



Understanding Srotas in Ayurveda: A scientific evaluation of Khavaigunya

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Purpose: Ayurveda integrates various fundamental concepts, with Srotas playing a crucial role in comprehending the Purush Sharir (human body). Srotas is defined as the macro and micro-channels active within a living being, it provides insights into anatomy and physiology in Ayurvedic literature. This study aims to evaluate the various types of Khavaigunya (pathological conditions) in Srotas using a scientific approach, enhancing the understanding of Ayurvedic concepts within modern healthcare frameworks.

Methods: A systematic review of traditional Ayurvedic texts and contemporary research on Srotas was conducted. The study categorizes Khavaigunya into four manifestations: Atipravriti (excess flow), Sanga (obstruction), Siragranthi (nodular formation), and Vimarg-gaman (misdirection of flow). Each category is analyzed for its pathophysiological implications and relevance to modern medicine.

Results: The evaluation reveals that Srotas function as an inner transport system, facilitating interactions among vital bio-factors such as Tridosha, Sapta Dhatu, Oja, and Agni. Disease manifestation due to aetio-pathological factors lead to vitiation of Dosha and Dushya, culminating in Khavaigunya. Understanding these disruptions enables healthcare professionals to assess organic or pathological damage to Srotas.

Conclusion: The integration of Srotas within Ayurvedic practice provides valuable insights into the diagnosis and treatment of various health conditions. A scientific approach to understanding Khavaigunya enhances the ability of healthcare professionals to formulate effective treatment plans, ultimately improving patient outcomes in Ayurvedic medicine.

Keywords: Ayurveda, Srotas, Khavaigunya, Atipravriti, Sanga, Siragranthi, Vimarg-gaman

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Introduction

Ayurveda, a time-honored system of medicine, offers profound insights into human health through its intricate concepts and holistic approach. Among these, the notion of *Srotas* stands out as a pivotal element in understanding the human body. *Srotas*, encompassing both macro and micro-channels, serve as essential pathways that facilitate the transport of vital substances, enabling the complex interplay of physiological processes fundamental to maintaining health and wellness.

In traditional *Ayurvedic* literature, *Srotas* is not merely an anatomical concept; it embodies the interconnectedness of various bodily functions, reflecting the dynamic nature of life. The functionality of *Srotas* is integral to the proper operation of key *Ayurvedic* principles, including the *Tridosha* (the three vital energies), *Sapta Dhatus* (tissues), *Oja* (vital energy), and *Agni* (digestive fire).

Disruptions within these channels can lead to pathological conditions known as *Khavaigunya*. By categorizing *Khavaigunya* into four primary manifestations - *Atipravriti* (excess flow), *Sanga* (obstruction), *Siragranthi* (nodular formations), and *Vimarg-gaman*[1] (misdirection of flow) - we will analyze the pathophysiological implications and relevance of each category in contemporary medical practice.

Aim and Objectives

Aim

To assess the *Ayurvedic* concept of *Srotas* and its association with *Khavaigunya* using a scientific approach, enhancing understanding of these concepts within contemporary healthcare frameworks.

Objectives

1. To identify and describe the four types of *Khavaigunya* - *Atipravriti*, *Sanga*, *Siragranthi*, and *Vimarg-Gaman* caused by disturbances in *Srotas*.
2. To evaluate the implications of *Srotas*-related pathology on overall health and well-being.
3. To establish a framework for assessing the organic or pathological damage to *Srotas* to inform effective treatment plans in *Ayurvedic* practice.

Materials and Methods

A systemic review of classical *Ayurvedic* texts alongside modern medical literature was conducted to define *Srotas* and their physiological significance. Identify and describe the four types of *Khavaigunya* based on aetiology and clinical presentation. A comprehensive framework for assessing damage to *Srotas* was developed, integrating insights from both *Ayurvedic* and contemporary diagnostic practices.

Literary Review

There are three words in *Ayurveda* which are with interwoven meaning and functions useful for the common purpose of circulation 'Dhamani, Sira and Srotas'. Leaving theory behind, let us see the exact meaning and practical use of these words.

1. *Dhamani* (Artery) - "*Dhmanad Dhamanyah*"[2] that which beats (pulses).
2. *Sira* (Vein) - "*Saranat Sirah*"[3] that which moves.
3. *Srotas* (Capillary) - "*Sravanat Srotamsi*"[4] that which secretes.

Dhamanis and *Siras* are for macro-circulation of blood and *Srotas* is meant for micro-circulation, sometimes even to transport bigger substances for the purpose of nutrition and survival of the organism. Without *Srotas*, there is no nutrition, growth and metabolism, i.e., establishment of health. When *Srotas* is damaged (got *Dushti*) there is manifestation of disease i.e., establishment of disease. Hence study of *Srotas* is essential and parameter in understanding the disease.

In general usage, the term of *Srotas* represents all channels - big and small, perceptible and imperceptible - that comprise the internal transport system of the body.

"No structure in the body can grow and develop or waste and atrophy independent of *Srotamsi* that transport *Dhatus*".[5]

Vata, *Pitta* and *Shlesma* are stated to move in the entire body through different kinds of *Srotamsi*. [6] When *Srotas* got effected *dosas* also gets vitiation thereby disease. Finally, *Srotas* is a transport system which receives all exogenous substances into the body, transform into endogenous to yield energy and nutrition,

And takes out the bye-products (*Malas* - excretable) of that process. With this meaning *Srotas* can be classified into two;

1. *Sthula Srotas*
2. *Sukshma Srotas*

Sthula Srotas again divided into two varieties;

1. *Bahirmukha Srotas* (External meatus or passages)
2. *Yogavaha Srotas* (Internal passages)

1. *Bahirmukha Srotas* which has got external openings to outer surface of body through which all excretable are thrown out in either sex, they are 2 nostrils, 2 eyes, 2 ears, one mouth, one urethra, one anus; in addition to them, female has got 3 *Srotas* - 2 as breast nipples to secrete milk for child, one as genital organ and pathway for parturition of baby, totally 12 in females.[7]

2. *Yogavaha Srotas* are those which deals about complete transport mechanism in the body.

These 13 *Srotas* have been called after their transporting material.[8] They are

SN	Srotas	System description
1.	Pranavaha Srotas	Channels of respiration
2.	Udakavaha Srotas	Channels of fluid distribution
3.	Annavaha Srotas	Alimentary canal
4.	Rasavaha Srotas	Lymphatic canal
5.	Raktavaha Srotas	Vascular system
6.	Mamsavaha Srotas	Channels of nutrition to muscle tissue transport
7.	Medovaha Srotas	Nutritive channel for adipose tissue
8.	Asthivaha Srotas	Nutritive channel for bone tissue
9.	Majjavaha Srotas	Nutritive channel for bone marrow
10.	Sukravaha Srotas	Nutritive channel for reproductive tissue
11.	Mutravaha Srotas	Channel transporting urine
12.	Swedavaha Srotas	Channel transporting sweat
13.	Purisavaha Srotas	Channel transporting feces

Caraka categorically mentions that 'तानि दुष्टानि रोगायाः विशुद्धानि सुखाय च' dysfunction resulting due to organic damage of *Srotas* is disease & normal function is health.

Caraka enumerated commonly occurring pathological or organic damages to *Srotas* i.e., *Khavaigunya*. They are -

1. *Atipravritti* (An excessive flow)
2. *Sanga* (Retention or holding up)
3. *Siragranthi* (Dilatation veins or varicose veins)
4. *Vimarga-gamana* (Flow of the content through other channels)

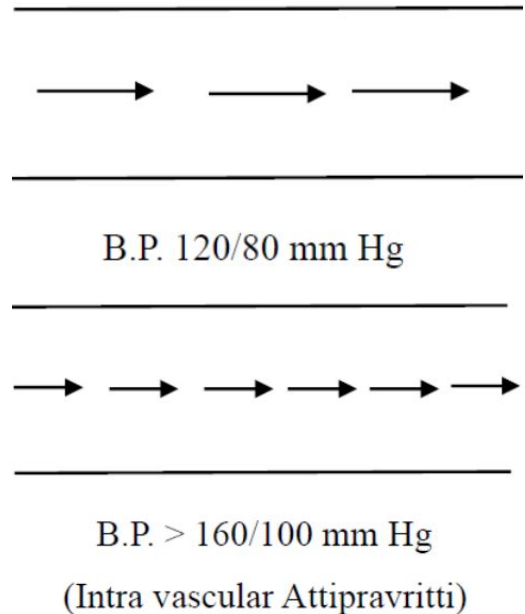
Discussion

To understand the phenomenon of *Srotodushti* look into the following examples-

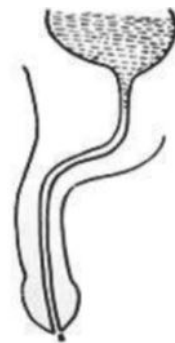
1) *Atipravritti* (Excessive flow)

Increased flow of the contents in excess to its normalcy.[9]

SN	Examples	Description	Disease
1.	Hyperacidity	Excessive flow of acid to stomach	Amlapitta
2.	Artavavaha Srotodushti	Excessive flow of Rakta or Artava	Rakta-pradara
3.	Mutravaha Srotodushti	Excessive flow of urine	Atimutra or Prameha
4.	Purisavaha Srotodushti	Excessive flow of feces	Atisara



Similarly, *Amlapitta*, increased hormonal secretions etc. are examples of *Attipravritti* within *Srotas* / body.



Over micturition / Polyurea (*Prameha*)



Diarrhea (*Atisara*)

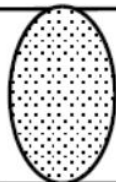
Similarly, *Asrugdara*, *Raktipitta* etc. are examples of *Attipravritti* outside of the *Srotas* / body

2) Sanga (Retention or holding up)

Sanga means obstruction causing in different ways.

[9]

SN	Sanga	Examples
1.	Intra luminal obstruction (True obstruction)	Baddha-Gudodara (intestinal obstruction)
2.	Extra luminal obstruction- Obstruction from outside of Srotas (External pressure)	Any tumors/growths causing obstruction to Srotas externally e.g. 1. Enlarged hilar lymph nodes causing obstruction to esophagus (dysphagia) Annava- Srotosanga 2. Tumour at vertebral column causing pressure on spinal cord giving rise to paraplegia (Adharangavata)
3.	Inhibition of impulses so that movement of membranes arrested so that contents will not flow (Neuronal or reflex or inhibition of impulses)	1. Udavarta 2. Nasanaha 3. Anaha 'अचलमिति' arrest of movement without solid obstruction. 4. TIA - spasmodic constriction of vessel leading to less blood flow to the site. 5. Paralytic ileus - tympanites



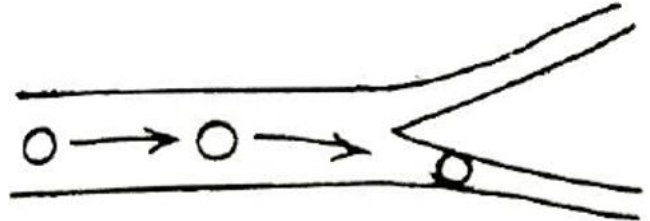
Thrombus

Margavrodha



Arteriosclerosis

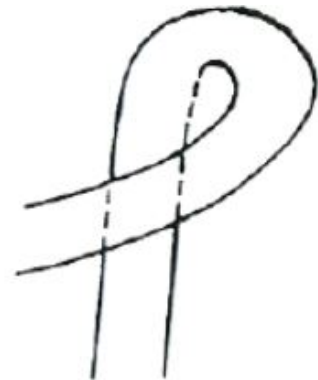
Leading to Sanga



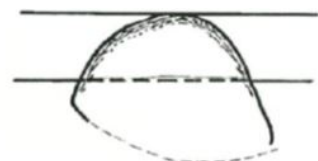
Embolism



Transient ischemic attacks
(spasm leading to Sanga)



Intestinal volvulus



Extraluminal Pressure (Tumour) causing Sanga



Normal peristalsis

Inhibition causing *Sanga (Vataja Anaha)*

Normal reflexes / impulses

Inhibition of reflexes / impulse leading to
Sanga (Vataja)

3) *Siragranthi* (Dilatation veins or varicose veins)

Siragranthi means dilated mutilated vessels which causing stoppage of flow of blood through it due to volvulus e.g. Varicose veins[9]

An example of *Siragranthi*

4) *Vimarga-gamana* (Flow of the content through other channels)

That causes pathogenesis in two aspects[9]

A) Contents of the *Srotas* moving into other *Srotas*

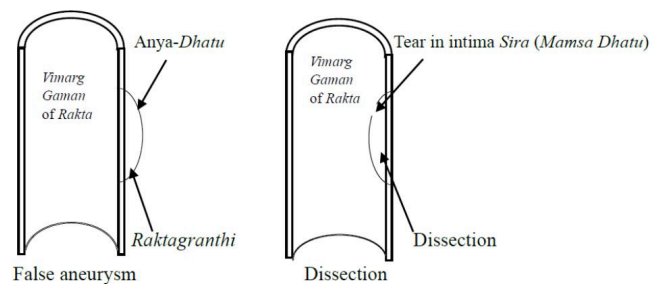
1. On cerebral hemorrhage blood comes out of the vessel and enters into CSF– since it is in other place it causes irritation to the cerebrum resulting in disease.

2. Recto-vesicular fistula, feces through urethra.

3. In case of *Bhagandara* since there is a sinus from rectum or anus i.e. *Purishavaha Srotas*, the feces come out through wound opening externally.

B) Deprive of nutrition to its own tissue

In hemorrhage when blood comes out of vessel, the proper tissue which has to get blood supply will not have nutrition resulting in loss of function. e.g. hemiplegia, ischemia, degeneration due to atrophy etc. When a tissue or cell comes out of its own *Srotas*, it becomes exogenous (antigen) to other tissue there by triggering the defense mechanism resulting in disorders (auto-immune disorders). Second aspect when the proper nutrition is diverted, it will get *Dhatu-Kshaya* resulting in loss of function.



Extravasation of *Rakta Dhatu* into *Mamsa Dhatu* (*Vimarg-gaman*)

Conclusion

Srotas is to be considered as structural and functional unit of body performing various functions in the body. The relevant *Srotas* is called after its *Dhatu* name which it conducts, these are known as '*Yogavaha Srotas*'.

As modern medical literature of pathology, treatment and medicine is studied in terms of system i.e. respiratory system means structural and functional unit concerned with respiration; cardiovascular system structural and functional unit concerned with circulation similarly. *Yogavaha Srotas* are also structural or functional units in the body. Hence conveniently pathology and treatment can be studied basing on *Srotas*.

References

- Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Vimanasthana*, 5/23. New Delhi: *Rashtreeya Ayurveda Vidyapeetha*; 2021. p. 458 [Crossref][PubMed][Google Scholar]

2. Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Sutrasthana, 30/12. New Delhi: Rashtreeya Ayurveda Vidyapeetha; 2021. p. 521* [Crossref][PubMed][Google Scholar]
3. Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Sutrasthana, 30/12. New Delhi: Rashtreeya Ayurveda Vidyapeetha; 2021. p. 521* [Crossref][PubMed][Google Scholar]
4. Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Sutrasthana, 30/12. New Delhi: Rashtreeya Ayurveda Vidyapeetha; 2021. p. 521* [Crossref][PubMed][Google Scholar]
5. Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Vimanasthana, 5/25. New Delhi: Rashtreeya Ayurveda Vidyapeetha; 2021. p. 459* [Crossref][PubMed][Google Scholar]
6. Trikamaji AY, editor. Sushruta Samhita. Sharirasthana, 7/6. New Delhi: Chaukhambha Publications; 2018. p. 453 [Crossref][PubMed][Google Scholar]
7. Upadhyay Y. Astanga Hridaya. Sharirasthana, 3/40. 14th ed. *Varanasi: Chaukhambha Sanskruta Samsthan; Commentary by Kaviraj Atridev Gupta (Vidyotini); p. 171* [Crossref][PubMed][Google Scholar]
8. Gaud B, editor. Charaka Samhita (Composed by Maharshi Agnivesh and revised by Caraka and Dridhabala). Vol. 1. *Vimanasthana, 5/6. New Delhi: Rashtreeya Ayurveda Vidyapeetha; 2021. p. 412* [Crossref][PubMed][Google Scholar]
9. Srinivasulu M. Rogi Pariksha. Chapter 4. Varanasi: Chaukhambha Sanskrit Pratisthan; 2022. p. 94 [Crossref][PubMed][Google Scholar]

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