Etiopathological Study of Srotas Sharir – A Conceptual Study

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ABSTRACT
The living body is the result of the aggregation of innumerable structures called ‘Srotas’. Actually, Srotas is a channel. The term Srotas is derived from the root word ‘Susrayano’ means, which exude, ooze, filter, and permeate. Srotas performs such functions, which help to nourish the entire body. Any disturbance at the level of Srotas leads to the genesis of diseases. For the manifestation of the disease, there must be Srotodushti in Sthanasmsryavastha. So knowledge of Srotas and factors, which influence the integrity of Srotamsi are important to gain knowledge of prognosis of disease as well as to treat the root cause of the disease.

KEYWORDS
Srotas, Srotodushti, Srotovaigunyta, Khavaigunya
INTRODUCTION

The human body is made up of numerous Parmanu (Dhatu Paramanus), which are living entities\(^1\). They are being constantly formed, destroyed and reformed with appropriate material derived from Poshakadravyas (nutrient substances) from the time of conception till death\(^2\). The substances to and from those Parmanu need a definite path known as Srotas. Acharya Charak says - “No structure in the body can grow and develop or waste and atrophy, independent of Srotas that transport Dhatus, which latter are constantly subjected to (metabolic) transformations”\(^3\). These structures are not only important for normal physiology but pathological changes in the human body can also develop after vitiation of Srotas\(^4\). So the knowledge about factors influencing the integrity of Srotas is important to understand the nature of the disease and its management.

MATERIALS AND METHODS

The word Srotas etymologically derived from the Sanskrit root “स्रूस्रवणे” Dhatus which means, to exude; to ooze; to filter; to permeate; to flow, to move, etc\(^4\). According to Acharya Charak Srotas as the channels of circulation, which carry the transforming (Parinamamapadyamananam) tissues from one place to another place. They work as communicating channels especially for nutrients/temporary tissues (Asthayi Dhatu), which are to be utilized for the formation of permanent Dhatus (Sthayi Dhatu)\(^5\). They also provide path for Prana, Udaka, Anna, Tridosha, Trimala, and Chetnayuktmana\(^6\).

Synonyms of Srotas: -

In Ayurveda, Srotas has an important place in Samhitas. The proponent of Ayurveda gave a unique concept of Srotas, in which the body of human is nothing but only the combination of Srotas\(^7\). The study of terms used to attribute thing gives information about its concept is a well-known fact. Acharya Charak has mentioned the various synonyms of Srotas. Therefore the few of the terms commonly used for Srotas in Ayurveda are given below.

Srotamsi: It’s meaning is to flow, to move, stands for channels, openings, meatus through which something flows.

Sira: Sira is like of Pratan [tendril], which is originated from Nabhi. It’s meaning is to slide. Acharya Charak has described is as “Saranat Sira”.

Dhamani: Dhamani is pipe or tubular vessel or canal of the human body starting from the heart or from the naval on supported to carry the Rasa. The term Dhamani is used to described arteries and nerves.

Rasavahini and Rasayani: Rasavahini and Rasayani are that which bears Rasa or food juice. The term Rasayani is used for lymphatic channels while Rasavahini is used to describe capillaries.

Nadi: Nadi is any type of pipe or tubular structure in which something moves. Nadi word in Ayurveda Samhita is used to describe nerve,
vessel, duct, cord, Dhamani, Sira, Tantuki, and Dhardi in different contexts.

**Pantha - Panthan:** These words are used to go, move, passage or Marga.

**Margas:** This means pathways or tracts.

**Sarirachidras:** means body orifices or openings.

**Samvrtasamvtni:** means duct open at one end or open at both ends.

**Asaya:** Acharya Sushruta used this term in context with different organs located in the thorax and abdominal cavities such as - Amashaya, Pakwashaya, Mutraashaya, and Garbhashaya, etc.

**Niketa:** This word has a meaning of house, habitation, mansion, state of being Ketana, temple, the seat of one element of the body, or resorts.

**Main Srotas and their Moola**

Chakrapani has described Moola am as- “Moolamiti Prabhava Sthanam”, meaning thereby that Moola of a Srotas is the anatomical seat of the respective Srotas, the main seat of the pathology of that channel and the principal seat of manifestation of disease.

The Moola Sthana or the source is so considered that without which the origin, maintenance and destruction of the specific carrier of the body nutrient cannot be possible and the place which controls the entire functional dealings and processes of that specific carrier.

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The Shape of Srotas: - According to Acharya Charak, Srotas are vritt (cylindrical), either Sthula (gross or macroscopic) or Anu (microscopic), Dirgha (large) or Pratana (reticulated) in shape and have a color similar to that of the Dhatu, they transport. 

Acharya Sushruta has claimed that Dhamanis has Khani in their wall, very much like the minute passage present in a lotus stem through which rasa is supplied to all parts of the body. Vagbhata has compared the Srotas as fine passage and pores present in the lotus stem. He has observed that rasa spreads throughout the body through Dwar (pores) of Srotamsi, which are distributed in the body like the minute channels present in the lotus stem.

The Concept of Srotodusti / Kha vaigunya: - According to Ayurveda there are two types of etiopathological factors responsible for morbidity in the human body; systemic and local. The systemic factors (triDoshaik etiology) are responsible for disease along with local factors (Kha Vaigunya). The systemic factor (vitiated Doshas) moves throughout the body in the different directions and is obstructed in the Srotas, where the loss of integrity of Srotamsi (local factor) occur, called "Kha vaiguna" which leads to the establishment of the actual disease process. Acharya Charak has described four kinds of abnormalities in the functioning of Srotas, called "SROTODUSTI". They are Atipravratti, Sanga, Siragranthi, and VimargaGamana.

Atipravratti: Increased activity of the one or more organs of the system. Increase in the rate of the respiration and heart beat; increased peristalsis of the intestines, increased movements of the various parts of the body, increased production of urine, feces, and sweat, increased formation of rasa and other Dhatus. It is mostly a functional abnormality but may rarely be structural also.

Sanga: It is also called Srotorodha, it is the opposite of Atipravratti. In this, there will be decrease in the activity of one or more organs of the system, or obstruction to the Srotas (Channels, pores) leading to increase in shape, size and other qualities of the organ system. Obstruction to the pores of sweat in fever, accumulation of fluid in the abdomen in cases of Udara roga as a result of obstruction of channels of Annavaha Srotas; accumulation of fluid under the skin causing sotha (generalized Anasarca) due to obstruction of the Rasavaha Srotas; obstruction to the channels of the Mutravaha Srotas causing scanty urine, accumulation of urine due to obstruction of its passage causing enlargement of the urinary bladder and pain, in left ventricular
failure, decrease heart rate and Increase heart size due to obstruction of Rasavaha Srotas, are some examples for this kind of abnormality. It is a change both in structure and functions: both physiological and pathological conditions e.g. left Ventricular Failure etc.

**Sira-Granthis or Sroto-Granthis:** to be more appropriate and specific is the third kind of abnormality, which is characterized by the formation of thickening, new growth or tumors. The Dhatu Pramanus (tissue cells) undergo an increase in their size, shape and other qualities. Increase in the size of the organs of the Srotas system or development of new growth over them may take place. Diseases such as Vidradhi (abscess); Granthi (benign tumors), Arbuda (malignant tumors), Valmika (actinomycosis), Slipada (Filariais), etc, are the best examples of this kind of abnormality.

**Vimarga-Gamana:** Vimarga-Gamana meaning movement in the wrong direction or passage is the fourth kind of Srotodusti. Movement applies to the functions of the organs or to the materials that are handled by them. During health, both these have a fixed path and have a definite direction of movement. Any deviation in these is to be called as Vimarga Gamana. Food taken into the mouth is moved to the downward direction to the stomach and from there to the intestines. In the disease, chardi (vomiting) food is moved in upward direction from the stomach; intestines and this abnormal movement is vimarga gaman in the Annavaha Srotas; similarly Purischardi (fetal vomiting) fecal matter coming out through urethra or through fistula in the rectum; bleeding through the pores of the skin, nose, eye, ears, urethra regurgitation of some valvular defect in the heart, etc. are some others examples for this type of Srotodusti/abnormality.

These four kinds of Srotodusti (abnormalities of the Srotas systems) may occur either individually or in combination.

**DISCUSSION**

The Dhatus (gross tissues) of the body are made up of innumerable Dhatu Paramanus. All the organs of the body are nothing but a collection of the Dhatu Paramanu. Each Dhatu Parmanu take nutrition and removes their waste through their minute conduits. These channels are specific for their respected parmanu. The ultimate source of life (Prana, Anna, and Udak), the structural unit of the body (Sapta Dhatu), their waste (three mala) are transported through there respected Srotas as described in Samhitas but Doshas (Sharirik and Mansik both) and mana are also transported through them. Classical texts on Ayurveda, especially in
Charaka Samhita, the origin (Moola) and the symptomatology of pathological involvements of Srotamsi in Nija type of disease. While Sushruta has a clear approach towards Anatomy either in the definition of Srotas or definition of any Srotas with their Moola and characters of the viddha (acute injury) of the Srotas. The Moola Sthana of a Srotas can be considered as governing sites of that particular Srotas for proper maintenance of the corresponding Dhatu or it can also be considered that the main effect over the Srotas is first observed in the Moola Sthana. The Srotas in an abnormal condition not only deteriorates the state of Dhatus but also causes abnormality in the functioning of nearby Srotas leading to a local disorder like Pratisyaya effects, nasal cavity, and pharynx, leading to Kasa and vice versa. The infection from there may enter the ear causing pain and deafness. If the infection enters the air sinuses it may cause severe headache.

CONCLUSION

Srotas of the body comprise of channels of different kinds. They may be, Sthula or Anu, Dirgha or Pratana in shape and have a color similar to that of the Dhatu, they transport. In general usage, the term Srotamsi comprehends all channels – big and small, perceptible and imperceptible. They are the transporting structures, through which the factors for Prakopa and shaman of Doshas are transported. Healthy Srotas perform their normal functions as a result body remains free from the diseases, on the other hand, vitiated Srotas are the cause of the development of diseases. Due to faulty lifestyle, the integrity of the srotansi gets impaired. If the integrity of the Srotansi is impaired (i.e. Khavaigunya) both the Sthayi and Asthayi Dhatus are involved; the morbidity spread by one Dhatu vitiating the other and one Srotas to other Srotas. Khavaigunya is an essential event for the formation of disease.
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