

Clinical Management of Generalized Anxiety Disorder (Chittodvega) Through Shirodhara with Mamsyadi Kwatha: A Comprehensive Case Report

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ABSTRACT

Background: Generalized Anxiety Disorder (GAD), structurally mapped to Chittodvega in Ayurvedic nosology, stems from a combined aggravation of Vata-Pitta Doshas alongside an elevation of Rajas and Tamas in the Manovaha Srotas. Standard psychopharmacological agents are often associated with dependency, sedation, and adverse cognitive effects.

Case Presentation: A 34-year-old adult with a 7-month history of GAD, meeting DSM-5 diagnostic criteria, was managed with Shirodhara using warm Mamsyadi Kwatha (38–40°C) — a neuro-restorative decoction of *Nardostachys jatamansi*, *Withania somnifera*, and *Hyoscyamus niger* — administered daily for 30-minute sessions over 21 consecutive days.

Outcome Measures: Symptom severity and sleep quality were assessed at Baseline (Day 0), Mid-Treatment (Day 10), and End of Treatment (Day 21) using the Hamilton Anxiety Rating Scale (HAM-A) and the Pittsburgh Sleep Quality Index (PSQI).

Results: Total HAM-A score decreased from 28 at baseline to 10 at Day 21 (64% reduction), with psychic and somatic anxiety subscale scores improving by 68% and 59% respectively. The global PSQI score dropped from 14 to 5 (62% reduction), with sleep latency reduced from 52 to 18 minutes. No adverse events were observed.

Conclusion: Shirodhara with Mamsyadi Kwatha provided a safe, multi-targeted intervention that dampened central nervous hyperarousal, restored autonomic equilibrium, and alleviated both somatic and psychic components of Chittodvega, suggesting potential as a non-pharmacological adjunct in GAD management.

Keywords: Chittodvega; Generalized anxiety disorder; Mamsyadi Kwatha; *Nardostachys jatamansi*; Shirodhara; Sthapani Marma.

INTRODUCTION

Generalized Anxiety Disorder (GAD), conceptualized as Chittodvega in classical Ayurvedic literature, is an increasingly prevalent neuro-somatic condition characterized by persistent, excessive, and uncontrollable worry regarding daily life events. In Ayurvedic philosophy, life (Ayu) is constituted by the harmonious union of the body (Sharira), sensory apparatus (Indriya), mind (Manas), and soul (Atma).¹ Manas functions as the Ubhayendriya (mediating both sensory perception and motor regulation) and is defined by two fundamental qualities: subtlety (Anutva) and singleness (Ekatva).² When Manas is subjected to volitional transgressions (Prajnaparadha) or unwholesome sensory contact (Asatmyendriyarth Samyoga), its inherent Sattva dominance is eclipsed. This disruption leads to the clinical state of Chittodvega (Chitta = mind; Udvega = agitation/anxiety), representing an imbalance of the mental Doshas (Rajas and Tamas) accompanied by impairment of the physical Doshas, predominantly Prana Vata, Sadhaka Pitta, and Tarpaka Kapha.³

Clinically, Chittodvega presents with psychological worry (Chinta), fear (Bhaya), restlessness (Anavasthita Chittatva), emotional instability, and somatic hyperarousal such as muscular tension, palpitations, and sleep fragmentation.⁴ While conventional pharmacological options such as selective serotonin reuptake inhibitors (SSRIs) and benzodiazepines offer symptom control, their long-term utility is constrained by risks of sedation, cognitive blunting, tolerance, and physical dependence.

Integrative Ayurvedic protocols offer a bio-mechanical and multi-target alternative.⁵ Shirodhara the continuous, rhythmic pouring of warm liquid onto the forehead/forehead — is understood to act on central autonomic reflex arcs. When combined with Mamsyadi Kwatha, a classical compound decoction comprising Jatamansi (*Nardostachys jatamansi* DC.), Ashwagandha (*Withania somnifera* L.), and Parshika Yavani (*Hyoscyamus niger* L.), this therapy is proposed to target central neuro-chemical pathways and peripheral somatic hyperarousal simultaneously. This case report describes the therapeutic administration, clinical progression, and probable physiological rationale of this intervention in a patient with GAD/Chittodvega, following the CARE (CAse REport) reporting guidelines.

CASE PRESENTATION

Patient Information and History of Illness

A 34-year-old patient presented to the Outpatient Department of Kayachikitsa with a 7-month history of worsening mental agitation, constant unprovoked worry (Chinta), persistent dread/fearfulness (Bhaya), motor restlessness (Anavasthita Chittatva), difficulty falling asleep, and physical symptoms including muscle tension, tension headaches, and episodic palpitations. The patient reported significant impairment in occupational and interpersonal functioning and requested a non-pharmacological Ayurvedic approach due to concerns regarding dependency and side effects associated with synthetic psychotropics.

Diagnostic Evaluation and Baseline Status

- Diagnostic criteria: GAD was confirmed using DSM-5 criteria.
- Hamilton Anxiety Rating Scale (HAM-A): Baseline score 28 (Psychic Anxiety Subscale: 16; Somatic Anxiety Subscale: 12), consistent with severe anxiety.
- Pittsburgh Sleep Quality Index (PSQI): Baseline global score 14 (Sleep Latency: 52 minutes), consistent with severe insomnia and sleep impairment.

- Differential screening and safety checks: No history of co-morbid psychosis, bipolar disorder, severe major depression, active suicidal ideation, scalp lesions/dermatitis, or systemic organic dysfunction (hepatic, renal, or cardiovascular disease). No concurrent psychotropic medication had been taken within the 4 weeks preceding presentation.

THERAPEUTIC INTERVENTION

Composition and Preparation of Mamsyadi Kwatha

Mamsyadi Kwatha was freshly prepared each morning according to the decoction (Kwatha) standards of the classical text Sharangdhara Samhita.

- Jatamansi (*Nardostachys jatamansi* DC., rhizome): 1 part (80 g)
- Ashwagandha (*Withania somnifera* L., root): ¼ part (20 g)
- Parshika Yavani (*Hyoscyamus niger* L., root): ⅛ part (10 g)

The coarse botanical mixture (total 110 g) was boiled in 16 parts water (1760 mL) and reduced to one-quarter volume (440 mL). The concentrated decoction was then diluted with warm water to yield a final volume of 2.5 L per Shirodhara session.

Procedure Protocol (Panchakarma Administration)

The procedure was administered daily between 8:00 and 10:00 AM for 21 consecutive days.

- Pre-procedural phase (Purva Karma): The patient voided the bladder and assumed a relaxed supine position (Shavasana) on a wooden Droni table. A protective cotton headband (Varti) was tied across the forehead to shield the eyes from fluid drippings.
- Main procedural phase (Pradhana Karma): Freshly prepared Mamsyadi Kwatha, maintained at 38–40°C, was poured continuously from a suspended copper vessel (Dhara Patra) positioned approximately 10 cm above the glabella (Sthapani Marma/Ajna Chakra). The stream was oscillated gently in a pendulum-like motion across the lower forehead for 30 minutes.
- Post-procedural phase (Paschat Karma): The scalp was dried, and the patient rested in a temperature-controlled environment for 15 minutes, avoiding drafts or cold air exposure.

Clinical Outcomes and Results

The patient completed all 21 sessions without missing a session or exhibiting adverse reactions. Outcomes were documented at Baseline (Day 0), Mid-Treatment (Day 10), and End of Treatment (Day 21) (Table 1).

Table 1. Summary of pre-treatment, mid-treatment, and post-treatment outcome scores.

Assessment Scale / Parameter	Pre-Treatment (Day 0)	Mid-Treatment (Day 10)	Post-Treatment (Day 21)	Total Reduction (%)
HAM-A Psychic Subscale	16	10	5	68%
HAM-A Somatic Subscale	12	8	5	59%
Total HAM-A Score	28	18	10	64%
Global PSQI Score	14	9	5	62%
Sleep Latency (minutes)	52	—	18	65%

Anxiety Reduction (HAM-A)

Total HAM-A score fell from 28 (severe anxiety) to 18 by Day 10 and to 10 (mild range) by Day 21, an overall reduction of 64%. Both psychic anxiety (68% improvement) and somatic anxiety (59% improvement) showed steady, continuous recovery.

Sleep Quality Restoration (PSQI)

The global PSQI score decreased from 14 (severe sleep disturbance) to 5 (within the normal sleep quality threshold), consistent with reported improvements in sleep quality following Mamsyadi Kwatha-based interventions.⁶ Sleep-onset latency was reduced from 52 to 18 minutes, indicating faster sleep induction and improved sleep architecture.

Probable Mode of Action and Physiological Rationale

The multi-dimensional therapeutic response observed in this case is proposed to reflect the convergence of several bio-mechanical, neuro-chemical, and classical Ayurvedic mechanisms.

1. Pressure and Thermal Resonance Dynamics

The continuous flow of warm liquid against the glabella is thought to generate a mild, rhythmic mechanical wave. The underlying air-filled frontal sinus may act as a resonant chamber, transmitting micro-oscillations through the cranial bones and cerebrospinal fluid toward the thalamus, hypothalamus, and basal forebrain, potentially dampening central hyper-excitability and helping rebalance serotonergic and noradrenergic transmission.

2. Autonomic Balance via Supine Posture

Sustained rest in Shavasana is associated with suppressed sympathetic output and enhanced parasympathetic tone, lowering heart-rate-variability stress markers, slowing respiratory rate, and increasing cerebral perfusion and EEG alpha-wave activity.⁷

3. Marma Siddhanta (Sthapani Marma)

The Sthapani Marma, located over the glabella, corresponds anatomically to neuro-endocrine centers including the cavernous sinus, pituitary gland, and pineal complex. Stimulation at this site has been proposed to modulate the hypothalamic–pituitary–adrenal (HPA) axis, helping normalize diurnal cortisol levels and melatonin production.⁸

4. Yogic Energy Center (Ajna Chakra)

In subtle-body anatomy, the glabella corresponds to the Ajna Chakra, regarded as a focal point of mental integration. Continuous fluid contact at this site is thought to quiet intrusive thoughts (Chinta and Shoka), promoting a calmer, meditative state.

5. Limbic and Hypothalamic Modulation

Direct thermal warmth (38–40°C) combined with steady mechanical fluid movement may blunt hyperactive limbic circuits, alleviating peripheral anxiety manifestations such as muscle tension, tremors, and hyperventilation.

6. Synergistic Phytochemistry of Mamsyadi Kwatha

- Jatamansi (*Nardostachys jatamansi*): Contains sesquiterpenes (jatamansone, nardostachone) reported to modulate GABA-A receptors and lower neural oxidative stress, exerting sedative (Sangyasthapana) and brain-tonic (Medhya) effects.⁹ Its cooling energy (Sheeta Virya) is also considered to calm vitiated Sadhaka Pitta.
- Ashwagandha (*Withania somnifera*): Rich in withanolides and withaferin-A, reported to regulate HPA-axis dysfunction and reduce serum cortisol, thereby strengthening depleted nervous tissue (Majja Dhatu) as an adaptogen (Rasayana).¹⁰

- Parshika Yavani (*Hyoscyamus niger*): Contains tropane alkaloids (hyoscyamine, scopolamine) with mild central anticholinergic action, proposed to quiet motor restlessness and facilitate sleep induction (Nidrajanana).

DISCUSSION

The clinical outcome in this case illustrates the potential multi-target efficacy of combining external cranial fluid therapy (Shirodhara) with a targeted botanical decoction (Mamsyadi Kwatha) for Generalized Anxiety Disorder. From an Ayurvedic perspective, Chittodvega is attributed to vitiated Prana Vata and Sadhaka Pitta, which disturb the mental seats (Hridaya and Shirah) and cloud Sattva with excessive Rajas and Tamas.

- Vata pacification: The warm, continuous fluid stream is proposed to directly counter the dry (Ruksha) and erratic (Chala) qualities of aggravated Prana Vata.
- Pitta cooling: The inclusion of Jatamansi (Sheeta Virya) is thought to cool Sadhaka Pitta, reducing emotional irritability and physical flushing.
- Synergistic nervous-system support: Parshika Yavani is proposed to act through tropane alkaloids to reduce peripheral motor restlessness, while Ashwagandha provides structural nourishment (Brimhana) to nervous tissue (Majja Dhatu), helping counter fatigue.¹¹

Compared with monotherapy using single herbs or unmedicated-oil Shirodhara, using Mamsyadi Kwatha as the Shirodhara medium is intended to combine direct cranial neuro-sensory modulation over Sthapani Marma with transdermal/inhalational drug delivery. This is broadly consistent with prior reports of Ayurvedic interventions in Chittodvega-spectrum disorders,¹² and may offer a non-addictive option for anxiety management without the sedation or dependency risks associated with conventional anxiolytics. As a single-patient case report, however, these observations cannot establish causality or generalizability; controlled trials with larger sample sizes, standardized outcome assessment, and longer follow-up are required to substantiate the proposed physiological mechanisms and clinical benefit.

CONCLUSION

Daily administration of Shirodhara with Mamsyadi Kwatha over 21 days was associated with a marked reduction in both psychic (68%) and somatic (59%) symptoms in a patient with Generalized Anxiety Disorder (Chittodvega), along with normalization of sleep architecture, reduced sleep-onset latency, and no adverse events or evidence of treatment dependence. These preliminary findings suggest that Shirodhara with Mamsyadi Kwatha may be a safe, non-pharmacological adjunct for GAD warranting evaluation in controlled clinical trials.

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