

CRITICAL ANALYSIS OF PATRA PINDA SWEDANA: A REVIEW

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ABSTRACT

Background: *Swedana* (sudation) is one of the most common treatment modality in Ayurveda. *Swedana Karma* helps in liquefying the sticky and adherent *Doshas* lodged in the peripheral tissues. It helps in softening the toxins, opens up the pores of the skin and help in expelling them from the body. It is practiced either as a preparatory component to *Panchakarma* (five detoxification procedures) or as an independent intervention basically for *Vata Vyadhis*. *Swedana* pacifies stiffness, heaviness and coolness of the body. Formally *Swedana* therapy is just understood as the steam bath, but *Swedana* in Ayurveda is more as a treatment & as a part of daily grind. *Patra Pinda Swedana* is the modified form of *Sankara Sweda* as explained by *Acharya Charaka*. It refers to the *Swedana Karma* performed by specially prepared bolus of medicinal leaves along with other conventional drugs.

Objectives: An attempt has been made to critically review the effect of *Patra Pinda Swedana* procedure in different conditions; how it helps in relieving pain, stiffness, swelling, healing, increasing range of motion of the joint etc.

Methodology: The present work is primarily based on theoretical research using related research articles, previous work done, modern literature and classical treatises of Ayurveda.

Discussion: *Patra Pinda Swedana* relieves stiffness, heaviness and coolness from the body. It increases metabolism leading to vasodilation and induction of sweating that helps in removal of waste metabolites. It relieves pain, stiffness, swelling, healing; increases range of motion of the joint and is of great benefit in degenerative diseases.

Conclusion: *It can be used as an adjuvant therapy with oral medications or internal Panchakarma therapy to further accentuate its effect.*

KEYWORDS: *Swedana, Panchakarma, Patra Pinda Swedana, Sankara Sweda*

INTRODUCTION: In *Panchakarma*, *Snehana* and *Swedana* are two important treatment modalities used both as *Purvakarma* and *Pradhanakarma*. *Swedana* is a procedure that brings about sweating or perspiration in the body through different procedures. *Swedana*(*Sudation*) relieves the body from *Stambha*(stiffness), *Guruta*(heaviness), *Sheetata*(coolness).

Pinda Swedana is one of the most popular *Swedana* modality based on the principles of *Sankara Sweda* which is one of the thirteen *Sagni Sweda* described by *Acharya Charaka*^[1]. The word *Sankara* refers to the mixture of different medicines or drugs when used in the form of *Pinda/bolus* is called as *Pinda Swedana*. *Sankara Sweda* can be further classified as *Rooksha Sankara Sweda* and *Snigdha Sankara Sweda* based on the drugs used.

Rooksha Sankara Sweda is used in *Kapha vitiated disorders* and *Snigdha Sankara Sweda* in *Keval Vata Vikara*^[2]. Different types of *Pinda Sweda* currently in practice are *Patra Pinda Sweda*, *Shashtika Shali Pinda Sweda*, *Churna Pinda Sweda*, *Zambeer Pinda Sweda*, *Karisha Pinda Sweda*, *Baluka Sweda* etc.

Patra refers to leaves, *Pinda* refers to bolus and *Swedana* refers to the procedure causing perspiration. *Patra Pinda Swedana* is a procedure of massaging the body with bolus (*Potali*) filled with leaves of medicinal plants along with other conventional drugs that are roasted in a pan with oil. It is indicated in degenerative conditions like cervical spondylosis, lumbar spondylosis, joint stiffness, osteoarthritis, intervertebral disc prolapse(IVDP), sciatica, chronic stages of rheumatoid arthritis, ankylosing arthritis, frozen shoulder, hemiplegia etc. It can be used in cases of bronchitis and asthma as has been indicated in the *Chikitsa Sutra* of *Shwasa* “*Aaktam Lavantailen Naadi Prastara Sankareh*^[3]”. It also stimulates autonomic nervous system and brings relief in anxiety, depression, insomnia, restlessness etc^[4].

AIMS AND OBJECTIVE:

1. To study the health benefits of *Patra Pinda Swedana* procedure
2. Critically review the clinical utility of *Patra Pinda Swedana*
3. Literary study of *Patra Pinda Swedana* at core level

MATERIAL & METHODS:

1. Ayurvedic texts like *Brihatrayee* and *Laghutrayee* have been studied for *Swedana* procedure and *Patra Pinda Swedana*
2. Different researches and previous work done on *Patra Pinda Swedana*

3. Modern literature on heat and its effect on the body.

Procedure: The *Patra Pinda Swedana* procedure is divided into three parts:

1. Pre- procedure (*Purva karma*)
2. Procedure (*Pradhana karma*)
3. Post- procedure (*Paschat karma*)

Pre- procedure (*Purva Karma*)-

Materials required-

Fresh leaves (*Shigru*, *Chincha*, *Arka*, *Nirgundi*, *Varuna*, *Erand*, *Dhatura*, *Aragvadha* etc), *Rasnadi Churna*, *Methika*, *Saindhava Lavana*, coconut grating, lemon, medicated oil, 18 inch square cotton cloth(2 in number), threads to tie the bolus into clothes, round bottomed vessel.

Preparation of the leaves pack-

Finely chopped herbal leaves around 500 gm is taken and heated in a round bottomed pan along with other ingredients till leaves become plaint. Fried mixture is divided into two equal parts and transferred into the cloth pieces. The free corners of the cloth are approximated to cover the leaves and tied with thick cotton thread to make a *Pinda* or *Potali*.

Preparation of the patient-

The patient is thoroughly examined if he is fit for the procedure. Patient should be advised to pass stool and urine. Then pulse, temperature and blood pressure of the patients should be recorded. *Abhyanga* is done prior to the main procedure. Medicated oil is smeared on the affected part or whole body according to the requirement.

Procedure (*Pradhana Karma*)-

The bolus is placed on the oil, which is continuously heated at a particular temperature at 40-42°C. The bolus is continuously stirred in the oil or else it may get burnt. When the bolus is properly heated it is taken out of the vessel, extra oil

is mopped to the edge of the vessel. Heat of the bolus shall be confirmed by touching the bolus on the dorsum of own hand. The *Patra Potali* is rubbed over the affected area in the fashion similar to that of *Abhyanga* on the affected part with gentle force. It is preferred to be done in the seven postures mentioned in the *Samhitas*^[5] viz. sitting, supine, left lateral, prone, right lateral, supine and sitting; with the duration of 5-10 minutes in each posture. Uniform temperature shall be maintained throughout the procedure. Procedure is carried out until *Samyak Swinna Lakshanas* are gained i.e. adequate sweating, softness of the body, relief from pain, stiffness, heaviness etc^[6].

Potalli once prepared can be used for maximum 3 days. Thereafter new leaves shall be used for the procedure.

Post- procedure (Paschat Karma)-

Extra oil is wiped off with a clean towel or napkin. Patient is asked to take rest for half an hour. *Rasnaadi Churna* is applied on the vertex of the patient. Patient is advised bath with warm water after 6 hours with light diet that doesn't increase *Kapha* and intake of warm water. Bengal gram flour can be used for washing the oil. Patient should be properly covered with good clothing, sit or lie in a comfortable place that is free from wind or sun^[7].

Contraindications

In *Pittaja Vikara*, it can further aggravate *Pitta Dosha* and lead to complications. In *Tvak Vikara* like infective eczema, psoriasis, fungal infections, oil used and rubbing procedure can aggravate the disease. It should be avoided in gangrene and open wound. Acute fever, hemorrhagic conditions, inflammatory condition, myalgia, gastro intestinal problems like diarrhea, digestive disorders,

acute infections etc are also contraindicated.

DISCUSSION: According to Ayurveda *Sparshanendriya*(skin) is the *Vyapaka Indriya*(largest organ) of the body. Any oily preparation applied gets absorbed through *Lomakupa*(hair follicles) that are spread throughout the body and works through its *Virya*(potency) after undergoing *Paka*(digestion) by *Bhrjak Pitta* in the skin. It enters the body through all the *Dhatus* in sequence. It intensifies the *Dhatwagni*(metabolism) and helps in clearing the obstructed *Srotas*(channels). The leaves used in *Patra Pinda Swedana* bear *Ushna*(warm), *Tikshna*(sharpness), *Laghu*(lightness), *Kapha-Vatahara* properties. It helps in combating properties of *Vata* and symptoms of *Kapha* are also reduced. It altogether helps in relieving symptoms of *Vata* and *Kapha*. Due to *Sara*(mobile) and *Sukshma*(minute) *Guna* of *Swedya* drugs *Lina Dosha* (enlodged) are liquefied in the body and expelled out through microspores present in the form of sweat glands. *Swedana Karma* stimulates the sympathetic nervous system leading to vasodilatation^[8]. These properties help in clearing up of the obstructed *Srotas*(channels) of the body. Oil used in *Patra Pinda Swedana* is *Vatashamaka* in itself and has a synergistic effect in relieving aggravated *Vata* of the body. Oil acts as a medium through which absorption of the *Virya* (potency) of the drugs is enhanced.

Effect on pain- Leaves used in *Patra Pinda Swedana* are *Ushna Virya* and bears *Vatahara* and *Kaphahara* properties. Oil has been said as best *Vatashamaka* and *Swedana* has been said for alleviation of *Vata* and *Kapha Dosha*. They produce analgesic effect. According to pain gate control mechanism, non painful stimuli

like heat and touch closes the gate for painful stimulus, subsiding pain^[9]. Secretion of sweat is guided under autonomic control. Sudation can bring about changes indirectly on the autonomic nervous system and the heat can bring about changes in conduction of nerve stimuli, by changing sodium ion concentration^[10]. This thermoregulatory control mediated through hypothalamo axis reduces pain in the affected part. Serotonin is released that also helps in reducing pain.

Effect on stiffness- *Vata* by virtue of its *Ruksha Guna* (dryness) absorbs the *Snighdhata* (sliminess) leading to stiffness. *Swedana* relieves *Stambhata* (stiffness) due to its antagonistic *Snigdha* and *Ushna Guna*. It does *Srotoshuddhi* and *Amapachana* (digestion of undigested food material). *Patra Pinda Swedana* stimulates sensory receptors inhibiting the stimulatory signal of muscle contraction at the spinal level, and reducing the synaptic release of acetylcholine, causing muscles to relax. It relieves muscle tension by reducing neuromuscular excitability^[11].

Effect on inflammation- Leaves used in *Patra Pinda Swedana* like *Nirgundi*^[12], *Shigru*^[13], *Erand*^[14], *Chincha*^[15], *Arka*^[16] etc possess anti-inflammatory property that has been proven through its pharmacological study. If any inflammation is present due to any undergoing pathology, *Patra Pinda Swedana* works efficiently in reducing inflammation. It attenuates the production of inflammatory cytokines, tumor necrosis factor-a, and interleukin-6 mitigating the cellular stress resulting from myofiber injury^[17]. It also promotes mitochondrial biogenesis^[18].

Effect on healing- As quoted by Vant Hoff, increase in temperature leads to acceleration in chemical changes; in body's tissues it leads to increased metabolism^[19]. Heating the tissue leads to increased metabolic activity, increased blood flow and stimulation of neural receptors^[20]. Due to this increased metabolism, there is increase in tissue permeability allowing exchange of nutrients and fluids. Oxygen demand increases fastening the removal of waste metabolites. This increases the healing process of the damaged tissues by opening or dilating the blood vessels and by stretching them^[21].

Effects on lymphatics- Lymphatic system don't have a pump of its own. It moves when we move them, they don't have momentum without movement. It aids immune system in removing waste product, dead cells and toxins^[22]. An increase in the temperature by 1 degree causes metabolic waste to be removed by 10 times of the normal basal metabolic rate. In this procedure of PPS, temperature raises by 2-3 degrees, enhancing the waste removal process. The stroking movements done during the *Patra Pinda Swedana* aids in sucking fluid through blood vessels and lymph vessels thereby creating a vacuum behind. It helps to direct biochemical sewage through the channels and into the lymph nodes, where it can be eliminated^[23].

Effect on range of motion- Induction of fresh blood flow increases the nutrient supply and removal of waste metabolites. Due to prolonged contraction of the joint, muscle spasm occurs near the joint. It conduces in rearranging muscle fibers and increasing microcirculation. It may assist in stimulating the pain receptors and reducing the pressure on surrounding

vessels by increased circulation. The analgesic effect of *Patra Pinda Swedana* helps in the stretching capacity of the tendons and ligaments. It increases the extensibility of collagen^[24]. The disturbed *Chal Guna* of *Vata* is corrected through *Patra Pinda Swedana* increasing the range of motion of the joint.

Effect on parasympathetic activity-
Patra Pinda Swedana stimulates the skin receptors^[25] and subcutaneous tissue stimulating the vagal activity which stimulates the parasympathetic response. The stimulus is transmitted from the peripheral nerves to CNS and autonomic nervous system. It may result in feeling of sedation, decreases serum cortisol levels and plasma nor-epinephrine levels, increasing relaxation substances like endorphins, increase in cardiac parasympathetic activity and lowering of heart rate and blood pressure^[26]. This might help in reducing anxiety, depression and pain.

Previous researches works on PPS:

Wadhwa K et all. performed a study to assess the comparative efficacy of *PatrapindaSweda* and *Basti Karma* in the management of *Gridhrasi* w.s.r to *Sciatica*^[27]. In group A 20 patients were given *Patrapindasweda* for 16 days and *Samyak Svinna Lakshanas* and *Stambha Nigraha* was found in all patients while *Gaurav Nigraha* was found in 22.5%, significant result was seen in SLR and walking time. Significant result was seen in *Ruka, Toda, Stambha, Gourava, Suptata* and insignificant result in *Tandra* and *Aruchi*. In group B *Vrishadi Niruha Basti* showed better results than *Patrapindasweda*.

Joshi A et all. did a study on Clinical effect of *Nirgundi Patra Pinda Sweda* and *Ashwagandhadi Guggulu Yoga* in the

management of *Sandhigata Vata*(Osteoarthritis)^[28]. In this study, a total of 116 patients were registered, out of them 101 patients had completed the full course of treatment, while 15 patients left against medical advice. In Group A 50 patients of *Sandhigata Vata* were treated with *Nirgundi Patra panda sweda* for 21 days and *Ashwagandhadi Guggulu Yoga* 3gm/day for 45 days was given orally. Group B: In this group 51 patients of *Sandhigata Vata* were treated with only *Ashwagandhadi Guggulu Yoga* 3 gm/day for 45 days. To assess the effect of the therapy, all the signs and symptoms of *Sandhigata Vata* were given a score, depending upon their severity. Also functional tests like walking time, climbing stairs, and joint movement, were measured as criteria for assessment. Both the groups showed good results, but Group A showed better results in comparison to group B.

Shweta Sharma et all. did a clinical study on *Patra Pinda Sweda* and *Nadi Sweda* in the pain management of *Gridhrasi* w.s.r to *Sciatica*^[29]. 30 patients of *Gridhrasi* were randomly selected and divided into 2 groups. Group A: 15 patients received *Patra pinda sweda* and Group B: 15 patients received *Nadi sweda* up to *Samyak Swinna lakshana*. Overall assessment of both groups, out of 30 patients, 2 (6.67%) got complete remission, 13 (43.34%) patients got marked response, 6 (20%) patients got moderate response and 9 patients got mild response. Group A showed better results than group B.

CONCLUSION: *Patra Pinda Swedana* is an effective procedure in relieving pain, stiffness and heaviness of the body. It is widely practiced clinically due to its immediate effect in pain due to combined effect of heat and medicament. It combats

with the properties of *Vatadosha* like *Rukshata*(dryness), *Laghuta* (lightness) and *Chala*(mobility). *Ushna*(warm), *Tikshna*(sharp), *Sara* (mobile) and *Sukshma* (penetrating) properties of drugs opens up the obstructed channels. It increases the circulation in the affected area thereby enhancing tissue healing; strengthen the muscles, increases range of motion in the joint. Due to vasodilatation effect, it helps in removing the toxins from the body and maintains *Dosha* balance. It helps in toning of muscle and improves the working of tissue within the body. It can be used as an adjuvant therapy with oral medications or internal Panchakarma therapy to further accentuate its effect.

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