AYUSHDHARA
ISSN: 2393-9583 (P)/ 2393-9591 (O)
An International Journal of Research in AYUSH and Allied Systems

Case Study

PAKSHAGHATA (HEMIPLEGIA) - INTEGRATING CLASSICAL PRINCIPLES WITH MODERN NEUROLOGICAL INSIGHTS

Nirma B[1]*, Priyadarshini D[2]
*[1]PG Scholar, [2]Assistant Professor, Dept. of Panchakarma, GAMC, Bangalore, Karnataka, India.

Article info
Article History:
Received: 15-04-2026
Accepted: 16-05-2026
Published: 08-07-2026
KEYWORDS:
Pakshaghata, Hemiplegia, Ischemic Stroke, *Vata Vyadhi, Agnilepa, Nasya, Shirodhara, Basti, Samprapti.*

ABSTRACT

Pakshaghata, one of the *Nanatmaja Vata Vyadhis* described in classical Ayurvedic texts, closely corresponds to the modern neurological condition of hemiplegia secondary to cerebrovascular accident (stroke). This article presents a case of *Dakshina Bhaga Pakshaghata* in a 74-year-old male with a background of diabetes mellitus and undiagnosed hypertension, who presented with acute right-sided motor weakness following an ischemic infarct involving the left basal ganglia and corona radiata. The case is discussed through the frameworks of *Nidana Panchaka* and *Samprapti Ghataka*, and a stage-wise Ayurvedic treatment protocol - incorporating *Agnilepa, Nasya* with *Karpasasthyadi Taila, Sarvanga Abhyanga, Seka* with *Balamula Kwatha,* and *Shirodhara* with *Balamula Ksheerapaka* - is detailed. Significant improvement in muscle power (3/5 to 4/5), tone normalisation, and Barthel Index scores (35 to 85) was observed over 14 days. The case underscores the value of ayurvedic approach in the management *Pakshaghata*.

INTRODUCTION

Pakshaghata is a *Nanatmaja Vata Vyadhi* characterised by loss of motor function *(Cheshta Nivritti)* in one half *(Paksha)* of the body- either *Dakshinabhaga* (right side) or *Vamabhaga* (left side). It is one of the eighty *Nanatmaja Vatavyadhis* enumerated in classical Samhitas and represents one of the most debilitating neurological disorders described in Ayurvedic literature.[1]

In contemporary medicine, this condition corresponds most closely to hemiplegia arising from cerebrovascular accident (stroke), particularly ischemic stroke. Stroke is the second leading cause of mortality and the leading cause of long-term adult disability worldwide. With the rising burden of lifestyle-related risk factors- hypertension, diabetes mellitus, dyslipidaemia, and tobacco use- the incidence of stroke continues to increase, particularly in low- and middle-income countries.[7,10]

Access this article online	
Quick Response Code	
	https://doi.org/10.47070/ayushdhara.v13i3.2799
	Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

Ayurvedic texts offer a comprehensive understanding of the pathogenesis, prognosis, and management of *Pakshaghata*. The integration of classical *Panchakarma* protocols with modern diagnostic clarity presents a unique opportunity to optimise patient outcomes in this condition. The case presented here illustrates this integrative approach.

History of Present Illness

The patient, a 74-year-old male farmer with a known history of diabetes mellitus for seven years, was apparently healthy until two days prior to admission. On the night of onset, he experienced a fall while rising from a chair; notably, he was able to stand independently, walk, and return to his room, with no loss of consciousness, giddiness, headache, nausea, vomiting, seizures, visual disturbance, or speech difficulty at that time.

On the following day, he consulted a nearby hospital where hypertension was diagnosed for the first time. His ambulation was preserved at this point. On the subsequent morning, he developed a sudden-onset weakness of the right upper and lower limbs, becoming unable to walk or raise his right arm. MRI of the brain revealed acute infarction involving the left basal ganglia and corona radiata, with age-related periventricular deep white matter ischaemic changes

(Fazekas Scale 1). He was then referred to GAMC Bangalore for further management.

Case Report

Patient Details

Parameter	Details
Name	XYZ
Age/Sex	74 years / Male
Marital Status	Married
Address	Chitradurga, Karnataka
Date of Admission	19/12/2025
Date of Discharge	02/01/2026
Ward/Bed	Hi-Tech Ward, Bed No. 306
Chief Complaint	Weakness in right upper and lower limbs since 2 days
Known Comorbidities	Diabetes mellitus (7 years), hypertension (newly diagnosed)
Personal History	Mixed diet, farmer, tobacco use, *Samagni, Madhyama Koshtha*, sleep 6–7 hrs

General and Systemic Examination

Parameter	Findings
Appearance	Weak
Built	Moderate
Height/Weight	5.8 ft / 68 kg
Pulse	74 bpm
Blood Pressure	170/90 mmHg
Respiratory Rate	19/min
Nadi (Ashta Sthana)	74 bpm- *Vatika*
Mala	*Baddha*
Jihva	*Alipta*
Prakruti	*Vata-Pitta*
Vikruti	*Vata-Kapha*
Sara / Samhanana	*Madhyama / Madhyama*
Satva	*Madhyama*
Vaya	*Vridha*

CNS and Motor Examination

Higher Mental Functions: Intact. Conscious and well-oriented. Speech: Normal. Cranial Nerves: Intact. Sensory system: Pain, touch, temperature, and proprioception all intact bilaterally.

Parameters	Right Side	Left Side
Muscle bulk	Equal bilaterally	Equal bilaterally
Muscle tone- Upper limb	Flaccid	Normal
Muscle tone- Lower limb	Flaccid	Normal
Muscle power- Upper limb	3/5	5/5
Muscle power- Lower limb	3/5	5/5
Biceps/triceps/brachialis reflex	+	++
Knee/ankle reflex	+	++
Plantar reflex	Areflexia	Areflexia
Coordination	Not assessable (weakness)	Normal
Gait	Not possible	—

Ayurvedic Analysis

Nidana Panchaka

Nidana (Causative Factors)

The patient's history reveals a combination of *Aharajanya* and *Viharajanya Nidanas*, including:

- Tobacco use *(Vegadharana, Dhatukshayakara).*
- Chinta/psychological stress *(Manasika Nidana).*
- Long-standing undiagnosed hypertension.
- Diabetes Mellitus- contributing to *Kapha-Medas Avarana* on *Vata.*

Purvarupa

Avyakta- as described in Charaka Chikitsa Sthana 28/19:

अव्यक्तं लक्षणं तेषां पूर्वरूपमिति स्मृतम् ||१९|| (Ch.Chi.28)

The prodromal features are indistinct and non-specific in *Pakshaghata*, consistent with this patient's brief symptom-free period following the initial fall.

Rupa (Cardinal Signs and Symptoms)

The classical description of *Pakshaghata* in Charaka Chikitsa Sthana 30/53–55 states:

हत्वैकं मारुतः पक्षं दक्षिणं वाममेव वा ||५३||

कुर्याच्चेष्टानिवृत्तिं हि रुजं वाक्स्तम्भमेव च | (Ch.Chi.30)

In this patient, the primary *Rupa* was *Cheshta Nivritti* of the *Dakshina Paksha* (right-sided motor paralysis), consistent with the cardinal symptom. Sushruta Samhita additionally describes *Anyatara Pakshahanana, Sandhi Bandha Vimoksha* (loosening of joint integrity), *Akarmanyata* (functional loss), and *Achetanam* (loss of sensation/sensorium) as key features.

Upashaya

Snehana and *Swedana (Balamula Ksheerapaka, Mahanarayana Taila Sarvanga Abhyanga)* were identified as *Upashaya* based on their *Vatahara* and *Brimhana* properties.

Samprapti (Pathogenesis)

The *Samprapti* of *Pakshaghata* in this case can be outlined as follows:

Step	Pathogenetic Event
1	*Nidana Sevana*- Tobacco use, *Chinta*, DM, uncontrolled HTN
2	*Vata Prakopa*- Aggravation of *Vata* due to *Dhatukshaya* and *Avarana*
3	*Kapha-Medas Avarana*- Obstructing *Vata's* normal course
4	*Sthana Samshraya* in *Urdhvaga Dhamani* (cerebral vasculature)
5	*Niruddha Marga*- Occlusion of cerebral end arteries (Lenticulostriate)
6	*Mastishka Dhatu Kshaya*- Neuronal ischaemia and infarction
7	*Karma Kshaya*- Loss of motor function *(Cheshta Nivritti)*
8	*Dakshina Bhaga Pakshaghata*- Right-sided hemiplegia

Samprapti Ghataka

Component	Details
Dosha	*Vata* (primary), *Kapha (Avarana)*
Dushya	*Rasa, Rakta, Mamsa, Meda*
Agni	*Dhatvagni Mandya*
Srotas	*Rasavaha, Raktavaha, Mamsavaha, Medovaha*
Sroto Dushti	*Sanga* (obstruction)
Udbhava Sthana	*Pakwashaya*
Vyakta Sthana	*Ardha Kaya* (right side)
Adhisthana	*Mastishka*
Marga	*Madhyama Marga*
Sadhya Sadhyata	*Kruchra Sadhya*

***Vyavachedaka Nidana* (Differential Diagnosis)**

Condition	Inclusion Criteria	Exclusion Criteria
Sarvanga Roga	*Sankocha* of right *Hasta* and *Pada*	All four limbs are not affected; bilateral involvement absent
Ardita (Charaka)	*Cheshta Hani, Sankocha* of *Bahu* and *Pada*	No *Vakrata* of *Nasa, Bhru, Lalata* or *Akshi*; no *Stabdha netra*
Pakshaghata	*Cheshta Nivritti* of right *Ardha sharira*	Confirmed- *Dakshina Bhaga Pakshaghata*

***Sadhyasadhyata* (Prognosis)**

नवान् बलवतस्त्वेतान् साधयेन्निरुपद्रवान् ||७४|| (Ch.Chi.28)

Acharya Charaka states that *Pakshaghata* of recent onset, without complications, in a strong patient is *Kruchra Sadhya*. Acharya Sushruta elaborates:

शुद्धवातहतं पक्षं कृच्छ्रसाध्यतमं विदुः |

साध्यमन्येन संसृष्टमसाध्यं क्षयहेतुकम् ||६३|| (Su.Ni.1)

Given the patient's age *(Vridha Vaya),* background of DM and hypertension, and the involvement of *Dhatukshaya*, the case was assessed as *Kruchra Sadhya*- manageable with significant effort but amenable to improvement. Ashtanga Sangraha similarly classifies *Shudha Vata-hata Paksha* as *Kruchra Sadhya Tama*, and *Kshaya-hetu* as *Asadhya*.

Modern Neurological Correlation

Pathophysiology of Ischemic Stroke

Long-standing Diabetes Mellitus promotes lipohyalinosis and fibrinoid necrosis of small penetrating cerebral arteries. Concomitant hypertension accelerates these changes. In this patient, occlusion of the lenticulostriate end arteries- terminal branches of the Middle Cerebral Artery (MCA)- resulted in a lacunar infarction of the left basal ganglia and corona radiata. As these are pure motor pathways, the clinical presentation was a contralateral pure motor hemiparesis, with no sensory, speech, or cranial nerve deficits.

MRI Findings

Finding	Significance
Acute infarct- left basal ganglia & corona radiata	Explains contralateral (right) pure motor hemiparesis
Fazekas Scale 1- periventricular white matter changes	Chronic small vessel disease; age-related ischaemic change
No haemorrhage or midline shift	Confirms ischaemic aetiology; supports antiplatelet use

Localization Summary

The left basal ganglia and corona radiata receive blood from the lenticulostriate arteries (MCA branches). Infarction at this site produces: contralateral face and arm weakness greater than leg, consistent with the MCA territory pattern. The clinical findings- right UL and LL power 3/5, flaccid tone (acute phase), reduced deep tendon reflexes- are consistent with an upper motor neuron lesion in the acute/early subacute phase.

***Chikitsa Yojana* (Treatment Protocol)**

S.No	Days	Treatment
1	7 days	*Agnilepa* to right upper and lower limb
2	7 days	*Nasya* with *Karpasasthyadi taila* 8-8 drops
3	7 days	*Sarvanga abhyanga* with *Mahanarayana taila* followed by *Sarvanga seka* with *Balamula kwatha*
4	7 days	*Shirodhara* with *Balamula ksheerapaka*

Shamana Aushadhis

The following internal medications were employed in the management of *Pakshaghata*:

Formulation	Dose
Lashunadi vati	1-0-1 A/F
Rasaraja rasa	1-0-1 A/F
Sukumara ghrita	10ml-0-0 B/F
Cardorium plus syrup	10ml-0-10ml A/F

Assessment and Outcomes

Muscle Power and Tone

Parameter	Before Treatment	After Day 7	After Day 14
Muscle Power - Right UL	3/5	4/5	4/5
Muscle Power - Right LL	3/5	4/5	4/5
Muscle Tone - Right UL	Flaccid	Normal	Normal
Muscle Tone - Right LL	Flaccid	Normal	Normal

Barthel Index

Activity	Before	During (Day 7)	After (Day 14)
Feeding	0	5	10
Bathing	0	0	5
Grooming	0	0	5
Dressing	5	5	10
Bowels	10	10	10
Bladder	10	10	10
Toilet use	0	5	10
Transfers (bed to chair)	5	10	15
Mobility on level surfaces	5	10	10
Stairs	0	0	0
Total score	35	55	85

The Barthel Index improved from 35 (severe dependence) to 85 (mild dependence) over 14 days of integrated Ayurvedic management- a clinically meaningful improvement. A score of 85 indicates the patient can perform most activities of daily living independently, requiring minimal assistance only for stairs and complex grooming.[9]

DISCUSSION

This case illustrates several key principles that are central to Ayurvedic neurological management. In the acute phase, the primary goals are *Amapachana* (resolution of *Ama*), *Rukshana* (reducing *Kapha-Medas Avarana*), and stabilisation of vitals. *Panchakarma* procedures with heavy oleation are deferred until *Ama* is cleared.

Agnilepa

Agnilepa is a traditional Karnatakan folk practice- a form of *Alepa*- utilising drugs with *Ushna, Teekshna*, *Ruksha Gunas, Katu-Tikta Rasa*, and *Laghu Guna*. These properties are antagonistic to *Ama* and *Kapha*, making it particularly appropriate in the early stage where *Kapha-Medas Avarana* underlies the *Samprapti*. The formulation used included:

- *Lashuna* (Allium sativum)- *Vataghna, Balya*
- *Lavanga (Syzygium aromaticum)- Ushna, Deepana*
- *Maricha (Piper nigrum)- Teekshna, Kaphaghna*
- *Sarshapa (Brassica nigra)- Ruksha, Ushna*
- *Tulsi (Ocimum tenuiflorum)- Kapha-Vataghna*
- *Arka, Karanja, Dhattypa- Vata-Kaphahara,* penetrating
- *Haridra (Curcuma longa)-* Anti-inflammatory, *Rakta Shodhana*
- *Saindhava Lavana- Srotoshodhana*

Agnilepa was applied to the right upper and lower limbs for the first seven days, serving as a form of *Niragni Sweda* (non-fire sudation) while simultaneously addressing *Avarana*.

Nasya* with *Karpasasthyadi Taila

Classical authority for *Nasya* in *Pakshaghata* is well-established. Acharya Charaka references *Nasya* in *Samanya Vata Vyadhi Chikitsa*:

नावनैस्तर्पणैश्चान्नैः सुस्निग्धं स्वेदयेत्ततः || (Ch.Chi.28)

For *Bahu-Shirshagata Vata*:

बाहुशीर्षगते नस्यं पानं चौत्तरभक्तिकम् ||९८|| (Ch.Chi.28)

Karpasasthyadi Taila was administered at 8 drops per nostril daily. This formulation is specifically indicated for *Vata* disorders involving the head and nervous system. It acts through absorption via the nasal mucosa to reach the *Mastishka* directly- consistent with the *Adhara (Sira-Marma)* of *Pakshaghata*. In haemorrhagic stroke, *Durva* or *Vasa Swarasa Nasya* is preferred for its haemostatic and cooling properties.

Sarvanga Abhyanga* with *Mahanarayana Taila

Once vitals were stabilised and Ama assessed as cleared, *Sarvanga Abhyanga* was initiated with *Mahanarayana Taila. Mahanarayana Taila* is a classical formulation extensively used in *Vata Vyadhis*, combining *Shatavari, Bala, Ashwagandha*, and numerous *Vatahara* drugs in a sesame oil base. *Abhyanga* promotes *Dhatvagni* stimulation, *Srotoshodhana*, and direct neuromuscular nourishment through transdermal absorption.

Seka* with *Balamula Kwatha

Following *Abhyanga, Seka (Parisheka/Dhara* over the body) was performed with *Balamula Kwatha*. Acharya Charaka classifies *Seka* under *Swedana*:

स्वेदनं स्नेहसंयुक्तं पक्षाघाते विरेचनम् || (Ch.Chi.28)

Bala (Sida cordifolia) is one of the most *Vatahara, Brimhana*, and *Balya* drugs in the Ayurvedic pharmacopoeia. Boiling *Balamula* with water and using the resulting *Kwatha* as a warm pour-over provides both the benefits of *Swedana* (improving circulation, reducing stiffness) and the specific *Vatahara* action of *Bala*.

Shirodhara* with *Balamula Ksheerapaka

Shirodhara- the continuous, rhythmic streaming of medicated liquid over the forehead- was administered with *Balamula Ksheerapaka*. This is justified by Acharya Sushruta's reference to *Masthishkya* (procedures specific to the brain/head) as a *Visheshika Chikitsa* in *Pakshaghata*:

वैशेषिकश्चात्र मस्तिष्क्यः || (Su.Chi.5)

Ksheera (milk) is inherently *Vatahara*, *Brimhana*, and *Rasayana. Bala* prepared as *Ksheerapaka* combines the *Vatahara* properties of *Bala* with the nourishing, *Medhya*, and nerve-trophic properties of milk. The continuous stream of warm *Ksheerapaka* during *Shirodhara* activates the hypothalamo-pituitary axis via mechanoreceptors and thermal receptors of the forehead, promoting parasympathetic dominance, HPA axis modulation, and neurological recovery.

The identification of *Kapha-Medas Avarana* as the primary *Samprapti* mechanism- rather than purely *Vata Prakopa*- has important therapeutic implications. Premature administration of oleating therapies without first clearing *Ama* and *Avarana* can deepen obstruction and worsen outcomes. The sequential approach- *Amapachana* and *Rukshana* first, followed by *Snehana*- reflects sound classical reasoning.

The use of *Agnilepa* in the first seven days is a valuable contribution from the Karnataka folk tradition, providing *Niragni Sweda* and *Lepa* with *Ushna-Teekshna* drugs that are otherwise contraindicated in oil-based *Snehana* at this stage. Its warming, penetrating, and *Kaphaghna* properties address *Avarana* without aggravating *Pitta* excessively.

Shirodhara with *Balamula Ksheerapaka* demonstrates the classical principle of *Mastishkya*-head-directed therapies- as explicitly recommended by Acharya Sushruta. The mechanoreceptor stimulation of the continuous liquid stream over the forehead, combined with the *Vatahara* and *Brimhana* properties of *Bala-Ksheera*, provides both neurophysiological and *Dravyaguna*-based rationale for this intervention.

The significant Barthel Index improvement (35 to 85) in 14 days compares favourably with reported outcomes in purely physiotherapy-based rehabilitation at similar time points, suggesting that integrated Panchakarma intervention provides additive benefit, particularly in the subacute phase.

From a modern neurophysiological standpoint, the acute flaccid phase with diminished reflexes (seen here) represents diaschisis- a temporary depression of cortical and spinal circuit activity following the acute insult. Recovery of tone to normal by day 7 and improvement in power to 4/5 is consistent with resolution of diaschisis and early neuroplastic remodelling, supported by the *Vatahara* and *Brimhana* therapies administered.

CONCLUSION

- The present case was diagnosed as *Dakshina Bhaga Pakshaghata*, correlating with acute ischaemic stroke involving the left basal ganglia and corona radiata confirmed on MRI.
- Long-standing diabetes mellitus and undiagnosed hypertension were the principal *Nidanas*, leading to *Kapha-Medas Avarana* and subsequent *Vata Prakopa*- a pattern of *Avaranajanya Vata Vyadhi*.
- The *Sadhyasadhyata* was assessed as *Kruchra Sadhya* based on the patient's *Vridha Vaya*, background comorbidities, and *Dhatukshaya* involvement.
- A stage-wise treatment protocol- *Agnilepa* and *Nasya* in the acute phase; *Abhyanga, Seka*, and *Shirodhara* in the subacute phase- was employed, grounded in *Amapachana, Swedana, Vatahara*, and *Brimhana* principles.
- These interventions resulted in *Srotoshodhana*, *Vata Anulomana*, and measurable neuromuscular functional recovery, with the Barthel Index rising from 35 to 85 over 14 days.
- The case affirms that Ayurvedic interventions, when applied with classical rigor and supported by modern diagnostic confirmation, can significantly contribute to the management of acute and subacute *Pakshaghata*.

REFERENCES

1. Agnivesha. Charaka Samhita. Chikitsa Sthana, Adhyaya 28 (Vatavyadhi Chikitsa). Edited by Vaidya Yadavji Trikamji Acharya. Varanasi: Chaukhamba Surbharati Prakashan.
2. Sushruta. Sushruta Samhita. Nidana Sthana, Adhyaya 1. Edited by Kaviraja Ambikadutta Shastri. Varanasi: Chaukhamba Sanskrit Sansthan.
3. Sushruta. Sushruta Samhita. Chikitsa Sthana, Adhyaya 5. Edited by Kaviraja Ambikadutta Shastri. Varanasi: Chaukhamba Sanskrit Sansthan.
4. Vagbhata. Ashtanga Sangraha. Nidana Sthana. Edited by Pt. Hari Sadasiva Shastri Paradakara. Varanasi: Chaukhamba Surbharati Prakashan.
5. Bhavamishra. Bhavaprakasha Nighantu. Varanasi: Chaukhamba Bharati Academy.
6. Feigin VL, Krishnamurthi RV, Parmar P, et al. Update on the global burden of ischemic and hemorrhagic stroke in 1990-2013. Neuroepidemiology. 2015; 45(3): 161-176.
7. Powers WJ, Rabinstein AA, Ackerson T, et al. 2019 update to the 2018 guidelines for the early management of acute ischemic stroke. Stroke. 2019; 50(12): e344-e418.
8. Mahoney FI, Barthel DW. Functional evaluation: the Barthel Index. Md State Med J. 1965; 14: 61-65.
9. Gourie-Devi M. Epidemiology of neurological disorders in India: review of background, prevalence and incidence of epilepsy, stroke, Parkinson's disease and tremors. Neurol India. 2014; 62(6): 588-598.
10. Sharma H, Chandola HM. Pakshaghata (hemiplegia) and its Ayurvedic management-a review. Anc Sci Life. 2011; 31(1): 3-8.
11. Dhiman KS. Management of Pakshaghata (hemiplegia) by Ayurvedic methods-a clinical study. J Res Ayurveda Pharm. 2012; 3(2): 271-277.

Cite this article as:
Nirma B, Priyadarshini D. Pakshaghata (Hemiplegia)- Integrating Classical Principles with Modern Neurological Insights. AYUSHDHARA, 2026;13(3):123-129.
https://doi.org/10.47070/ayushdhara.v13i3.2799
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr. Nirma B
PG Scholar,
Dept. of Panchakarma,
GAMC, Bangalore.
Email: nirmsirvi@gmail.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.