Conceptual Study of Srotas (Body Channels) & Medicinal Plants Acting on Them

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ABSTRACT

Srotas (body channels) are said to be a significant component of the body and are in responsible of Vahana (transferring) Dosha, Dhatu, etc. Srotomaya (made of Srotas) is regarded as the full body. These Srotas have strong ties to each individual moolasthana. Due to their involvement in the development, inspection, and regulation of the Bhavapadartha flowing through the Srotas, these Moolsthana are crucial from a therapeutic and prognosis perspective. Srotas nourishes the body, keeps the digestive and metabolic processes in balance, and restores the cleansing process. Disturbances in the transportation process are among the anomalies in Srotas. Clinically calming Srotas vitiation can be used to manage pathological disorders linked to anomalies in Srotas. The concept of Srotas is explained in this article in light of ayurvedic principles.

Keywords: Ayurveda, Srotas, Body Channels

Introduction

Ayurveda is the first medical system to announce and describe the existence of innumerable Srotas, within the human body. The word “Srotas” comes from the root “Susravana,” which also means to exude, ooze, flow, or filter. Srotas are those through which the materials in the body flow or from which sravana, or flow of the body substances, occurs.¹ They serve as the body’s “channels” or “pathways,” carrying nutrients and other elements from one part of the body to another in order to produce tissue. In other words, these Srotas serve as a channel for the movement of materials from the site of production to the location of need.² According to Sushruta, those which carry or transport materials like Prana (Life element), Anna (Food), Vare (Water), Mamsa, Meda Dhatu are called Srotas.³ Charaka opines that there will be „Parinamanapadyamananam“ meaning undergoing transformation indicates that the channel carry such of the tissue elements as are undergoing transformation from their previous states.⁴ Only those mobile dhatus are conveyed by the channels of circulation; they do not carry sthira (Stable) dhatus. Srotas are the intricate nervous system routes or channels that Vayu controls in order to carry out the physiological and functional functions of the human body. This review article will highlight, evaluate, elaborate and discuss about Srotas (Body Channels).

Material & Methods

Material related to Srotas is collected from Ayurvedic text including Bahatriye, Laghutrye and text book of modern medicine respectively. The index, non-index medical journals has also referred to collect information of relevant topic.
Conceptual Study

Synonyms of Srotas

The word “srotas” is employed as a general phrase to indicate all macro and micro channels and pathways operating in the living organism, according to an analysis of several of its significant synonyms. Following are the synonyms- Sira (vein), Dhamani (arteries), Rasayani (lymphatics), Rasavahini (capillaries), Nadi (Tubular conduits), Pantha (passages), Sthana (sites, locus), Ashayas (repositories), Niketa (resorts), Marga (pathways, tracts), Samvrita-asamvrita (open or blind passages), Sharir chidra (body orifices, openings). 5

Classification of Srotas

Sukshma (Subtle)- Innumerable - As many as the life factor operating in the life process. Sthula (gross) - Numerable -Baḥirmukha (Aperture or natural opening) - 9 in male, 11 in females, Antarmukha – 135,7

Characterization of Srotas8

Colour- Colour of srotas is similar to that of dhatu they carry.
Size- Anu (atomic in size or microscopic), Sthula (Gross or macroscopic), Shape - Vritta (cylindrical), Dirgha (long), Protana (reticulated).

Moolam of Srotas:

According to Chakarpani, the Moola of the Srotas is the anatomical seat of each Srota, the primary site of that channel’s pathology, or the main site of disease manifestation. The reason for Srotas morbidity and the sickness that results from it have also been identified. A clinician may perform a clinical examination of the patient’s set of channels in order to make a diagnosis of the condition.9

Table 1. Name of Srotas with their Moola

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Srotas</th>
<th>(Acc to Charak)10</th>
<th>(Acc to Suśruta)11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prāṇvaha</td>
<td>Hṛdya, Maha Srotas</td>
<td>Hṛdya, Rasvahini Dhamani</td>
</tr>
<tr>
<td>2.</td>
<td>Udakavaha</td>
<td>Tālu, .Klom (oropharynx)</td>
<td>Tālu, Klom</td>
</tr>
<tr>
<td>3.</td>
<td>Annavaha</td>
<td>Āmāśaya, Vamparshwa</td>
<td>Āmāśaya, Annavaha Dhamani</td>
</tr>
<tr>
<td>4.</td>
<td>Rasavaha</td>
<td>Hṛdya (Heart), Ten Dhamanī</td>
<td>Hṛdya, Rasvah Dhamanī</td>
</tr>
<tr>
<td>5.</td>
<td>Raktavaha</td>
<td>Yakṛt, Plihā</td>
<td>Yakṛt, Plihā, Raktvaha Dhamanī</td>
</tr>
</tbody>
</table>

Acharya Charak has described thirteen gross channels, seven for seven dhatu, three for mala and two for intake of nutrient substances like food, water, air and one for regulation of water.12 Manasika guna and Atma which are beyond from the sense of perception, the entire sentient body is their vehicle and field of operation. Sushruta has described eleven pairs of srotas same as Charaka but he has left out Asthivaha, Majjavaha and Svedavaha and included Artavavaha Srotas. Sushruta has excluded Dhamani and Sira from purview of Srotas. Charak has described that they are spoken of dhamani because they pulsate, sira because they maintain the flow of rasa - rakta, as srotamsi because they permit oozing. C. Dwarkanath has explained that Hridya (heart), dhamani (arteries), sira (veins) srotamsi (capillaries) are the component of a single vascular system which regulate the proper flow of blood and nutrition supply to and clearance of waste products from sthayi dhatu.13 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 srotas. 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 mechanismand networks, pathways carrying emotions and chetna.,\textsuperscript{14}

**Function of Srotas**

Ayurvedic Acharyas have described that the entire range of life processes in health and disease depends on integrity of the srotas system.

1. *Srotas* are the inner transport system of the body which provides platform for activities of other important bio-factors like three dosha, the seven dhatu, the oja, the agni, thought and emotions etc.
2. Transformation (metabolism) of poshya dhatu occurs in srotas.
3. *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.
4. All the dosh, dhatu and mala are dependent on srotas for their formation, transportation and destruction.\textsuperscript{15,16}

**Srotodushti**

Inappropriate eating habits and related activities are the causes of the doshas becoming vitiated. Diseases are one way in which this vitiation manifests itself. The same factors that generate doshadushti and dhathudushti also result in srotodushti, which is a vitiation of Srotas.

Srotodushti lakshanas - The main signs of the vitiation of the channels are 1) *Atipravrutti*: Increased flow or excess production of contents of the channel 2) *Sanga*: Obstruction or stagnation of the flow of content of the channel. 3) *Siragranthi*: Appearance of nodules in the channel 4) *Vimargagamana*: Diversion of the flow of the contents to an improper channel or flow in the path other than its own.\textsuperscript{17}

### Discussion

*Srotas* are important for each Murthiman bhava according to Ayurveda. *Srotas* are distinct from sira and dhamani, the channels that transport nutrients to the body’s organs and are widely distributed throughout the body. Additionally, it transports waste products for the body to excrete. The physiological processes of the human body are impossible without Srotas. There are two moolasthanas in each srotas, and their job is to create the elements that flow through the srotas. *Sroto dushhti* and *Srotosanga* are too responsible for the body’s pathological changes. A healthy functioning of the srotas is essential for the correct growth of the human body since any imbalance in the srotas leads to sickness.

When doshas are aggravate in body, causes diseases. They lodged the channel (Srotas), ultimately various diseases arises. These aggravated doshas travel through the body, lodged in the site of abnormal channel where disease asised. Contaminated diet and regimen are blockage the srotas (channels). Removal of obstruction of channels is the only treatment. In the treatment of blockage of channels, purificatory and palliative treatments should be advocated along with psychic therapy in case of blockage of psychological channel. For example, some medicinal plants have anti-oxidant and anti-inflammatory effects on the life source channels (Pranvahsrotas) which cause alleviation of vata and kapha, which are hot in potency and which cause downward movement of vata are useful as medicines, drinks and food preparations for the patients suffering from the disease of which cause alleviation of vata and kapha, which are hot in potency and which cause downward movement of vata are useful as medicines, drinks and food preparations for the patients suffering from the disease. So the herbal drugs having properties of pacifying kapha and vata are used in the treatment, because these two are main dosha involved in its aetiopathogenesis. Some of these useful medicinal plants are. There are other sources/ channels (srotas) here, but it is not possible to describe them in detail.

**Table 2. Pranvahsrotas (Life Source Channels) & Useful Medicinal Plants**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Medicinal Plant</th>
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<th>Name of Medicinal Plant</th>
<th>S. No.</th>
<th>Name of Medicinal Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SHATI (Spiked ginger lily)</td>
<td>9.</td>
<td>AGURU (Indian Eagle wood)</td>
<td>16.</td>
<td>JEEVANTI (Lepta denia reticulata)</td>
</tr>
<tr>
<td>2.</td>
<td>Shunthi (Zingiber officinale Rosc.)</td>
<td>10.</td>
<td>PIPPALI (Indian long pepper Long pepper)</td>
<td>17.</td>
<td>SHIRISH (Albizzi lebbeck)</td>
</tr>
<tr>
<td>3.</td>
<td>PUSHKARMULA Inularacemosa</td>
<td>11.</td>
<td>CHANDA (Angelicaarchangelica)</td>
<td>18.</td>
<td>HARIDRA (Curcuma longa)</td>
</tr>
<tr>
<td>4.</td>
<td>ELA Elettaria cardamomum</td>
<td>12.</td>
<td>BHARANGI (Clerodendrumsererratum)</td>
<td>19.</td>
<td>ANKOTA (Angliumsalsivifolium)</td>
</tr>
</tbody>
</table>
5. HINGU (Asfoetida)  13. SURASA (Ocimum sanctum)  20. SHALLAKI (Boswelliaserrata)
6. AMLA-VETASA (Hippophaesalicifolia)  14. TAMLAKI (Phyllanthuurinaria)  21. MARICH (Piper nigrum)
7. VASA (Adathoda vasica)  15. KANTAKARI (Solanumxanthocarpum)  22. YASHTIMADHU (Glycyrrhizaglabra)
8. TALISA (Abis webbiana)

**Conclusion**

Srotas is merely a hollow channels or space. According to Charaka Acharya “Srotomayamayampurusha, i.e they have seen the body in the form of Srotas. The human body is made up by numerous and numerous Srotas. Srotas represent all macro and micro-level descriptions of exchange, movement, and excretion occurring within the human body. In order to study pathology and practise medicine, srotas and their moolasthan have been described. Knowing about Srotas and Srotovaigunya makes it easier to treat illnesses. As long as Srotas continue to function normally, the body will be disease-free.

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