



## Concept of *srotas* in *kriya sharir* – A review article

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### Abstract

*Ayurved*, the science of life, has given the concept of *srotas* in the body which are the channels meant to perform various functions like secretion, conduction, transportation. According to ayurvedic *aacharyas*, *srotases* are the channels spread throughout the body. Some of them are micro some are macro in structure and they adapt the same colour of the dhatus to which they belong. they provide platform for functions of *dosha*, *dhatu*, *agni* etc. *srotas* plays important role in performing various life processes and hence helps in maintaining the health in their *prakrut* state and if gets vitiated they can lead to the diseased condition.

Keywords: *srotas*, *dhatu*, *Agni*, *srotomula*.

### Introduction

Ayurveda has mentioned that akash mahabhuta forms the srotases and thus provides channels to perform the functions of transportation, secretion, conduction, etc. srotas are the channels which transport dhatus, nourishes the body and transport toxins to excrete them from the body. Their improper functioning may lead to the pathogenic condition. As assimilation and utilization of anna, prana, dhatus, malas and jala mainly depends upon functioning of srotas which mainly governs through processes of filtration, diffusion, osmosis, transportation. Srotases present in the body are innumerable. These are the channels as many as the number of life factors in the body. This is as per the reference given in ayurvedic literature ‘Yawantah Purushe Murtimanto Bhavavisheshah Tavantevasmin Srotasam Prakara Visheshah<sup>1</sup>

The word srotas is derived from sanskrita root “Srugatau” (Sru + tasi = srotas) which means moving, filtering, flowing, leaking, secreting etc.

Acharya charaka has mentioned ‘sraanat srotamsi’ that means where process of oozing or leaking various poshya dhatu occurs. And he has also given that the platform where formation of bio factors take place such channels are known as srotas- ‘sarve hi bhava purusha nantaren srotansi abhinirvartante’<sup>2</sup>

Ayurvedic acharyas has given srotas along with their mulsthanam for the purpose of the study of pathology and clinical medicine

### Synonyms

Srotas term can be used as a common term for all macro and micro channels and following are the synonyms for specific structures in the body- Sira (vein), Dhamani (arteries), Rasayani (lymphatics), Rasavahini (capillaries), Nadi (Tubular conduits), Pantha (passages), Sthana (sites, locus), Ashayas (repositeries), Niketa (resorts), Marga (pathways, tracts), Samvrita-asamvrita (open or blind passages), Sharir chidra (body orifices, openings).<sup>3</sup>

### Classification

Srotas can be divided under the heading sthula and Sukshma srotas.

Where Sukshma srotas are micro in size and innumerable.

sthula srotas are the natural opening/ orifices, macro in size and hence countable, as in males they are nine in number and in females they are eleven in number.

## Characteristics

Srotas are identified by the name of the dhatu they transform or transport

Srotas are different from the dhatu they transform or transport

Colour- similar to the dhatu they belong

Size - Anu (micro) and sthula (macro)

Shape – Vritta (cylindrical), Dirgha (long), Pratana (reticulated)

Number – micro and macro innumerable and numerable respectively.

Acharya charak has mentioned thirteen srotas along with manovaha srotas which carries impulses of thoughts and emotions<sup>4</sup>

## Srotas mulam

Chakrapani has described that mulam is a Prabhava sthana. It is an anatomical seat of the respective srotas, mainly responsible for the pathology of that channel as being the seat for diseases channels are clinically examined by the physician in a patient for the diagnostic purpose.

Srotas	Charaka	Sushruta
Pranavaha	Hridaya, mahasrotas	Hriday, rasvahi dhamanya
Udakaavaha	Talu, klom	Talu, klom
Annaavaha	Aamashay, vaamparshva	Aamashaya, annavahi dhamanya
Rasavaha	Hriday, dashdhamanya	Hriday, rasavahi dhamanya
Raktavaha	Yakrut, pliha	Yakrut, pliha, raktavahi dhamanya
Mamsavaha	Snayu, twak	Snayu, twak
Medovaha	Vrukk, vapavahan	Kati, vrukk
Asthivaha	Meda, jaghan	-
Majjavaha	Asthi, sandhi	-
Shukravaha	Vrushan, shef	Vrushan, stan
Mutravaha	Basti, vankshan	Basti, medhra
purishavaha	Pakwashay, sthulaguda	Pakwashay, gud
Swedavaha	Med, romkup	-
Aartavavaha	-	Garbhashay, artavavahi dhamanya

Acharya charaka has mentioned thirteen macro channels for seven dhatus, three for malas and two for intake of nutrients and one for regulation of water<sup>5</sup> Acharya charaka has also mentioned manoavaha srotas in charaka sharir 1/20, charaka indriya 5/41, charaka chikitsa 9/5<sup>6,7,8</sup> Manasika guna and aatma are beyond from the sense of perception. Whereas no separate srotamsi has been described for three doshas. *Acharya sushruta* has given 11 pairs of srotas just as given by *Acharya charaka* and only excluding *asthivaha*, *majjavaha*, *swedavaha* and included artavavaha srotas whereas charak has said dhamni and sira as srotas part giving the explanation they pulsate and maintain the flow of rasa rakta. Charaka has described srotas mula or origin and symptomatology of pathological involvement of srotamsi in nija type of diseases (idiopathic or constitutional diseases as opposed to aagantuja or traumatic) While Sushruta has described srotamsi in the context of injuries (srotoviddha) as may inflict on their mula. Thus Srotas is a multi-meaning term referring to a range of structures, functions and concepts in different context. From extreme gross to most subtle the term srotas could refer to whole body as a single complex srotas, each gross physiological system such as gastrointestinal system as one srotas, a single tubular

structure like nephron, each single cell of the body or sub-cellular structures and membrane the receptor mechanism and networks, pathways carrying emotions and chetna. All these are the components of srotas system.<sup>9</sup> srotas can be correlated with the complex pathways or channels of the nervous system governed by vata for carrying out the functional and physiological activities of the human body Nerve itself is a channel and it is spread throughout the body, like a climber plant. All the channels are governed by the flow of electrical current responsible for the development of the action potentials without which none of the fundamental activities of human will take place<sup>10</sup>.

#### Functions of Srotamsi

- Ayurvedic Acharyas have described that the entire range of life processes in health and disease depends on integrity of the srotas system.
- Srotas are the inner transport system of the body which provides platform for activities of other important bio-factors like three dosh, the seven dhatu, the oja, the agni, thought and emotions etc.
- Srotamsi are not only the passage or channels for flow of various substances but also Srotamsi are specific in their functions. Each Srotas provides nutrition to their respective dhatu only with requisite quantities not others<sup>11,12</sup>.
- Transformation (metabolism) of poshya dhatu occurs in srotas.
- Srotas serves as conduit through which both prasada (nutrient) dhatu as well as mala dhatu (waste product or product of degradation) are transported, as structure through the pores of which nutrient and waste product pass to and from the sthayi dhatu.
- All the dosh, dhatu and mala are dependent on srotas for their formation, transportation and destruction.

#### CONCLUSION

Srotamsi represent the inner transport system of the body in addition to that of circulatory System. Srotamsi indicate all macro, micro level descriptions pertaining to exchange, transportation and excretion. Srotamsi include all range of structural and functional units from gross to subtlest designed to carry specific material, molecules, messages, impulses, emotions and thoughts. Sthula srotas along with their mulam have been described for the purpose of the study of pathology and clinical medicine. The transport of biological fluids, physiological regulatory factors, nourishment of tissues, and bioavailability of medicaments depends on the integrity of Srotamsi. Srotamsi are specific to the carrier substance which they transport. This concept of srotamsi supports even the latest descriptions in contemporary science such a receptor theory in terms of their specificity and membrane biology. The srotas system plays a key role in physiology including pathophysiology and pharmacophysiology. Understanding the concept of srotamsi and srotovaiguny facilitates the Vaidya to take decisions accurately with respect to treatment and prognosis.

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