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## A REVIEW OF PANCHAKARMA THERAPIES (BAHYA AND SHODHANA) FOR PAKSHAGHATA

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## ABSTRACT

"*Pakshaghata*" refers to a condition similar to hemiplegia or paralysis affecting one side of the body. According to Ayurveda, *Pakshaghata* is primarily caused by an imbalance of the *Vata Dosha*, which governs movement and communication in the body. The vitiated *Vata Dosha* affects the nerves, leading to impaired motor and sensory functions on one side of the body. The Ayurvedic treatment of *Pakshaghata* focuses on restoring the balance of Vata dosha and promoting the rejuvenation of affected tissues. The treatment approach may include *Panchakarma* therapies like – External therapies – *Abhyanga* (Oil Massage), *Swedana* (Sudation), and *Shodhana* (Purificatory) Procedures like *Virechana* (Purgation), *Basti* (medicated enemas), and *Nasya* (Nasal Medication). In the present article, we have tried to review the studies on *Pakshaghata* published and accessible through May 2023. Studies included Randomized and Non-randomized clinical trials.

Key words: Pakshaghata, Shodhana, Abhyanga, Virechana, Basti, Nasya

## INTRODUCTION

*Pakshavadha* is one among 80 types of *Vatavyadhi* mentioned by *Acharya Caraka*. The same disease has been mentioned as *Pakshaghata* by *Sharangadhara*<sup>1</sup>

and *Bhavaprakasha*<sup>2</sup>. The term *Pakshaghata* literally means paralysis of one half of the body due to the impairment of *Karmendriyas* (Organs of Action),

*Gyanendriyas* (Sense organs), and Mana. Pakshaghata can be correlated with hemiplegia in modern science. Hemiplegia is the most frequent form of paralysis in humans and involves the face, arm, and leg on one side of the body. The majority of hemiplegia is due to vascular diseases of the cerebrum and brainstem, followed by trauma, brain tumor, encephalitis or abscess, and demyelinating diseases.<sup>3</sup> Two main factors are involved in the pathology of Pakshaghata – 1. Dhatukshaya Janya Vata Prakopa (Vata Aggravation due to Dhatu depletion) and 2. Margavarana Janya Vata Prakopa (Vata Prakopa due to obstruction of passage). The former is due to excessive exposure to Langhana (Fasting), Annashana (Intake of less food), Ruksha Aahar (Food which are dry in nature), etc., and the latter is due to Margavarana due to Ama (Undigested matter) or Marmaghata (Injury to Marma).<sup>4</sup> Though the disease is classified as a Vatavyadhi, the treatment protocol is framed on the basis of its associated Dosha status, that is, in an acute phase it is considered as Vata-Kaphaja or Vata-Pittaja; whereas in chronic phase, it appears as a pure Vataja condition. So, the treatment protocol is planned according to the stage in which the patient presents. In Pakshaghata, swedana (Fomentation mixed with unctuous material) and *virechana* or purgation therapy with unctuous substance is indicated. Virechana is the line of treatment in *Pakshaghata* and outweighs *Basti*, which is said to be ideal for Vatakopa. In the present study, we have tried to review the published clinical data in view of the effectiveness of Ayurveda treatment protocols in *Pakshaghata*.

## **Materials and Methods**

The current review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

## Search Strategy

A literature review of all studies published and accessible through May 2023 was performed using the following databases.

1. The Cochrane Library, Cochrane Database of Systematic Reviews (CDSR), Cochrane Controlled Trials Register (CENTRAL), Database of Abstracts of Reviews of Effectiveness (DARE), MEDLINE, EMBASE, AMED (Allied and Complementary Medicine Database), World Health Organization (WHO) ICTRP (International Clinical Trials Registry Platform)

 Clinical Trial Registry India, AYUSH research portal (Evidence-Based Research Data of AYUSH Systems at Global Level, Digital Helpline for Ayurveda Research Articles (DHARA).

## Selection of studies

The abstract, title, or both of every record retrieved was scanned to determine which studies should be assessed further. All potentially relevant articles were investigated as full text. All relevant clinical trials were included. When there were only a small number of randomized studies identified for systematic review and meta-analysis, non-randomized studies were also included. These non-randomized studies may be quasirandomized, controlled clinical trials or simply beforeafter clinical trials. Single case studies with pre-post results were also included in the review.

## **Participants**

All studies where participants were diagnosed with *Pakshaghata* without restrictions of age, gender, ethnicity, and other medical conditions were included.

#### Interventions:

The following comparisons of intervention versus control/comparative were carried out.

- *Shamanoushadhis* (Internal Medicines)- These include extracts from mixtures of herbs, single herbs, Ayurvedic proprietary medicines, or a compound of herbs.
- Shodhana These include Shodhana karma like Virechana, Basti, and Bahya upakramas (External therapies) like Udwartana (Dry powder massage), Abhyanga, Lepa (Medical paste application), Upanaha (Poultice), etc.

## Outcomes

• Reduction in symptoms of *Pakshaghata* like *Chestaanivritti* (Loss of Motor fucntions), *Vaksthamba* (Loss of speech), *Graheetwa Ar- dashareera*, *Hasta paada sankocha*, etc.

## Results

Potentially relevant studies were found by searching the databases MEDLINE, CENTRAL, AMED, EMBASE, WHO ICTRP, Dhara online, AYUSH research portal, Clinicaltrials.gov, and INDMED. After duplication and screening of the titles of obtained records, a total of 10 studies were considered for further screening.

Table No.1

Study details	Study De- sign	Intervention and comparator	Duration of Interven- tion	No. of par- tici- pants	Results
Manasa T. V, Kiran M. Goud, Lolashri S. J <sup>5</sup>	Single group – Pre and post	Abhyanag with Moorchitatilataila fol- lowed by Sarvanga Shastika Shalipinda Sweda for 16 days as a Purvakarma for Basti chikitsa. Rajayapanabasti ad- ministration in Kala Basti pattern	16 days	10	Significant improvement in Chesta- nivrutti, Vakstambha, Padasankocha, Hastasankocha, Shoola
Sayantan Bera, Sonali Mukherjee <sup>6</sup>	Single group – Pre and post	Mashadi Basti Kala Basti	15 days	15	Significant improvement in Chesta Nivritti, Hasta Pada Ruja, Hasta Pada Sankocha, Sira Snayu Shosha, Sandhibandhana Vimokshana and Vakstambha
Vd. Sandip Anna Jagdhane <sup>7</sup>	Compara- tive clinical study	Group A - Mahavat Gajankush Ras with Shastishali pinda Swe- den Group B- Mahavat Ga- jankush Ras with Virechanakarma with (Icchabhedi Rasa)	Varies	60	Group B showed effective results when compared to Group A.
R. H. S. S. Ediri- weera, M. S. S. Perera <sup>8</sup>	Placebo Control	Group A-Chandra Kalka with Mahadalu Anupana Group B- Placebo	14 days	30	Mahadalu Anupana and Chandra Kalka could provide a better treatment modality in the management of the early stage Pakshaghata
Ravi Sankaran et al <sup>. 9</sup>	Compara- tive clinical study	Standard Physiotherapy Standard Physiotherapy wit <i>Abhyanga</i> and <i>swedana</i>	30days	30	Ayurvedic massage in post-stroke pa- tients with flaccidity can promote faster standing with minimal assis- tance and lead to less need for anti- spastic drugs at discharge.
Amritha Rajan and Niranjan Rao <sup>10</sup>	Single group – Pre and post	Baladi Yapana Basti	8 days	25	Power with respect to the gross move- ment of the Upper Limb & Lower Limb showed statistically extremely significant results. Altered speech and finger movement of hand and toe showed statistically significant results.
Saritha A. K et al <sup>. 11</sup>	Single group – Pre and post	Oral administration of Shatapaki Ksheerabala taila in a dose of 24 ml in the morning on an empty stomach about	28 days	30	Shatapaki Ksheerabala taila is proved to be efficacious in reducing the symptoms of Margavaranaja Pakshaghata and hence improving the Quality of Life.

		half an hour before breakfast, along with 150 ml of warm water.			
Sumai M. A, et al. <sup>12</sup>	Pilot Study	Avapeedaka Nasya	2 sessions of <i>Nasya</i> For 21 days with a gap of 15 days	6	Relief in Symptoms - Vaksangha (80%), Chestanasha (68%), Mana- sikachesta hani (60%), San- tapa(66.8%), Tandra(70%), Alasya (78%)
Dr. Yoge- shwari B et al <sup>-</sup> <sup>13</sup>	Compara- tive Clinical trial	Group- A: - <i>Kayseka</i> (Whole body <i>Dhara</i> ) with <i>Bala Taila</i> Group- B- Abhyanga & Nadisweda	15 days	15	<i>Kayaseka</i> group showed a 60.83% re- sult, and <i>Abhyanga</i> with <i>Nadi Sweda</i> group showed a 44.44% improvement.
Dr. Waheeda Banu et al. <sup>14</sup>	Compara- tive Clinical trial	Tila Pinda Sweda Shali Pinda Sweda	15 days	15	<i>Tila Pinda Sweda</i> in patients suffering from <i>Pakshaghata</i> showed significant results.

## DISCUSSION

The findings of the current review are consistent with the clinical experiences and recommendations of traditional Ayurvedic literature. The promising Panchakarma therapies for clinical improvements in Pakshaghata were found to be External therapies - Abhyanga and Swedana and Panchakarma therapeis -Virechana and Basti. This review suggests that Ayurveda therapies are safe and effective in improving the quality of life in Pakshaghata patients. Charaka, Snehana, Swedana, and Virechana are the main treatments for Pakshaghata.<sup>15</sup> According to Acharya Sushruta, the initial line of management of Pakshaghata is Snehana, Swedana, and Mrudu Shodhana (Mrudu Virechana).<sup>16</sup> In the above studies reviewed, Abhyanga and Sweda have been used as a main therapy and some as Purva Karma for Basti, etc. Dalhana has explained that Sneha gets absorbed during Abhyanga and reaches different Dhatu based on the duration of time it is applied. Dalhana also mentioned that when the Snehana drug reaches the particular Dhatu, it subsides the diseases of that particular Dhatu. According to Acharya Sushruta, the Tiryak Dhamanis each divide gradually hundred & thousand times & thus become innumerable. These cover the body like a network and their opening are attached to Roma Kupas (Hair pores). The Virya of Abhyanga, Parisheka, Avagaha, and Alepa enter into the body

through these *Roma Kupas*, undergo *Paka* by *Bhra-jaka Pitta* in the skin & do their action. In the studies we reviewed above, *Abhyanga, Shashtika Pinda sweda, Kayaseka,* and *Nadi sweda* were a few therapies used in the management of *Pakshaghata,* which gave a significant improvement in the management of *Pakshaghata.* 

According to Vaghbata, *Snigdha Virechana* should be given in *Pakshaghata*. The involvement of Sira and *Snayu* in the *Samprapti* of *Pakshaghata* highlights the role of *Raktadhatu* in *Pakshaghata*, and *Virechana* is considered the best treatment for Rakta dhatu. The *Adhishtana* of *Pakshaghata* is *Masthishka* or *Masthulunga*, and *Masthulunga* is considered as "*Avileena Ghritakara Mastaka Majja*." Dalhana says *Pittadhara Kala* and *Majjadhara Kala* are same. The treatment advised for *Pittadharakalavikriti* is *Virechana*. In one of the studies reviewed above, *Virechana Karma* showed better results compared to *Shastishali Pinda Swedana*.

*Basti Chikitsa* is considered to be the best treatment modality for *Vata Dosha*. It is described as *the Ardha Chikitsa* in the classics. *Basti* helps in the eradication of vitiated *Vata* from its root; hence it should be implicated in *Kevala Vatajanya Pakshaghata*. *Brihmana Basti* can be used in *Dhatuksahya Janya Pakshaghata*. Various Basti preparations have been mentioned in the classics for the treatment of *Vata Dosha*, i.e, *Rasnadi*  Asthapana Basti, Guduchi Triphaladi Asthapana Basti. Anuvasana Basti with Masha Taila, Mahamasha Taila, Nakul Taila, Prabhanjan Vimardan Taila, and Sarvaamyaantak Taila are a few examples. In the case of unconscious patients of Pakshaghata, Avapeeda Nasya can be given as it helps to revive the consciousness. Sameerpannaga Rasa is indicated especially for Nasya when the patient is in the unconscious stage. Pradhamana Nasya can be given repeatedly to revive consciousness. Snaihika Nasya can be given with Mahamasha Taila, Karpasasthyadi Taila. In one of the studies conducted above, Avapeedaka Nasya containing Shunti (Zingiber officinale, Maricha (Piper nigrum), Pippali (Piper longum), Yastimadhu (Glycyrrhiza glabra), Tulasi (Ocimum tenuiflorum) leaves and Milk. Nasya was given for 21 days and repeated after a gap of 15 days. The study showed better improvement in the symptoms of *Pakshaghata*.

Adverse Effects - No serious adverse events were reported in the studies reviewed above.

Limitations: Although every effort was made to discover all eligible studies published, there is a possibility of some studies still being left behind.

## CONCLUSION

Findings from these reviews indicate that there is moderate to high strength evidence that several *Ayurvedic Panchakarma* Therapies, i.e., External therapies like *Abhyanga, Swedana*, and *Shodhana* Procedures as *Virechana* and *Basti* are safe and effective in improving the symptoms and quality of life in *Pakshaghata* patients to a moderate extent. We encourage future research to pursue randomized clinical trials with larger sample sizes and longer durations.

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