

## CONCEPT OF "SROTAS": A PERSPECTIVE

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## ABSTRACT

In Ayurved great emphasis has laid upon concept of *srotas* and got immense importance because the *sharir* or *purush* is assumed to be made of innumerable *srotas*. *Ayurvedic Nidan* (diagnosis) & *chikitsa* (treatment) are built on fundamental principles like *Panchamahabhut* , *Triguna* , *Tridosha* as its . By etymology *srotas* is what ,within which something flows or carried . *Srotas* is the functional channel within the living body , concerned with one exclusive vital function . Innumerable *srotas* are present in body representing infinite elements in the universe . Conceptually body has as many *srotas* as it contains the biochemical entities and all metabolic activities take place in the concerned *srotas* . *Srotas* is nothing but the space (*Aakash / avakash* ) defined by boundaries of *panchabhautik* entity. *Chakrapani* has described *Moolsthana* of *Srotas* as *Prabhav sthana* means the anatomical seat of respective *srotas* , main seat of pathology of that *srotas* or principle seat of manifestation of the diseases of that *srotas* . In some way or other *moolsthana* of any *srotas* is concerned with the seat of metabolism , origin of pathological changes , having diagnostic red flag symptoms or it may be the focus of treatment . Any imbalance in structural , morphological or functional integrity of space or *srotas* is detrimental to the health of the *Srotas* . Therefore the ancient sages might have seen the body in form of *srotas* subtle and gross , in and out of the body and said "*srotomayam ayam purush*"

**Keywords:** *Srotas* , *Panchamahabhut* , *Moolsthana* , seat of metabolism , integrity

## INTRODUCTION

In Ayurved great emphasis has laid upon concept of *srotas* and got immense importance because the *sharir* or *purush* is assumed to be made of innumerable *srotas* <sup>[1]</sup> and being a physician one must have a very vivid idea of what exactly this *srotas* is ? *Ayurvedic* texts accept the tenets of *Panchamahabhut* , *Triguna* , *Tridosha* as its fundamental principles upon which the concepts of *Nidan* (diagnosis) & *chikitsa* (treatment) are built on . Human entity is a combination of gross-subtle (*sthula-sukshma*) , visible-

invisible (*drushya-adrushya*), perceptible-nonperceptible (*indriyaganya-indriyaganya*) & abstract-concrete elements<sup>[2]</sup> . *Ayurved* has accepted them all though some of which do not come in realm of direct knowledge .To accept the elements which are beyond the capacity of perception of sense organs , *Ayurved* has also accepted *Vedic* philosophy or *Sankhyatatvadnyan*.

By etymology *srotas* is what ,within which something flows or carried .

"*Sru sarati*" means to flow<sup>[3]</sup>, to exude, to ooze, to filter, to permeate. *Srotas* is the functional channel within the living body, concerned with one exclusive vital function. First description of *srotas* in *Charak Samhita* comes in *Sutrasthana*, 28<sup>th</sup> chapter regarding the nutrition of the *Dhatus*<sup>[4]</sup>. *Srotas* are the base of transformation of nutrients in biological elements, being the metabolic centre of that particular *dhatu*, transport of nutrients and waste products. Later in *Srotoviman adhyaya* Acharya Charak has discussed the concept of *Srotas* elaborately.

*Srotas* which is the transport system of the body has many synonyms listed below<sup>[5]</sup>:

*Srotamsi* - channels, *Siras* - veins, *Dhamanis* - arteries, *Rasayanis* - lymphatics, *Rasavahini* - capillaries, *Nadis* - tubular conduits, *Panthanas* - passages, *Margas* - pathways, *Sharir chidras* - body orifices, *Samvrat samvratani* - open, closed, *Sthanas* - sites, locus, *Ashayas* - repositories, *Niketas* - resorts

The nomenclature mentioned above, pertains to both the visible and non-visible channels that enable the movement of *sharir dhatus* (body elements). The internal transport system of the body, represented by *srotas*, has been given a place of fundamental importance both in state of health and disease, which is also been emphasised with latest advances in modern medicine. Structural and functional integrity of these *srotas* is needed in order to maintain normal physiology, likewise impairment in this integrity can lead to pathological states. *Ayurved* believes in *Lokpurushanyaya*<sup>[6]</sup> i.e. concept of "Simile or Metaphor" between macrocosm and microcosm. According to it all elements in Universe represent in human body. So innumerable *srotas* are

present in body representing infinite elements in the universe.

Regarding the concept of *srotas*, human body consists multiple and innumerable *srotas*. All metabolic activities take place in the concerned *srotas*<sup>[7]</sup>. Conceptually body has as many *srotas* as it contains the biochemical entities. *Dhatus* being functional tissues, *Mala* being excretory products and *Prana*, *Anna* and *Udaka* being the vital entities or *Bahyaprana*, have their own *srotas* or separate functioning channels<sup>[8]</sup>.

*Srotas* are micro or macro spaces in the body which carry the different biochemical molecules during the process of metabolism.

Characteristics of *Srotas*: In the words of *Charak Samhita*, *Srotas* can be *sthula/sukshma* micro/macroscopic, *vrutta* - round in shape, *dirgha* - elongated and *pratansadrusha* - reticulated in nature<sup>[9]</sup>.

All this description from ancient text is on basis of inference or imaginative power i.e. *dnyanachakshu* of the sages. With the latest knowledge of micro anatomy and physiology, these assumptions can be very well interpreted. In human body though cell is the functional and structural unit of the body, there is no such watertight compartments as such between the two distinct and distant morphological entities. There could always exist a law of communication and functional dependence between the two apparently distinct and distant morphological entities. Probably therefore empirically *Ashtang sangraha* considers two types of *Srotas*, *sthula*-perceptible and *sukshma* - imperceptible<sup>[10]</sup>. With today's advances, microscopic entities can be counted in *sthula srotas* with extended perceptive abilities.

Acharya Charak has very clearly said that all the biochemical molecules un-

der metabolic processes (*parinamapadyamana dhatus*) are held and carried within the *srotas* [11].

*Acharya Charak* further describes these *srotas* as the functional pathways for nutritive (*prasadakhya*) and non-nutritive or waste (*malakhya*) molecules [12]. These pathways are spread throughout the body nourishing all the *Dhatus* at cellular level. Whatever is needful is taken up by the *dhatus* or cells. This is called as Law of selection of nutrients during nourishment of *dhatu*.

*Srotas* are the seat of all metabolic actions like transport, transformation, excretion of the concerned biochemical molecules.

Each and every smallest part of the body is made of *Panchamahabhut* [13]. All *srotas* are also made of *Panchamahabhut*. *Srotas* is nothing but the space (*Aakash / avakash*) defined by boundaries of *panchabhautik* entity. If cell is considered as functional unit or channel it's a space is defined by cell wall. All movements are carried out, to and from the cell. All the visible structures by which this space is defined, are made of five primordial elements i.e. *Prithvi, Aap, Tej, Vayu* and *Aakash*. *Ayurved* understands the existence of these elements by their attributes or qualities and functions, irrespective of biochemical configuration. Thus one may classify different types of biochemical entities according to their attributes and functions as the elemental representation of *Panchamahabhut*. Eg. Whichever body elements have heavy, stable, rough, hard qualities, which give dimensions are called *Parthiv* elements. Whichever body elements have liquid, fluid, slow, unctuous, soft, slimy properties are *Apya* elements. Whichever body elements have sharp, hot, penetrating and catalytic

qualities are *Tejas* elements. Whichever body elements have activities like expiration, inspiration, closing & opening of eyes, contraction & relaxation, movements, stimulation, controlling activities are *Vayaviya* elements. Whichever body elements having qualities like space, porosity are *Aakashiya* elements [14]. Any *srotas* has qualities of *Panchamahabhutas* but it inevitably arises from some space (*chidrat*), conducting / flowing some element within (*abhivahanti*), i.e. *Srotas* [15].

Though conceptually *srotas* are innumerable, certain number are assumed according to their specified functions so they are 13 in number according to *Acharya Charak* [16] and 11 according to *Acharya Sushrut* [17].

*Moolsthana* of *Srotas*: *Chakrapani* has described *Mool* as *Prabhav sthana* [18] means the anatomical seat of respective *srotas*, main seat of pathology of that *srotas* or principle seat of manifestation of the diseases of that *srotas*. The cause of morbidity of *srotas* and their manifestations first strikes the *moolsthana* of the respective *srotas*. This morbidity slowly spreads throughout the body by Law of functional connectivity.

*Moolsthana* of any *srotas* can be determined by some logical points and been categorised [19]. i.e.

1. *Utpattisthana* - seat for origin of that element (*dhatu / mala* etc.)
  2. *Sangrahasathan* - seat for storage.
  3. *Vahansthana* - seat of carriage or flow of bodily elements.
  4. *Naidanik sthana* - *moolsthana* having diagnostic importance.
  5. *Chikitsatmak sthana* - *moolsthana* important in treatment of certain *srotas*.
- Moolsthana* of any *srotas* may be under one of the above mentioned category or in combination but their clinical applica-

tions are common in all categories . In some way or other *moolsthana* of any *srotas* is concerned with the seat of metabolism , origin of pathological changes , having diagnostic red flag symptoms or it may be the focus of treatment . Thus considering *srotas* as the *Aakash* or *Avakash* in the body bounded by boundaries specifically by *Parthiv* and *Jaliya* elements ,within which movements to and fro are enabled by movements of *Vayu* and metabolic transformations go on by function of *Aagneya* elements .

Health can be defined as perfect balance between the space or *Aakash* (micro or macro) , all metabolic transformations and movements within and in & out the space . Any imbalance in structural , morphological or functional integrity of space or *srotas* is detrimental to the health of the *Srotas* . Therefore the ancient sages might have seen the body in form of *srotas* subtle and gross , in and out of the body and said “*srotomayam ayam purush*”

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