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"PANCHAKARMA IN PAKSHAGHATA (STROKE REHABILITATION) AND NEUROLOGICAL DISORDERS"

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ABSTRACT:

Stroke is a leading cause of death and disability worldwide, and India carries a substantial and growing share of this burden. Pakshaghata, described among the Vata disorders in Ayurveda, is widely correlated with hemiplegia due to stroke. Panchakarma is traditionally used for Pakshaghata and other neurological disorders through Snehana, Swedana, Basti, Nasya and related therapies, with the aim of supporting neurological recovery alongside Ayurvedic medicines. This article reviews the classical concept, the modern understanding of stroke recovery and rehabilitation, the Panchakarma procedures used, the limited clinical literature (including early work in Parkinson's disease), and the safety and integration issues. Panchakarma should be viewed as an adjunct to, not a replacement for, evidence-based acute stroke care and structured rehabilitation.

KEYWORDS: Pakshaghata, stroke rehabilitation, Panchakarma, Basti, Nasya, Shashtika Shali Pinda Sweda, Kampavata, neurological disorders

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INTRODUCTION:

Stroke remains a leading cause of long-term disability [1,7]. In India, systematic reviews describe a considerable incidence and prevalence, with variation across regions and with limited stroke services outside urban centres[2,3]. Acute management with thrombolysis, thrombectomy, antiplatelets and risk-factor control is time-critical and must not be delayed by alternative interventions [7, 8]. After the acute phase, recovery depends on neuroplasticity, early mobilisation and intensive task-specific rehabilitation [9, 10, 11].

OBSERVATION AND RESULTS:

1. Pakshaghata in Ayurvedic Classics

Pakshaghata (also Pakshavadha) is described as a Vata disease in which vitiated Vata affects one half of the body, with loss of function, stiffness and sometimes sensory change or speech disturbance[4, 5, 6]. The Charaka Samhita discusses Vata disorders extensively in its therapeutic section, and emphasises the use of Snehana, Swedana and Basti as primary measures for Vata disease [4]. The Ashtanga texts provide parallel guidance [12, 13]. Correlation with ischaemic or haemorrhagic stroke is common but approximate, because Ayurvedic classification relies on clinical features and Dosha involvement, not on neuroimaging. Related conditions such as Ardita (facial palsy), Kampavata (resembling Parkinson's disease), Gridhrasi and Avabahuka are also managed with Panchakarma principles [4, 14].

2. Modern Framework for Stroke Recovery

Spontaneous recovery after stroke is greatest in the first weeks to months, and involves mechanisms such as perilesional reorganisation and recruitment of intact networks [11]. Rehabilitation guidelines emphasise early mobilisation, high-intensity repetitive task training, management of spasticity and prevention of complications such as pneumonia, deep vein thrombosis and shoulder pain [8, 9]. A Cochrane overview synthesises physical rehabilitation approaches and shows benefit from several, with variation in certainty [15]. Any adjunctive therapy should be evaluated against these standards.

3. Panchakarma Procedures in Pakshaghata

3.1 Abhyanga and Swedana

Warm medicated oils such as Bala Taila, Ksheerabala Taila, Narayana Taila and Mahanarayana Taila are used for Abhyanga [16, 17]. Swedana forms include Nadi Sweda, Bashpa Sweda and the classical Shashtika Shali Pinda Sweda (a bolus fomentation using medicated rice cooked in milk and Bala decoction), in which the Vata-pacifying properties of the ingredients are emphasised [4, 12]. Massage research suggests benefits on relaxation, pain and mood [18, 19], and these effects could contribute to participation in rehabilitation, although evidence specific to hemiplegia is limited.

3.2 Basti

Basti is described as the foremost therapy in Vata disease [4, 13]. Anuvasana (oil-based) and Niruha (decoction-based) variants, including Matra Basti, are used with drugs such as Dashamula, Bala and Ashwagandha [5, 20]. In stroke, timing is critical: Shodhana is usually deferred until the patient is stable and acute events are managed medically [4, 8].

3.3 Nasya, Shirobasti and Shirodhara

Nasya with medicated oils (for example Anu Taila) and Shirobasti are used for cranial and bulbar involvement [4, 12]. Shirodhara has been studied for its relaxing physiological effects [21], although this does not establish efficacy in stroke recovery.

3.4 Internal Medicines

Preparations such as Ashwagandha, Bala, Mashabaladi Kwatha and Rasna are traditionally used [20, 22]. The pharmaceutical quality of herbo-mineral formulations should be verified [23, 24].

4. Evidence in Neurological Disorders

Evidence from controlled trials of Panchakarma in stroke is limited and most reports are case series or small comparative studies. An often-cited example in a different disorder is the study by Nagashayana and colleagues in Parkinson's disease, in which an Ayurvedic regimen combining purification therapy with Mucuna pruriens seed powder (a natural source of L-DOPA) was associated with clinical improvement in a small group of patients [25]. Historical analysis of Ayurvedic descriptions of Kampavata suggests that tremor-dominant disorders were recognised and treated with Mucuna-based formulations [26]. These reports are hypothesis-generating, and their small, uncontrolled nature precludes firm clinical conclusions. In observational work on Panchakarma generally, participants have reported improvements in wellbeing [27] and measurable metabolic changes [28], but these results are not specific to neurological recovery.

5. Integrative Model for Stroke Rehabilitation

An integrative approach could place Ayurvedic therapies within a multidisciplinary stroke pathway [8, 9].

- Acute care, imaging, thrombolysis and secondary prevention follow standard stroke protocols [7].
- Physiotherapy, occupational therapy and speech therapy remain core and are delivered at adequate intensity [10, 15].
- Ayurvedic Snehana, Swedana and Basti are introduced once the patient is medically stable, after joint review with the treating neurologist [14].
- Outcome tools such as the modified Rankin Scale, Barthel Index and Fugl-Meyer assessment are used for objective monitoring [8].
- Adverse events, particularly falls, hypotension, dehydration and pressure injuries, are actively monitored [29].

6. Safety

Patients with stroke often have hypertension, atrial fibrillation, diabetes and anticoagulation, so Shodhana-induced fluid shifts, hypotension or bleeding risk must be anticipated [4, 7]. Swedana can cause burns in areas of reduced sensation. Patients on warfarin or direct oral anticoagulants require particular caution with Raktamokshana and enemas. Panchakarma should not delay time-sensitive emergency care [8].

7. Research Priorities

Priorities include well-designed randomised pragmatic trials of Panchakarma as an add-on to standard rehabilitation, with blinded outcome assessment, standardised procedures and clear stage-specific indications [30, 31]. Biomarker studies of neuroplasticity, inflammation and autonomic function could explain mechanisms. Registries of Ayurvedic stroke care would allow safety surveillance.

CONCLUSION:

Pakshaghata offers a classical framework within which Panchakarma may support supportive recovery and quality of life in stroke survivors, but evidence for neurological benefit is currently insufficient. Responsible practice requires integration with modern stroke care, careful timing of procedures and rigorous research [8, 9, 14].

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