



REVIEW ARTICLE

A REVIEW ON THE PROCEDURE AND PRACTICE OF *DHANYAMLA NIMANJJITHA PINDA SWEDA (KADIKIZHI)*

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Abstract

The therapeutic procedure of generating *sweda* on the body using various modalities is called *swedana*. It is an independent *upakrama* included under *shadvidhopakrama*. *Swedana* has been mentioned as a *bahiparimarjana chikitsa*. *Sankara Sweda* is one among the thirteen varieties of *Sagni Sweda*, in which *Pottali* or *Pinda* (known as *Kizhi* in Kerala) containing prescribed drugs wrapped with or without clothes are used for fomentation. *Dhanyamla nimanjjitha pinda sweda (Kadikizhi)*, a variety of *Sankara sweda* comes under *ruksha sweda*. It is widely being practised in Kerala, where the patients get the combined effect of heat and the medicinal properties of the drugs used. This article reviews the procedure and clinical applications of *Dhanyamla nimanjjitha pinda sweda*.

Introduction

Swedana is an *ayurvedic* therapeutic procedure that comes under *Shadvidhaupakrama*¹. This external treatment modality can be defined as the procedure that induces perspiration and relieves stiffness, heaviness and coldness of the body². Based on the use of heat, for inducing *swedana*, it is broadly classified into two, *Agneya swedana* and *Anagneya swedana*³. *Pinda Sweda* is one of the most popular methods of *swedana*. *Pinda* or *pottali* denotes bolus or bundle. "*Pinda roopa sweda* is called *pinda sweda*". The fomentation done with the prescribed drugs made into *pottali* or *pinda* can be considered as *pinda sweda*. "*Sankara iti pindakya sweda*" *pinda sweda* is a synonym of *sankara sweda*⁴, which is one among the thirteen *sagni sweda* procedures described by *Charaka Samhita*⁵. *Acharya Vagbhata* in *Ashtanga sangraha* and *Acharya Sushruta* categorizes *pinda sweda* under *ushma sweda*^{6,7}

Pinda sweda is one among the five most important procedures of *Keraleeya special kriyas* (treatment procedures). The five supreme *keraleeya ayurveda* treatment procedures are *murdhaseka*, *kayaseka*, *pinda sweda*, *annalepa* and *sirolepa*⁸. In *Pinda sweda*, the fomentation is carried out by the application of heated *pinda* over the body with gentle massage. It is based on the principle of *sankara sweda*. Various methods of *pinda sweda* are popular in Kerala, which are commonly known by the name '*kizhi*'. *Pinda sweda* can

be performed as *ruksha* or *snigdha* according to the *ama* or *nirama* status of *dosha* or *roga*. Different types of 'kizhis' are developed according to the availability of *dravyas* in a particular geographical area and also according to the properties and action of various *dravyas* in a particular *vyadhyavastha*. Innumerable varieties of *pinda sweda* are possible considering the permutations and combinations of different modes and materials used for it. Physicians select the mode and material of *pinda sweda* as per the *doshavastha*, *rogavasta*, *samprapthi*, *sthana* and *lakshana*. Various methods of applications of *pinda sweda* can be seen in the classics and their modified version in the books of *Keraleeya* traditional *vaidyas*. In Kerala commonly practised *pinda swedas* are *Shashtikashali pindasweda*, *Patrapotala sweda*, *Churna pindasweda*, *Valuka pindasweda*, *Tusha pindasweda*, *Jambeera pindasweda*, *Mamsa pindasweda*, *Kukkutanda pindasweda*, *Dhanya pindasweda* and *Kadikizhi*.

Dhanyamla nimanjjitha pinda sweda (*Kadikizhi*) that comes under *pinda sweda* has got variety of applications and is most popularly used among the *Ayurveda* physicians of Kerala. *Kadikizhi* is done by dipping the *pinda* (*pottali*) made out of suitable medicaments in heated *dhanyamla* and applying it to the body of the patient. In this, the *swedana* occurs due to the transfer of heat from heated *pinda*, heated *dhanyamla* and also through steam generated from *dhanyamla*. *Acharya vagbhata* has also explained the *nimanjana* of *pottali* in heated *drava dravyas* like *amla dravya* for producing *bhaspa* in *sweda adhyaya* of *sutrasthana*.

KADIKIZHI IN CLASSICS

In *Ashtanga Sangraha*, *swedavidhi adhyaya*, while explaining the methods of *pinda sweda*, *Acharya Vagbhata* mentions the preparation of *pottali* with *pamsu*, *sikatha*, *gavaadi sakrut* (animal dung), *dhanya*, *busa*, *pulaka* or *palala* boiled in *amla dravyas* and covered with wet woollen cloth for doing *swedana* in *vataroga*⁹. Further dipping and reheating of the *pottali* in *amla dravya* is not mentioned in this context. In the commentary of *Swedavidhi Adhyaya* of *Ashtanga Hridaya*, *Hemadri* has quoted the above said *pinda sweda* told by *Ashtanga Samgraha*¹⁰. In *Asthang Hridaya*, *arbuda chikitsa Acharya* has mentioned about the application of *sweda* using *Ajasakrut*, *Sigrumula*, *Laksha* and *Surasa* tied in cloth and heated in *Kanjika*¹¹. *Acharya Hemadri* has quoted from *Siddha Yoga Sangraha*, written by *Vangasena*, the effect of *kanjika siktha valuka pinda sweda* in *jwara chikitsa*, which alleviates *vatakapha amaya*, *masthaka sula* and *angabhanga*¹². *Valuka sweda* is mentioned in *Bhavaprakasa Nighantu*, *Jwara Chikitsa*, where *valuka* is heated in a pan and packed tightly in a cloth

and dipped in fermented diluted gruel (*dhanyamla*)¹³. In *Bhava Prakasha Nighantu Suladhikara*, *karpasa bheeja*, *kulatha*, *tila*, *yava*, *eranda moola* and *varshabhu* all together or each one separately can be boiled in *kanjika* (*dhanyamla*) and the heated *pottali* can be applied to relieve painⁱⁿ *koorpara*, *udara*, *siras* and *spik*¹⁴. This produces hot, moist vapours that cure diseases of *vata* and *kapha*, colic, muscle cramps and tremors. *BhavaPrakasha Nighantu*, *Suladhikara* has also been quoted in *Bhaishajya Ratnavali*, *Amavata Chikitsa Prakaranam*¹⁵ and *Sularoga Chikitsa Prakaranam*¹⁶. From these references, *Dhanyamla nimanjjitha pinda sweda* can be concised as a treatment to alleviate *vatakapha roga*, *amavata*, *sula*, *vatakapha jwara*, and *angamarda*.

PREPARATION OF MEDICINE AND PROCEDURE OF DHANYAMLA NIMANJJITHA CHURNA PINDA SWEDA (KADIKIZHI)

Materials and Equipment required

Dhanyamla – 3.5 litres /day

Churna for making *pottali* - 1kg/day

Cotton cloth – 4 square pieces (45*45cm)

Cotton thread – 1 metre*4

Vessel for heating *dhanyamla* – 1

Spatula for mixing *churna* in *dhanyamla*-1

Stove for heating

Towel/ coconut palm leaves – for wiping the body after the procedure

Suitable *churna*/ oil for *Talam*

Preparation of *pottali*

1 kilogram of *oushadha churna* is cooked in 1.5 litres of *Dhanyamla* on low flame to make a thick paste. The cooked *churna* is divided into 4 equal parts and placed on 4 pieces of cotton cloths. Hold the 4 corners of cloth upward, then fold three corners together and cover this with the fourth corner. Then take a thick cotton thread, one end of the thread is held tightly with left hand along with the stump of *pottali* and the other end is tightly circled around the stump in spiralling turns with right hand. Then tie the both ends of thread tightly. In short, the *pottalis* should be tied in such a way that 4 ends of cloth should appear as a tuft at the top of the *pottali*. This helps to hold the *pottali* easily. Conventionally, the size of a *pottali* should be equal to the size of half kernel of a moderate coconut.



Figure – 1 - Churna for making pottali is cooked in Dhanyamla



Figure -2- Cooked churna is placed on the cotton cloth



Figure – 3 - Cooked churna is made into pottali/pinda

Purva karma

The patient should be seated with leg extended over the *droni*. *Talam* should be applied over bregma with suitable medicines . 2 litres of *dhanyamla* are used for dipping and heating the *pottalis*. Out of 4 *pottalis*, 2 are placed in 2 litres of *dhanyamla* , which should be kept over the stove with moderate heat.



Figure – 4 - Pottali is dipped in heated Dhanyamla

Pradhana karma

Two warm *pottalis* should be gently applied in a synchronised manner by the two therapists on two sides of *droni*. The *pottalis* should be applied over the body from proximal to distal part with mild to moderate pressure in uniform linear motion. Follow a circular pattern of application of *pottali* over the chest, abdomen and joints. The therapist must ensure that the temperature of the *pottali* is bearable to the patient by touching them over the dorsum of their hand. The temperature of the *pottali* should be maintained throughout the procedure by continuous relay of the four *pottalis* after reheating by dipping in heated *dhanyamla*. The process should be continued till all the contents of the *pottalis* are emptied or till the patient attains proper perspiration. Typically, these effects are achieved within a duration of 30 to 45 minutes. This procedure is done at seven body positions –sitting, supine, right lateral, supine, left lateral, supine and sitting. Preferable temperature for doing *kadikizhi* is between 40-45°C.

In sitting posture, the warm *pottalis* should be first applied over the body starting from neck to supraspinatus area, shoulders and then down to the hands up to fingers on both sides. Then from neck downwards till lower back. Over chest region and abdomen, the *pottali* should be applied in a circular pattern. Then from hip region and move towards the toes on both sides.

In supine position the warm *pottalis* should be applied over neck downwards towards the shoulder region up to the hands on both sides. Then chest and abdomen are massaged in circular manner. Lastly from hip region towards toes on both sides. Joints should be massaged circularly and muscles linearly.

In left lateral position - The left hand should be kept flexed beneath the head and right arm should rest over the right lateral side of the body. Massage should be done along the right shoulder towards right hand, from upper back region towards buttocks and posterior aspect of lower limbs till foot.

In Right Lateral position - The right hand should be kept flexed beneath the head and left arm should rest over the left lateral side of the body. Massage should be done along the left shoulder towards left hand, from upper back region towards buttocks and posterior aspect of lower limbs till foot.

Prone position can also be adopted in case of low back ache. Mild spinal massage should be given. Avoid prone position in patients with chronic diseases of lungs, heart, GIT and in obese. In prone position massage should be done from posterior aspect of neck towards upper and lower back, buttocks, lower limbs till toes on both sides.



Figure – 5 - Massage with heated *pottali*

Paschat karma

The medicine remained on the body is wiped off with coconut leaves/ towel. After the procedure *Talam* is removed and *Rasnadi churna* is applied over the head. The patient is advised to take rest for at least half an hour and take hot water bath.

PRECAUTIONS

Kadikizhi requires special attention to maintain a uniform temperature throughout the procedure. The *pottali* should be heated quite often and during cold climate, care should be given to assure that the patient is not feeling cold. The contents of *pottali* oozing out of *kadikizhi* smears the body and is effective in maintaining a uniform temperature. Care is needed after the procedure to wipe out the residual medicines from the body and cover the body with thick cloth to prevent sudden drop of the temperature. The *pottali* should be changed daily. During *swedana* therapy the physician must keep a close watch on the duration of *swedana*, manifestations of *samyak*, *asamyak*, *atisweda* and *sweda vyapad lakshanas*. *Samyak lakshana*¹⁷(proper sudation) of *swedana* includes disappearance of cold, relief

from pain, stiffness and heaviness, imparts smoothness to the body, adequate sweating, and remission of the disease. In *Ayoga lakshana* (inadequate sudation) there will be less sweating, no relief from pain and cold. In *Atiyoga Lakshanas*¹⁸ (excessive/over sudation) there is aggravation of *pitta*, fainting, generalized fatigue, thirst, burning sensation, low or weak voice, and weakness of limbs. Complication due to over sudation can be managed by the administration of *madhura*, *seetha drava* and *snigdha ahara*, *seetha manda* with sugar and *srita seetha jala*. Avoid *lavana*, *katu*, *amla*, *ushna dravyas*. Stay in cold room and *Greeshma ritu charya* (diet and lifestyle guidelines in summer season) should be adopted¹⁹.

MODIFICATIONS

The *churna* used for making *pottali* in *kadikizhi* can be taken according to the *yukti* of the physician. For example, *Kolakulathadi churna* or *Kottamchukkadi churna* can be used in *vata roga* with *kapha anubandha* conditions. *Kadikizhi* can also be done by directly dipping the *pinda dravyas* in heated *dhanyamla* without cooking the *pottali* medicines first. In place of *oushadha churna*, *patrabhanga*, various *dhanya*, *kareesha* or *valuka* can be used. Suitable *Kashayas*, *Ksharodaka*, *Amla dravyas* like *Panchamla*, *Takra*, *Gomutra*, *Sukta* can also be used in place of *dhanyamla*. *Jambeera Pinda Sweda* and *Patra Potala Sweda* can be done as *Mukkikizhi* with *Dhanyamla* in *amanubandha* and *kaphanubandha* stages of musculoskeletal and neurological disorders.

REFERENCES OF MODIFIED KADIKIZHI FROM KERALEEYA AYURVEDIC TREATISES

- In *Chikitsa manjari*, *Sula roga*, *pottali* of *bhrishta tandula* dipped in *kanjika* added with *saindhava* was mentioned²⁰.
- In *Chikitsa Kauthukam*, an ayurvedic treatment treatise from Kerala, in the treatment of *Akshepaka*, administration of *pindasweda* with *kangu*, *shashtika*, *godhuma*, *kulatha*, *lasuna*, *sigru patra* and *eranda patra* dipped in heated *dhanyamla* has been mentioned²¹. This book has also mentioned about the application of *Kangupinda sweda* at the site of pain in *vatavyadhi*, dipped in *kanjika* or *ksheera* depending on the pathophysiology of the disease²².
- *Sukhasaadhakam*, an Ayurvedic book, also mentioned about the *kangushashtikaadi pinda sweda* in *akshepaka*²³. For heating *pinda sweda*, dipping in hot *dhanyamla*, milk, *kashaya* or *sneha dravya* can be used.

- In *Keraleeya chikitsa kramam*, an Ayurvedic textbook on treatment procedure describes the application of *dhanyapinda sweda*, with various grains (fried and powdered) tied in tufted bags and dipped in milk, *Kashaya*, *kanjika* or *taila* are used for sudation²⁴.
- Kerala's ancient ayurveda medical magazine named '*Dhanwanthari*', there is reference of dipping *pottali* in *dhanyamla* for *swedana*, in treatment of *Amavata*²⁵.
- '*Kizhikal*', a book on various *sweda* practices, the application of *Kareesha pinda sweda*²⁶ dipped in *dhanyamla* is mentioned in the treatment of *pakshaghata*, *apathanaka*, *amavata*, *kaphaja vatashonitha*
- *Churna pinda sweda* dipped in *Amritha kashayam*²⁷ and *dhanyamla* in *vatashonitha*, *amavata* and *sandhigata vata*. Use of *kulatha churna*²⁸ and *bhasma*²⁹ as *pinda sweda* dipped in *dhanyamla* in *sthoulya*. *Patrapotala sweda*³⁰ dipped in *dhanyamla* in *pakshaghata*, *katigraha* and *urusthambha* were also mentioned in this book.

Discussions

Sweda is described in classics as an operative, preoperative and postoperative procedure. It can be broadly classified into four types namely *Tapa*, *Upanaha*, *Ushma* and *Drava*. *Sweda* is ideally indicated in *vata kapha* conditions.

Pinda sweda is classified under *ushmasweda* by *Acharya Vagbhata* and *Acharya Susruta*. *Acharya Charaka* uses *pinda sweda* as a synonym of *sankara sweda*. *Ashtanga Samgraha* and *Acharya Dalhana* includes the *pinda/sankarasweda* under *ushma sweda*. According to *Acharya Susruta*, *ushma sweda* is having *kaphahara* property. According to *Charaka*, *sankara sweda* can be done as *snigdha* or *ruksha*. *Snigdha sweda* is indicated in *vata* predominant diseases and *ruksha sweda* in *kapha* predominant diseases. *Dalhana* has explained the use of *ruksha sweda* in the management of *amavastha*. For making the *snigdha* variety of *sankara sweda* substance like *tila*, *maasha*, *kulatha*, *amla dravya*, *gritha*, *taila*, *mamsa*, *odana*, *payasa*, *krisara* can be used. In *ruksha* variety of *sankara sweda*, animal dung, *thusha*, *yava*, *sikatha*, *paamsu*, *pashana*, *kareesha*, *aayasa* can be used. While considering the materials used for making *snigdha* and *ruksha* variants of *sankara sweda*, the *dhanyamla nimanjitha pinda sweda* can be prepared as *ruksha* by selecting the above said *ruksha dravyas* for making the *pinda*. The same can be made as *ruksha-snigdha* by selecting *tila*, *masha*, etc. As there is no *sneha dravyas* used during the preparation of *dhanyamla*

nimanjitha pinda sweda, *snigdha guna* will be less. If oil seeds or grains are used for preparing the *pottali*, *dhanyamla nimanjitha pinda sweda* will get some *snigdha guna* and become *ruksha-snigdha* in property. So *ruksha sankara sweda* is good for *kaphapradhana roga*, *amajanya roga*, *medoroga*, *amavata* etc and *ruksha-snigdha sankara sweda* for *vathakaphaja rogas*.

Kadikizhi, a type of *swedana* therapy, involves the use of herbal boluses or *pottalis* dipped in a heated fermented liquid called *dhanyamla* for administering moist heat to the body. Here the medium used is *dhanyamla*. *Dhanyamla* is a fermented liquid prepared by *sandhana kalpana* (fermentation process). It is a method in which acidic formulations are prepared by fermenting cereals, pulses and medicinal herbs. *Dhanyamla* has been indicated in eighty types of *vatavyadhis*. It has got *teekshna*, *ushna*, *laghu*, *vatakaphahara* property. Eventhough *dhanyamla* is *pittakrith* when used internally, it will not provoke *pitta* due to its *sparsa seethala* property when it is used externally. Additionally, the heating process facilitates the release of water-soluble active compounds from the herbs, enhancing their therapeutic effects. The medium or drugs regulate or modify the quantity and quality of heat transmitted. The contents of *pinda* oozes out during the procedure and creates a *lepana* effect on the body, which produces a combined effect of *swedana* and *lepana*. This coating can also influence the heat maintenance in the body during the procedure. The mode of application of *kadikizhi* is by kneading action so that the pressure effect exerted is comparatively less. The heat transfer in *kadikizhi* is through conduction and convection. In *kadikizhi* the moist heat generated penetrates the deeper tissues better than dry heat. This accelerates the process of perspiration and helps in the drainage of water-soluble waste materials from the deeper tissues. In the context of *avagaha sweda*, *Acharya Sarangadhara* explains about the passage of the *oushadha viryas* through the *siramukha*. Thus, the therapeutic properties of *swedana dravya* may penetrate into the body through diffusion. Some of the materials used for making *pinda* are inert substances such as *valuka*, *mritthika*, *gavaadi kareesha*, can be useful in alleviating *kapha* vitiation. Apart from these, *patra bhanga*, which are *vataghna* are also used for making *pinda*. *Swedana* with *jambeera pinda* in *dhanyamla* is mainly administered in *vata-kapha* predominant conditions. *Chinchalavana pinda* dipped in *dhanyamla* is *sadyasula nivarana* due to its *ushna*, *teekshna swabhava*. *Acharya Charaka* has mentioned about *tila*, *masha*, *kulatha*, *payasa*, *krisara* and *mamsa* for making *pinda* in case of *vata* related diseases. Hence *kadikizhi* becomes innumerable based on the *dravyas* used.

Different materials are finely incorporated to satisfy the condition according to the *doshavastha*. A physician can select the appropriate materials and design the method of *swedana*, applying the logical reasoning to ensure the effectiveness.

Being an *agneya sweda*, *dhanyamla nimanjjitha pinda sweda* possess more *ushna* and *tikshna* property and thus more *kaphaghna* in nature. So *dhanyamla nimanjjitha choorna pinda sweda* can be administered in *kaphaja rogas*, *vatakaphaja rogas* with predominance of *kapha* and in *amanubandha* conditions.

Another similar procedure is the application of *swedana* by using steam (*bhashpa*) for heating the *kizhi* (*churna pinda / patra pinda*). It is called *aavi kizhi* which can be done locally or whole body. *Dhanyamla* or *Kashaya* or even plain water is used for harvesting the steam needed for heating the *kizhi* for administration on the body. Both *aavikkizhi* and *mukkikizhi* are two forms of moist heat. Moist heat or vapour will be more specific than dry heat for *kapha* with the background of *vata*. In *aavikkizhi* the liquid medium is taken in a wide mouthed vessel and cotton cloth is tied over the mouth of the vessel. *Pottalis* are placed on top of the cotton cloth and the vessel is closed with a lid. When the liquid boils, the steam generated will get transferred to the *pottalis* which are used for *swedana karma*. The *pottalis* are rhythmically tapped over the body in sequence. Same *pottalis* can be used up to seven days. *Aavikkizhi* can be used in conditions where more *rukshana* is required and is done in acute pain and *amayukta vatavikara* to relieve *pain* and inflammation. The heat from the steam facilitates the release of volatile compounds from the herbs, enhancing their therapeutic qualities.

Swedana is classified into *Sodhananga* (as a *purvakarma* of *Sodhana*) and *Samananga* (for pacifying the symptoms). *Kadikizhi* comes under *Samsamaneeya sweda*. According to *Dalhana ruksha* type of *samsamaneeya sweda* should be administered in *saama roga*. Benefits of performing *ruksha sweda* in *amavastha* are *agni deepthi*, softness of body, brightness of skin, *srothoshuddhi*, desire to have food, relieves lethargy and improve the movements of stiff joints.

Thus, it is concluded that *Dhanyamla nimanjjitha pinda sweda*, a form of *ruksha sweda* is administered locally or whole body in diseases where there is *kaphanubandha*. This is extensively used in clinical practices for effectively treating *vata* disorders having an association of morbid *kapha* or *ama*, *vatakaphaja rogas*, *amavata*, *sula*, *vatakapha jwara*, *sandhigata vatavikara* (*greeva*, *skanda*, *gulpha* etc), *angamarda* and inflammatory conditions.

Conclusion

Dhanyamla nimanjjitha pinda sweda/ Kadikizhi is a modified form of *pinda sweda* widely used in practice in Kerala. Most commonly *churna pinda/pottali* is used for dipping in *dhanyamla*. According to the *dosha* predominance, modified forms of *kadikizhi* with *dhanya*, *patra*, *prithuka*, *kareesha* or *valuka pinda* dipped in *dhanyamla* has also been used in practice. Further researches are needed on this subject to precisely delineate the indications and distinct applications of each variant of *Dhanyamla nimanjjitha pinda sweda*, aiming to enhance its widespread practice.

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