

The Link between Swedavaha srotas and Jwara: A Comprehensive Study

Abstract

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The concept of *Srotas* in Ayurveda denotes the subtle channels responsible for the transportation of various substances within the body. Among them, *Swedavaha Srotas* play a vital role in thermoregulation and excretion of sweat. The *Mulasthana* (root) of these channels are *Meda Dhatu* (fat tissue) and *Loma Kupa* (hair follicles). Factors such as excessive exercise (*Vyayama*), over-exposure to heat (*Atisantapa*), irregular exposure to hot and cold, and emotional disturbances like anger, grief, and fear can vitiate these channels. This study explores the interrelationship between *Swedavaha Srotas* and *Jwara* (fever) as described in classical Ayurvedic texts. **Methodology:** A comprehensive review of *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and modern research articles was conducted to analyze the anatomy, physiology, and pathology of *Swedavaha Srotas* and their role in *Jwara*. **Objectives:** *Srotas* – To explore the concept of particularly *Swedavaha Srotas*, as described in classical Ayurvedic. To analyze the causes (*Nidana*) and symptoms (*Lakshana*) of *Swedavaha Srotas Dushti* in relation to *Jwara roga*. To compare and correlate Ayurvedic explanations of *Swedavaha Dushti* with modern scientific understanding. To identify and evaluate traditional Ayurvedic treatment strategies for managing *Swedavaha Srotas Dushti* and *Jwara roga*. To propose an integrative approach combining Ayurveda and contemporary physiology for *Jwara*. **Results and Discussion:** *Swedavaha Srotas* regulate body temperature, maintain skin health, and remove metabolic waste. Their dysfunction leads to impaired sweating, heat retention, and toxin accumulation, which manifest as *Jwara*. Since *Pitta Dosha* governs heat and metabolism, its imbalance obstructs *Swedavaha Srotas* and *Rasavaha Srotas*, causing internal heat buildup and fever. Ayurvedic management emphasizes restoring channel patency, balancing *Doshas*, and promoting detoxification through *Swedana* and *Deepana-Pachana* therapies. Thus, *Swedavaha Srotas* play a pivotal role in the pathophysiology and management of *Jwara*, aligning with modern concepts of thermoregulation and fever mechanisms.

KEYWORDS: *Srotas*, *swedavaha srotas*, *jwara*.

Introduction

In Ayurvedic classics, the term *Srotas* refers to the macro and micro channels that operate throughout the living body. The word *Srotas*, derived from the root “*su stravne*” meaning “to filter or to permeate,” signifies channels that facilitate the flow and transformation of vital substances. These channels are not gross anatomical structures alone but also subtle pathways responsible for maintaining physiological balance. *Srotas* are considered the *sūkṣma* (minute) channels through which nourishment, transformation, and transportation of *Dhatus* occur. Each *Srotas* has a specific function, such as carrying nutrients, regulating fluids, enabling respiration, or facilitating excretion. When functioning properly, they maintain equilibrium and support

health, but any obstruction, depletion, or derangement in these channels leads to pathological changes. The significance of *Srotas* lies in their role as sites of metabolism, seats of disease origin, and areas with diagnostic importance, often indicated by specific red-flag symptoms described in the classics. Understanding *Srotas* is essential for identifying the root of diseases and planning effective treatment. Thus, they serve not only as structural and functional units of the body but also as focal points in the diagnosis, prevention, and management of disorders in *Ayurveda*.

Aim and Objectives

Aim

To study and understand the physiological and pathological aspects of *Swedavaha Srotas* in *Ayurveda*, its role in and its association with *jwara roga*, with a focus on integrating classical *Ayurvedic* concepts with modern physiological insights for a holistic approach to diagnosis and management.

Objectives

· *Srotas* – To explore the concept of particularly *Swedavaha Srotas*, as described in classical *Ayurvedic*

· To analyze the causes (*Nidana*) and symptoms (*Lakshana*) of *Swedavaha Srotas Dushti* in relation to *Jwara roga*.

· To compare and correlate *Ayurvedic* explanations of *Swedavaha Dushti* with modern scientific understanding.

· To identify and evaluate traditional *Ayurvedic* treatment strategies for managing *Swedavaha Srotas Dushti* and *Jwara roga*.

· To propose an integrative approach combining *Ayurveda* and contemporary physiology for *Jwara*.

Materials and Methods

The study was conceptually organized utilizing literary analysis of both contemporary and classical sources. The concepts in the title were assembled from contemporary textbooks, *Ayurvedic* literature, a variety of scientific periodicals, the internet, and analysis. Following a comparison analysis, the key findings of the study were concluded using a logical approach.

Concept of *Swedavaha Srotas*

In *Ayurveda*, *Swedavaha Srotas* are described as the channels responsible for the production, transportation, and excretion of sweat (*sweda*). They form an essential system for maintaining the balance of body temperature and expelling waste through perspiration. Structurally, they are considered to include the sweat glands (*sweda granthi*) and the skin pores (*romakupa*), which act

as outlets for sweat. The word itself reflects its function: *Sweda* means sweat, *Vaha* means carrying, and *Strotas* means channels. Thus, *Swedavaha Strotas* can be understood as the channels that carry and eliminate sweat from the body. In modern terms, *Swedavaha Strotas* correlate with the sweat glands and their role in maintaining fluid balance and regulating body temperature, highlighting their importance in both health and disease.

Moolasthanas of Swedavaha Strotas

According to Charaka; *Moolasthanas* of *Swedavaha Strotas* -

- *Meda* – Fat tissues

- *Lomakoopa* – Small pores of skin

Dushti Hetu (Causes of vitiation of swedavaha strotas)

The channels get vitiated due to -

- Vyayamata* – Excessive exercise

- Ati-Santapata* – Exposure to heat

- Shitoshnaakrama Sevanata* – Intake of non-judicious cold and hot foods at a time

- Krodha* – Excessive anger

- Shoka* – Excessive grief

- Bhaya* – Excessive fear

✧ Dushti lakshan (Characteristics of vitiation of swedavaha strotas)

(cha.chikitsa 5/8).

The *Dushti Lakshanas* of *Swedavaha Strotas* were as follows:

- Aswedanam* – Lack of sweating

- Atiswedanam* – Excessive sweating

- Parushata* – Roughness of the skin

- Atishlakshana* – Excessive smoothness of skin

- Anga Paridaha* – Burning sensation in the body

- Lomaharsha* – Horripilation

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103 **Jwar**

104 **Cardinal feature**

105 The clinical features invariably associated with *jwara* are the feeling of heat or increased body
106 temperature and discomfort in body and mind. *Jwara* afflicts the whole body including mind and
107 sensory organs in all living beings.

108 **Jwar nidan (cause)**

109 The origin of *jwara* resulted from the ferocious wrath of *Rudra* (Lord Shiva). The improper and
110 excessive application of *Sneha*, etc., any kind of blow, the presence of any other affection in the
111 organism, suppuration (of an existing boil or ulcer in the body), over-fatigue, any process of
112 physical waste, indigestion, introduction of any extraneous poison or poisonous matter into the
113 system, infringement of any habitual rule of diet and conduct, the sudden change or contrariety
114 of seasons, the smelling of any kind of poisonous herb or flower, grief, the malignant influences
115 of inauspicious stars or planets (at the time of birth), dynamics of deadly incantations or charms,
116 curses (from *Brahmanas* and superiors), any fancied dread or anxiety, effects of miscarriage or
117 untimely parturition, injudicious conduct of life on the part of a woman after delivery, and the
118 first accumulation of the milk in the breast (after delivery) are the causes which lead to an attack
119 of fever, the derangement and aggravation of the fundamental vital principles (*Doshas*) of the
120 body being the existing origins of *jwara*.

121 **Jwara lakshna**

122 (*su.uttar. 39/13*)

123 *SwedaAvarodha*— obstruction to perspiration.

124 *Santapa (Deha, Indriya and Mana Santapa)* – Rise of temperature.

125 *Sarvanggrahan*— Pain and stiffness all over the body

126 **Jwara samprapti (pathogenesis)**

127 The three *Dosha* individually or in combination aggravate and spread through the *Rasa Dhatu*
128 and dislodge the *Jatharagni* from its own place. In addition to their heat, the heat of *Jatharagni*
129 is also supplemented which causes increase in body heat. Due to this, channels (mainly *Rasava-*
130 *ha, Swedavaha*) get obstructed by the imbalanced *Dosha*. This leads to further increase in body
131 temperature which is the classical symptom of *Jwara*.

132 **Comparison of jwara roga nidana with svedavaha Srotodushti Karana**

133 Table 1:As according to dosha explained in *jwara* and *swedavahstrotas dusti* we can compare fol-
134 lowing *nidans*

<i>Jwara</i>	<i>Swedavaha strotas dusti</i>
<i>krodh ,shok ,bhaya</i>	<i>manobhutabhishankaya</i>
<i>rituviparyay</i>	<i>Shitoshnaakrama sevanata</i>

Table 2: Comparison of *Lakshana* of *jwaraRoga* with *swedavaha Srotodushti*

<i>jwara</i>	<i>Swedavaha strotas dusti</i>
<i>swedavrodh</i>	<i>aswedanam</i>
<i>santap</i>	<i>Anga paridaha</i>

Table 4: *Samprapti Ghataka*

Dosha	<i>Tridosha with dominant Pachak pitta, Kledaka Kaph</i>
Dushya	<i>Rasa</i>
Srotas	<i>Svedavaha, Rasavah</i>
Srotodushti Lakshan	<i>Sang -Vimargaman</i>
Adhisthan	<i>Aamashay (nabhistanantre)</i>
Aashaya	<i>Aamashayotha Vyadhi</i>
Swabhava	<i>krichasadhya</i>

Modern view on *jwara rog*

Once the temperature increases, hypothalamic set point is raised, neurons in the vasomotor center are activated and vasoconstriction commences. The process of heat conservation (vasoconstriction) and heat production (shivering and non shivering thermogenesis) continue until the temperature reached to normal point. Loss of heat by sweating and vasodilation continues until the blood temperature at the hypothalamic level matches the lower setting. When sweat secretion increases, more water is lost from skin along with heat.

Modern view on *sweda*

The word *sweda* is derived from the verb '*svid*' meaning exudate or perspiration from the body parts as a result of *gharma* or heat. The terms like sweating, sweat, perspiration, warmth, vapor,

steam etc. Sweda is a part of water or watery exudate within the entire body excreted through the hair pockets(*lomakupa*).It is closely regulated by heat in the body (*ushma*). Sweda is formed during the metabolism of *medadhatu* and as part of water/fluid component (*udaka*) in the body.

Swedavaha srotodusti Chikitsa

The treatment of *swedavahstrotas dusti* is based on the management of fever (*Jwara vyadhi*) (Cha.Vimana Sthana 5/28)

Management principle of jwara

Langhana (fasting), *Swedana* (fomentation), *Kala* (waiting period of eight days), *Yavagu* (medicated gruels) and *Tikta Rasa* drugs (drugs having bitter taste) and all digestive enhancers of *Avipakva Dosha* (untransformed) are prescribed in the *Taruna Jwara* (the initial stage of *Jwara*).

Langhana – proper fasting (according to constitution) digests *Ama* by increasing digestive fire, reduces vitiated *Doshas*, creates lightness in body, reduces fever and increases strength of the patient.

Swedana – although fever is the result of vitiation of *Pitta*, mild sudation is always helpful for detoxification of *Ama*.

Kala – usually *Ama* gets detoxified in 6–7 days, later on herbs having *Deepana* and *Pachana* should be given. Although this time will differ from patient to patient.

Yavagu – after detoxification, patient should be given hot soup of rice (*Yavagu*). This can be medicated with rock salt and black pepper. By drinking this medicated soup, *Agni* increases and thirst is destroyed.

Tikta Rasa – bitter herbs are good *Ama* detoxifying agents. *Tikta Rasa* contains elements of *Vayu* and *Akasha*. They help to increase *Agni* and destroy *ama*.

Role of jwar chikitsa in treatment of swedavaha strotas dusti

"Without *Pitta*, there is no heat; and without heat, there is no fever. Therefore, in all types of fevers, one should avoid actions that aggravate *Pitta*—especially in fevers dominated by *Pitta*, these actions must be avoided even more strictly."There is a close or concomitant relation between *Pitta Dosha* and *Sweda*. This indicates the anatomical and physiological relation between two components. These possess similar causes of vitiation, similar line of management, similar pattern of disease affliction. Thus, the line of management of *Pitta* ailments is in concordance with the management of *Sweda*-related disorders. As both the entities i.e., *Sweda* and *Pitta* are related with the component of heat in the body (*Ushma*), these are related closely like *Pitta Dosha* takes abode of *Sweda* (*Ashraya-Ashrayi Sambandha*).The clinical features invariably associated with *Jwara* are the feeling of heat or increased body temperature and discomfort in body and mind. *Jwara* afflicts the whole body including mind and sensory organs in all living beings. The origin of *Jwara* resulted from the ferocious wrath of *Rudra* (Lord Shiva). Lord *Rudra* became very angry due to the insult done by *Daksha* and since the breath of the angry Lord *Rudra* is the cause of fever, *Acharya* believe that fever is naturally bile. Because *Acharya Charaka* has also said that bile is aggravated due to anger etc., hence, in all types of fevers, treatment that reduces bile should be done.

Significance of Swedavaha Srotas in the Pathogenesis and Management of Jwara Roga

In *Ayurvedic* physiology, *Swedavaha Srotas* are the channels responsible for the production and excretion of sweat (*sweda*). These channels originate from *meda dhatu* (fat tissue) and *roma kupa* (skin pores), and are essential for maintaining body temperature and eliminating metabolic waste. Their proper functioning supports thermoregulation and helps preserve internal homeostasis (*Charaka Samhita, Vimana Sthana 5/8*).

In the context of *Jwara Roga* (fever), the role of *Swedavaha Srotas* becomes particularly significant. Fever is primarily caused by the vitiation of *pitta* and *vata doshas*, leading to elevated body temperature and systemic imbalance. When *Swedavaha Srotas* are vitiated (*srotodushti*), symptoms such as *asvedanam* (absence of sweating), *atisvedanam* (excessive sweating), *daha* (burning sensation), and *lomaharsha* (horripilation) may occur. These signs reflect impaired sweat regulation and contribute to the progression and severity of fever (*Sushruta Samhita, Sharira Sthana 9/12*).

Understanding the status of these *srotas* is crucial for both diagnosis and treatment. *Ayurvedic* management focuses on restoring their normal function through therapies such as *langhana* (lightening therapy), *svedana* (sudation therapy), and *srotoshodhana* (channel purification). These interventions help regulate body temperature, facilitate toxin elimination, and support the body's natural healing mechanisms.

Thus, *Swedavaha Srotas* serve as a key diagnostic and therapeutic focus in the pathogenesis and management of *Jwara Roga*.

Discussion

In *Ayurveda*, the concept of "*Srotas*" refers to the various channels or pathways through which substances circulate within the body. These channels are responsible for transporting nutrients, waste products, and other vital elements, ensuring the proper functioning of the body's physiological processes. *Swedavaha Srotas* specifically pertains to the channels responsible for the transportation and regulation of sweat in the body. The term '*Sweda*' means water, and '*Vaha*' means carrying. *Acharya Sushruta* explained Physiology of *Swedavaha Srotas* in *Sharir Sthan. Tiriyagga Dhamani* – arteries spreading sideward / transversely, along with their respective functions, by these the body is covered like network, bound and pervaded; their openings are attached to hair follicles which carry sweat and replenish *Rasa* inside and outside through them. In modern context *Swedavaha Srotas* maintain normal physiology of human body such as thermoregulation, excretion and protect skin. The *Swedavaha Srotas* are rooted in the *Meda* – Fat tissues and *Lomakoopa* – Small pores of skin. The dysfunction of these channels, due to factors like diet, emotions, and lifestyle, leads to symptoms such as lack of sweating, excessive sweating, roughness of the skin, excessive smoothness of skin, burning sensation in the body, horripilation. This dysfunction is intricately connected to the imbalance of *Vata* and *Pitta doshas*. The vitiation of *Swedavaha Srotas* is the cause of the pathophysiology of *Jwara Roga*.

Conclusion

Most of the *Swedavaha Srotas Dushti Karana* are described under the *Jwara Roga Nidana* in the classical texts of *Ayurveda*. This indicates a very close relationship between the vitiation of

Swedavaha Srotas and the pathogenesis of *Jwara*. In the present context, the study of *Swedavaha Srotas Dushti* holds great importance as it provides a deeper physiological understanding of the fever process. Sweat (*Sweda*) is considered an important *Mala* of *Meda Dhatu*, and its proper excretion through the *Swedavaha Srotas* maintains body temperature and fluid balance. During fever, when the *Doshas*—particularly *Pitta*—get aggravated, the normal functioning of these channels becomes disturbed. Excessive sweating (*Atisweda*) leads to increased loss of water and electrolytes along with body heat, whereas absence of sweating (*Asweda*) indicates obstruction in the channels and impaired thermoregulation. From a modern perspective, sweating acts as the body's natural cooling mechanism, helping to dissipate excess heat and restore homeostasis. Thus, perspiration plays a key role in reducing raised body temperature during fever. Understanding the *Dushti Lakshanas* of *Swedavaha Srotas* not only explains the symptomatology of *Jwara* but also provides valuable insights for its management. Therefore, maintaining the functional integrity of these channels is essential for restoring balance and supporting recovery in febrile conditions.

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