

PRAN VAYU & PRANAVAHA STROTAS: THROUGH AYURVEDA & MODERN**Dr. Shweta V. More*¹ and Dr. Akshay T. Salve²**

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ABSTRACT

Ayurveda is Science of life & Fundamental branch of medical science. Ayurveda offers a number of Sharir concepts that should be interpreted in light of modern knowledge. Srotas is a fundamental concept and term in Ayurveda, yet it should be explained to students of the Ayurveda. The body consists an enormous quantity of Srotas. Srotas are necessary for all physiological and pathological processes to take place in the body. Srotas were discussed by Acharya Charaka from a medical perspective, and by Charaka from a surgical perspective. The first and most significant Srotas, known as Pranavaha Srotas, which transports Prana all across the body. By examining the Srotas Mulasthana, Lakshana, and Vahana as well as any relevant literature on Pranvaha Srotas, respiration, etc., the concept of these Srotas is described, and this article elaborates on how it relates to the respiratory system and internal and external respiration. Clearing up

misconceptions about Srotas and Pranvaha Srotas will be beneficial to Ayurveda students.

KEYWORDS: Circulation, Channels, Hridya, Lungs, Oxygen, Pranavaha Srotas, Prana, Respiration, Rasavahi Dhamani, Srotas, kapha.

INTRODUCTION

The ancient sciences of Ayurveda explain the existence of many Srotas that make up Sharir. The body has structures called Srotas that are crucial for the transportation of vital components. Srotas are the channels found in the body that transport bodily components from

one location to another. Dhamanis, start pulsating when they get filled up with nutrient material derived from external sources, subsequently these nutrient materials are supplied to the tissues through the process transudation, and at this level, they are known as Srotas.^[1]

The channels of circulation carry the Dhatus (tissue elements of their constituents) undergoing transformation to their destination.^[2] Tissue elements are situated in different parts of the body and each of them has channels to carry their particular nourishment. So Dhatus are nourished through their respective channels and one channel cannot provide nourishment to another dhatu as one canal cannot irrigate trees situated in different place(direction). These channels are a part of the continuous, unidirectional process that produces succeeding Dhatus. The body's physiological and pathological processes both involve Srotas in a variety of ways. Diseases arise as a result of Srotas stagnation. According to Acharya Charaka there are 13 pair of Sthool Srotas.^[3] According to Acharya Sushruta there are 11 pairs of Yogvahi Srotas.^[4] The most important of all of these Srotas is called Pranavaha Srotas. Because Pranavaha Srotas are a particular kind of Srotas that transport Prana, they are also known as Pranvaha Srotas. Every single function of the living body is carried out by vital energy, often known as vital air. The oxygen-carrying function of the cardiopulmonary system and the Pranavaha Srotas are similar; they are also similar from a variety of perspectives.

An Review

A review of Ayurvedic writings served as the foundation for this article. The primary Ayurvedic texts used in this study were the Charaka Samhitha, Sushruta Samhitha, and extant commentaries on these works. We have also referred to the various websites and scientific journals to collect information regarding current research on the relevant topics.

LITERARY REVIEW

Concept of Srotas: - Charaka has defined it as “Sravanata Srotamsi” means the structure through which Sravanam takes place. according to Chakrapani, Sravarnat refers to the Sravanam of Rasadi Poshya Dhatu. "Srotas" refers to the channels or pathways in which specific tissues are created, substances are metabolised, released, or transferred materials.

Prana Life: - The most important of all of these Srotas is called Pranavaha Srotas. Because Pranavaha Srotas are a particular kind of Srotas that transport Prana, Sushrut provides a comprehensive explanation of Prana. Acharya Sushurta say Agni, Soma, Vayu, Satva, Rajas,

Tamas, Panchendriya, five sense organ) and Bhutatma (soul) – together constitute prana (life).^[5]

Action of Vayu: - All the life activities of the life body are performed by the normal Vata which is said to be the very life of living beings.⁶ Specific action and sites of Pranavayu: - Pranavayu is responsible for these activities.

- i. Swasa (Respiration)
- ii. Sthivana (Spitting)
- iii. Ksavathu (Sneezing)
- iv. Udgara (Belching)
- v. Ahara (Swallowing of food etc.)

Pranavayu mainly remains in the following places in the body.

- i. Brain and head (Murdha)
- ii. Chest and heart (Uras)
- iii. Neck and trachea (Kantha)
- iv. Tongue (Jihwa)
- v. Mouth (Mukha)
- vi. Nose (Nasika).^[7]

Pranvaha Srotas's Mool: - The heart and the Maha Srotas (Central cavity or alimentary tract) are the sites of origin (controlling organs) of the channels carrying Pranvayu.^[8]

Praanavaha Srotas are two their Mool (chief organ) are Hridya (heart) and Rasavahi Dhamani (arteries carrying rasa dhatu).^[9]

The main functions of Respiration

1. Elimination of waste products and drugs such as CO₂, ammonia, etc.
2. Thermo-regulation.
3. Maintenance of all body tissues by regularising circulation.
4. Production of speech and other modifications like crying, hiccups, etc.
5. Resonance of voice.^[10]

Causes of Pranvaha Srotas vitiation: - The channels carrying the life breath get vitiated as the result of-

- Wasting • Suppression of the body the body-urge

- Dehydration • Exercise while hungry
- Starvation • Other violations of the laws of health.^[11]

Symptoms of Pranvaha Srotodushti: - According to Acharya Charaka The following characteristics symptoms.

- Respiration is too long.
- Restricted
- Agitated or becomes shallow or short or is frequently stertorous and painful.^[12]

According to Acharya Sushurta

When these are injured symptoms such as

- Crying with pain,
- Bending of the body,
- Delusion (Loss of consciousness),
- Giddiness and
- Tremors or death manifest.^[13]

Treatment of Pranvah Srotas Management of Pranvah Srotas vitiation is on the line of treatment of Swasiki Kriya (that indicated for disease of respiratory organs).^[14]

Respiration and Pranavayu

Pranavayu is responsible for respiration. The normal air having excess quantity of oxygen is inhaled while the so called impure (having carbon dioxide in excess) is excreted. This Pranavayu inhaled through lungs is circulated in all the tissues of the body through the process of blood circulation. The normal Vayu is thought to be the most important factor for life." The term Praṇoparodha is used for excessive holding of breath.' Here Prana indicates external air. The Pranavayu circulates in the whole body and maintains the body while Apana is known to be responsible for the excretory system and remains in the pelvic region in the body. The group activities which provide the supply of oxygen to the body tissues and excretes carbon dioxide, which is eliminated from the external and internal activities of the body can be understood as respiration.^[15] Swasana Kriya (Respiration): - Respiration (Swasana or Praṇana) has been recognised as the symbol of life. The word prana is completed from an a (root verb) with pra affix means the efficient cause (Nimitta Karana) of respiration (Praṇayatiti Praṇah). Acharya Sarngadhara's description regarding respiration presents a very

logical and attractive picture of this activity. Samhita describes that the Pranavayu residing in naval region touching (passing through) cardiac space outcomes through Kantha (trachea) for drinking (having a good contact and even assimilating it) the Visṇu Padamṛta. After drinking the Piyasa (nectar or taking oxygen or pure air from the atmosphere), it again enters the body with force. The Pranavayu provides strength to the whole of the body (Prinayana Dehamakhilam) and provokes the digestive fire (Jivayana Jatharanilam). Vayu in Ayurved has been described to have five kinds. Pranavayu is one of these kinds that has been recognised as respiration and symbol of life as well as the symbol of soul, or consciousness. In common and normal activities of Vayu, respiration is the most important action.^[16]

DISCUSSION

According to Charaka, they are the channels that transport the changed material after digestion, all other structural components of the body are just a representative element of Srotas Shareera. Charaka believed that the human body was simply the culmination of numerous Srotas. Acharaya Charaka has attempted to provide a scientific explanation of the meaning of Srotas based on the aforementioned argument. Charaka and Sushruta distribute their Mulasthanas in accordance with their role as Bhava storage or relay centres. The second Mula is regarded as the Bhava's conducting system. The word "Pranavayu" is utilised in the Pranavaha Srotas a. In other words, Pranavaha Srotas a refers to the locations where Pranavayu resides and travels. Again, on the basis of this, the majority of Acharyas regard respiratory system to be comparable to Pranavaha Srotas a. "Pranayatana" is a combination of the words "Prana" (the Hindu word for life) and "Ayatan" (the term for habitat). It implies that the unique environment in which life exists is regarded as Pranayatana. The diseases Pranavaha Srotodusti refers to as respiratory system diseases include Shwasa and Kasa. Hikka is a condition that, according to Ayurveda, affects the Pranavaha Srotas but, according to modern medicine, affects the gastrointestinal system. on the basis of this, it can be deduced that breathing must cease during an episode of Hikka, and Hikka can be a sign of advanced respiratory issues since Hikka is a symptom of many respiratory diseases. Pranvayu and Udanvayu, appearing as Uchhwas and Nishwas at the same time, assist in the performance of Shwasankriya. Complete respiration is created by the combination of the Udangati (expiration) and the Prangati (inspiration). In the instance of Pranvaha Srotas, air entered by the external atmospheric and passed through the pharynx, larynx, trachea, right and left bronchi, then the bronchioles, and lastly the alveoli. Oxygen travels along this route. Thus, the lungs are supplied with external air oxygen. Carbon dioxide and oxygen are exchanged

during gas exchange in alveoli. No ATP is used because this mechanism is entirely passive. The physical and chemical processes of gas transport between the lungs and bodily tissue. By using the diffusion method across capillary and alveolar barriers, breathing gases are exchanged. Only 1.5% of oxygen is carried in the dissolved state in blood plasma because it is difficult for oxygen to dissolve in water. Additionally, the remaining 98.5% of oxygen is carried inside RBCs via chemical interaction with haemoglobin. 20 ml of oxygen and 0.3 ml of dissolved oxygen are present in each 100 ml of oxygenated blood. The Pranavaha Srotas begins in the nose and moves through the alveoli to oxygenate the haemoglobin. The Pranavaha Srotas clearly follow this course, blood is used to exchange gases in the area nearby. Prior to being poured into the left atrium, this blood is first transported to the heart via the pulmonary veins. Aorta, arterioles, and capillaries carried blood from the left atrium to left ventricles and throughout the body.

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