



Ayurveda as a Supportive Treatment: A Case Report on Integrative Management of Intracranial Haemorrhage

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Abstract

Stroke is one of the leading causes of adult neurological disability across the globe. Currently, Intracranial Haemorrhage (ICH) has the highest mortality rate of all stroke subtypes. An ICH accounts for only 15% of all stroke subtypes but is one of the most disabling forms of stroke. Over one-third of patients with ICH do not survive and only 20% regain functional independence. This high rate of morbidity and mortality has prompted investigations into new medical and alternative medical therapies for ICH. The stroke is defined in the context of *pakshaghata* as a *vatavyadhi* affecting the *madhyama rogamarga* in which the *siras* and *snayus* are affected. The patient was administered to *Rookshana* followed by oleation, fomentation, purification, enema, and nasal purgation along with selected *samana* drugs. Assessments were done before and after treatment using Medical Research Council (MRC) Scales, Modified Rankin Scale (mRS), and National Institutes of Health Stroke Scales (NIHSS). The assessments revealed a positive approach to external and internal *Ayurvedic* treatments as a supporting treatment for the management of stroke due to ICH. The gradual recovery was promising and worth documenting.

Keywords: *Ayurveda*, Hemiplegia, *Pakshaghata*, Stroke

1. Introduction

Stroke is the second most common cause of death worldwide and a first-rate contributor to incapacity worldwide¹. A stroke is a clinical emergency that takes place when the blood goes with drifts to the brain and is interrupted. This can cause critical symptoms, lasting incapacity, or even death. A stroke can be broadly classified as an Ischemic, hemorrhagic, or Transient Ischaemic Attack (TIA). An Ischemic stroke occurs when a blood clot keeps blood from flowing to the brain. An ischemic

stroke can be embolic or thrombolytic and 15% of embolic strokes are due to atrial fibrillation². A hemorrhagic stroke results when a blood vessel in the brain ruptures spilling the blood into the surrounding tissues. There are three main types of hemorrhagic strokes namely aneurysm, arteriovenous malformation, and hypertension. The National Stroke Association recommends the FAST (American Stroke Association) method to help identify the warning signs of a stroke³. An ICH accounts for only 15% of all the stroke subtypes. Yet, it is one of the most disabling forms

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of stroke⁴. Greater than one-third of patients with ICH do not survive and only 20% of the patients regain functional independence⁵. *Ayurveda* is a conventional medicinal system that has evolved within the Indian subcontinent and was codified in written form over 5000 years ago. *Ayurveda* and different carefully associated indigenous structures of medication are very extensively used within the Indian subcontinent. *Ayurveda* describes this disorder as a derangement or imbalance of one or more *doshas*, and the remedy includes measures to accurately repair the derangement and restore the balance⁶. *Pakshaghata* or hemiparesis has been properly defined in classical texts of *Ayurveda*, with unique remedies prescribed. While *Ayurvedic* literature no longer describes any strict time restrictions for the treatments, the effectiveness of the remedy increases significantly if it is administered as early as possible. In this case, a 48-year-old gentleman with a known case of Type 2 diabetes mellitus for the last 3 years recently detected dyslipidemia. He sought help from the Department of Integrative Medicine for weakness on the left upper and lower limb associated with difficulty in walking, deviation of angle of the mouth, dysphagia, and mild dysarthria for a month. The subject had a previously diagnosed medical history of a cerebrovascular accident- right gangliocapsular bleed.

2. History

A 48-year-old male with a known case of Type 2 diabetes mellitus for 3 years not on any medications, now developed a history of a deviation of angle of the mouth to the right, weakness of left upper and lower limb with swaying while walking since 13/5/2019 night. On examination he was conscious, oriented with dysarthria, left upper motor neuron facial palsy, grade 0/5 power in the left upper and lower limb with a weak hand and toe grip, reflexes left brisk, plantar left extensor. CT Brain done outside showed a right gangliocapsular bleed. He was treated with anti-edema and anti-hypertensive measures. As his routine urine test showed pus cells, a urine culture was sent. While the report was awaited, he was treated with Nitrofurantoin for 7 days. An endocrinology

opinion was sought for glycaemic control and the dose of insulin was adjusted. He developed increased compulsive sexual behaviour and irritability, hence Risperidone, Pacitane, and Luramax were initiated. Stroke rehabilitation was also initiated. He improved gradually and was discharged in a stable condition with advice to continue regular physiotherapy. After 2 weeks of review, the patient was advised to continue the same treatment and physiotherapy. Even after one month of treatment with supportive physiotherapy, the mRS and the NIHSS scale did not improve. Hence the patient was referred to the Integrative Medicine Department of Ayurveda for supportive management along with the internal medications. At the time of consultation at the integrative center, the patient was on statins 40mg, calcium channel blockers biguamides, skeletal muscle relaxants, and insulin. After one month of treatment, the dosage of the current medications was lowered, and the insulin was stopped after routine blood investigations. At the commencement of the treatment, after one month of treatment and on subsequent follow-up on the 3rd and 6th months the mRS scale and NIHSS scales were recorded (Table 5 and Table 6).

3. Materials and Methodology

The present clinical study is a case report on the efficacy of *Panchakarma* procedures and *Ayurvedic* internal medication in addition to allopathic medications for a patient diagnosed with a case of right ganglionic bleed resulting in right-sided hemiplegia. Assessments were done based on the NIHSS and mRS scales. Based on the results of this case it can be said that *Ayurvedic* management with *Panchakarma* procedures like *abhyanga*¹⁵, *swedana*, *anulomana*, and *shirodhara* along with oral *Ayurveda* medication (Table 1) are effective in the management of *pakshaghata*. These strategies are safe, price-powerful, and easy to follow. The patient was followed up for one year and there was no deterioration. The condition of the patient improved gradually along with the course of the treatment (Table 2). The mRS score recorded at the beginning of the treatment was 5 and the NIHSS was 20 after one month of treatment, the mRS score

(Table 6) was 4 and the NIHSS score (Table 5) was 8. On the third month review, the scores were again recorded and mRS and NIHSS scores were 3 and 5, respectively. In the subsequent visit during the sixth month and after one year, the mRS scores and NIHSS scales were 2 and 3, respectively. Also, the doses of allopathic medications were gradually reduced in the subsequent visits after the *Ayurvedic* treatment. As this is a particular case study, there is a need for many such patients in randomized clinical trials to establish the effectiveness of the above treatment protocol in the management of *pakshaghata*. This case report serves as a lead for further research in the management of stroke (*pakshaghata*).

4. Discussion

The most effective window for *Ayurvedic* therapy is said to be within the first month to one and a half months after the onset. Hence, *Ayurveda* gives us the ability of a healing intervention that may be used for most stroke sufferers across the world. *Acharya Charaka* has described *pakshaghata* in *Vatananthmaja Vyadhi*, *Acharya Sushruta* in *Mahavat Vyadhi*⁷, and *Acharya Charaka* and *Sushruta* have given the treatment protocol of *pakshaghata*⁸ which is *snehana*, *swedana*, *mridu virechana*, *basti karma*, *murdhani taila*. Stroke (*pakshaghata*) is described as one of the *vatavyadhi*. *Vata* is the primary *dosha* inside the pathology of *pakshaghata*. Vitiating of *vata* results from *avarana* or *dhatukshaya* (depletion of the essence of the tissue). Hence, in this case, treatment was first initiated with *rookshana* (*dhanyamladhara*) and *shodhana* (mild laxative), which can remove the obstructions. After that, the precept of the *brahmana*-precise *panchakarma* technique was followed for recovery of the depletion of tissue. Accordingly, treatment was given to this patient. The internal medications (Table 1) involved the intake of *Dhanadanayanadi Kashayam*¹¹, *Gandharvahastadi Kashayam*¹¹, *Vachalashunadi Thailam*¹¹, *Vaishvanara Choornam*¹⁴, *Brahmi Ghritam*¹¹, *Gandharvahastadi Erandam*¹¹. External therapies involved *Ayurvedic* therapeutic *panchakarma* procedures (Table 2) like *Rooksha* treatment in the form of *dhara*, *choornapinda*,

*swedana*¹², *shirootalam*, *basti*, *udwartana* and *virechana*.

Abhyanga treatment in the form of lukewarm *Dhanwantharam tailam*¹³ and *Karpuradhi Taila*¹¹ was used for 30 minutes followed by *Ksheera Dhoomam* with *Balamoola Ksheerapakakashayam*¹¹ for 15 minutes. *Dhanwantharam Taila*¹³ improves strength, which results in the nourishment of the *Dhatu*. It additionally allows the comfort of muscle tension and boosts circulation. The contents of the *tailams* used have anti-inflammatory effects which pacify the *vata* and *pitta dosha*. *Swedana* with *kashaya* for 15 minutes opens and cleanses the *srotasas*. Moreover, *Balamoola* helps to pacify the morbid *vata dosha* and soothes the nerves. The *Karpuradhi tailam*¹¹ maintains healthy blood circulation, keeps joints healthy, and is excellent for pacifying cramps, stiffness in joints, and numbness. *Shastikashali Pindaswedana*¹² improves strength and pacifies the *vata*. It is administered for *shosha* (loss of muscle) and *stambha* (stiffness). The heating effect of the *Shastikashali Pindaswedana* facilitates vasodilation which improves the bloodstream.

Nasya in the form of *Brahmi Gritam*¹¹ offers nourishment to nerve fibres, alleviates *vata dosha*, and promotes the readability of the senses (*ShrasthaIndriyanam Prasadanam*). The drug is administered through the nostril as *Nasya* reaches the mind after which it both removes the morbid *dosha* chargeable for generating the disorder and nourishes the area.

In *Virechana* treatment, *majja* is taken into consideration as a factor of *pitta dhara kala*. *srotodushti* (disturbance at the extent of *Srotas*) takes region in *pakshaghata*. According to *Acharya Charaka*, *majja*. Hence, the management of its vitiation was done by *Virechana Karma* with *Gandharvahastadi Eranda Tailam*¹² as it is the number one mode of removal of vitiated *pitta dosha*. It has been observed that *virechana* imparts strength to the body and stabilizes all the tissues in the body.

For *Basti*, *Brihmana Dravya* is selected for a medicated enema in the form of a *Basti* schedule. The *kashaya basti* indicated was *balasahacharadhi kashaya* (Table 3 and 4)¹¹ *basti*. From the vision of *Ayurveda*, *vata* is visible as the predominant disturbing issue, and *basti chikitsa* seems the most appropriate remedy for it.

Medicated enema allows the casting of vitiated *dosha* from the body, strength, and the efficiency of the drug because of its *prabhava* (precise action). The effect of the *basti* drug on *doshas* brings them back to normal and provides them with nourishment. Just as the farm receives its nourishment from water furnished via channels, the entire frame receives nourishment from *virya* (potency) of the enema drug carried through five sorts of *vata* via *srotas*. *Bala* is a nervine tonic that balances the *tridosha*, particularly *vata*. It has anti-inflammatory and analgesic properties that calm the nerves. It additionally acts on the Central Nervous System (CNS) and gives comfort from anxiety. *Bala* (*sidacordifolia*) tones blood pressure, improves cardiac health, and can increase blood circulation. The diverse types of bolus treatments like power, and rice bolus help to improve stiffness, pain, lack of circulation, numbness, and immobility by strengthening the muscles and improving joint and bone health. The subject showed significant improvement in gradation of power, gait, dystonia, spasticity, etc. These are tabulated in Table 5. The results suggest that *Ayurvedic* treatment along with modern medical treatment brings a marked change in the well-being of stroke patients.

4.1 Treatments Advised

Table 1. Internal medication

S. No.	Name of Medicine	Dose	Time	Anupama (Adjuvant)
1	<i>Dhanadanayanadi Kashayam</i> ¹¹	10ml	BD B/F	Lukewarm water
2	<i>Gandharavahastadi Kashayam</i> ¹¹	10ml	BD B/F	Lukewarm water
3	<i>Vachalashunadi Thailam</i> ¹¹	10drops	BD	<i>Kashayam</i>
4	<i>Vaishvanara Choornam</i> ¹⁴	5gm	BD	<i>Kashayam</i>
5	<i>Brahmi Ghritam</i> ¹¹ 1tsp	5ml	BD A/F	Lukewarm water
6	<i>Gandharvahastadi Eradam</i> ¹²	10ml	HS	Lukewarm water

Table 2. External treatments given to the patient

S. No.	Procedure	No. of days
1	<i>Dhanyamla Dhara</i> ¹⁰	3
2	<i>Marsha Nasyam</i> with <i>Brahmi Ghritam</i> ¹¹ 9drops	7
3	<i>Ksheera Dhoomam</i> ¹² with <i>Balamoola Ksheerapaka kashayam</i> ¹²	7
4	<i>Podi Kizhi</i> ¹² with <i>Kottamchukkadi</i> ¹³ in <i>Chinchadi thailam</i> ¹⁴	5
5	<i>Ela Kizhi</i> ¹²	5
6	<i>Sarvanga Abhayangam</i> ¹⁵ with <i>Dhanwantaram tailam</i> ¹³ + <i>Karpooradi Thailam</i> ¹¹	7
7	<i>Niruhavasti</i> with <i>Balasaahacharadi kashayam</i> ¹¹	6
8	<i>Sneha Vasti</i> ¹¹ with <i>Brahmi Gritham</i> ¹¹	10
9	<i>Shastikasali pinda swedana</i> ¹²	5

Table 3. Ingredients of *Balasaahacharadi Niruhavasthi*

S. No.	Drugs	Dose
1	Honey	100ml
2	Salt	10gm
3	<i>Brahmi gritham</i> ¹¹	200ml
4	<i>Poothiyavanyadikalkam</i> ⁹	50gm
5	<i>Balasaahacharadi Kashayam</i> ¹¹	600ml
	Total	960ml

Table 4. Duration and dose

Drug	<i>Niruha- Balasaahacharadiniruha Basthi</i> ¹¹ <i>Sneha- Brahmi Gritham</i> ¹¹
Dose	<i>Niruha</i> – 960ml <i>Anuvasana</i> -150ml
Kala	<i>Niruha</i> - Empty stomach <i>Anuvasana</i> - Immediately after meals.
Duration	<i>Kalavasthikrama</i> D1, D3, D5, D7, D9, D11, D13, D14, D15, D16 – <i>Anuvasana Basthi</i> D2, D4, D6, D8, D10, D12 – <i>Niruha Basthi</i>

Table 5. NIHSS recordings

NIHSS Scale	Before Rx	After 21 Days Rx	1 month Review	2 month Review	6 month Review
Level of consciousness	1	0	0	0	0
Ask month and age	+1 [Dysarthria]	0	0	0	0
Blink eyes and squeeze hands	+1 performs 1task	0	0	0	0
Horizontal extraocular movements -	0	0	0	0	0
Visual fields	0	0	0	0	0
Fascial palsy	+2 [partial paralysis - lower face]	+1 [Minor palsy - flat nasolabial fold and smile asymmetry]	+1	+1	0
Left arm motor deficit	+4 [no movements]	+2 [some effort against gravity]	+2 [drift, hit bed]	+1	1
Right arm motor deficit	0 [No drift for 10 seconds]	0	0	0	0
Left leg motor deficit	+4 [no movement]	+2[some effort against gravity]	+2[drift, hit bed]	+1	1
Right leg motor deficit	0	0	0	0	0
Limb Ataxia	2	+1[ataxia in 1limb]	+1	0	0
Sensation	+1	0	0	0	0
Language /Aphasia	+2	+1	+1	+1	+1
Dysarthria	+2	+1	+1	+1	0
Extinction/Inattention	0	0	0	0	0
Total NIHSS 42	20/42	8/42	8/42	5/42	3/42

Table 6. MRS scale

MRS Scale	Before Rx	After 21 days Rx	3month review	6month review
	5	4	3	2

5. Conclusion

The basic aim of *Ayurveda* is to prevent and cure disease and maintain health. According to *Ayurveda* stroke is a *vataja nanatmaja vyadhi*. In the present case, the treatment protocol was according to the *dosha dusti* and *stana dusti* per *Acharya Charaka*. External therapies, as well as internal medicine, were given to the patient according to the *vyadhia vasta* (disease condition), *rogi bala* (strength of the patient), and *dosha bala* (vitiating *doshas*). This case demonstrates the successful management of ICH using *Ayurvedic* treatment as a supporting treatment along with routine medication. The results were satisfactory and encouraging, leading

to an improvement in the patient's quality of life. From this current case report, it can be concluded that alternative medicines along with allopathic treatment improved the patient's QoL.

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