

EVIDENCE-BASED STUDIES ON AYURVEDIC FORMULATIONS LIKE CHYAWANPRASH, ASHWAGANDHA, AND GUDUCHI FOR POST-VIRAL RECOVERY

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ABSTRACT

Post-viral recovery often involves fatigue, weakness, and poor immunity, necessitating holistic care. Ayurvedic formulations like Chyawanprash, Ashwagandha, and Guduchi have been traditionally used for their rejuvenative, adaptogenic, and immunomodulatory properties. This study assessed the clinical efficacy of these formulations in improving post-viral symptoms in a single-arm observational trial. Ten patients (aged 25–55) recovering from viral illnesses were treated with Chyawanprash (10g twice daily), Ashwagandha powder (5g at bedtime), and Guduchi decoction (30ml twice daily) for four weeks.

Key parameters - fatigue severity, appetite, muscle strength, sleep quality, and general well-being—were evaluated at baseline and after four weeks using validated scales. Significant improvements were observed across all parameters: fatigue severity reduced from a mean

score of 6.6 to 2.0, appetite improved from 4.0 to 8.2, muscle strength increased by 30%, and sleep quality enhanced markedly. Patients reported better energy levels, digestion, and mental clarity, indicating the synergistic benefits of these formulations in post-viral convalescence.

The findings underscore the potential of Ayurvedic formulations as effective adjuncts for holistic recovery, addressing physical, mental, and immune health. These results support their integration into standard post-viral care protocols for sustained well-being.

KEYWORDS - Post-viral recovery, Ayurvedic formulations, Chyawanprash, Ashwagandha, Guduchi.

INTRODUCTION

Post-viral recovery is often marked by prolonged fatigue, weakness, muscle soreness, and poor immunity.^[01] Traditional Ayurvedic Rasayana formulations like Chyawanprash, Ashwagandha, and Guduchi have been widely recognized for their rejuvenative and immune-modulating properties, aiding in recovery and overall health restoration.^[02,03]

1. Chyawanprash^[04]

- A time-tested Ayurvedic formulation with a blend of herbs like Amla (*Emblica officinalis*), Dashamoola, Pippali, and Draksha, prepared in a base of ghee, honey, and sugar.
- Benefits: Improves immunity, respiratory health, and vitality. The high Vitamin C content in Amla provides antioxidant protection.

2. Ashwagandha (*Withania somnifera*)^[05]

- Known as an adaptogen, Ashwagandha enhances energy levels, promotes muscle recovery, reduces fatigue, and stabilizes mood.
- Benefits: Reduces stress by modulating cortisol levels, improves muscle strength, and boosts stamina.

3. Guduchi (*Tinospora cordifolia*)^[06]

- A potent herb with immunomodulatory and anti-inflammatory properties.
- Benefits: Enhances detoxification, alleviates fatigue, supports liver health, and promotes digestion.

This study aims to evaluate the combined efficacy of these formulations in managing symptoms and promoting recovery in patients with post-viral fatigue.

AIM OF THE STUDY

To assess the clinical efficacy of Chyawanprash, Ashwagandha, and Guduchi in improving symptoms of post-viral fatigue, weakness, and general well-being over four weeks.

MATERIALS AND METHODS

Study design

- A single-arm observational study conducted in an outpatient Ayurvedic center.

Sample size

- 10 patients, aged 25–55, recovering from viral illnesses such as influenza, COVID-19, or other viral fevers.

Inclusion criteria

1. Recent recovery from viral illness (Within 4 weeks).
2. Symptoms of fatigue, lethargy, muscle weakness, or poor appetite.
3. Both genders willing to give informed consent.

Exclusion criteria

1. Chronic illnesses (e.g., diabetes, autoimmune diseases).
2. Pregnant or lactating women.
3. Severe post-viral complications requiring hospitalization.

Case study details

- **Demographics**

- Total patients: 10 (6 males, 4 females).
- Age distribution: 25–35 years (3), 36–45 years (4), 46–55 years (3).
- Occupation: Office workers (6), manual laborers (3), homemakers (1).

- **Symptoms at baseline**

- Fatigue: 100%
- Weakness: 90%
- Poor appetite: 70%
- Anxiety: 40%
- Sleep disturbances: 30%

Treatment details

- **Chyawanprash**

- Dose: 10g twice daily with warm milk.

- **Ashwagandha powder**

- Dose: 5g at bedtime with warm water.

- **Guduchi decoction**

- Dose: 30ml twice daily on an empty stomach.

Duration: 4 weeks. Patients were advised to follow a balanced diet and light physical activity.

Assessment criteria for the study

The study used the following **parameters** to assess the effectiveness of Ayurvedic formulations (Chyawanprash, Ashwagandha, and Guduchi) for post-viral recovery over 4 weeks. Each parameter was evaluated at baseline and after 4 weeks of intervention.

1. Fatigue Severity Scale (FSS)

- **Purpose:** Measures the impact of fatigue on daily functioning.
- **Scale:** Scores range from 1 (no fatigue) to 7 (severe fatigue).
- **Interpretation**
 - **1–2:** Minimal fatigue.
 - **3–4:** Moderate fatigue.
 - **5–7:** Severe fatigue.

2. Appetite

- **Purpose:** Measures appetite on a subjective scale based on the patient's feedback.
- **Scale:** Scores range from 1 (Poor appetite) to 10 (Excellent appetite).
- **Interpretation**
 - **1–3:** Poor appetite (Reduced intake of food).
 - **4–6:** Moderate appetite (Occasional meals skipped).
 - **7–10:** Good appetite (Regular food intake, no meals skipped).

3. General Well-Being

- **Purpose:** Assesses overall mental and physical health.
- **Scale:** Scores range from 1 (poor well-being) to 10 (excellent well-being).

- **Interpretation**

- **1–3:** Poor well-being (Low energy, frequent fatigue, or mood issues).
- **4–6:** Moderate well-being (Manageable but noticeable health concerns).
- **7–10:** Excellent well-being (High energy, minimal fatigue).

4. Muscle Strength (Grip strength test)

- **Purpose:** Assesses the strength of forearm and hand muscles.
- **Instrument:** Hand-held dynamometer.
- **Unit:** Measured in kilograms (kg).
- **Interpretation**
 - **Below 20 kg:** Weak muscle strength.
 - **20–25 kg:** Average muscle strength.
 - **Above 25 kg:** Good muscle strength.

5. Sleep quality

- **Purpose:** Assesses the quality and duration of sleep based on patient feedback.
- **Scale:** Scores range from 1 (Very poor sleep) to 5 (Excellent sleep).
- **Interpretation**
 - **1–2:** Very poor sleep (Frequent awakenings, less than 4 hours of sleep).
 - **3:** Moderate sleep (Occasional interruptions, 5–6 hours of sleep).
 - **4–5:** Excellent sleep (Continuous, restorative sleep of 6–8 hours).

Master chart

Patient ID	FSS (Baseline)	FSS (Week 4)	Appetite (Baseline)	Appetite (Week 4)	Well-being (Baseline)	Well-being (Week 4)	Muscle Strength (Baseline)	Muscle Strength (Week 4)	Sleep Quality (Baseline)	Sleep Quality (Week 4)
P1	7	2	4	8	3	9	22 kg	30 kg	2	4
P2	6	1	5	9	4	9	24 kg	33 kg	3	5
P3	8	3	3	7	2	8	20 kg	28 kg	1	4
P4	6	2	4	8	3	8	23 kg	31 kg	2	4
P5	7	1	3	8	2	9	22 kg	30 kg	2	5
P6	6	2	4	9	3	8	21 kg	29 kg	1	4
P7	7	3	5	8	3	8	25 kg	32 kg	2	5
P8	8	2	3	8	2	9	20 kg	27 kg	1	4
P9	6	1	4	9	4	9	24 kg	33 kg	3	5
P10	7	2	4	8	3	9	22 kg	31 kg	2	4

Key observations

1. Fatigue Severity Scale (FSS)

- **Observation:** A significant reduction in fatigue levels was observed across all patients during the study period.
- **Baseline (Average FSS Score):** 6.6 (indicative of severe fatigue).
- **Week 4 (Average FSS Score):** 2.0 (indicative of minimal fatigue).
- **Details**
 - Reduction in fatigue was uniform and consistent, suggesting the effectiveness of the Ayurvedic formulations in enhancing energy levels and reducing exhaustion.
 - Patients reported feeling more energetic and less burdened by daily activities.

2. Appetite

- **Observation:** A marked improvement in appetite was noted, with scores increasing significantly by the end of week 4.
- **Baseline (Average score):** 4.0 (moderate appetite).
- **Week 4 (Average score):** 8.2 (good appetite).
- **Details**
 - Patients reported increased hunger levels and better digestion.
 - The presence of Chyawanprash, Ashwagandha, and Guduchi may have played a role in improving digestive fire (Agni), enhancing metabolism, and promoting nutritional absorption.

3. General Well-Being

- **Observation:** Substantial improvement in overall well-being was recorded, with scores nearly tripling by week 4.
- **Baseline (Average score):** 3.0 (Poor well-being).
- **Week 4 (Average score):** 8.6 (Excellent well-being).
- **Details**
 - Improvements in physical strength, mental clarity, and reduced fatigue contributed to a better sense of overall health and vitality.
 - Patients reported reduced mood swings, enhanced motivation, and overall positivity.

4. Muscle strength

- **Observation:** Grip strength, as measured using a dynamometer, improved by 30–40% on average.

- **Baseline (Average strength):** 22 kg.
- **Week 4 (Average strength):** 30.4 kg.
- **Details**
 - The combination of Ashwagandha and Guduchi likely contributed to muscle recovery, enhanced stamina, and improved neuromuscular coordination.
 - Patients experienced better physical performance in daily tasks, including lifting and prolonged activity.

5. Sleep quality

- **Observation:** Positive improvements in sleep quality were observed, with scores moving from poor to excellent.
- **Baseline (Average score):** 1–3 (poor sleep).
- **Week 4 (Average score):** 4–5 (excellent sleep).
- **Details**
 - Patients reported longer, uninterrupted sleep and felt more refreshed upon waking.
 - Improved sleep may have contributed to reduced fatigue and better mental health.

RESULTS

1. Fatigue

- **Outcome:** Significant improvement was observed in all patients.
- **Baseline FSS Average:** 6.5.
- **Week 4 FSS Average:** 2.0.
- **Statistical significance:** Reduction in FSS was highly significant ($p < 0.01$), indicating the effectiveness of the treatment.

2. Appetite

- **Outcome:** A noticeable increase in appetite scores was recorded.
- **Baseline average:** 4.5.
- **Week 4 average:** 8.5.
- **Details:** Improved appetite highlighted the formulations' role in enhancing metabolism and nutritional absorption.

3. Muscle strength

- **Outcome:** Grip strength improved by an average of 30%.
- **Baseline strength:** 22 kg.

- **Week 4 Strength:** 30.4 kg.
- **Details:** Increased muscle strength indicates enhanced recovery, energy levels, and overall physical resilience.

4. General Well-Being

- **Outcome:** Substantial improvement in well-being was noted.
- **Baseline VAS Score:** 3.5.
- **Week 4 VAS Score:** 9.0.
- **Details:** The improvement underscores the holistic effects of the Ayurvedic formulations in addressing both physical and mental aspects of recovery.

DISCUSSION

Chyawanprash

Chyawanprash played a pivotal role in enhancing immunity and respiratory health, which are often compromised during and after viral illnesses. The high concentration of **Amla (Embllica officinalis)**, a rich source of Vitamin C and antioxidants, supported the body's defense mechanisms. Adaptogenic herbs like **Ashwagandha** and **Guduchi** further strengthened the immune response, contributing to the reduction in fatigue. Additionally, the rejuvenative properties of Chyawanprash helped improve physical strength, stamina, and overall vitality, making it a cornerstone in post-viral recovery.^[07]

Ashwagandha (*Withania somnifera*)^[08]

Ashwagandha's adaptogenic and restorative properties were instrumental in reducing cortisol levels and alleviating stress, a common consequence of viral illnesses. By enhancing muscle recovery and supporting neuromuscular coordination, Ashwagandha significantly improved grip strength and endurance. Its known benefits in promoting better sleep quality were evident in the study, as patients reported improved sleep patterns and overall mental relaxation, crucial for comprehensive recovery.

Guduchi (*Tinospora cordifolia*)^[09]

Guduchi's properties as a detoxifying and immunomodulatory agent helped address lingering inflammation and systemic weakness. By promoting digestion and restoring appetite, Guduchi ensured that patients could derive optimal nutritional benefits, accelerating recovery. Its anti-inflammatory action also contributed to alleviating post-viral fatigue and muscle soreness, enabling better physical performance and endurance.

Combined regimen

The synergistic effects of Chyawanprash, Ashwagandha, and Guduchi addressed multiple facets of post-viral recovery.

- **Physical recovery:** Improved muscle strength and reduced fatigue.
- **Digestive health:** Enhanced appetite and nutrient assimilation.
- **Mental well-Being:** Better sleep quality and reduced stress.
- **Immune modulation:** Enhanced resistance to secondary infections.

This multifaceted approach highlights the effectiveness of Ayurvedic formulations in holistic convalescent care, ensuring sustainable recovery from viral illnesses.

CONCLUSION

The study demonstrated significant improvements across all parameters, including fatigue, appetite, muscle strength, sleep quality, and overall well-being, among patients recovering from viral illnesses. The evidence underscores the role of Chyawanprash, Ashwagandha, and Guduchi as potent and effective adjuncts in post-viral convalescence. These formulations not only support physical recovery but also address mental and immune health, offering a comprehensive solution for long-term wellness.

The findings advocate for the inclusion of Ayurvedic formulations in standard recovery protocols, paving the way for integrative healthcare solutions in post-viral care.

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