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Ayurvedic Management of Post-Intracerebral Hemorrhagic Hemiplegia (*Pakshaghata*): A Case Report

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Abstract

Background: Intracerebral hemorrhage (ICH) leads to severe motor weakness and disability. In Ayurveda, post-stroke hemiplegia is managed as *Pakshaghata*, a main *Vatavyadhi* characterized by motor loss (*Chestahani*) and weakness on one side of the body. Treatment focuses on clearing channel obstruction (*Avaranahara*) followed by oleation, fomentation, nasal therapy, and medicated enemas (*Basti*).

Case Presentation: A 72-year-old male presented with acute left flaccid hemiplegia of 14 days duration following intraparenchymal brain hemorrhage. At admission, he had complete loss of voluntary movement in left limbs (MRC 0/5), hypotonia, slurred speech, facial tilt, and disorientation.

Therapeutic Interventions: The patient underwent a 15-day inpatient Ayurvedic regimen (14–28 Jan 2025). Therapies included *Sarvanga Utsadana, Pradhamana Nasya, Sarvanga Abhyanga* with *Shashtika Shali Pinda Sweda, Shirothalam*, local *Veshtana, Matra Basti*, and *Kala Basti* (*Manjishtadikshara* and *Manjishtadi Ksheera Basti*). Oral medicines included *Drakshadi Kashaya*, Cap. Neurodex, and *Gandharvahastadi Taila*.

Outcomes: After 15 days, significant clinical recovery occurred. Active leg movement returned (hip flexion, knee extension, dorsiflexion improved from 0/5 to 3/5 against gravity). Upper limb showed muscle flickers (0/5 to 1/5). Total MRC score improved from 0/30 to 12/30 (+40% gain). Speech slurring cleared, disorientation resolved, and the patient progressed from bedridden state to walking with support.

Conclusion: A structured, sequential Ayurvedic protocol demonstrated rapid motor and ambulatory recovery in post-ICH flaccid hemiplegia.

Keywords: *Intracerebral Hemorrhage; Hemiplegia; Pakshaghata; Stroke Rehabilitation*

Introduction

Stroke is a primary cause of death and long-term adult disability globally[1]. Intracerebral hemorrhage (ICH) accounts for 10% to 20% of strokes and carries higher mortality and morbidity than ischemic stroke[2,3]. Primary ICH results from spontaneous rupture of small brain arteries, usually secondary to long-standing hypertension[3]. Bleeding into brain tissue disrupts motor pathways, increases intracranial pressure, and causes surrounding brain edema[4]. Survival after ICH is low, and survivors often face severe permanent paralysis.

Acute modern care focuses on blood pressure control, managing cerebral edema, and preventing systemic complications[2]. Once stable, recovery of paralyzed limbs relies mostly on physical rehabilitation. However, motor recovery during the subacute phase can be slow and limited.

In Ayurveda, hemiplegia is described as *Pakshaghata* (or *Pakshavadha*), one of the 80 *Vata* disorders (*Nanatmaja Vatavyadhi*)[5]. Vitiated *Vata* enters one side of the body, drying and weakening blood vessels (*Sira*) and tendons (*Snayu*)[5,6]. This leads to loss of movement (*Chestahani*), sensory loss (*Anubhuti Hani*), slurred speech (*Vakstambha*), and mouth deviation (*Ardita*)[6].

The disease mechanism (*Samprapti*) involves channel obstruction (*Avarana*) and tissue weakening (*Dhatu Kshaya*)[5,6]. Treatment requires a sequential approach: clearing obstruction (*Avaranahara*), restoring *Vata* movement (*Vata Anulomana*), followed by oleation (*Snehana*), fomentation (*Swedana*), nasal therapy (*Nasya*), mild purges (*Virechana*), medicated enemas (*Basti*), and oral rejuvenatives (*Rasayana*)[6,7].

This case report describes the recovery of a 72-year-old male with left flaccid hemiplegia following ICH, who received a 15-day inpatient Ayurvedic protocol at SDM College of Ayurveda and Hospital, Hassan, reported as per CARE guidelines[8].

Case Presentation

1. Patient Information & Chief Complaints

A 72-year-old male patient was admitted to the Kayachikitsa inpatient department, SDM College of Ayurveda and Hospital, Hassan, on 14 January 2025 (Admission: 14/01/2025; Discharge: 28/01/2025). He arrived in a wheelchair accompanied by family members with the following chief complaints:

- Complete inability to move left arm and leg for 14 days.
- Reduced sensation over the left side of body for 14 days.
- Slurred, unclear speech (dysarthria) for 14 days.
- Deviation of mouth to left side while speaking for 14 days.
- Confusion and disorientation to person since stroke onset.

2. History of Present Illness

Fourteen days prior to admission (31 December 2024), the patient experienced sudden severe weakness in left limbs while working, fell down, and could not stand up. His speech became slurred within hours. Emergency CT scan confirmed an acute intraparenchymal brain hemorrhage[9]. He was stabilized in the ICU and managed conservatively. Following acute discharge, persistent paralysis prompted his family to seek Ayurvedic neuro-rehabilitation.

3. Clinical Examination at Baseline (14/01/2025)

On admission, the patient was conscious but disoriented to person. Vital signs were stable. Examination revealed upper motor neuron (UMN) left facial palsy with mouth deviation and slurred speech. Left limbs showed complete flaccid paralysis (hypotonia) with voluntary muscle power of 0/5 across all joints on the Medical Research Council (MRC) scale[9]. Deep tendon reflexes were absent on the left side. Sensory perception was diminished over the left hemibody. He was completely bedridden and dependent for daily activities.

4. Ayurvedic Clinical Diagnosis (*Samprapti Ghataka*)

Diagnosed as *Vama Pakshaghata* (left hemiplegia)[5]:

- ***Dosha*****:** *Vata Pradhana Tridosha* with *Kapha-Pitta* channel blockage (*Avarana*)
- ***Dushya*****:** *Rasa, Rakta, Mamsa, Meda, Sira, Snayu*, and *Nadi Sansthana*
- ***Agni*****:** *Vishamagni*
- ***Srotas*****:** *Rasavaha, Raktavaha, Mamsavaha*, and *Pranavaha Srotas*
- ***Srotodushti*****:** *Sanga* (obstruction) initially, followed by *Sira-Snayu Shosha*
- **Prognosis:** *Krichrasadhya* (difficult to treat due to age 72 years and hemorrhagic etiology)

Therapeutic Interventions

The patient underwent a 15-day structured inpatient protocol combining external therapies, Panchakarma *Basti* enemas, oral medicines, and bedside physiotherapy.

Table 1: Interventions and drug details

Therapy / Procedure	**Medicines Used**	**Dosage & Duration**	**Clinical Action**
Sarvanga Utsadana	*Udwartana Churna* + *Ksheerabala Taila*	14–17 Jan (4 days)	Clears channel blockage (*Avaranahara*) & improves skin circulation
Pradhamana Nasya	*Yashtimadhu* + *Vacha Churna* powder	14–17 Jan (4 days)	Stimulates sensory organs & brain centres (*Sanjna Prabhodana*)
Sarvanga Abhyanga & SSPS	*Mahanarayana Taila* & *Shashtika Shali Pinda Sweda*	18–28 Jan (11 days)	Nourishes nerves & muscles, restores tone (*Balya/Brimhana*)
Shirothalam	*Jatamayadi Churna* + *Ksheerabala Taila* paste	14–28 Jan (15 days)	Calms central nervous system & protects brain tissue (*Medhya*)
Local *Veshtana*	*Mahanarayana Taila* cloth wrap	14–28 Jan (15 days)	Provides warmth, reduces flaccidity, stimulates nerves
Matra Basti	*Dadimadi Ghrita* (60 mL)	18–20 Jan (3 days)	Pacifies *Vata*, regulates bowel, nourishes nervous tissue
Kala Basti (*Niruha*)	*Manjishtadikshara Basti* (3d) then *Manjishtadi Ksheera Basti* (3d)	21–26 Jan (6 days)	Clears blood toxins & blockage; then provides deep nutrition
Anuvasana Basti	*Sahacharadi Taila* (60 mL)	Intermittent days	Strengthens lower back and leg nerves
Oral Medicine 1	*Drakshadi Kashaya*	15 mL TID b/f	*Pitta-Vata* pacifying, brain tonic, restores digestion
Oral Medicine 2	Capsule Neurodex	1 cap TID a/f	Nerve strength, enhances impulse transmission
Oral Medicine 3	*Gandharvahastadi Taila*	10 mL bedtime	Mild purgation (*Mridu Virechana*) and *Vata* movement

Study Timeline

Table 2: Treatment progression from stroke onset to discharge

Date / Period	Clinical Status / Milestone	Therapeutic Action Initiated
31/12/2024 (Day -14)	Stroke onset, left total paralysis, fall, slurred speech	Emergency hospital admission, CT brain scan, ICU stabilization
14/01/2025 (Day 1)	Ayurveda hospital admission. MRC 0/5, flaccid, slurred speech, disoriented	Clinical evaluation. Started Phase 1 therapies (*Utsadana, Nasya, Shirothalam*)
15–17/01 (Days 2–4)	Speech clarity improved, orientation restored, limb heavy feeling reduced	Continued Phase 1 external therapies and oral medicines
18–20/01 (Days 5–7)	Slight muscle firmness returned. Bowel movements normalized	Started Phase 2: *Abhyanga* + SSPS, *Matra Basti* (*Dadimadi Ghrita*), *Anuvasana Basti*
21–27/01 (Days 8–14)	Active left leg movements started. Able to lift leg off bed against gravity	Administered *Manjishtadikshara* & *Manjishtadi Ksheera Basti* schedule. Physiotherapy
28/01/2025 (Day 15)	Discharge day. MRC score improved to 12/30. Walking with single support	Final assessment, discharge medication advice, home exercise instructions

Discharge Advice (28/01/2025)

The patient was prescribed home medications:

1. Capsule Yashtimadhu: 4 capsules morning 2h before food with warm milk (Nerve tonic).

2. Capsule Ashwagandha: 2 capsules night after food with warm water (Strength booster).

3. Maharasnadi Kashaya: 10 mL twice daily with warm water & Pippali powder after food.

4. Pratimarsha Nasya (Ksheerabala 101): 2 drops in each nostril twice daily.

5. Mahanarayana Taila: Warm oil application over left limbs followed by warm bath.

Results & Clinical Outcomes

Motor power was evaluated before (14/01/2025) and after treatment (28/01/2025) using the Medical Research Council (MRC) scale (0–5 grade) across six joint movements[9]

Table 3: Clinical Outcomes

Joint Movement	**Before Treatment (14/01/2025)**	**After Treatment (28/01/2025)**	**Net Improvement**
Left Shoulder Abduction	0 / 5 (No contraction)	1 / 5 (Trace contraction)	+ 1 Grade (Muscle flicker)
Left Elbow Flexion	0 / 5 (No contraction)	1 / 5 (Trace contraction)	+ 1 Grade (Muscle flicker)
Left Wrist Extension	0 / 5 (No contraction)	1 / 5 (Trace contraction)	+ 1 Grade (Muscle flicker)
Left Hip Flexion	0 / 5 (No contraction)	3 / 5 (Moves against gravity)	+ 3 Grades (Active movement)
Left Knee Extension	0 / 5 (No contraction)	3 / 5 (Moves against gravity)	+ 3 Grades (Active movement)
Left Foot Dorsiflexion	0 / 5 (No contraction)	3 / 5 (Moves against gravity)	+ 3 Grades (Active movement)
TOTAL COMBINED SCORE	**0 / 30**	**12 / 30**	**+ 12 Points (+40% recovery)**

Summary of Functional Recovery

The patient achieved significant functional gains within 15 days:

• **Lower Limb Power:** Left hip flexion, knee extension, and foot dorsiflexion improved from 0/5 to 3/5. He could lift his leg off the bed against gravity.

• **Upper Limb Power:** Shoulder abduction, elbow flexion, and wrist extension improved from 0/5 to 1/5, showing visible muscle twitching.

• **Ambulatory Status:** Progressed from complete bedridden immobility to standing and walking with single-person support.

• **Speech & Cognition:** Speech slurring cleared markedly, making speech clear. Disorientation resolved completely by Day 4.

• **Muscle Tone:** Flaccid low muscle tone improved to normal resting tone in left limbs.

Discussion

Hemiplegia from brain hemorrhage presents therapeutic challenges due to nerve fiber disruption and edema[3,4]. In a 72-year-old patient admitted 14 days post-stroke with flaccid paralysis (MRC 0/5), achieving assisted ambulation within 15 days is a significant outcome.

1. Rationale of Interventions

1. *Utsadana & Nasya:* Powder massage (*Utsadana*) clears microchannel blockages (*Avaranahara*) and stimulates cutaneous nerves[10]. *Pradhamana Nasya* delivers powder through the nasal route ("*Nasa Hi Shiraso Dvaram*")[6,10]. *Vacha* (*Acorus calamus* L.) protects nerve cells, while *Yashtimadhu* (*Glycyrrhiza glabra* L.) reduces swelling[10,11].

2. *Abhyanga & SSPS:* Oil massage with *Mahanarayana Taila* pacifies *Vata* and improves blood flow[7]. SSPS applies hot boluses of *Shashtika* rice cooked in milk and *Balamoola* (*Sida cordifolia* L.) decoction. *Balamoola* contains alkaloids that nourish nerves and muscles (*Sira-Snayu Poshana*) and restore tone[10,12].

3. *Basti* Therapy: *Basti* is the primary treatment for *Vata* disorders[5,6]. The gut-brain axis explains how rectal enemas influence central nervous pathways[13]. *Manjishtadikshara Basti* cleared blood impurities, while *Manjishtadi Ksheera Basti* provided tissue nutrition (*Brimhana*)[7].

4. Oral Remedies: *Maharasnadi Kashaya* reduces nerve inflammation[14]. *Ashwagandha* (*Withania somnifera* (L.) Dunal) supports nerve cell growth[10,15].

Strengths & Limitations

Strengths include CARE compliance, objective MRC scoring, and a structured protocol. Limitations include a single case design, short 15-day follow-up, and combined therapies preventing isolation of single herb effects[8].

Conclusion

A 15-day inpatient Ayurvedic regimen combining *Sarvanga Utsadana, Pradhamana Nasya, Abhyanga* with SSPS, *Basti* enemas, and oral medicines resulted in rapid motor recovery in post-ICH flaccid hemiplegia. MRC score improved from 0/30 to 12/30, allowing assisted walking. Ayurvedic Panchakarma protocols show valuable potential for stroke rehabilitation.

Patient Perspective & Informed Consent

• **Patient Perspective:** Patient Statement: "When we came, my left arm and leg were completely paralyzed. After starting oil treatments, head paste, and enemas, strength returned to my leg. By day 15, I could stand and walk with support. Speech became clear. We are happy with the care."

• **Informed Consent:** Written informed consent was obtained from the patient and family for publication. Personal details were anonymized.

References

1. Feigin VL, Stark BA, Johnson CO, Roth GA, Bisignano C, Abady GG, et al. Global, regional, and national burden of stroke and its risk factors, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Neurol. 2021;20(10):795-820.

2. Winstein CJ, Stein J, Arena R, Bates B, Cherney LR, Cramer SC, et al. Guidelines for adult stroke rehabilitation and recovery: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. Stroke. 2016;47(6):e98-e169.

3. Wolsink A, Cliteur MP, van Asch CJ, Boogaarts H, Dammers R, Hannink G, et al. Incidence, case fatality, and functional outcome of intracerebral haemorrhage, according to age, sex, and country income level: a systematic review and meta-analysis. Lancet Reg Health Eur. 2025;49:101180.

4. Qureshi AI, Mendelow AD, Hanley DF. Intracerebral hemorrhage. Lancet. 2009;373(9675):1632-1644.

5. Agnivesha. Charaka Samhita. Revised by Charaka and Dridhabala, edited by Vaidya Jadavji Trikamji Acharya. Varanasi: Chaukhambha Surbharati Prakashan; 2014. Chikitsasthana Chapter 28 (Vatavyadhichikitsa), verses 53-55.

6. Vagbhata. Ashtanga Hridayam. Edited by Kunte AM, Navre RS. Varanasi: Chaukhambha Surbharati Prakashan; 2010. Nidanasthana Chapter 15 & Chikitsasthana Chapter 21.

7. Sharma AK, Yadav PS. Kayachikitsa. Tritiya Bhag. New Delhi: Chaukhambha Orientalia; 2021.

8. Gagnier JJ, Kienle G, Altman DG, Moher D, Sox H, Riley D, et al. The CARE guidelines: consensus-based clinical case reporting guideline development. J Med Case Rep. 2013;7:223.

9. Medical Research Council. Aids to the Examination of the Peripheral Nervous System. Memorandum No. 45. London: Her Majesty's Stationery Office; 1976.

10. Hegde PL, Harini A. A Textbook of Dravyaguna Vijnana. Vol II. Revised ed. New Delhi: Chaukhambha Publications; 2022.

11. Sahi AK, Singh S. Neuroprotective mechanisms of Acorus calamus and Glycyrrhiza glabra in cerebral ischemia: a review. J Ethnopharmacol. 2021;268:113432.

12. Tripathi YB, Sharma M. Anti-inflammatory and neuro-stimulatory properties of Sida cordifolia (Balamoola). Phytomedicine. 2018;25:88-96.

13. Cryan JF, O'Riordan KJ, Cowan CSM, Sandhu KV, Bastiaanssen TFS, Boehme M, et al. The microbiota-gut-brain axis. Physiol Rev. 2019;99(4):1877-2013.

14. Mohandas R, Totad M, Vasantha B, Narasimhan S. An open label single arm prospective clinical study in the management of Pakshaghata (CVA due to infarct) with Maharasnadi Kashaya and Shunti Churna. J Ayurveda Integr Med Sci. 2020;5(5):59-64.

15. Kulkarni SK, Dhir A. Withania somnifera: an Indian ginseng. Prog Neuropsychopharmacol Biol Psychiatry. 2008;32(5):1093-1105.

16. Mural P, Prashanth AS, Kulkarni M. A case study on Pakshaghata - a successful story. J Ayurveda Integr Med Sci. 2024;9(4):254-260.

17. Singh V, Sawarkar P, Sawarkar G, Parwe S. Pakshaghata (Hemiparesis) management - cerebral vascular event (CVE) through Panchakarma, Shamana treatment and physiotherapy - a case report. Int J Ayurvedic Med. 2022;13(2):554-560.

18. Parwe S, Nisargandha M. A case report on Pakshaghata: Ayurvedic intervention in hemorrhagic hemiplegia management. J Pharm Bioallied Sci. 2025;17(Suppl 5):S3796-S3798.