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# A Comprehensive Critical Analysis of *Upanaha Sweda* Along with its Mode of Action.

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# **ABSTRACT:**

Swedana is standard therapeutic procedure in Ayurvedic science which is intended to relieve stiffness, heaviness, coldness of the body part and induce perspiration which can be used as *Poorva*, *Pradhana* and *Paschat Karma* according to the need. Upanaha is one such procedure usually used as Ekanga sweda characterised by application of medicinal paste over affected part of body with or without heating, covering it with thick leather material as bandaging. It is considered as Vatahara, can be used in vatavyadhi with stiffness, contracture and pain predominant. Transdermal drug delivery system depends upon multiple factors and their combined effect in Upanaha sweda like prevention of heat loss, to increase effective absorption of active ingredients, self-fermentation process and presence of solubility enhancer causes the treatment effective. Main intention of this procedure is to provide contact of medicine with body part for long hours so has to provide effective swedana action and to bring its anti-inflammatory and analgesics effect to act upon body for long duration. By considering present day busy lifestyle of patient, many modifications can be made into this process. This article compiles all the literature available on upanaha, analyses it and presents with a temporal sequence to clarify all the nuances related to upanaha sweda.

KEYWORD: Ayurveda, Upanaha, Sweda, Vatahara, Mode of action.

## **INTRODUCTION**

*Panchakarma* consists of number of physio-psychological measures which are advocated for prevention, detoxification, rejuvenation and revitalisation of body tissue. *Swedana* is one among prerequisite to detox therapy, which can also be used as individual entity in the treatment of various disease conditions. *Swedana* is included under *shadupakrama* which relieves stiffness,

heaviness and coldness in body and causes perspiration<sup>1</sup>. It is useful in treating various *vata- kaphaja* disorder. *Upanaha* is one such procedure specially mentioned as *Vatahara* (pacifies *vata*).<sup>2</sup> It is local treatment where in combination of *aoushada churnas* (*medicinal powders*), *sneha* (unctuous material like oil, ghee), *kinva* (fermented liquid) and *dhanya churna* (powdered grains), *gandha dravya* (frangrant material) are mixed together and applied



over required site<sup>3</sup>. This means to reduce local inflammation and acts as analgesics. *Upanaha* is a *sweda* that falls in both *Sagni* and *niragni sweda*. The references of *Upanaha* are scattered in Ayurveda samhitas and even in same *Samhita* it is stated in different contexts. Hence there is a need to review, compile, analyse and present the details with a temporal sequence. Also, there is a need to analyse its mode of action in the background of modern medical science.

#### Upanaha

#### **Derivation**:

The word *Upanaha* is derived from  $UP+NAH+GNJ^4$ , Where '*up*' is prefix which means near and '*nah*' *Bhandane* means to tie or to wrap.

#### **Definitions**:

Many Acharyas have given different definition for word *Upanaha*.

1. *Upanaha* is a form of *sweda* done by applying thick paste of medicinal drug.<sup>5</sup>

2. *Upanaha* is the procedure of application of medicinal paste for *vranaropana*.<sup>6</sup>

3. Procedure of application of paste of medicinal drugs followed by tying it with thick leather piece.<sup>7</sup>

4. Tying off body parts with hot bolus of medicinal paste.<sup>8</sup> Thus, *Upanaha* can be defined as procedure where thick paste of medicine is applied over specific part of body followed by bandaging.

#### Types:

On the basis of Agni samskara:

- Sagni Upanaha
- Niragni Upanaha

1. *Niragni upanaha-* where there is no direct contact of medicinal drugs with *agni*. In this method drugs in the powder form is mixed with suitable liquid media and applied over affected part of body. Mainly drugs of hot potency are used in this type to serve *swedana* (perspiration) purpose.

2. *Sagni upanaha*- there is direct contact of medicinal drugs with *agni*. Here paste of medicinal drugs are added with suitable *dravadravya*, heated and then applied over specific part of body.

On the basis of method of application, Acharya Dalhana classifies *upanaha* into 3 types<sup>9</sup>:

- Pradeha
- Sankara

• Bhandhana

#### 1. Pradeha:

Method of application of thick paste of medicinal drugs over affected part. Drugs like vatahara powders (drugs which pacifies vata), amla dravva(sour substance), sneha (unctuous material), lavana (salt) are made into paste form and applied in the form of *lepa* over affected body part after heating or without heating depending upon potency of drug. Acharya Indu opines that, application of the medicinal lepa repeatedly over affected body will serve perspiration.<sup>10</sup> Acharya Sushrutha mentions 3 types of lepa as prdeha, pralepa and alepa.<sup>11</sup> Pralepa is the thin, cold medicinal paste applied over body which can be allowed to dry. Pradeha is application of thick medicinal paste which is either *sheertha* or *ushna* and should not allowed to dry. It serves as vatakaphahara, does Shodana, Ropana, Sandhana, Shophavedanapaha. Thickness of Alepa is between these two acts as raktapitta prasadaka. Acharya charaka mentioned different varieties of pradeha in soothra sthana, Aragvadadiya adhyaya can be included under this.

#### 2. Sankara:

Medicinal drugs in the form of *payasa, krushara* etc are made into bolus and is rubbed over affected part of body with firm pressure. It can be served as *ekanga sweda* or *sarvanga sweda*.

#### 3. Bandhana:

Thick paste of medicinal drug is applied and bandaging is done with thick material like skin of hot potency animal. In absence of these silk, woollen material can be used for tying.

On the basis of site of application:

- 1. Ekanga sweda: Performed over particular part of body.
- 2. *Sarvanga sweda: Sankara* type *upanaha* can be performed over whole body.

On the basis of drugs used:

- 1. Snigdha upanaha: consists of sneha (unctuous substance) as base along with vatahara churna,powder of dhanya, lavana. It helps in causing sandhana karma,rujahara.
- 2. *Rooksha upanaha*: is devoid of *snehadravya*, instead *gomuthra*, *kanji* can be used. This helps in absorption of excessive fluid content in the area.

#### **Indications and Contraindications:**

Indications:

- Acharya Sushrutha specially explains *Upanaha* as *Vatahara*. This can be used in conditions of *vatavyadi* which are pain predominant, association of contractures and stiffness<sup>12</sup>.
- Acharya Indu opines *Niragni upanaha* are useful in *vatapitta samsarga* condition<sup>13</sup>.
- Sushrutha mentiones *upanaha* in *sapthavidha vranashotha upakrama*<sup>14</sup> and also in *shasti vrana upakrama*<sup>15</sup>.
- In *vranashopha*, *Upanaha* is used in both *ama avastha* (pre-suppurate stage) and *vidhagdha avastha* (suppurate stage). It helps in resolving *Ama shotha* and causes *paka* in the later one<sup>16</sup>.
- There is a mentioning of *Upanaha* in many diseases like *snayu sandhi asthigata vata, gulma, nethraroga, shiroroga* etc

#### Contraindication:

Upanaha is contraindicated in pitta raktavarana condition.

#### Drugs used:

*Upanaha sweda* is consisting of *vatahara dravyas*, *amla dravya* like *takra*, *chukra*, *kanji* etc, *sneha*, *saindhava lavana*, *yava* and *godhuma churna*. Based on the association of other *dosha* selection of drugs will be done. Specific drugs for *Upanaha* (Table 1) (Table 2)

#### **Procedure:**

- Poorva karma: It includes
- a) Atura pareeksha
- b) Sambhara sangraha
- c) Atura siddhata
- a. Atura pareeksha (Examination of patient):
- 1. Examination of patient should be done *prakratitaha*, *vikratitaha* and including 10 fold of examination.
- 2. Examine for wound or scar if any at the site of *Upanaha* application.

b. *Sambhara sangraha* (collection and preparation of medicine):

- 1. Drugs required for the *upanaha* like fresh *vatahara patra* or powder, *amla dravya, sneha, lavana* are selected and made ready according to condition of patient.
- 2. The required *vatahara churna, sneha, amla dravya, lavana* are mixed together and made thick paste form.
- 3. If the *Upanaha* desired is of *saagni* then the powder along with *dravadravya* and *saindhava* in a suitable amount is

heated. If it is of *Anagni* type the powdered form of drug is mixed with *dravadravya* without heating and made into thick paste.

4. Small amount of medicinal paste applied over skin to check for allergic reaction

c. Atura siddata (preparation of patient):

- 1. Patient is asked to sit comfortably with exposed the affected part.
- 2. Desired area for *upanaha* is properly supported.
- 3. *Sthanika abhyanga* can be done according to condition.

#### • Pradhana karma:

- 1. Prepared paste is applied aver *pratiloma gati* (opposite to the direction of hair follicle) over affected part in proper thickness after checking temperature.
- 2. Then area is covered with *vatahara patra* like *Arka* or *Eranda patra* and bandaged with cotton cloth or gauge roll.

#### • Paschat karma:

- 1. Upanaha can be removed after stipulated time.
- 2. The part should be cleaned with warm water
- 3. Gentle massage is to be done to relieve possible stiffness.

#### Duration of Upanaha sweda:

In ayurvedic classics we get the reference regarding the *Upanaha* which is tied at morning hours are to be removed during night hours and which are tied during night hours are to be removed in morning hours<sup>19</sup>.

But this rule can be changed according to the severity of the disease, condition of the patient and season of the treatment.

#### **Precautions:**

- 1. Once used medicinal paste should not be used again,
- 2. Unused, prepared medicine which is kept for long duration should be discarded.
- 3. Temperature of medicinal paste should be checked before applying to avoid burn
- 4. While tying *upanaha*, it should not be tied too tightly nor too loosely.
- 5. *Upanaha* must be of suitable consistency so that it should not fall off from its position.
- 6. It should be avoided in case of *visarpa, raktavruta vata* condition.

#### Different methods in Upanaha sweda:

- 1. *Lepa*: In this method, medicinal drug is applied in the form of thick paste and left till it dries.
- 2. *Bhandana*: in this method, mixture of *vatahara* drugs, *amla dravya*, *sneha*, *lavana* are made into paste form applied over affected part of body and tied with thick cotton cloth.
- 3. *Rotika/Apupa*: In this method, initially *godhuma* and *yava* powder along with *vatahara churna,amla dravya, saindhava* are mixed together and dough should be prepared. Later they made into roti form, heated on iron tava and tied around affected part of body with thick cotton cloth.
- 4. *Pinda sweda*: In this paste of medicinal drug is taken in the form of bolus form covered with cloth and rubbed over affected part of body.
- 5. *Vestana* method: In this method medicinal drug prepared should be in liquid consistency, 2-3 rolls of bandage are to be dipped in that *upanaha dravya*. After proper soaking one can use this bandage material to wrap around affected part.

#### Mode of action:

Skin is dynamic living tissue, rate of absorption of any drug through skin depends upon many factors such as drug concentration, solubility of medicine, duration of contact, physical condition of skin such as humidity.

• Long duration of drug contact:

Duration of drug contact is one among main cause for good absorption of active ingredients. When compared to any other *sweda* procedure the duration drug contact is more in case of *Upanaha*, may help in complete drug absorption.

• Solubility:

Absorption depends on solubility of drug. It is easy for lipid base or lipid soluble substance to get absorbed through skin. Since *Upanaha* consists of *sneha dravya* which yields lipid base, helps in better absorption of active substances.

• Permeability:

Use of acidic drugs like *takra*, *chukra* or *kanji* causes decrease in pH of medicine to moderate level. Moderate Decrease in pH increases permeability of drug through skin. Earlier researches proved that presence of alcoholic substance like ethanol cause easy absorption of active ingredients<sup>20</sup>. *Kanji* (fermented liquid) a *dravadravya* used in many *upanaha* helps in quick and easy absorption of active ingredients.

• Self-fermentation and exothermic reaction: Drugs used in *Upanaha* like *chukra,takra,kanji* are responsible for continuous fermentation when they come in contact with wheat flour, barley flour and oil. Since fermentation is exothermic process causing self-generation of heat. Generally if any hot substance is applied over skin, the temperature will not retain due to large surface area. But in case of *Upanaha* due to fermentation heat will remain for more duration.

• Minimizing heat loss :

*Upanaha sweda* acts by trapping the heat inside the body by preventing the heat loss through *romakoopa*. As soon as hot paste of medicine is applied over skin there will be local raise in skin temperature because of heat gain through radiation and conduction. This heat will trapped by thickness of paste and covering it with fresh leaves of *arka*, *eranda* and finally bandaged with thick cotton cloth. These acts as thermoregulation as they are bad conduction of heat.

• Supporting and immobilization:

*Vestana* is one among *vata upakrama* which by virtue responsible for pacifying pain. This along with *vatahara* drugs, *sneha* responsible for further increasing potency of procedure.

• Action of *brajaka pitta*:

Acharya Sushrutha mentiones 4 *tiryak dhamanies*. These are further divides and become innumerable and cover whole body like network with their opening at *romakoopa*. Through these only *veerya* (potency) of drug used in procedure can enter into skin. Later they act upon by *Brajaka pitta* present in skin undergo *paka*. This is how the tropical application of drug acts upon body<sup>21</sup>.

#### Limitations:

When we look into the procedure of *upanaha* with *bandhana* method, it is very easy to perform as *ekanga sweda* than *Sarvanga*. Thus even though it has *Rujahara*, *stambhahara* action, *Sarvanga Upanaha* with *bandhana* method is difficult to perform. Thus practical utility of such *upanaha* in case of are rare. It may not be a comfortable procedure as it requires the patients to have their body parts being applied with medicine and tied with thick cloth material for long duration. It causes limitation in movement of body part and by the end of 12 hours patient may start developing stiffness. Since we use *ushna veerya* drugs or *agnisamskara* in process it cannot be used in *piitaja vrana, pitta raktavruta* condition. Even it may causes skin irritation if we use it for long duration in summer season.

# DISCUSSION

*Upanaha* widely used therapeutic procedure in treatment of *vatavyadhi*. The action of Upanaha is based on two criteria i.e one from *karmukata* and other from *dravya*. As part of *karmukata* it does *swedanakarma*, *vestanakarma*. *Ushnatva* and other properties of drugs helps in alleviating stiffness, coldness by pacifying vata. This therapy is primly used to prolong thermal conduction and regulation.

Skin being largest organ in the body offers advantages compared to other routes of administration. The rate of drug absorption through skin depends on solubility, duration of contact, skin physical condition etc. *Upanaha* applied immediately increases raise in temperature at the site of application. It further prevents heat loss because of thick layer of paste and bandaging. These together acts as bad conductor of heat. It also maintain humidity, moisture and prevents evaporation of sweat there by acts as thermo regulator. As that of other *sweda*, it also causes local hyperthermia which improves local blood and lymphatic circulation hence improves local musculature.

# CONCLUSION

*Upanaha* is easy, simple yet most efficient procedure used in treatment of many vata disorders. Even in this no time era, *Upanaha* is one such procedure helps the patient to get treatment in spite of their busy lifestyle without much alteration in their work schedule. The modifications from the classical method also helps to uplift the efficiency of procedure, thus according to the patients disease condition drugs, method, duration of *upanaha* should be selected.

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# Table: 1. UPANAHA DRUGS ACCORDING TO DIFFERENT DOSHAS.

	Acc. to dhalhanacharya <sup>17</sup>	Acc. Hemadri <sup>18</sup>
Kevala vata	Eladi gana, saalvana upanaha	Vachadi upanaha
Pitta samsrasta vata	Kakolyadi gana	Padmakadi gana
Kapha samsrasta vata	Surasadi gana, tilatasi yukta	Surasadi gana

# Table: 2. DIFFERENT GROUPS OF DRUGS USED IN UPANAHA

GROUP	DRUGS
Kakolyadi gana	Kakoli,ksheerakakoli,jivaka,rishabaka,mudgaparni,mashaparni,medha,mahameda,chinnar uha,karkatashringi
Surasadi gana	Surasa, swetha, phaninjaka, ajraka, bhutrina, sugandhaka, sumukha, kalamalika, kuteruka, kasa mardam, kharapushpa, vidanga, khatphala, nirgundi, mundika, undukarnika, vishamusti
Eladi gana	Ela,tagara,kusta,mamsi,jala,dhyamaka,twak,patra,nagapushpa,priyangau, harenu,vyaghranakha,sukthi,chandanaStouneyaka,srivestaka,chocha,chouraka,valuka,gug gulu,sarjarasa
Padmakadi gana	Padmaka,pundra,rudhi,vrudhi,tuga,shrangi,amrutha,jeevanti,kaakoli,meda, mahameda,mudgaparni,mashaparni,vrushabhaka,jeevaka,madhuka