

A GENERAL CONCEPT OF SROTAS AND ITS CLINICAL ASPECTS

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ABSTRACT

Human body is a conglomeration of the srotas means canal or channels used for transportation or secretion of material just as water in a canal flows from one place to another place. Srotas are mainly *Aakash Mahabhuta Pradhan*. They play a very important role in maintaining the normal health and preventing the body from diseases and thus supporting the growth and development of body along with distributing the micronutrients to every tissue. Disturbances in the normal functioning of the srotas can lead to many types of diseases. Abnormalities of srotas system are srotodusti. Without Srotodusti (histopathology) no disease can occur.

KEYWORDS: Srotas, *Aakash mahabhut*, srotodusti.

INTRODUCTION

Srotas has been defined as *srotambu saranum* meaning natural flow in the body system. They are the canal or channels through which nutrients, dhatu and waste product are transported within the body. The major function of the circulation channel is active transportation of the fluids in a systematic manner. They are also responsible for transportation of Dosha. They work as a communicating channel especially for nutrients, tissues/temporary tissues which are to be utilized for formation of permanent dhatu. Acharya Charak has highlighted a basic characterization of srotas that srotas bear *Ayanmukha* for exchange. Dosha vitiates the srotas and leads to the development of disease.

Vyutpatti

स्रुगतौ + स्रुतीभ्यात्स्रुत्

The term is originated from the main Sanskrit root 'Sru' meaning Gatau. Srotas is that where *srawan* kriya take place with motion.

Nirukti

स्रोतांसि खलु परिणाम मापधमानाना धातूनामभिवाहीनि भवन्त्यनर्थिन।

(च०वि० 5/3)

Acharya Charak has described that srotas are defined as "*srawanat srotamsi*" meaning through which *srawan* take place. Acharya Charak has referred Srotas as communicating channels especially for nutrients

tissue/temporary tissue which are to be utilized for the formation of permanent Dhatu.

Ayurveda Review

Acharya Charak has described srotas as the channels of circulation which carry the transforming tissue from one place to another place. According to Acharya Sushruta, Sira, Dhamani (arteries) forms the scope of srotas and are compared with the channels present in the srotas through which fluids circular and exudate. Acharya *Sharangdhar* has stated that all the Prana, Jala, Dhatu, *Updhatu* and mala of dhatu are transported in the body also known as *Randhra*. Vagbhatt has stated that *Sira dhamani* are nothing but the special type of srotas. He has coined the term srotodwar (pores) which are *sukshma* (microscopic) and are responsible for rasa dhatu transportation throughout the body.

According to Chakrapani, srotas are the channels through which transportation of poshaka dhatu (the part of rasa etc. Tissue which flow to provide nutrition to successive tissue) take place.

Synonyms of Srotas: Sira (vein), *Dhamani* (artery), *Rasayani* (lymphatic duct) *Nadi* (tubular structure), *Panthana* (passage) *Sharira chhidras* (body orifices), *Niketas* (resorts).

Characterisation of Srotas

स्वधातु सम वर्णानि वृत्त स्थूलान्यपूनिच।

स्रोतांसि दीर्घाण्याद्बुल्या प्रतान् सद्भुशानिच।।

(च०वि० 5/25)

Color: The color of srotas is of the dhatu that they carry.
Size: *Anu* (microscopic in size) *sthula* (Gross or macroscopic).

Shape

Vritta (cylindrical)

Dirgha (long)

Pratan (reticulated)

Origin and Panchbhautik composition of srotas:

Vayu creates the gross channels which are dominated by *Akash mahabhoota*. (Bhedana) is the function of vayu which is responsible for the formation of srotas.

Modern View

Srotas represent the inner transport system of the body in addition to that of circulatory system. It indicates all macro, micro, level description pertaining to exchange, transportation and excretion. Macro & Micro srotas includes all range of structure and functional units from gross to subtle, designed to carry specific material, molecule - impulse, emotion, transport of biological fluids and physiological regulatory factors nourishment of tissue. It can be defined into two types-

1. Srotas general - important channels for the transportation of nutrients.
2. Srotas specific - It is responsible for exchange mechanism e.g. biological function like diffusion, osmosis and alteration occur between cells via micro channels.

Classification

1. **Innumerable:** Body, Mind, spirit system has many srotansi as or the no. of life factors operating in the life processes.
2. **Numerable:** It is of two types-
 a) **External Openings (*Bahirmukha*):** Also known as *Nava Dwaras*. 7 upper & 2 lower part.

Two eyes, two ears, two nasal passages, one mouth, Anus, urinary tract.

In Females: There are 3 more openings –2 Breasts & 1 Vaginal openings.

b) Internal Openings (*Antarmukha*)

Acharya Charak has described 13 Types of *Srotas*.
 Acharya Sushruta has described 11 types of srotas.

Acharya Sushruta has not mentioned *asthivaha*, *majjavaha* and *Swedavaha* srotas but added *Artavaha* Srotas.

Srotas can be correlated with modern science in the following way -

Pranavaha srotas - Channels of respiration

Udakvaha srotas - Channels of fluid distribution

Annavaha srotas - Alimentary canal

Rasavaha srotas - Lymphatic system

Raktavaha srotas - Vascular system

Mamsavaha srotas- Channels of nutrition to muscle tissue.

Medovaha srotas - Nutritive channel for adipose tissue

Asthivaha srotas - Channels for bone tissue

Majjavaha srotas - Nutritive channel for bone marrow

Sukravaha srotas - Nutritive channel for reproductive

Mutravaha srotas- Channels for transporting urine

Swedavaha srotas- Channels for transporting sweat

Purishvaha srotas- Channels for transporting faeces

Function of Srotas

Oozing, transportation, excretion, absorption, transport *poshya* dhatu. It is an inner transport system of the body which provides basic activities for other important bio factors like *dosha*, seven dhatu, *Oja*, Agni, thought and emotion. Each srotas provides nutrition to their respective dhatu.

Clinical Significance of Srotas

General Srotodushti Hetu

आहारदा विहारदा यः स्यादोषगुणैः समः।

घातुभिर्विगुणश्चापि स्रोतसां स प्रदूषकः॥

(च०वि० 5/23)

Generally, all food and activity that promotes to the morbid tendencies of doshas and disturb the body elements are vitiating to the body channels (*srotas*).

Characteristics of Srotodushti

The characteristics of the morbidity of the body channels are increased or decreased depending on the flow of their contents in the knotted condition of the passage or flow of their contents in abnormal channels. There are four types of srotodushti (vitiating of channels).

1. *Atipravritti*
2. *Sanga*
3. *Sira granthi*
4. *Vimarga gaman*

1. **Atipravritti:** It is excessive flow which is due to increased activity of the organs of the system. e.g.:
 (i) *Annavaha* sroto *atipravritti* - excessive flow of acid to stomach, *Amlapitta* and *Atisara* (diarrhoea).
 (ii) *Mutravaha* sroto *atipravritti* - Excessive flow of urine, *Bahumutrata* or *Prameha*.
2. **Sanga:** It is also called *srotorodha* and is opposite of *atipravritti* and is defined as obstruction to the srotas. Due to vitiating dosha, it cannot perform its routine function of transportation. The flow is obstructed and leads to disease. E.g.: - *Swedarodha* in *Jwara*, constipation.
3. **Sira granthi:** It is the formation of something in channels such as tumor, cyst or abnormal growth of the tissue. It is also characterized by the dilatation of the vessels causing obstruction to normal the flow through srotas. E.g.: *Granthi*, *Arbuda*.
4. **Vimarga gaman:** It means the flow of the fluid in affected area through channels other than its own

pathways. E.g.: - Chhardi - movement of the food upwards.

These four types of srotodushti may occur individually or in combination and without srotodushti there is no disease. Every disease is nothing but the result of *dhatuvaisamyā* which includes srotodushti.

DISCUSSION

Srotas not only plays a vital role in the manifestation of the disease but also are the prerequisite for maintaining the basic physiological function of the human body. Srotas are an important part of the human body.

They work as communicating channels especially for nutrients tissue/temporary tissues which are to be utilized for formation of permanent dhatu. They carry prana, *udaka* and three types of mala. Acharya Charak has defined that no structure in the body can neither grow nor waste independent of *srotamsi* that transports dhatus, which later are constantly subjected to metabolic transformation. Acharya Charak has stated that a man is nothing but conglomeration of *srotomansi* which pervades the entire body. All the Dosha, Dhatu and Mala are dependent on srotas for their formation transportation and destruction. The impairment of the function *srotomansi* leads to *srotovrodha* or obstruction of srotas. Acharya Charak has described four kinds of abnormalities in functioning of srotas or srotodusti.

CONCLUSION

Srotas are the channels or canal like structure performing the process of transportation and distributing nutrition throughout the body. Srotas are specific in their function and each srotas provide nutrition to their respective Dhatu. Improper functioning of srotas may lead to breathing difficulty, dryness of mouth, anorexia, kushtha, impotency, urine problem, Arbuda with respective to their srotas. So, in the current context it is important to understand about the srotas and srotodushti and its complications. Management of the srotas is very important for human beings, which can be managed by performing, *sadvritta* detoxification, yoga, meditation, pranayama good conduction of seasonal and daily regimes and healthy lifestyle etc. all of which helps to prevent the pathogenesis of srotodushti.

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