatus* (tissues). Any imbalance or *Dushti* (vitiation) in *Rasa Dhatu* can lead to various diseases. Like *Karshya*, *Pandu*, *Vali*, *Khalitya Palitya*¹ etc. *Karshya* is caused by nutritional deficiencies that result in gradual emaciation, especially in the gluteal region, abdomen, and neck, where muscle mass and subcutaneous fat are depleted². *Ayurveda* texts provide detailed descriptions of *Karshya*, including its diagnosis and treatment. A thorough study of *Rasavaha Srotas* and its relationship with *Karshya* can offer insights into the disease's pathogenesis and the role of *Rasa Dhatu* in health. Understanding the mechanisms of *Karshya* can guide effective management of *Rasa Dushti* and help treat emaciation by restoring balance in the body's circulatory system

Keywords: Srotas, Rasavaha Srotas, Karshya

INTRODUCTION

Ayurveda is made up of two words- *Ayu* means life and *Veda* means knowledge. *Ayurveda* deals not only with the treatment but also deals with the physical, mental and spiritual well-being of the mankind. Various factors within the body effectively carry out their functions or pathological processes, moving from one place to another via separate pathways or channels known as *Srotas*, which are assumed to provide distinct routes for transport. The word *Srotas* is derived from the Sanskrit root 'Su Sravane' meaning 'to ooze' or 'to flow'. These channels are responsible for the transportation of various substances throughout the body.

Acharya Sushruta and *Acharya Charaka* have contributed significantly to understanding the structure and function of *Srotas*. While *Sushruta* referred to *Srotas* as channels that emerge from empty spaces and distribute fluid throughout the body, *Charaka* emphasized that *Srotas* serve as pathways for *Dhatus* (tissues) after digestion, helping transporting nutrients throughout the body. Any disturbance in their flow can lead to pathological conditions.

Acharya Charaka identified 13 primary *Srotas*³, while *Acharya Sushruta* described 11 pairs of *Srotas*⁴. Despite these variations in classification, both *Acharyas* agreed that the improper functioning of these channels can result in morbidity manifested through excessive flow, obstruction, the formation of nodules, or the flow of substances in the wrong direction⁵.

Among the various *Srotas*, *Rasavaha Srotas* holds a place of particular importance. *Rasavaha Srotas* are responsible for the transport and nourishment of *Rasa Dhatu*. *Rasa* is crucial as it nourishes the other six *Dhatus* (tissues). In this sense, *Rasavaha Srotas* forms the foundation of the body's nutritional and circulatory system.

According to *Acharya Charaka*, the *Moola Sthana* (root or origin) of *Rasavaha Srotas* is *Hridaya* (heart) and the *Dash Dhamanis* (ten major vessels). These vessels are responsible for distributing *Rasa* throughout the body after the process of digestion. *Acharya Sushruta* according *Moola Sthana* of *Rasavaha Srotas* is *Hridaya* and the *Dash Dhamanis*. The heart's central role is not only mechanical, as a pump, but also as a

vital organ ensuring the proper circulation of *Rasa* to all parts of the body, which includes the plasma and lymphatic system in modern terminology.

Rasavaha Srotas primarily deals with the formation and transportation of *Ahara Rasa*. After digestion, *Ahara Rasa* first passes through the *Yakrut* (liver) and the *Hridaya*, where it is processed and then distributed to the entire body via *Rasavaha Srotas*. Its proper functioning is essential for the growth, repair, and regeneration of *Dhatus*, making it central to the body's physiological balance. This system is analogous to the modern concept of blood circulation and the lymphatic system. Disruptions in the functioning of *Rasavaha Srotas* can lead to a range of disorders. These abnormalities can significantly affect the body's nutritional status, leading to *Dhatu Kshaya* or *Dhatu Vriddhi*. In the context of *Dhatu Pradoshaj Vikara*, disorders of *Rasavaha Srotas* can contribute to conditions such as *Karshya* (emaciation) or *Krishangta*.

One of the significant disorders associated with *Rasavaha Srotas* is *Karshya*, a condition characterized by extreme emaciation and malnutrition. When *Rasavaha Srotas* is obstructed or not functioning properly, the distribution of nutrients throughout the body is impaired, leading to a deficit in tissue nourishment. As a result, the other *Dhatus* become undernourished, leading to physical weakness, low immunity etc. In modern terms, this can be compared to conditions like malnutrition, malabsorption syndromes, where despite adequate food intake, the body is unable to utilize nutrients efficiently.

Acharya Charaka emphasized that the flow of *Rasa Dhatu* must be unobstructed to ensure the proper nourishment of all other *Dhatus*. Any impairment in this flow can cause malnutrition at the tissue level, manifesting in signs like weight loss, fatigue, and weakness, all of which are hallmarks of *Karshya*.

Understanding the structure, functions, and *Moola Sihana* of *Rasavaha Srotas*, as well as its pathological implications, is crucial for addressing conditions related to malnutrition or *Karshya*. By restoring the balance and ensuring the proper functioning of this primary *Srotas*, *Ayurveda* offers a holistic approach to treating disorders such as *Karshya* and promoting overall health and well-being.

AIMS & OBJECTIVES

1. To establish the facts related to *Rasa Dhatu* and *Rasavaha Srotas* on the basis of ancient and modern literature, a compilation will be done.
2. To give appropriate and elaborate description of *Rasavaha Srotas* and its *Moola*.
3. To assess the relation of *Rasavaha Srotas* with *Karshya*.

MATERIAL & METHODS

All the information regarding “*Rasavaha Srotas*” will be collect from *Brihatrayi*, *Laghutrayi* and all other classics of *Ayurveda*. Definition of *Rasavaha Srotas*, its etymology genesis and synonyms will be compiled from different texts. Along with that the relation of *Rasavaha Srotas* with *Karshya* will also be studied. The modern view will be also discussed in detail.

REVIEW OF LITERATURE

Srotas is derived from *Sanskrit* root – ‘*Sru-gatau*’ which means flowing, filtering, moving, leaking, secreting etc. According to *Acharya Charaka*, *Srotas* refers to the structure, through which *Srawanam*⁶ process takes place. *Acharya Sushruta* has explained that which arises from vacant spaces, expand throughout the body and purveys materials are to be interpreted as *Srotas*. They are apart from *Sira* and *Dhamani*⁷. *Acharya Charaka* identified 13 primary *Srotasas*, while *Acharya Sushruta* described 11 pairs of *Srotas*. In all, *Rasavaha Srotas* holds a place of particular importance. *Rasavaha Srotas* is responsible for the transport and nourishment of *Rasa Dhatu* & *Rasa* is crucial for the nourishment of the other six *Dhatus*.

Rasavaha Srotas**Rasa**

'Rasa' is derived from the verbal root 'Rasa' meaning movement or flow, since it is flowing constantly, so it is called *Rasa*⁸. *Rasa Dhatu* is the *Sara Bhaga* of *Ahara* after digestion. The *Rasa Dhatu* spreads through the whole organism and permeates the entire body. *Rasa* has its primary seat in *Hridaya*. *Rasa Dhatu* is the product of correct digestion of food by the *Koshthagani*. It moves throughout the body, delivering the portion of nourishment known as *Poskamsas* to the remaining *Dhatu*s. *Rasa Dhatu* provides satisfaction, nutrition and supplies nourishment to *Rakta Dhatu*⁹.

Rasa Vriddhi Lakshans–

' रसोऽतिवृद्धो हृदयोत्क्लेदं प्रसेकं चापादयति ।¹⁰ ' (सु०सू० 15/19)

According to Acharya Sushruta – *Utkleda* (nausea), *Praseka* (Ptyalism) are symptoms of *Rasa Vriddhi*.

Rasa Kshaya Lakshana –

' घट्टते सहते शब्दनौ च्चेर्द्रवति शूल्यते ।
हृदयंताम्यतिस्वल्पचेष्टस्यापिरसक्षये ।¹¹ ' (च०सू० 17/64)

According to Acharya Charaka symptoms are –

Ghattate (restlessness in the patient), *Sahate Shabdham* (he develops intolerance against loud voices), *Hrudrava* (palpitations), *Hrudayam Tamyati* (cardiac pain), *Alpa Chesta* (fatigue even after minimal effort).

Rasavaha Srotas Dushti Nidan

' गुरु शीतमतिस्निग्धमतिमात्रं समश्रन्ताम् ।
रसवाहीनि दुष्यन्ति चिन्त्यानां चातिचिन्तनात् ।¹² ' (च०वि 5/13)

Those who eat heavy, cold, too unctuous and in excessive quantity and do excessive mental work suffer from morbidity of *Rasavaha Srotas*.

Rasavaha Sroto Viddha Lakshanas

' तत्र विद्धस्य शोषः प्राणवहविद्धवच्चमरणंतल्लिंगानि च ।¹³ ' (सु०शा० 9/12)

Damage to *Rasavaha Srotas* causes *Sosha* (emaciation) and symptoms of *Pranavaha Srotas*.

Rasavaha Srotas Moolsthana

Together, these organs and pathways are referred to as *Rasavaha Srotas*, thorough which this *Rasa Samvahana* takes place. According to Acharya Charaka the *Moolsthana* of *Rasavaha Srotas* is – *Hridaya* & 10 *Dhamanis*¹⁴. According to Acharya Sushruta the *Moolsthana* of *Rasavaha Srotas* is – *Hridaya* & *Rasavahi Dhamanis*. According to Vagbhata also *Moolsthana* of *Rasavaha Srotas* is *Hridaya* and *Dash Dhamanis*.

HRIDAYA

The term *Hridaya* is composed of three *Dhatu* (verbs) – 'Hru' denotes *Harati* (the recipient), 'Da' stands for *Dadati* (to give or contribute) and 'Ya' stands for *Yagati* (to control).

' शोणितकफप्रसादजं हृदयं ' ।¹⁵ (सु०शा० 4)

Hridaya is said to be a collective essence of *Sonitaprasadam* and *Kaphaprasadam*. In between the abdomen and chest, between the two breasts and at the opening of the stomach *Hridaya* is situated. The shape of *Hridaya* looks like a *Pundarika* (inverted lotus). The *Hridaya* is an organ where *Chetna Tatva* resides in our body. *Hridaya* is *Moolsthana* of *Rasavaha Srotas*.

HEART

It is a conical hollow muscular organ situated in the middle mediastinum, enclosed within pericardium. The length & breadth of heart is – 12 & 9 cm respectively. Weight of heart is about 300 gm in males & 250 gm in females. It has 4 compartments– 2 Atrium (rt. & lt.) , 2 ventricles (rt. <). The atria lie above & behind the ventricles. On surface of heart, they are separated from each other by atrioventricular groove. There are 2 valves with 2 cusps on the left side and 3 on right. These valves allows anything above downwards only but not in the reverse direction. Apex of heart is situated in lt. 5th intercostal space 9cm lateral to midsternal line just medial to the midclavicular line. Base of heart is the posterior surface of the heart. Surfaces of heart are – Anterior or sternocostal surface, Inferior or diaphragmatic surface & left surface.¹⁶

KARSHYA

Karshya is a condition or disease in which the body of a person becomes emaciated, having less quantity of *Rasa Dhatu* causing further a status of *Mamsahinata* or *Mamsakshaya*.

According to *Acharya Charaka* the *Lakshanas* of *Atikrisha* are – Abdomen, buttocks & neck emaciated, veins prominent under the skin, the man appears to have only bone & skin only. *Acharya Charaka* and *Acharya Sushruta* state that the etiological factors like *Langhana*, *Ruksha annapana* etc increase *Vata*, which then travels through the body's *Srotas* and causes *Riktata* in the channels of the body. This is mostly because of the *Shoshana* of *Rasa Dhatus* by aggravated *Vata*. As a result of such an action of aggravated *Vata*, the body's tissues suffer from lack of nutrition leading to *Karshya*.

MALNUTRITION

Karshya is an illness related to nutritional deficiencies that can arise from malnourishment or undernutrition. A nutritional deficiency in which underweight weight loss is the primary symptom can be classified as *Karshya*. Malnutrition is described as 'inadequate nutrition'. The World Health Organization defines malnutrition as ' the cellular imbalance between the supply of nutrients and energy and the body's demand for them to ensure growth, maintenance and specific functions '. General sign and symptoms are - Fatigue and low energy, Dizziness, Dry and scaly skin, Poor immune function, Slowed reaction time and trouble paying attention, under weight, poor growth, muscle weakness, decreased subcutaneous tissue at face, buttocks and legs.

DISCUSSION

Anatomically, *Rasavaha Srotas* can be correlated to the circulatory & lymphatic systems. The heart, as the central organ in the cardiovascular system, pumps nutrient rich blood throughout the body. In *Ayurveda*, *Rasavaha Srotas* are the channels responsible for the transportation and circulation of *Rasa Dhatu*, which is the first and primary tissue formed after digestion. *Rasa Dhatu* is a fluid nourishing all the tissues, & the lymphatic system's role in distributing nutrients. According to Ayurvedic texts, the causes of *Karshya* include poor digestion, improper diet, stress, excessive physical exertion, and chronic diseases, all of which disturb the formation and circulation of *Rasa Dhatu*. From an anatomical perspective, disruptions in the circulatory or lymphatic systems can significantly impact nutrient distribution. Conditions like malabsorption, poor circulation, or chronic gastrointestinal disorders can prevent the proper absorption and transportation of nutrients, correlating with the Ayurvedic understanding of disrupted *Rasavaha Srotas*. Any disruption in these channels can lead *Karshya*.

CONCLUSION

Rasavaha Srotas are channels that transport *Rasa Dhatu*, the primary nutrient fluid which is comparable to plasma or the lymphatic fluid in modern physiology. According to *Acharya Ghanekar*, commentator of *Sushrut Samhita* it is considered as a systematic capillary circulation¹⁷. Proper functioning of *Rasavaha Srotas* is essential for overall nourishment. When *Rasavaha Srotas* are blocked, the flow of *Rasa Dhatu* is hindered, preventing essential nutrient distribution. This impairment results in inadequate nourishment of tissues leading to decrease in body mass. This condition is marked by emaciation that is *Karshya*.

Sometimes due to impairment of *Rasavaha Srotas* formation of Ama occurs due to which there is blockage & malabsorption that leads to poor digestion & absorption of nutrients. If *Rasa Dhatu* is not nourished then it will not be able to nourish *Rakta Mamsaadi* further *Dhatu* leading to *Karshya*. Therefore, the nutrition and efficient operation of essential tissues depends mainly on *Rasavaha Srotas* operating properly. In addition to transportation of vital components throughout the body, the *Rasavaha Srotas* support the body's defense mechanisms. So its proper functioning is of great importance.

REFERENCES

1. Charak Samhita - Sutra Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Sutra 28/10
2. Charak Samhita - Sutra Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Sutra 21/15
3. Charak Samhita - Viman Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Viman 5/7
4. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sharir sthana 9/12
5. Charak Samhita - Viman Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Viman 5/24
6. Charak Samhita - Sutra Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Sutra 30/12
7. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sharir sthana 9/13
8. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutra sthana 14/13
9. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutra Sthana 15/7
10. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sutra Sthana 15/19
11. Charak Samhita - Sutra Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Sutra 17/64
12. Charak Samhita - Viman Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Viman 5/13
13. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sharir 9/12
14. Charak Samhita - Viman Sthana, Pandit Kashinath Pandey & Dr. Gorakhnath Chaturvedi, Chaukambha Bhartiya Academy, Varanasi, Viman 5/7
15. Sushrut Samhita, edited with Ayurveda Tatva Sandipika, KavirajaAmbikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, Sharir - 4
16. B.D. Chaurasia's Human Anatomy, Sixth edition by CBS publication & distribution, Vol 1
17. Ghanekar, Ghanekar teeka on Sushruta Samhita, Sharir sthana, 2003, 7/23-25