



Review Article

A CRITICAL REVIEW ON ACTION OF SWEDANA VIS-À-VIS SUDATION THERAPY

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ABSTRACT

*Swedanam* is a therapy which alleviates stiffness, heaviness, coldness & that which brings out sweating from the system is sudation therapy. The perspiration brought about by the sudation therapy is more than the normal. Conventionally the sudation therapy is just understood as the steam bath, but sudation in *Ayurveda* is something more as a treatment & as a daily routine. *Swedana* drugs by *Ushna* and *Tikshnaguna* are capable of penetrating the microcirculatory channels (*Srotas*) where they activate the sweat glands to produce more heat. *Swedana Karma* hastens this process by increasing the permeability of capillary and bringing the morbidities into an extracellular fluid by dilating and clearing the channels of the body. *Swedanakarma* maintains the thermoregulation system of the body by maintaining equilibrium between core temperature (temp. inside the body) and shell temperature (skin temp).

**KEYWORDS:** *Swedana karma*, Sudation therapy, Sweating.

INTRODUCTION

Sweating treatment (*Swedana*) is usually given after oleation- *Snehana* therapy. *Swedana* is the procedure that relieves *Stambha*, *Gaurava*, *Sheeta* which induces *Swedana* (Sweating).<sup>[1]</sup> It plays a dual role in *Purvakarma* as well as *Pradhanakarma*. *Swedana* has relaxing and detoxifying effects on the human body. *Sweda* is classified into different varieties according to the different *Acharyas*. According to *Charaka*, two main types are *Sagnisweda* (thermal) and *Niragnisweda*. (non-thermal). *Niragnisweda* is further classified into ten types viz. *Vyayama* (exercise), *Ushnasadana* (warm rooms), *Guru pravarana* (heavy blankets), *Kshudha* (hunger), *Bahupana* (excessive drinking), *Bhaya* (fear), *Krodha* (anger), *Upanaha* (plasters), *Ahava* (war) and *Atapa* (sunbath).<sup>[2]</sup> whereas *Sagnisweda* is classified into 13 types viz. *Sankara* (mixed), *Prastara* (hotbed), *Nadi* (steam kettle), *Parisheka* (affusion), *Avagaha* (bath), *Jentaka* (sudatorium), *Asmaghana* (stone bed), *Karshu* (trench), *Kuti* (cabin), *Bhu* (ground bed), *Kumbhi* (pitcher bed), *Kupa* (pit sudation) and *Holaka* (under the bed).<sup>[3]</sup> Whereas *Acharya Sushruta* classified *Swedana* into main 4 types *Tapa sweda* (Direct heat), *Ushmasweda* (Steam), *Upanah Asweda* (poultice), *Dravasweda* (warm liquid).<sup>[4]</sup>

***Swedana Guna* (properties) and its action of body**

<sup>[5]</sup>

***Ushnata:*** This is originated from *Agneyaguna* and is opposite to *Shitaguna*. It induces enthusiasm, relieves stiffness and promotes unconsciousness, thirst, burning sensation, sweat and digestion in the body. It is *Agnimahabhuta* dominant property.

***Tikshnata:*** It is also *Agnimahabhuta* dominant property. It produces a burning sensation, *Paka* (ripening) and *Srava* (secretions). *Tikshnaguna* is responsible for the ripening of vitiated *Dosha* and *Malas* and their discharges from their respective places. It alleviates *Vata* and *Kaphadosha* and stimulates *Pitta dosha*. It decreases the *Mansa* and *Meda dhatu* and acts as *Lekhanadravya*.

***Rukshta:*** It is the opposite property of *Snigdha*. *Rukshata* causes dryness in the body. It is the Property of non-unctuous substance. *Rukshaguna* induces firmness in the body and wards off softness. It is dominant in *Vayavya* and *Agneyamahabhutas*.

***Sthirata:*** This property is opposite to *Saraguna*. It represents immobility. It induces firmness and stability in the body.

***Sarata:*** It has a dominance of *Jalamahabhuta* and has the property of advancing which is termed as *Preranashila*.

**Snigdhatta:** It is dominated by *Jala* and *Prithvimahabhuta*. It induces unctuousness, softness, strength, and texture to the body.

**Dravata:** These substances are dominant in *Jalamahabhuta* which promote stickiness, moistness, Softness, and happiness. A *Drava* substance possesses liquefaction of the *Dosha* and helps in the movement of fluid from one part of the body to another.

**Sukshmata:** It is composed of predominantly with *Agnimahabhuta*. It is the property by which it can pass through the *Srotas* (micro channels).

**Guruta:** *Guru* Substances are dominant in *Prithvi* and *Jalamahabhuta*. It performs actions like *Sadakruta*, *Uplepakruta*, *Balakruta*, and *Bruhanakruta*. Here, some opposite properties are mentioned in *Swedana* drugs. like *Sthira* and *Sara*, *Snigdha* and *Ruksha*. We can understand this as where local *Swedana* is required, *Dravya* having *Sthira* property should be selected and where generalized *Swedana* is required *Dravya* having *Sara* property should be selected. Likewise, *Snigdhadravaya* is selected for *Snigdha swedana* and *Rukshadravaya* is selected for *Rukshaswedana*.

**Mode of Action of Swedana Ayurvedic view:** *Swedana* has its main actions like *Stambhaghna*, *Gauravaghna*, *Shitaghna*, and *Swedakaraktva*. How *Swedana* performs their actions, we can understand it as below. [6]

**Stambhaghna:** *Swedana* releases *Sthambha* means stiffness. *Samana Vayu* which promotes *agni*, *Sleshakakapha* which lives in *Sandhi*, *Amarasa*, *Mansa*, *Meda*, *Vasa* are mainly responsible for *Stambha*. *Samana Vayu*, by *Rukshaghna*, absorbs *Snigdhatta* and so causes *Stambha*. *Sleshkakapha* is *Snigdhatta*. Due to its loss of function, *Sthambha* occurs. *Swedana* is *Snigdhatta* and *Ushna* so it relieves *Stambha*. *Ushnaghna* of *Swedana* does *Srotoshuddhi* and *Amapachana* and so it relieves stiffness.

**Gauravaghna:** *Swedana* relieves heaviness in the body. *Apyaghataka*- liquid substances of the body come out through *Sweda*. *Apyatatva* is *Guru*. Due to their expulsion, lightness is achieved. *Swedana* stimulates muscles and nerves and so lightness is gained.

**Shitaghna:** *Swedana* is mainly *Ushna* so it relieves *Shita* by opposite property.

**Sweda Karaktva:** *Swedana* promotes sweating. *Sweda* is a type of *mala*. Impurities of the body come out with *Sweda*. *Sweda* is related to *Dhatvagni* and *Bhutagni* (Metabolism). *Swedana* drugs by *Ushna* and *Tikshnaghna* are capable of penetrating the microcirculatory channels (*Srotas*) where they activate the sweat glands to produce more sweat. after dilatation of micro channels, *Laghu* and *Saraghna* of these drugs enable them to act on the

*Snigdhdosha* in the channels and direct them to move towards *Kostha* or excrete them through micropores of the skin in the form of sweat, resulting in *Srotoshodhana*. *Dosha* brought in *Kostha* are expelled out of the body with the help of *Vamana* or *Virechana* therapy.

## DISCUSSION

*Sweda* is the by-product of *Medadhatu* which dominates in *Jalamahabhuta*. The *Sweda* produces *kleda*. [7] In the body which is also *Apamahabhuta pradhana*. The *Udakdhatu* is present in the body in various forms like feces, urine, *Sweda*, skin, lymph, and blood, etc. It performs important functions like *Jivana*, *Tarpana*, *Malashodhana*, etc. when *Swedavaha srotas* is vitiated, it leads to the presentation of various symptoms like irregular production of sweating, roughness of the skin, burning sensation all over the body, etc. *Swedana* by its qualities like *Ushna*, *Tikshna* acts for stimulation in the body. It increases the metabolic rate in the body. *Ushnaghna* of *Sweda* dilates the capillaries thus it increases circulation. Increased circulation leads to more elimination of waste products and more absorption of *Sneha* or drugs through the skin. Also, it stimulates muscles and nerves which promotes its renovation. Heat administration by *Swedana* may produce hypoalgesia effect by diverted stimuli.

### Production of Sweda<sup>8</sup>

Stimulate  
 ↓ Receptor  
 Stimulate  
 ↓  
 Hypothalamus  
 ↓ Causes  
 Sympathetic stimulation  
 ↓ Causes  
 Adrenalin secretion  
 ↓ Causes  
 Adipose lipolysis  
 ↓

Generation of sweat (contains NaCl, H<sub>2</sub>O & Urea)

In Ayurvedic science production of *sweda* physiologically occurs by *Paka* of *Sukshameda*. *Sukshamedapaka* - *Medodhatwagni* + *Bhutagni* -- *Prasadbhaga*-*Sthulameda*, *Upadhatusnayu*, *Kittabhaga* - *Sweda*. Sweat consists of sodium chloride, water, urea, lactic acid, potassium, calcium etc. [9] These all substances are present in the extracellular fluid also, which provide nutrition to cells. Excessive sweating in the body leads to depletion of the contents of extracellular fluid. Sodium chloride is one of the major substances which is lost during sweating. Due to its loss feeling of exhaustion or weakness in the body occurs. Sweating controls, heat production, water, and electrolyte balance in the body. [10] Sweat glands are controlled by the central nervous system.

Hypothalamus is the centre of heat regulation in our body. Though the signals generated by the temperature receptors of the hypothalamus are extremely powerful in controlling body temperature. Receptors in other parts of the body also play an important role in temperature regulation. This is particularly precise about temperature receptors in the skin. Temperature decreasing the mechanism of the body when the body is too hot, as during *Swedana karma*. The temperature control system employs two important mechanisms to reduce heat when the body temperature is too hot during *Swedana karma*.

**Vasodilation:** In almost all areas of the body, the skin blood vessels become intensely dilated. This is caused by inhibition of the sympathetic centres in the posterior hypothalamus that causes vasoconstriction. Full vasodilatation can increase the rate of heat transfer to the skin as much as eight folds. So, it can be inferred that the *Ushnaguna* of *Swedana karma* leads to stimulation of the sympathetic nervous system and there is vasodilatation (*Srotovispharana*). *Ushnaguna* also increases the circulation of *Rasa* and *Rakta* in the body.

**Induction of Sweating:** An Additional one-degree increase in body temperature causes enough sweating to remove ten times the basal rate of body heat production. During *Swedanakarma*, the body temperature rises to more than 2-3°C. It results in increased sweating by the above-said mechanism. Due to the effect of "*Sara*" and "*Sukshma*" *guna* of *Swedana dravya*, the "*Linadosha*" are liquefied in our body and they come out through microspores which are present over the skin as pores of sweat glands. Since there is extreme vasodilatation due to the production of heat, it results in more excretion of liquefied vitiated *Dosha* from the body resulting in *Srotashodhana*. Thus, *Swedana* drugs induce a cleansing effect on the body.

#### CONCLUSION

*Sweda* karma rectifies the function of *Medadhatwagni* and *Bhutagni* and fastens the *Pakakarma* which causes *Srotomukhashodhana* and profuse *Sweda* production. That causes the displacement of exudates hence relieve pain, relaxes muscular spasm. By *Swedana*, due to arterial dilatation, the part gets more circulation. So, acts as

*Stambhaghna*, *Gourabaghna*, *Sitaghna* and also *Prabha varnakara*. So *Sweda karma* maintains the thermoregulation system of the body by maintaining equilibrium between core temperature (temp. inside the body) and shell temperature (skin temp.) *Sweda karma* hastens this process by increasing the permeability of capillary and bringing the morbidities into an extracellular fluid by dilating and clearing the channels of the body. Finally, *Sweda karma* fascinates the transport of metabolites into the blood and lastly into *Koshtha* for easy elimination by *Panchakarma*. That is the probable mechanism or action potential of *Sodhanangabhootaswedana* to prevent and cure ailments.

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#### Cite this article as:

Akhilanath Parida, Satyasmitha Jena, Varun Sawant. A Critical Review on Action of *Swedana vis-à-vis* Sudation Therapy. International Journal of Ayurveda and Pharma Research. 2020;8(1):66-68.

**Source of support: Nil, Conflict of interest: None Declared**

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