



## ANALYSIS ON SVEDAVAHA SROTUS WSR TO ITS MULA

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### ABSTRACT

*Srotus (body channels) is considered as an important entity of the body and is responsible for the Vahana (transferring) of Dosha, Dhatu etc. Full body is considered as Srotomaya (made of Srotus). Among the types of Srotus, Svedavaha Srotus (which does Sveda Vahana) is given prime importance. The root of Svedavaha Srotus is considered as Meda (Adipose tissue) and Lomakupa (Hair follicle). Abnormality to Svedavaha Srotus leads to accumulation of Sweat bad smell, itching, even may cause excessive sweating. When Ushnamsha of the body increases it leads to secretion of Dravarupi Mala from Tvak which is usually by the burning of Fat tissue which leads to formation of carbon dioxide and water, water formed henceforth is secreted as sweat, hence Meda is considered as the Mulasthana (Udbhava Sthana) of Svedavaha Srotus. Once the formation of Sveda is finished, its Vahana has to take place out of the body since it is a Mala and for elimination the organ used is Lomakupa and hence it is considered as Mula for Svedavaha Srotus. By considering Udbhava Sthana of Sveda, Meda is considered as the Mula and by considering the Bahiniskramana Anga of Sveda, Lomakupa is considered as the Mula for Svedavaha Srotus. Similarly Srotomula of each and every Srotus should be analyzed along with its Mula and there is a need of further study in the field of Srotus and Srotomula.*

**KEY WORDS** – Srotus, Svedavaha, Meda, Lomakupa.

### INTRODUCTION

*Dosha, Dhatu, Mala* is considered as the basis of the body.<sup>[1]</sup> Other than these three entities *Srotus* is another important entity which is the basis for the body. *Purusha* is called as *Srotomaya* because *Srotus* are present all over the body and they are essential in the increase and decrease of the *Dosha*, even it carries *Dhatu* and leads to the formation of the *Dhatu*.<sup>[2]</sup> *Srotus* are the hollow channels except *Sira* and *Dhamani*, which originating from root space and spreads in the body and carries specific entities.<sup>[3]</sup> *Srotus* are the channels through which the various body entities flow.<sup>[4]</sup> *Srotus* are the channels of circulation that carry *Dhatu* undergoing transformation to their destination.<sup>[5]</sup> Regarding the number/types of *Srotus* it is mentioned that number of substances having definite shape are there in this universe that much types of *Srotus* are there in the body. Some opine it is numerable and others opine it is innumerable.<sup>[6]</sup>

These channels have the colour similar to that of the *Dhatu* that they carry; they are tubular, either large or small in size and either straight or reticular in shape. The reasons for the vitiation of the *Srotus* their pathological features and treatment for the same is mentioned. Increase or obstruction in the flow of the contents of the channels, appearance of nodules in the channels and diversion in the flow of the contents to improper channels are the general signs of the vitiation of the *Srotus*.<sup>[7]</sup>

There is various numbers of types of *Srotus* mentioned by different authors. Among the list is given of *Srotus* prime importance is given to *Svedavahavaha Srotus*. The word meaning of *Svedavaha Srotus* signifies that, the channel through which *Sveda* flows can be considered as the *Svedavaha Srotus*. The root of this *Srotus* is considered as the *Meda* (Adipose tissue) and *Lomakupa* (Hair follicle). Abnormality to *Svedavaha Srotus* leads to accumulation of Sweat bad smell, itching, even may cause excessive sweating.<sup>[8]</sup> *Svedavaha Srotus* gets vitiated by wasting, excessive physical exercise, excessive exposure to sunlight. The characteristic manifestation of the vitiation of *Svedavaha Srotus* is too restricted, aggravated sweat secretion which leads to bad smell and itching.<sup>[9]</sup>



*Sveda* controls body temperature by way of expelling excess water and toxins, cools the body, moistens skin & hair and carries excess fat from the body and purification of the blood. Maintaining moisture (*Kledavidhruti*) is the main function. Proper functioning of hair follicles (*Kesha Vidhruti* or *Roma-Avlambana*) is added. Moistness of skin (*Kleda* or *Kledana*) and softness of skin (*Twak Saukumarya*) are the main functions of *Sveda*. It keeps the skin and hair moist, delicate, smooth & maintain the integrity of skin. It helps to maintain water balance in the body. It helps in maintenance of body temperature It prevents different *Vatika* disorders It also excretes the various kind of toxins from the body.

Sweat is a clear, watery and salty liquid produced by the sweat glands present in the skin. Sweat is mainly produced in noticeable amounts under the arm, feet and palms. When it comes in contact with the bacteria on skin, it can cause a smell. Regular bathing and use of antiperspirants or deodorant can help to control odor. In extreme conditions or during heavy exercise, large quantities of sweat is produced. It proves to be a great method of thermoregulation as long as humidity in surrounding atmosphere is relatively low. Stimulation of anterior hypothalamus-preoptic area is responsible for the action of sweating. The impulses from this area are transmitted in the autonomic pathways to the cord and then through the sympathetic outflow to the skin and elsewhere in the body. The volume of sweat produced and expelled every day is generally about 100ml/day and may vary from person to person. The water loss through sweat may increase upto 1-2 L/hour in case of exercise or extremely hot weather.

Though the eccrine glands are supplied by sympathetic fibres, yet adrenaline (epinephrine) has got little or no action on them. The apocrine however responds to both adrenergic and cholinergic stimuli. Pilocarpine, which stimulates the parasympathetic fibers, increases the flow of sweat and atropine which paralyzes the parasympathetic endings, abolishes sweating. Different types of sweating: Insensible sweating: which occurs even in cold climate amounts to 600 – 800 ml daily. Thermal sweating: This occurs in hot environmental temperature, the threshold being 28°C for men and 31°C for women. As the environmental temperature rises sweating increases. It is to be emphasized that when the ambient temperature is higher than body temperature sweating is the only method of keeping the body temperature normal. Psychic sweating:- Emotional sweating: In emotional condition, sweating occurs chiefly in the palms, soles, and axilla and upto some extent it is also present at head, neck and elsewhere in the body. In muscular exercise: The sweating i.e. both thermal and mental is reduced by cold, which at the same time also reduces, cutaneous circulation. It is also reduced by dehydration which be the result of deprivation of fluids intake or due to the process of sweating itself. Hot & spicy food intake: Eating of spicy food stimulates sweating (gustatory sweating), because pain in nerve endings in the mouth are stimulated. Hence reflect sweating in forehead neck and face.<sup>[10]</sup>

## DISCUSSION

**Eccrine glands:** These are the common sweat glands distributed all over the body, especially over the thick skin. The eccrine sweat gland is basically of tubular structure which at beginning is in the deeper part of dermis and is highly coiled. The rest of the gland courses through the dermis-epidermis- open to the exterior. Sweat forms by coiled portion. These are functional throughout the life. These are present largely over the back and chest regions. When synthesized the sweat is isotonic, but while moving towards the exterior, some sodium ions are reabsorbed. In case of severe sweating, this reabsorption is more intense due to the action of aldosterone. The thermoregulation via sweating occurs through the eccrine glands innervated by sympathetic cholinergic fibres. The eccrine sweat is basically made up of water and sodium chloride (NaCl). It may also contain mixture of many other chemicals from the interstitial fluid as well. The amount of sodium and chloride in the eccrine sweat is considered to be less, 60 mmol/L and 70 mmol/L respectively. **Apocrine glands:** These glands are located deep in subcutaneous layer in limited areas like axilla (armpit), pubic region, around the nipple of breast, scalp. The activity of apocrine glands increases with the onset of puberty and declines at old age. This process shows that these glands have got some relationship with reproductive physiology. The secretion from apocrine glands is odorless but bacterial decomposition makes it odorous, secretion show cyclic changes in females with menstrual cycle. These glands are structurally similar to eccrine glands, but are larger. Their coiled region lies within the subcutaneous tissue rather than the dermis. In contrast to the eccrine glands, apocrine glands produce viscous, lipid rich sweat comprising of proteins, sugars and ammonia. The third type of glands i.e. apoeccrine glands have been described by Sato et. al in 1987. These are intermediate in size and develop from both eccrine and apocrine glands. These are mainly located in the axillary part and don't play a significant role in thermoregulation. Though the eccrine glands are supplied by sympathetic fibres, yet adrenaline (epinephrine) has got little or no action on them. The apocrine however responds to both adrenergic and cholinergic stimuli. Pilocarpine, which stimulates the parasympathetic fibers, increases the flow of sweat and atropine which paralyzes the parasympathetic endings, abolishes sweating.

When *Ushnamsha* of the body increases it leads to secretion of *Dravarupi Mala* from *Tvak* which is usually by the burning of Fat tissue which leads to formation of carbon dioxide and water, water formed henceforth is secreted as sweat. Once the formation of *Sveda* is finished, its *Vahana* has to take place out of the body since it is a *Mala* and for elimination the organ used is *Lomakupa*.<sup>[11]</sup>



## CONCLUSION

*Dosha, Dhātu, Mala* is considered as the basis of the body. Proper functioning of *Doshas*, proper nourishment of *Dhatus* and proper elimination of *Mala* from the body is important for being *Swastha*. Among the *Mala Sveda* is an important entity. Among the types of *Srotus*, *Svedavaha Srotus* (which does *Sveda Vahana*) is given prime importance. The root of *Svedavaha Srotus* is considered as *Meda* (Adipose tissue) and *Lomakupa* (Hair follicle). Abnormality to *Svedavaha Srotus* leads to accumulation of Sweat bad smell, itching, even may cause excessive sweating. When *Ushnamsha of the body increases it leads to secretion of Dravarupi Mala from Tvak* which is usually by the burning of Fat tissue which leads to formation of carbon dioxide and water, water formed henceforth is secreted as sweat, hence *Meda* is considered as the *Mulasthan (Udbhava Sthana)* of *Svedavaha Srotus*. Once the formation of *Sveda* is finished, its *Vahana* has to take place out of the body since it is a *Mala* and for elimination the organ used is *Lomakupa* and hence it is considered as *Mula* for *Svedavaha Srotus*. By considering *Udbhava Sthana* of *Sveda*, *Meda* is considered as the *Mula* and by considering the *Bahiniskramana Anga* of *Sveda* *Lomakupa* is considered as the *Mula* for *Svedavaha Srotus*. Similarly *Srotomula* of each and every *Srotus* should be analyzed along with its *Mula* and there is a need of further study in the field of *Srotus* and *Srotomula*.

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