

## CLINICAL EFFICACY OF ABHYANGA - A CONCEPTUAL STUDY

Bhagyashree<sup>1</sup>, Misriya K H<sup>2</sup>, Ananta S Desai<sup>3</sup>, Shaila Borannavar<sup>4</sup>

1. PG Scholar, Department of Panchakarma, Government Ayurveda Medical College Bengaluru- 560009
2. PG Scholar, Department of Panchakarma, Government Ayurveda Medical College Bengaluru- 560009
3. HOD and Professor, Department of Panchakarma, Government Ayurveda Medical College Bengaluru- 560009
4. Professor, Department of Panchakarma, Government Ayurveda Medical College Bengaluru- 560009

Corresponding Author: [shreebhagyabhat13@gmail.com](mailto:shreebhagyabhat13@gmail.com)<https://doi.org/10.46607/iamj1711122023>

(Published Online: December 2023)

## Open Access

© International Ayurvedic Medical Journal, India 2023

Article Received: 13/11/2023 - Peer Reviewed: 30/11/2023 - Accepted for Publication: 13/12/2023.



## ABSTRACT

In *Ayurveda*, *Abhyanga* comes under the type of therapy called *Snehana*. It involves the application of oil with specific motions from the head to the toe with *Dosha*-specific, warm herb-infused oil. The oil is commonly pre-mixed with herbs for specific conditions. It offers a range of benefits for the mind and body. It nourishes the body, prevents invasion by pacifying *Vatadosha*, and promotes strength in the body. *Abhyanga* can be done as a step of *Panchakarma* therapy as *Poorvakarma* (Pre-treatment) or *Pradhana karma* (main therapy). *Ayurveda* explains that herbal oil contains oil and water-soluble medicinal principles. These medicinal principles enter through the skin pores, become available for absorption at the end part of blood vessels called *Srotas*, and get absorbed into the blood, reach the target area, and exhibit their action. Hence our *Acharya* described *Abhyanga* in a very scientific, elaborate manner with definitions to timing, and duration of *Abhyanga*, indications and contraindications, and its effect on the body. *Abhyanga* with oil on a daily basis is not only beneficial to the skin but beneficial to the body. Hence, this study intends to discuss the details of *Abhyanga* from *Ayurveda* and modern points of view.

**Keywords:** *Ayurveda*, *Abhyanga*, Mode of action, *Taila*

## INTRODUCTION

*Abhyanga* is a part of *Dinacharya* (Daily practices) specified by *Brihatrayi*, *Laghutrayi*, and series of *Ayurvedic* textbooks to maintain good health and well-being. It can be done as a part of the *Panchakarma* therapy, especially in *Poorvakarma*, or as main therapy (*Pradhana karma*). *Abhyanga* is the term for lovingly oiling the body. In a literal sense, *Sneha* - Sanskrit word means oil and /or 'LOVE' oneself. Application of oil over the skin followed by massage in specific directions is well known by the name *Abhyanga* in *Ayurveda*. This being a *Bahirparimarjana Chikitsa* (External treatment modalities) plays a vital role in improving the quality of life and fulfilling the basic motto of *Ayurveda*. Practicing *Abhyanga* regularly provides a profound feeling of stability, strength, and well-being. According to Classical scriptures, it is intended to open the minor *Srotas*, remove *Mala* (toxins) through the skin, and moisturizes the skin. In the present era life is running very fast, and to cope with its ups and downs man has to run faster than his capacity. Daily balancing for this, a good physical state requires not only maximum performance but also a more prosperous emotional life, which can be achieved with *Abhyanga*. *Acharya Vagbhata* specifies that usage of *Sneha* helps in the *Poshana* of *Ksheena Dhatu*, increases *Bala*, *Agni*, and increases *Ayu*.<sup>1</sup> It can be beneficial for maintaining health and used as medicine for specific disorders. It can be incorporated into a routine daily activity appropriate for almost everyone. One of the principal uses of *Abhyanga* is to pacify *Vata dosha*. Managing *Vata dosha* is a big part of maintaining balance in the body. The main qualities of *Vata* are *Chala* (mobile), *Rooksha* (dry), *Laghu* (light), and *Sheeta* (cold)<sup>2</sup>. *Sneha* is generally warming, unctuous, moistening, and lubricating. They have a very nourishing and nurturing quality that calms and relaxes *Vata*. Some oils like Coconut oil and *Griha* (ghee) can be more cooling and best for *Pitta Dosha*. Hence, practicing *Abhyanga* can be highly beneficial and enhances wellbeing and longevity.

### PARIBHASHA OF ABHYANGA:

*Abhi + Anj ghanj kutvam - Tailamardanam (Sh.kal.druma)*

The word meaning of *Abhyanga* or *Abhyanjana* is derived from *Abhi+Anjana*.

*Abhi*-towards, into, upon.

*Anjana*-to smear, to anoint.

It is a procedure where the application of medicated *Sneha* over the body surface along the direction of the hair follicle with specific manipulation for a stipulated period.

### INDICATION OF ABHYANGA:

#### 1. As *Poorva, Pradhana and Paschat Karma*

##### a) As *Poorva Karma*:

- All *Panchashodhana* need to be preceded by *Abhyanga*, as it helps bring vitiated *Doshas* from *Shakha* to *Kosta*.<sup>3</sup>
- *Abhyanga* should be done before performing *Swedana karma* in *Kevala vataja* condition.

##### b) As *Pradhana Karma*:

- *Abhyanga* is used as *Pradhana karma* as a part of *Dinacharya*. Regular practice of this helps to maintain physical fitness on a daily basis.
- Indicated in *Bala, Vrudda, Swastha, Ruksha dehi, Adh vayanavyayama klanta*.
- In *Ashiti vatavikara, Kevala vata involvement is there like Pakshaghata, Arditha, Sarvanga vata, Sandhigata vata*, etc.
- The condition of involvement of other *Doshas* where *Vata* is predominant.

##### c) As *Paschat Karma*:

- It can be performed after specific *Pinda Sweda* procedures like *Shastikashali pinda sweda, Patrapinda sweda, Nasya* etc to avoid the irritation caused by the procedure, like burning sensation itching.

2. *Abhyanga* is mentioned as a necessary *Dinacharya* procedure.

3. *Abhyanga as Vegadharana Chikitsa*<sup>4</sup>: *Vegas* such as *Mootra, Shakruth, Shukra, Adhovata, Vamatu, Kshut, Nidra* and *Shramashwasa* etc. if suppressed causes severe *Vataprakopa*, to overcome that *Abhyanga* is indicated.

4. *Abhyanga in Rutucharya*<sup>5</sup>: Even though *Abhyanga* is mentioned as *Dinacharya* in all the *Rutu*, it must be done to counteract the detrimental

effect of cold weather in *Hemanta and Shishira Ritu*.

5. **Abhyanga in different diseases:** *Abhyanga* is mainly acts as *Balya, Vatarakta prasadaka* hence used in certain *Twak dosha* like *Vyanga, Tilakalaka* etc.

It acts as *Vatashamaka, Ruja Shrama Nashaka*, used in various *Vatarogas* caused by *Gajaashwa patana, Dandamusti hatana*<sup>6</sup>. etc.

*Abhyanga* helps to reduce pain caused by *Dagdha, Bhagna, Kshata*, etc. Here, a milder form

of *Abhyanga* without any pressure needs to be done.

**CONTRAINDICATIONS OF ABHYANGA:**

***Varjyo abhyanga kaphagrastha krithasamshudhyajeernibhihi***<sup>8</sup>

It is contraindicated in *Kaphaja vikara*, soon after *Samshodana, Ajeerna* condition. Further, *Acharya Sushruta* mentions that *Abhyanga* should not be done in any of the *Sama* Conditions. It is contraindicated to perform the *Abhyanga* procedure in *Taruna jwara, Ajeerna* condition, *Santarpanotta vikara*, and soon after completing *Shodhanas*.<sup>9</sup>

Table No.01 Shows reasons for contraindications of *Abhyanga* according to *Sushruta Samhita*.

Contraindication	Reason
Samadosha	<i>Vyadhi Krichrata, Asadhyata</i>
Soon after <i>Vamana, Virechana, Niruha Basti</i>	
<i>Santarpana janya vikara</i>	

**OTHER CONDITIONS:**

Table no: 02 showing other contraindications of *Abhyanga*.

General Contraindication	Specific Contraindication
High Fever	Acute inflammation
Severe Renal or Cardiac diseases	Open wound
Generalised oedema	Atherosclerotic condition
Severe spasticity	Thrombosis
Internal haemorrhage or Acute abdomen	Recent fracture
Obese	Poisonous foci
Malignancy	Severe varicosity
	Soon after intake of food

**PROCEDURE OF ABHYANGA:**

- *Poorvakarma*
- *Pradhana karma*
- *Paschat karma*

**POORVAKARMA:**

- Examination of patient
- Collection of materials
- Preparation of patient

**EXAMINATION OF PATIENT:**

Patients should be examined before starting the procedure in terms of *Prakrati, Dosha, Dhatu* involvement, *Satmya, Satva, Bala, Vaya* etc factors.

**COLLECTION OF MATERIALS.**

Materials required:

- Oil – *Sarvanga Abhyanga* (whole body) – 100-150 ml, *Ekanga* – 50 ml,
- *Shiro Abhyanga* – 20ml
- Vessel for heating of oil – 2
- *Droni* (Massage table), either wooden table or fiber

- Cotton
- Masseurs- 4
- Attender -1

**PREPARATION OF PATIENT:**

- Before commencing *Abhyanga*, the patient should empty his /her bowel and bladder.
- Subjects should not be in a hunger state, and previously taken food should be completely digested.
- Subjects should be in a minimal dress.

**PRADHANA KARMA:**

- Initially, commence the procedure with *Shiroa-bhyanga*, and *Karnapurana* and then continue to the rest of the body.
- The oil at an optimum temperature should be applied to the head first in the Anterior fontanel and then to the whole scalp.
- Then the ear, palm, and feet should be done prior to the main procedure.
- Heated oil should be applied uniformly to the body by the 2-therapist standing on both sides of *Droni*. Then *abhyanga* should be done with minimal pressure in *Anulomana gati*.

- Subsequently, move down to the neck, upper back, shoulder, upper arm, forearm, chest abdomen, lower back, and lower limbs.
- The proper procedure of *Abhyanga* should be performed in seven positions i.e., Sitting, Supine, left lateral, Prone, right lateral, Supine, sitting position.
- *Abhyanga* to the joints should be in circular manner, and muscles in linear manner while over the abdomen and umbilical region it should be in circular i.e in clockwise direction.
- According to *Chikitsa Manjari* and *Chikitsa Sangraha* generally *Abhyanga* should be performed in *Anuloma Gati*. Also specified that specific direction of movement depending on *Pratilomagati* in *Kapha dushti* and alternate *Anuloma* and *Pratiloma gati* in *Pitta dosha*

**DURATION OF ABHYANGA:** Time taken by the *Veerya* of *Sneha* to reach up to *Majja dhatu* is 900 *Matrakala* (Approx. 5mins). For *Dinacharya* purpose *Abhyanga* can be done for 10-15 minutes. In disease conditions in each posture 5 minute. *Abhyanga* need to be done owing total duration of 45 minutes.

**TIME TAKEN BY SNEHA VEERYA TO REACH SPECIFIC DHATU.**

Table no: 03 showing time taken to Penetrate into each dhatu by *Veerya* of *Sneha Dravya*

<i>Dhatu</i>	<i>Matra kala</i>	Time in sec
<i>Romanta</i>	300	95
<i>Twak</i>	400	127
<i>Rakta</i>	500	159
<i>Mamsa</i>	600	190
<i>Meda</i>	700	220
<i>Asthi</i>	800	254
<i>Majja</i>	900	285

**PASCHAT KARMA:**

Generally, *Ushnajala snana* (Hot water bath) is indicated as part of *Paschat karma*. If the subject is indicated for *Swedana* that particular *Swedana* need to be given according to the disease condition.

**PRECAUTIONS:**

- The temperature of the oil should be checked before starting *Abhyanga* and it should be maintained throughout the procedure.
- If there is any ulcer or open wound over skin, the *Abhyanga* over particular site should be avoided.
- It should not be given in any of the infectious conditions.

- Generally, *Abhyanga* should be given with minimum pressure. In areas of fracture, it should be completely avoided.
- If the subject is having discomfort in any of the 7 postures, performing *Abhyanga* in particular posture should be avoided.

#### BENEFITS OF ABHYANGA

##### According to *Astanga Hridaya*<sup>11</sup>:

Daily performing of *Abhyanga* will help in delaying aging process, reduce exertion, pacify *Vata dosha*. It helps to improve eyesight, nourishes body, induce longevity helpful in getting good sleep and skin.

##### According to *Charaka Samhitha*<sup>12</sup>:

Regular performance of *Abhyanga* helps to avoid *Abhihata* caused by *Abhighata* or any other heavy works.

It makes skin *Sukha sparsha*, induce good growth of body, good strength, pleasing good appearance and delays aging.

##### According to *Sushruta Samhitha*<sup>13</sup>:

It helps to induce *Mardavata*, pacifies *Kapha* and *Vata dosha*. It provides *Dhatu pusti*, cleanses body and improves strength and complexion.

#### SELECTION OF SNEHA IN ABHYANGA

The selection of *Sneha* for *Abhyanga* or *Seka* should be based on *Prakriti*, *Satmya*, *Rutu*, *Desha*, *Dosha* and *Roga*.<sup>14</sup> Acharya Bhavamishra mentions tailas like *Sarshapa taila*, *Gandha taila*, *Tailas* which processed with flowers, or any other sweet-smelling drugs are good for *Abhyanga* purpose<sup>15</sup>.

**Table no: 04 Different Tailas used in Abhyanga according to different conditions:**

Characteristics		Recommended Taila
Based on <i>Prakrati</i>	<i>Vata</i>	<i>Tila taila, Narayana taila, Bala taila</i>
	<i>Pitta</i>	<i>Narikela taila, Chandanadi taila</i>
	<i>Kapha</i>	<i>Sarshapa taila, Agarvadi taila, Eranda taila</i>
Based on <i>Rutu</i>	<i>Sheeta Rutu</i>	<i>Ushna guna taila: Agarvadi taila, Kottam chukkadi taila, Sarshapa taila</i>
	<i>Ushna Rutu</i>	<i>Narikela taila, Chandanadi taila, Nalpamaradi taila</i>
Based on <i>Dosha</i>	<i>Vata Dosha</i>	<i>Dhanvantaram taila, Maha masha taila, Mahanarayana taila etc</i>
	<i>Pitta dosha</i>	<i>Pinda sweda, Chandanadi taila, Yestimadhu taila, Ksheerabala taila</i>
	<i>Kapha dosha</i>	<i>Agarvadi, Triphaladi, Vachadi taila</i>
Based on <i>Dooshya</i>	<i>Rasa/ Twak</i>	<i>Marichyadi taila, Somaraji taila, Nimba taila</i>
	<i>Rakta</i>	<i>Manjistadi taila, Pinda taila, Balaguduchyadi taila</i>
	<i>Mamsa</i>	<i>Mahamasha taila, Samisha masha taila, Balaashwagandha taila</i>
	<i>Meda</i>	<i>Haridradi taila, Triphaladi taila</i>
	<i>Asthi</i>	<i>Murivenna taila, Ashwagandha bala lakshadi taila, Gandha taila</i>
	<i>Majja</i>	<i>Mahasneha</i>
Based on <i>Disease</i>	<i>Shoolapradhana Vatavyadhi</i>	<i>Nirgindi taila, Vishagarbha taila, Prasarinyadi taila, Sahacharadi taila</i>
	<i>Shosha pradhana vatavyadhi</i>	<i>Mahamasha taila, Samishamasha taila, Balaashwagandha taila, mahanarayana taila</i>
	<i>Karmakshaya pradhana vatavyadhi</i>	<i>Dhanvantaram taila, Mahanarayana taila, Ksheerabala taila, Karpasasthyadi taila</i>
	<i>Graha/stambha pradhana vatavyadhi</i>	<i>Kottamchukkadi taila, saindhavadi taila, Mahavishagarba taila</i>
	<i>Asthi bhagna</i>	<i>Murivenna taila, Gandha taila, Lakshadi taila</i>

	<i>Vata Rakta</i>	<i>Pinda taila, Balaguduchyadi taila, Amritadi taila, Mahamanjistadi taila.</i>
	<i>Amavata</i>	<i>Saindhavadi taila, Brihat Saindavadi taila, Mahavishagarba taila, Kottam chukkadi taila</i>
	<i>Medo Roga</i>	<i>Haridradi taila, Triphaladi taila</i>
	<i>Twak Roga</i>	<i>Yestimadhu taila, Nalpamaradi taila, Nimbataila, marichadi taila, Durvadi taila, Ayyappala kera taila</i>
	<i>Shirakapalagata roga</i>	<i>Nilibringadi taila, Durdurapatradi taila</i>
	<i>Nidranasha</i>	<i>Himasagara taila, Chandanadi taila</i>

### MODE OF ACTION:

1. Physical pressure moving the fluids in the internal environment: The *Abhyanga* is acting over the skin, which is the seat of the *Vata*. The skin is not only a seat of *Vata* but also for *Lasika* (lymph). Thus, lymphatic drainage will be the prime effect of *Abhyanga*. Lymph possess a relatively large amount of the amino acid tryptophan, especially compared to dietary intake. Hypothetically, blood amino acids like tryptophan increase after massage. An increase in plasma tryptophan subsequently causes a parallel rise in neurotransmitters and serotonin at motor end plates. In practice, *Abhyanga* relieves symptoms like those caused by serotonin depletion, anxiety, and irritation.
2. Physical pressure acting as counterirritant: While doing *Abhyanga*, pressure is applied. The pressure acts as an irritant to the surface, and irritation is produced as the effect of inflammation and color- the rise of local temperature and dolor- mild pain is built. Peripheral vascularization is witnessed at the end of the procedure. This shuffling of extracellular compartment fluid makes the sedentary or accumulated impurities at the level of tissues move.
3. Physical pressure acting over neural controls. At motor end plates, acetylcholine acts as a transmitter in the presence of calcium ions and facilitates synaptic action potential. The nerve fibers have myelinated sheets with lipids as their chief ingredients. Na and K ions are responsible for depolarization whereas chloride and potassium are responsible for hyperpolarization. This action and the association of melatonin, the calcium by product of serotonin, also synthesized from tryptophan, causes pleasantness and a calming effect.
4. Mode of action of *Padabhyanga* to the eye: According to physiology by *Padabhyanga*, the somatic sensory area in the cortex may get stimulation, and both feet and eyes are in the same area. I.e., area 2 of the cortex, its stimulant effect may go to the eyes and improve eye function and relieve eye strain<sup>16</sup>. Also, by *Pada abhyanga*, there might be a nourishing or stimulation effect on the eyes through the interpretative areas of feet and eyes, as both meet Wernicke's area and improve the function of the eye<sup>17</sup>.
5. Mode of action of *Shiroabhyanga*: Due to *Abhyanga*, local lymphatic drainage increased. Lymph contains amino acids like tryptophan, which increase by *Abhyanga*. As the level of tryptophan increases in plasma, it accumulates and stimulates pineal gland. It leads to the secretion of melatonin and serotonin. Melatonin causes sedation and a pleasant feeling.
6. Whereas serotonin induces sleep and helps control a person's mood.
7. Effects of *Abhyanga* on the Circulatory System:
  - **Action on Venous and Lymphatic System:** *Abhyanga* facilitates the forward movement of venous blood and lymph, thereby reducing blood and lymph stagnation. Various maneuvers used in *Abhyanga* aid muscle contraction or help in alternative compression and relaxation of soft tissues, causing venous blood and lymph drainage.
  - **Action on Arterial flow:** Improves blood circulation to the area following vasodilation.

- **Effect of Abhyanga on soft tissues:** It improves the plasticity, elasticity, and mobility of soft tissues like tendons, sheaths, muscles, and joint tissues.
8. The action of *Abhyanga* on skin: Performing *abhyanga* with warm *Sneha* increases the local temperature, causing vasodilation and further absorption of nutritive material through the skin. It also helps to increase the elasticity and flexibility of skin, and skin becomes tough. *Abhyanga* activates sweat and sebaceous glands and improves perspiration so that heat dissipation is increased. Continuous rubbing helps in the exfoliation of dry cells and debris.

## DISCUSSION

*Abhyanga* is mentioned as a critical *Dinacharya* procedure. The word *Nitya* is mentioned in the concept of *Dinacharya*, commenting that *Acharya Arunadatta* states that it can be performed with a gap of one, two, or three days<sup>18</sup>. *Abhyanga* is mentioned initially; later, *Yatha shakti vyayama* and *Ushnajala snana* are mentioned as a part of *Dinacharya*. For *Swastha*, any *Sneha* can be selected according to the person's *Pra-kriti*, *Desha*, *Rutu*, and *Satmya*. But in disease conditions, disease-specific *Sneha* needs to be chosen.

*Abhyanga* is beneficial for the proper growth and development of *Dhatu*. The action of this may be understood with *Samanya vishesha*, *Siddanta*. All *Dhatus* will get *Vridhhi* (increased) by substances having similar qualities and get depleted by the substance of opposite qualities. Thus, using *Gunas* of *Sneha*, which have attributes identical to *Dhatu*, increases qualitatively and quantitatively. So, it is contraindicated in *Santarpanotta Vyadhis*, which has *Mamsa* and *Medo Vridhhi*. *Abhyanga* is collectively regarded as massage in various circumstances. But in *Ayurveda*, the term given to each procedure has its meaning. Procedures like *Abhyanga*, *Mardana*, *Utsadana*, *Unmardana*, and *Udvartana* may collectively be massage techniques but differ in the amount of pressure given and the direction of the massage. Anatomical landmarks are mentioned along with structures that are directly related to massage. Thus, the clinician and the

person doing massage should know anatomical structures related to various vital points of the body and the amount of pressure to be applied in a particular area, as this helps prevent damage to the underlying structures by inappropriate technique. The human body consists of various vital points called *Marma*; it is said that *Pranas* reside in these critical points. With the help of proper *Abhyanga*, these strong points get stimulated and produce positive energy in the body, thereby protecting, rejuvenating, and increasing immunity. Various research proved that massage increases the production of white blood cells and antibodies, which are helpful in the fight against foreign articles. Some metabolic products accumulate in the neuro-muscular junctions during physical activities or even in ordinary work, leading to fatigue. If the neuro-muscular junctions are open and both nerve and muscle tissues are toned up, a person could avert fatigue even with physical exertion.

## CONCLUSION

Balanced physiology is the best means of preventing disease and maintaining health for longer. *Abhyanga* is the beneficial procedure of *Panchakarma*, which can be used in healthy persons as a part of *Dinacharya* and in disease conditions as part of *Lakshanika* or *Samprapti Vighatana Chikitsa*. It is observed that *Abhyanga* has a direct or indirect effect on both the autonomic and central nervous system, circulatory system, and integumentary system. Because of these benefits, this simple-looking procedure gained ample fame in clinical practice.

## REFERENCES

1. Paradkara HSS (ed.), *Astangahrdaya* of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, *Chikitsa stana*, 21<sup>st</sup> chapter 7<sup>th</sup> verse, Choukamba Samskrit samsthan, Varanasi:2016, pn:522
2. Paradkara HSS (ed.), *Astangahrdaya* of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, *Sootra stana*, 1<sup>st</sup> chapter 10<sup>th</sup> verse, Choukamba Samskrit samsthan, Varanasi:2016, pn:8.
3. Paradkara HSS (ed.), *Astangahrdaya* of Vagbhata with the commentaries Sarvangasundara of Arunadatta and

- Ayurvedarasayana of Hemadri, Sootra stana, 17<sup>th</sup> chapter, 29<sup>th</sup> verse, Choukamba Samskrit samsthan, Varanasi:2016, pn:259.
4. Paradkara HSS (ed.), Astangahrdaya of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Sootra stana, 4<sup>th</sup> chapter, Choukamba Samskrit samsthan, Varanasi:2016, pn:53-6.
  5. Paradkara HSS (ed.), Astangahrdaya of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Sootra stana, 3<sup>rd</sup> chapter, verse 9-17, Choukamba Samskrit samsthan, Varanasi:2016,pn:39-42.
  6. K.Abhay, Bhela Samhitha of Maharshi Bhela, Sootra stana,6<sup>th</sup> chapter, verse 17-19, Chaukambha Surabharati Prakashana, Varanasi:2022, Pn 24
  7. Dr. Sharma S,(ed.), Ashtangasangraha of Vahata or Vrddha vagbhata with Shashilekha commentary by Indu, Sutrastana 3<sup>rd</sup> chapter, 28<sup>th</sup> verse Varanasi, Choukamba Sanskrit Samstana, 2016,pn:20.
  8. Paradkara HSS (ed.), Astangahrdaya of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Sootra stana, 2<sup>nd</sup> chapter, 9<sup>th</sup> verse, Choukamba Samskrit samsthan, Varanasi:2016, pn:26.
  9. Acharya YT (ed.), Sushruta Samhita of Sushruta with the Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanastana, Chikitsa stana 24<sup>th</sup> chapter,35-7<sup>th</sup> verse, Varanasi: Choukamba Surbharati Prakashan, 2014, Pn: 488
  10. Acharya YT (ed.), Sushruta Samhita of Sushruta with the Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanastana, Chikitsa stana 24<sup>th</sup> chapter,30<sup>th</sup> verse, Varanasi: Choukamba Surbharati Prakashan, 2014, Pn: 488
  11. Paradkara HSS (ed.), Astangahrdaya of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Sootra stana, 2<sup>nd</sup> chapter, 8<sup>th</sup> verse, Choukamba Samskrit samsthan, Varanasi:2016, pn:26.
  12. Acharya YT (ed.), Charaka Samhita of Agnivesha elaborated by Charaka and Drdhabala with Ayurveda Deepika commentary by Sri Chakrapanidatta, Sutrasthana 5<sup>th</sup> chapter 88<sup>th</sup> verse, Varanasi: Choukamba Surbharati Prakashan,2014,pn:42.
  13. Acharya YT (ed.), Sushruta Samhita of Sushruta with the Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanastana, Chikitsa stana 24<sup>th</sup> chapter,30<sup>th</sup> verse, Varanasi: Choukamba Surbharati Prakashan, 2014,pn.488
  14. Acharya YT (ed.), Sushruta Samhita of Sushruta with the Nibandhasangraha commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanastana, Chikitsa stana 24<sup>th</sup> chapter,34<sup>th</sup> verse, Varanasi: Choukamba Surbharati Prakashan, 2014,pn.488
  15. Murthy KRS, Bhavaprakasha of Bhavamishra, Poorvakhandas, 5<sup>th</sup> chapter, verse no 56-57, Choukambha Krishnadas Academy,2021, Pn:84
  16. C. Guyton, J.E. Hall. Textbook of Medical Physiology, Chapter 47,12<sup>th</sup> ed. Philadelphia: Saunders Elsevier;2011. Pn 575
  17. C. Guyton, J.E. Hall. Textbook of Medical Physiology, Chapter 57,12<sup>th</sup> ed. Philadelphia: Saunders Elsevier;2011. Pn 701.
  18. Paradkara HSS (ed.), Astangahrdaya of Vagbhata with the commentaries Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri, Sootra stana, 2<sup>nd</sup> chapter, 8<sup>th</sup> verse, Choukamba Samskrit Sansthan, Varanasi:2016, pn:26.

**Source of Support: Nil**

**Conflict of Interest: None Declared**

How to cite this URL: Bhagyashree et al: Clinical efficacy of abhyanga - a conceptual study. International Ayurvedic Medical Journal {online} 2023 {cited December 2023} Available from: [http://www.iamj.in/posts/images/upload/3077\\_3084.pdf](http://www.iamj.in/posts/images/upload/3077_3084.pdf)