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ORIGINAL ARTICLE

A Clinical Open-Label Study to assess the Efficacy of Abhyanga with Ashwagandha Taila in the Management of Psychosomatic Disorders with Special Reference to Essential Hypertension

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ABSTRACT

Introduction: Essential hypertension is a common psychosomatic disorder resulting from the interplay of physical, psychological, and lifestyle factors. In Ayurveda, such conditions are attributed to Vata-Pitta vitiation and imbalance of Manas Doshas (Rajas and Tamas).

Abhyanga (therapeutic oil massage) is known to calm Vata and relieve stress, while Ashwagandha Taila possesses Balya (strength-promoting), Rasayana (rejuvenating), and Manas Dosha Shamak (mind-calming) properties.

Objective: To assess the efficacy of Abhyanga using Ashwagandha Taila in the management of psychosomatic disorders with special reference to essential hypertension.

Methods: An open-label, single-group clinical study was conducted on 30 randomly selected patients prediagnosed with essential hypertension (Stage I). Patients received full-body Abhyanga with Ashwagandha Taila for 45 minutes daily in the morning, for 21 consecutive days. Blood pressure, pulse rate, and psychological parameters (stress, anxiety, sleep quality, and fatigue) were recorded before and after the intervention.

Results: Significant reductions were observed in both systolic and diastolic blood pressure (p < 0.001). Stress and anxiety scores decreased markedly, and improvements were noted in sleep quality and fatigue also. No adverse events were reported during the study.

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Conclusion: Abhyanga with Ashwagandha Taila is effective in reducing blood pressure and alleviating psychosomatic symptoms associated with essential hypertension. It can serve as an integrative, non-pharmacological approach for holistic management of hypertension.

KEYWORDS

• Abhyanga • Ashwagandha Taila • Essential Hypertension • Psychosomatic Disorders • Ayurveda • Stress Management

INTRODUCTION

Hypertension commonly known as high blood pressure is one of the most prevalent non-communicable diseases of the 21st century and a leading contributor to cardiovascular morbidity and mortality worldwide. The World Health Organization (2023) identifies it as a "silent killer," often asymptomatic until irreversible damage occurs. Despite the availability of modern antihypertensive drugs, long-term control remains suboptimal because of poor adherence, stress-related aggravation, and lifestyle factors. This emphasizes the need for integrative and holistic approaches addressing not only the physiological but also the psychological origins of the disorder.

Psychosomatic Nature of Hypertension

Modern biomedical science acknowledges that approximately 90–95% of hypertension cases are "essential," meaning no single organic cause can be identified. Instead, a complex interaction of genetics, environment, personality traits, and stress determines vascular tone. Chronic activation of the sympathetic nervous system and the hypothalamic pituitary adrenal (HPA) axis elevates catecholamines and cortisol, producing persistent vasoconstriction and increased cardiac output. Over time, this leads to endothelial dysfunction, arterial stiffness, and a self-perpetuating hypertensive state. These mechanisms highlight the psychosomatic nature of the disease, where emotional and cognitive stressors translate into measurable somatic dysfunctions.

Ayurvedic Interpretation

Ayurveda, the science of life, perceives health as a dynamic equilibrium among the *Tridosha* (Vata, Pitta, Kapha), *Dhātu*, *Agni*, and *Manas*. Essential hypertension closely resembles a *Vāta-Pitta Pradhāna Vyādhi* with involvement of *Raktavaha* and *Manovaha Srotas*. *Vāta Dosha* governs all movements and impulses, including cardiac rhythm and vascular tone, while *Pitta Dosha* regulates metabolism and heat. Mental stress, fear, anxiety, and irregular routines aggravate *Rajas* and *Tamas* Gunas of the mind, thereby disturbing *Vāta* and *Pitta*. The resultant derangement manifests as *Rakta Chāpa Vriddhi* (elevated blood pressure), irritability, insomnia, and fatigue features identical to those of essential hypertension.

Abhyanga (therapeutic oil massage) is a cornerstone of *Dinacharyā* (daily regimen) and *Swasthavritta* (health preservation). *Āchārya Charaka* declares that daily *Abhyanga* delays ageing, alleviates fatigue, improves sleep, nourishes the body, and pacifies *Vāta Dosha*. The gentle, rhythmic application of warm medicated oil provides *Sneha Sparśa* (unctuous tactile stimulation) which calms the nervous system and stabilizes autonomic function. This aligns remarkably with modern findings that massage therapy induces parasympathetic dominance, reduces heart rate and cortisol, and promotes psychological well-being.

Ashwagandha Taila and Its Significance

Ashwagandha (Withania somnifera) often termed the "Indian ginseng" is a premier *Rasāyana* drug known for its *Balya* (strength-promoting), *Medhya* (cognitive-enhancing), and *Manas Śāmaka* (mind-pacifying) actions. Pharmacologically, its active constituents (withanolides) exhibit adaptogenic, anxiolytic, anti-inflammatory, and cardioprotective effects. When used as *Taila* for external application, it penetrates through the *Romakūpa* (hair follicles) and *Srotas*, exerting systemic influence through transdermal absorption. Its *Uṣṇa Vīrya* and *Snigdha Guna* help pacify *Vāta* and *Pitta*, improving circulation, reducing muscle stiffness, and calming the mind.

Need for the Present Study

While several studies have investigated *Ashwagandha*'s oral formulations for stress and anxiety, very few have explored its efficacy in external therapies such as *Abhyanga* for

psychosomatic hypertension. The present open-label clinical trial was therefore designed to evaluate the combined effects of *Abhyanga* with *Ashwagandha Taila* on both physiological (blood pressure, pulse rate) and psychological (stress, anxiety, sleep, fatigue) parameters. It attempts to bridge classical Ayurvedic wisdom and modern clinical methodology, offering an integrative, non-pharmacological intervention for holistic management of essential hypertension.

REVIEW OF LITERATURE

1. Concept of Psychosomatic Disorders

Ayurveda recognizes a deep interconnection between *Sharīra* (body) and *Manas* (mind). *Charaka Samhitā* states that imbalance of *Rajas* and *Tamas* leads to mental agitation, which in turn disturbs the *Doshas*. In modern terminology, psychosomatic disorders result from chronic stress leading to dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis and sympathetic overactivity factors central to essential hypertension.

2. Abhyanga in Classical Texts

Abhyanga is described as "*Abhyangam Ācharet Nityam Sa Jārayu Jarā Śram Vāta Viṣṭambha Kārśya Chakṣusya Prasāda Puṣṭi Ayur Svapna Sukha Tvaak Dṛḍhatā*" (Ch. Su. 5/81). Regular oil massage delays ageing, alleviates fatigue, pacifies *Vāta*, improves vision, sleep, skin texture, and strength.

3. Pharmacological and Clinical Evidence

Contemporary research highlights the role of *Ashwagandha* as an adaptogen that lowers cortisol and enhances resistance to stress (Singh *et al.,* 2011). Massage therapy studies (Field, 2016; Sharma *et al.,* 2017) show reductions in heart rate, blood pressure, and anxiety through stimulation of baroreceptor and vagal pathways.

These classical and scientific insights justify the use of *Abhyanga* with *Ashwagandha Taila* in managing psychosomatic hypertension.

AIMS AND OBJECTIVES

1. To evaluate the efficacy of *Abhyanga* with *Ashwagandha Taila* in reducing blood pressure among patients with essential hypertension.
2. To assess its impact on psychological parameters stress, anxiety, sleep quality, and fatigue.
3. To explore the Ayurvedic rationale behind the observed clinical effects.

MATERIALS AND METHODS

1. Study Design

Open-label, single-group, pre- and post-test clinical study conducted in the Department of Panchakarma over three months.

2. Selection of Patients

Thirty patients aged 30–60 years with Stage I essential hypertension (SBP 140–159 mmHg, DBP 90–99 mmHg) and psychosomatic symptoms (stress, anxiety, insomnia, or fatigue) were enrolled after informed consent.

Exclusion: secondary hypertension, severe systemic disease, pregnancy, lactation, or concurrent medication change.

4.3 Intervention

- **Therapy:** Full-body *Abhyanga* using standardized *Ashwagandha Taila*.
- **Duration:** 45 minutes daily in the morning for 21 days.
- **Technique:** Gentle synchronized strokes from distal to proximal direction, maintaining moderate temperature and pressure.
- **Post-procedure:** Rest 15 minutes → warm-water bath.

4. Assessment Parameters

Objective: Systolic and Diastolic Blood Pressure, Pulse Rate.

Subjective: Perceived Stress Scale (PSS), Hamilton Anxiety Rating Scale (HAM-A), Pittsburgh Sleep Quality Index (PSQI), Fatigue Assessment Scale (FAS). Observations were taken on Day 0 and Day 21.

5. Statistical Analysis

Data were expressed as mean ± SD and analyzed by paired t-test with significance at $p < 0.05$.

RESULTS

All parameters demonstrated statistically significant improvement after 21 days of therapy.

Parameter	Before	After	% Change	p-value
SBP (mmHg)	148.2 ± 6.4	132.6 ± 5.8	-10.5 %	< 0.001
DBP (mmHg)	94.8 ± 3.9	84.3 ± 3.4	-11.1 %	< 0.001
Pulse Rate (bpm)	84.1 ± 4.2	77.8 ± 3.6	-7.5 %	< 0.01
PSS	21.5 ± 3.6	13.2 ± 2.9	-38.6 %	< 0.001
HAM-A	17.8 ± 3.2	10.4 ± 2.6	-41.5 %	< 0.001
PSQI	9.3 ± 2.1	5.6 ± 1.8	-39.8 %	< 0.001
FAS	27.1 ± 3.4	18.2 ± 2.9	-32.8 %	< 0.001

No adverse events were reported, indicating good tolerability.

DISCUSSION

The results of this study revealed statistically significant reductions in systolic and diastolic blood pressure, pulse rate, perceived stress, and anxiety, along with notable improvement in sleep quality and fatigue. The findings affirm that *Abhyanga* with *Ashwagandha Taila* acts as an effective psycho-neuro-physiological modulator.

1. Physiological Mechanisms

Regular *Abhyanga* enhances cutaneous blood flow and stimulates baroreceptors, thereby improving arterial compliance and reducing vascular resistance. The warmth and mechanical pressure of massage facilitate vasodilation and lymphatic drainage, leading to decreased peripheral resistance and blood pressure. Additionally, rhythmic massage stimulates vagal afferents that influence medullary cardiovascular centers, promoting parasympathetic dominance. This aligns with studies by Field (2016) and Sharma *et al.* (2017), which demonstrated significant drops in systolic BP following therapeutic oil massage.

2. Neuro-endocrine Modulation

From the neuro-hormonal standpoint, tactile stimulation during *Abhyanga* reduces activity of the HPA axis, thereby lowering cortisol and catecholamine levels. The steady, nurturing touch releases oxytocin, the "bonding hormone," which counteracts sympathetic arousal and promotes feelings of calm and security. These changes collectively lower heart rate and blood pressure while alleviating anxiety.

3. Ayurvedic Correlation

In Ayurvedic terms, the reduction in *Vāta Prakopa* through *Snigdha Sparśa* explains the calming of both mind and body. *Vāta* governs all neural transmissions and is directly linked with stress responses. When *Vāta* is pacified by unctuous and warm therapies, *Rakta Sañcāra* (blood flow) becomes smooth, *Hṛdaya* regains its rhythm, and *Manas* attains steadiness. Simultaneously, the *Pitta* component responsible for heat and irritability is soothed by the cooling mental effect of relaxation, even though the oil itself is *Uṣṇa Vīrya*. Thus, *Abhyanga* restores the disturbed equilibrium of *Vāta* and *Pitta* while cleansing *Manovaha Srotas*.

4. Role of Ashwagandha Taila

Ashwagandha's adaptogenic action explains the reduction in stress and anxiety scores. Its *Rasāyana* effect enhances resilience to mental and physical strain, while its *Medhya* property sharpens cognition and emotional balance. Transdermally absorbed withanolides may influence neurotransmitter systems, particularly GABAergic and serotonergic pathways, which mediate anxiolytic and sleep-inducing effects. This complements classical claims that *Ashwagandha* strengthens the nervous system and promotes *Sattva Guna*.

5. Improvement in Psychological Parameters

The marked reduction in PSS and HAM-A scores indicates relief from psychosomatic stress. Massage creates a state of mindful relaxation similar to meditation, encouraging the release of endorphins and serotonin. The participants reported improved mood, deeper sleep, and reduced irritability, which are essential for long-term blood-pressure control. *Sukha Swapna*, described as a direct outcome of *Abhyanga* in *Charaka Samhitā*, was clearly validated in this clinical context.

6. Holistic Integration of Body and Mind

Unlike pharmacological therapy, which targets vascular parameters alone, *Abhyanga* acts on multiple dimensions *Sharīra*, *Manas*, and *Ātma Santushti* (psychological satisfaction). The tactile and emotional aspects of the therapy rebuild the *Deha–Manas Sambandha* (body-mind connection), fostering harmony. This holistic engagement distinguishes Ayurvedic intervention from symptomatic management and aligns with current biopsychosocial models of disease.

7. Comparative and Preventive Value

In comparison with standard relaxation therapies, *Abhyanga* offers the added benefit of nourishing the *Dhātus* and maintaining skin, muscle, and nerve tone. Its preventive potential is noteworthy: regular practice can deter stress-related *Vāta* vitiation and maintain cardiovascular stability. Integrating *Abhyanga* into daily lifestyle regimens for at-risk populations could therefore serve as a cost-effective public-health strategy for hypertension prevention.

8. Limitations and Future Research

Although the results are promising, the study's open-label design, small sample size, and short duration limit generalizability. Absence of a control group prevents exclusion of placebo or Hawthorne effects. Future randomized controlled trials with biochemical markers such as serum cortisol, lipid profile, and heart-rate variability could strengthen the evidence base. Comparative studies between *Abhyanga alone*, *Ashwagandha Taila alone*, and their combination would help delineate individual contributions.

9. Clinical Implications

Given its simplicity, safety, and holistic action, *Abhyanga* with *Ashwagandha Taila* can be recommended as an adjunct to conventional antihypertensive therapy or as a lifestyle intervention in pre-hypertensive individuals. It complements *Yoga*, *Prāṇāyāma*, and dietary moderation in creating a comprehensive stress-management framework.

10. Synthesis

The convergence of traditional Ayurvedic rationale and modern physiological explanation underscores the timeless relevance of *Abhyanga*. It harmonizes *Vāta–Pitta* dynamics, calms the *Manas*, and restores homeostasis at cellular and systemic levels. The therapy's capacity to bridge mind-body communication validates Ayurveda's holistic vision and provides scientific grounding for its incorporation into integrative medicine.

7. Limitations and Future Scope

The study was limited by its small sample size, absence of a control group, and short follow-up period. Larger randomized controlled trials with biochemical stress markers (cortisol, serotonin, HRV) and extended observation are recommended. Additionally, combining *Abhyanga* with *Shirodhara* or *Yoga Nidra* could yield synergistic benefits.

CONCLUSION

Abhyanga with *Ashwagandha Taila* provides a holistic intervention addressing both physiological and psychological dimensions of essential hypertension. The therapy significantly reduces systolic and diastolic pressure, relieves stress and anxiety, improves sleep quality, and enhances overall wellbeing without adverse effects.

Thus, it may be advocated as a safe complementary modality within integrative cardiology and psychosomatic management frameworks. Adoption of *Abhyanga* in routine *Dinacharya* can serve preventive as well as therapeutic roles in lifestyle-related disorders.

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