



AN INSIGHT TO PADAGHATA – A CRITICAL REVIEW

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ABSTRACT

The Ayurvedic system of medicine to prevent and promote healthy life by following certain methods and treatments in daily activities (*Dinacharya*) can be considered as part of health promotion in this fast-moving digital age. *Padaghata* is one such consequential procedure explained as a daily regimen that includes both preventive and curative aspects of an individual's health. Ayurveda has meticulously depicted the technique of *Padaghata* and its various benefits. This procedure helps to maintain the compactness of the body with good musculature, provides relaxation, and most importantly plays a great role in *Marma paripaalana* i.e., nurturing vitals. **Discussion:** *Sneha Dravyas* used in the *Padaghata* procedure undergo *Paachana* by *Bhrajaka agni* which is situated in *Tvak (Aashrayasthana)*. *Bhrajaka Pitta* in its equilibrium state maintains the colour and complexion of the skin. This procedure of deep tissue massage helps in removal of lymphatic and metabolic wastes as both lymphatic and vascular tissues run superficially under the skin eventually nourishing the associated other body tissues. **Conclusion:** *Padaghata* is beneficial in keeping psycho-physical harmony in balance. Mainly in regard to maintaining a

fit muscular body. The present study deals with a review of various aspects of *Padaghata* in the classics of Ayurveda and contemporary practices.

Keywords: *Dinacharya, Padaghata, Mardana-Unmardana, Podiatric petrissage.*

INTRODUCTION

The term *Paada* means foot or feet and *Aghata* means to press or to exert pressure. *Padaghata* is one among the *Bahya snehana* which relates to *Abhyanga* with a difference in the mode of exerting pressure. *Padbhyaam unmardanam*¹ or *Paadena vimardana*² or *Paadabhyam mardanam*³ are some of the classical references for *Padaghata* which means exerting pressure full strokes through and against the hair follicles by foot.

Exercising only after proper anointing therapy will make the muscles stronger and more resilient to stress. When massaging with the feet the pressure and gliding motion is often increased with more power.

Ashiatsu⁴ (Deep Feet Bar Therapy) is a Japanese therapy where "Ashi" means foot, and "Atsu" means pressure. Here the therapist applies deep, broad, steady pressure on the patient with their feet and body weight. Fijian massage, Oriental bar therapy, and Rossiter massage in the Philippines, and the US are some of the other widely practiced feet bar therapy methods across the world with some differences in support and body balance techniques such as ropes or cable suspension, mounting of single or multiple bars or bamboo from the ceiling or walls and even by sitting on a chair.

The therapy which causes unctuousness, fluidity, softness, and moistness in the body is *Snehana* or Oleation therapy⁵. Drugs possessing qualities like *Drava* (liquid), *Suksma* (Subtle), *Sara* (fluid), *Snigdha* (unctuous), *Picchila* (Slimy), *Guru* (heavy), *Sheeta* (cold), *Manda* (sluggish), *Mrudu* (soft) are capable of performing the action of *Snehana*⁶. *Snehana* can be used externally as well as internally. Internal administration of *Snehana* is done as the primary procedure for *Panchakarma* as well as for *Shamana*⁷(Pacification). External use of *Snehana* is done in the form of *Abhyanga, Padaghata, Mardana, Murdha taila, Lepa, Kriya kalpas, and Karna pura-*

na, etc., Primary function of *Paada* is for locomotion, and it bears weight, balances the entire body generally. but here it is used as a tool in performing a procedure.

HISTORICAL REVIEW:

*Kalaripayattu*⁸(*Kalari*) is an Indian martial art that originated in modern-day Kerala, a state on the southwestern coast of India. As a result of learning about the human body, Indian martial artists became knowledgeable in the fields of traditional medicine and massage. *Kalaripayattu* teachers often provide massages (*Chavitti uzichil*) that is *Padaghata* with medicinal oils to their students in order to increase their physical flexibility or to treat muscular injuries. One of the major factors that set *Kathakali*⁹ apart from other classical dance and theatre forms of India is the longevity of the artistic life of its performers. *Kathakali* artists, who perform physically demanding roles at the age of 70 or 80 quite casually, credit their strength to the rigorous physical training they undergo as students, particularly, the traditional oil massage or *uzichil (Padaghata)* they are given in the *Kalari*.

The tough training regimen, adapted from Kerala's martial art form, *Kalaripayattu*, is meant to achieve *meyyurappu*, a catch-all phrase that means flexibility, balance, control, and strength. The idea is to prepare the body to suit *Kathakali*'s movements. Yet another factor peculiar to *Kathakali* is the heavy costume weighing up to 12 kg, with the *Kireedam* or the crown alone weighing between 2.5 kg to 3.5 kg, depending on the character. And then there are the 64 tight knots, from calf to forehead, that secure the various accessories.

Vatsyayana muni in his famous work *Kamasutra*¹⁰ mentions the Aphrodisiac effect of different massage techniques while explaining complementary arts,

practicing magic and sorcery, and the means expounded by *Kuchumara* to augment the beauty and sexual power and enhancing the effect of medicinal herbs and intoxicants with aphrodisiacal and stimulatory qualities; practicing the ancient art of body massage with hands and feet, and refreshing baths with rare and valuable essential oils.

CONCEPTUAL STUDY OF PADAGHATA:

As mentioned earlier, *Padaghata* (pedes petrissage) can be defined as an *Ayurvedic* procedure where the therapist uses his feet to rhythmically massage the body in specific directions after *Abhyanga* (anointing the body) and *Vyayama* (exercise).

According to *Acharya Charaka Padaghata* is *Padbhyaam unmardanam* where he also mentions about *Atisevana* i.e., over performance of *Padaghata* leads to the *Shosha*¹ which means emaciation of tissues.

Vagbhataacharya placed a strong focus on performing *Padaghata* within the framework of *Hemanta*² and *Shishira rutucharya* (Early winter and winter Season-wise regimens) where he explains about performing *Padaghata* after doing *Vataghna taila abhyanga* and *Murdhni taila vimardana*. Here we can

notice the increase in pressure with the sequence of procedures as with comparison to *mardana*, the pressure that the masseur applies to the patient's body during *Padaghata* is greater and deeper. According to *Ashtanga Sangraha*, *Unmardana* is one among the treatment modalities (*Upakrama*) of *vata dosha* which is the main action in *padaghata*.

Acharya Sushruta includes *Abhyanga* as an element of the *Dinacharya* (Daily regimen). *Padaghata* should be done after *Abhyanga* and *Vyayama* (*Niragni sveda*) just when the person begins to perspire. This can develop an exceptional immunity that helps in preventing diseases just how a lion scares away a Deer¹¹. It is recommended to perform *Padaghata* followed by *Abhyanga* compulsorily. *Abhyanga* and *Padaghata* are a great blend for preventing and treating several diseases. The duration of *Padaghata* could be understood through the duration explained for *Abhyanga* i.e., the time taken by *Sneha* to reach different *Dhatu*s¹²(as shown in Table no-1).

In *Kaiyadeva nighantu* under *Vyayama adhikarana* of *Vihara Varga*, he explained *Padaghata* in the context of different modalities of *Vyayama*.

Table number 1 shows *Abhyanga matra kala* concerning *Dhatu*.

S. N	<i>Dhatu</i> (Tissue)	<i>Matra</i> (Time)	
		<i>Matra kala</i> (19/60)	In Seconds
1.	<i>Romanta</i> (Hair follicle)	300	95
2.	<i>Tvak</i> (Skin)	400	127
3.	<i>Rakta</i> (Connective tissue)	500	159
4.	<i>Mamsa</i> (Muscular tissue)	600	190
5.	<i>Meda</i> (Adipose tissue)	700	220
6.	<i>Asthi</i> (Bony tissue)	800	254
7.	<i>Majja</i> (Nervous tissue)	900	285

MATERIALS AND METHODS: The procedure of *Padaghata* is divided into three main stages (*Purva Karma - Pradhana karma - Paschat karma*) As the standard procedure of *Padaghata* is insignificant. A sincere attempt is made to explore the SOP of the *Padaghata* procedure.

A. *Purva Karma* (Pre - therapeutic strategies):

- i. ***Sambhara sangraha* (Materials):** Strong rope-01, *Padaghata droni* / Woven bamboo mat (7ft × 6ft),

Tiny cushion, Supple towel, Wide-mouthed vessel, Medicated oil, No of Masseurs: 01(Moderate built).

- ii. **Preparation by the Therapist:** Corresponding to the center of the *Droni*, the rope should be tied to the ceiling long enough to match the therapist's height and there should be a comfortable grip to hold on at the end concerning posture, The clothing worn by the therapist should be till knee

height. Place tiny cushions at the head to support the major joints of the patient.

iii. **Preparation of the Patient:**

- a) **Shareerika:** *Astha-vidha pareeksha* should be done. A patient must be on an empty stomach as well as bowels and bladder are cleared, *Vimardana* (pressurized massage) followed by *Sarvanga abhyanga* is performed strictly using sufficient oil. Educate the patient regarding the procedure and take consent.
- b) **Manasika:** Morning hours are ideal for the therapy, The patient should perform *Mangalakara karma* (Chanting, Praying, and worshipping as stated in the classics) to enhance the procedure’s impact and psychosomatic harmony.

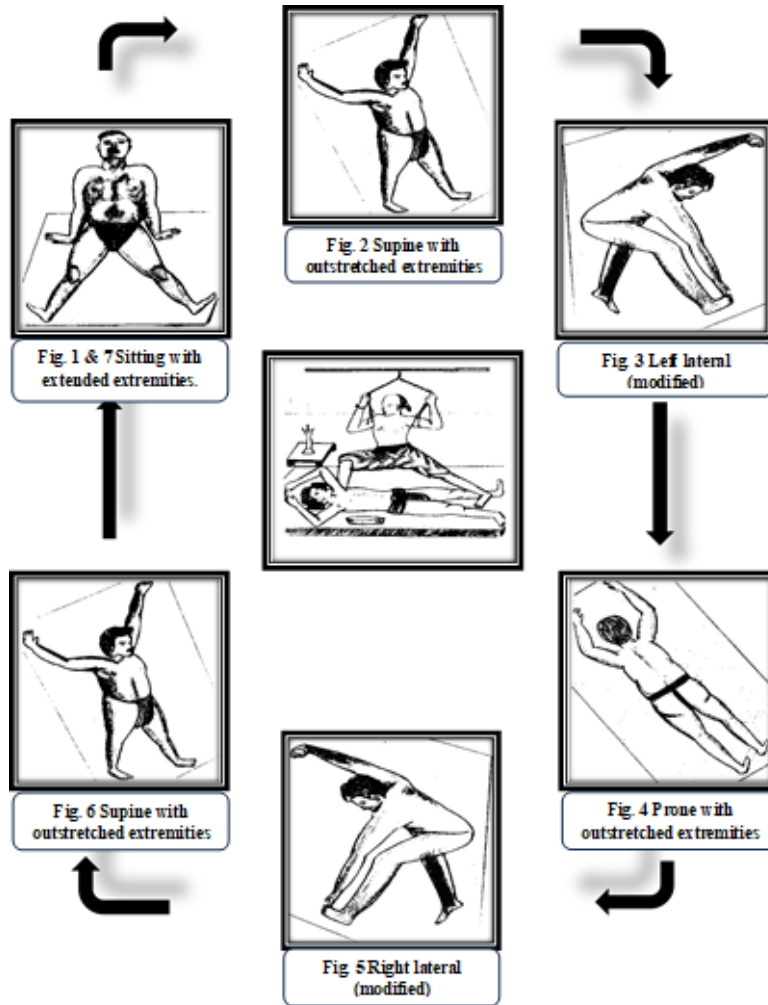
B. Pradhana Karma (Procedural strategies): For *Padaghata*, the patient must be advised to undress

to a comfortable extent. Ask the patient to sit with extended extremities (Fig.1&7) on the *Padaghata droni*, there must be at least a 5-minute massage in all 7 postures (as shown in Table no-2) and a maximum of up to 1 *muhurta* (48 min) of total procedure can be performed. Barefoot massage should be majorly done in all extremities and back. Massage the lateral area of the cervical, Hip, Knee, and Ankle joints using the medial part of both heels of the masseur gently. Put the least pressure over the chest and abdomen and avoid the area above the cervical region. The pressure might be light, moderate, or deep depending on the location where the *Padaghata* is being performed. Linear massage is performed on extremities and trunk, whereas circular massage is performed at joints (as shown in Fig. 1-7).

Table number-2 Modified massage postures of Padaghata.

Figure No	Modified massage postures of Padaghata
01.	Sitting with extended extremities
02.	Supine with outstretched extremities
03.	Left lateral (modified)
04.	Prone with outstretched extremities
05.	Right lateral (modified)
06.	Supine with outstretched extremities
07.	Sitting with extended extremities

Figurative explanation of Padaghata procedure is given below (Fig. 1-7)



While performing *Padaghata*, *Paada tala gati* i.e., the masseur's feet must glide medially downwards and laterally upwards along the length of the limb. Despite having already given the patient an oil massage on the full body, the masseur should dip his feet into a vessel of lukewarm oil and glide feet over the patient's body. Maintaining balance and exerting constant pressure is essential for the success of *Padaghata*. Massage should be performed with only one leg at a time and with that only diagonal and linear massage should be performed, the other leg should be in the *droni*.

C. Paschat Karma (Post-procedural strategies):

After *Padaghata* wipe the patient's body with a supple towel by dipping it in warm water, Ask the patient to lie/sit comfortably for 1 *Ghatika* (24

min) then advise to take *Ushna jala snana* (hot water bath). Observe the patient's vitals once, *Vatanulomaka dravyas* can be advised after the bath as there could be *Doshavilayana* due to the combined effect of the procedure.

❖ **Precautions:**

- ✓ Inquire with the patient about a history of Vibratory urticaria (allergy towards friction and stretching).
- ✓ The treatment should be performed by skilled masseurs. One of the most difficult treatments to do since it requires accurate synchronization and the capacity to regulate pressure at different points (*Marma sthaana*).
- ✓ Callus cracks and fissures should not be present on the masseuse's foot.

- ✓ Masseur should be free from any of the dermal, neurological, articular, or viral problems.
- ✓ The feet must be thoroughly washed and dried, and he should trim his nails properly before the therapy.
- ✓ The masseur shouldn't be overweight or malnourished and he should be of a decent physical state (Moderate build).

❖ **Indications:**

- *Hemanta, Shishira* and *Vasanta Rutu*
- After exercises in *Baahu yuddha* (wrestling) and Archery.
- *Sthoulya* (Obesity) *Kapha* and *Medaja vikara*
- Well-built, healthy individual (Most effective in building a muscular body)
- Recommended for Athletes and Sportspeople

❖ **Contraindications:**

- Uncontrolled DM and Hypertension
- Severe Varicosity of veins and DVT
- Dislocations and Fractures
- Severe dermatological and psychological issues
- Any systemic disorders which interfere with the procedure and chronic history of the disease.

❖ **Mode of Action:**

The effect of *Padaghata* has a broader scope of action, based on the *taila* and a wide range of strokes adopted in the procedure. *Vayu* as a *mahabhuta* and *dosha* occupies a significant place in *tvak* i.e., *sparshanendriya* which is capable of perceiving different types of sensations. *Tvak Bhrajana* i.e., skin coloration is taken care of by *Bhrajaka pitta*.

Acharya Sushruta explains that the *Tiryakgata dhamani*¹³ which divides into numerous branches covers the entire body like a complex network, and their openings are attached to the *Roma Koopa*. After *Abhyanga* and *Svedana*, the *Veerya* of the *taila* enters the body through these *Roma Kupas* and gets digested by *Bhrajaka agni*. This is how the systemic absorption of drugs applied to the skin produces an effect; in essence, the *Veerya* of the drug used in *Padaghata* enhances the effect after being absorbed in the skin.

During and after massage therapy, amino acids like tryptophan may increase in the blood, which may

lead to an increase in the production of the neurotransmitter serotonin, which is made from tryptophan at the motor end plates. This enhances the intracellular, inter-cellular & Trans-appendageal absorption. Massage may also cause increased acetylcholine production due to the action potential generated by the massage due to friction and pressure that are inserted during the massage. The myelinated nerve fiber sheaths are chiefly made up of lipids. This action potential, with the association of serotonin, is responsible for the pleasant and calming effect during massage¹⁴.

DISCUSSION

Based on the route of administration, *chikitsa*¹⁵ can be classified into *Antah parimarjana* (internal administration), *Bahir parimarjana* (external measures), and *Shastrapranidhana* (surgical intervention). *Bahir parimarjana chikitsa* like *Abhyanga* and *Svedana* mainly involves the dermal route of measures in treating the diseases.

Skin (*Sparshanendriya*) as a Sensory organ possesses major attributes namely, *Vayu* as *Indriya Dravya* (basic element), *Tvak* as *Indriya adhishtana* (sensory location), *Sparsha* as *Indriya Artha* (Sensory objects) and *Sparshana buddhi* as *Indriya buddhi*¹⁶ (sensory knowledge) i.e., tactile sensation. The best medicine to pacify *Vata* is *Taila*¹⁷ as they are antagonistic to each other. *Guru* (heavy) *Snigdha* (unctuous) and *Ushna* (hot) qualities of *taila* pacify *Laghu* (Light), *Ruksha* (dry), and *Sheeta* (cold) *gunas* of *Vata dosha* (Bio-humor) respectively, and helps to increase *Bala*, *Varna*, *Agni*, and gives *Pushti*¹⁸. Also, *Padaghata* with aromatic oils can enhance the therapeutic effect. As *Srotomula* of *Mamsadhatu*¹⁹ is *Snaayu* and *Romakupa*, *Padaghata* can be an eventual treatment protocol to stabilize and strengthen the muscle tissues mainly in *Mamsa* and *Medovaha vikara* (muscular and adipose tissue) which is a major concern in today's medical field.

The dimensions of the *Padaghata droni* (Table without legs) are not mentioned anywhere in the classics, but based on the patient's convenience and comfort, the optimal dimensions are 7 feet by 6 feet for out-

stretched extremities. The masseurs for the whole procedure can be limited to 2 people. Although there are seven postures (modified) for massage, *Padaghata* with supine and prone postures are most frequently practiced.

An increase in metabolic activity and stimulation of neural receptors is achieved through *Padaghata* initially by *Abhyanga* and *Vyayama* in *Purvakarma* and *Mardana*, *Unmardana* together in *Pradhana karma* as these increase temperature and perspiration with different strokes from the heel, Plantar arch, and lateral border of the feet that invigorate the individual which in turn causes vasodilation that helps in eliminating metabolic wastes at the local site relieving pain, stiffness, heaviness, and coldness. This *Bahya snehana*²⁰ does *Sroto-Mukha Vishodhana* because the *Leena dosha* is liquefied and expelled through the pores of the sweat glands. It can also cause a reflex dilation of arterioles by stimulating superficial nerve endings²¹ and an anti-inflammatory effect on the local site by clearing the inflammatory mediators²².

The stratum corneum is the initial barrier to drug absorption of exogenous substances through the skin. The absorption rate is directly proportional to the drug concentration, partition coefficient, diffusion coefficient, and thickness of the stratum corneum. The dilatation of this pore size is greater than other *Bahya snehana* measures by pressure. Certain physiological factors also contribute to percutaneous absorption, including hydration, occlusion, age, intact versus ruptured skin, temperature, and the local site. Absorption generally depends on the lipid solubility of the drug, since the epidermis acts as a lipid barrier. The dermis, however, is permeable to many solutes. Hence, suspending the drug in an oily vehicle or base can enhance absorption through the skin. This is because hydrated skin is more permeable than dry skin. Therefore, the application of medicaments, heat, and pressurized massage aids in eliminating the number of unhealthy elements in the skin.

CONCLUSION

Padaghata can be called pedes or podiatric petrissage is one of the *Upakarma* under the *Panchakarma* pro-

cedures. It can be a boon for strenuous workers that helps maintain a state of well-being in relation to body and mind. *Padaghata* is a superefficient and unique protocol that can subside many musculoskeletal and neurological conditions with a well-trained masseur team and a skilled *Vaidya* or a Master. One can certainly follow this as a seasonal regimen and clinically this procedure can be used at both OPD and IPD levels, depending on the nature of the disease and patient compliance.

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