



# Clinical Evaluation Of Ayurvedic Anubhuta Yogas In The Management Of Sexual Dysfunctions And Respiratory Disorders: A Case Series

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## ABSTRACT:

**Background:** Anubhuta Yogas are empirical formulations in Ayurveda validated through clinical experience but often lack structured scientific evaluation. Two proprietary yogas were designed: one for managing erectile dysfunction (ED), premature ejaculation (PME), loss of libido, and diabetic complications; and another for treating various types of coughs, throat infections.

**Objective:** To evaluate the clinical efficacy and safety of two Anubhuta Yogas in the management of sexual dysfunction/metabolic disorders and respiratory ailments.

**Methods:** A prospective observational case series was conducted over 12 weeks. Five patients with sexual dysfunctions and five with cough-related disorders were administered two different Ayurvedic formulations. Primary endpoints included improvements in IIEF-5 scores for sexual dysfunction and reductions in Cough Symptom Scores for respiratory illness. Safety was monitored throughout.

**Results:** In the Rasayana Vajikarana group, IIEF-5 scores improved by 6–11 points, glycemic parameters improved in diabetic patients, and libido enhancement was noted. In the Kasa-Shwasa Hara Yoga group, there was a >70% reduction in cough severity, with significant improvements in quality of life parameters. No serious adverse events were reported.

**Conclusion:** Both Anubhuta Yogas demonstrated substantial efficacy in their respective domains, showcasing Ayurveda's systems-based therapeutic potential. These formulations, grounded in classical Rasayana and Vyadhi Shamana principles, merit further validation through randomized controlled trials.

**Index Terms -** Anubhuta Yoga, Rasayana, Vajikaran, Klaibya, Pramheha, Kasa, Shwasa.

## I. INTRODUCTION:

### 1. Ayurveda and the Concept of Anubhuta Yoga

Ayurveda, the ancient Indian medical science, emphasizes not just the cure of diseases but the enhancement of life quality through a holistic, systems-based approach. A fundamental, though often less formally codified, principle of Ayurveda is the use of Anubhuta Yoga — empirically validated formulations, not necessarily listed in classical texts but proven through consistent therapeutic outcomes over centuries (Sharma, 2015)<sup>1</sup>. These yogas stem from clinical pragmatism and practitioner wisdom, supplementing textual knowledge (Agama) with experiential knowledge (Anubhava).

In this context, two proprietary Anubhuta Yogas were designed, aiming to address common yet complex disorders: sexual dysfunction (including ED, PME, loss of libido) with diabetic complications, and respiratory ailments such as dry and productive coughs. Each formulation was composed using classical pharmacological principles and Rasashastra (alchemy) processing techniques to enhance efficacy and biocompatibility (Mishra, 2013)<sup>2</sup>.

## 2. Understanding Sexual Dysfunction and Diabetes in Ayurveda

### 2.1 Sexual Disorders: Dosha and Dhatu Perspectives

Sexual dysfunctions are described extensively under Shukra Dushti and Vajikarana Chikitsa in texts like Charaka Samhita and Sushruta Samhita (Acharya, 2007)<sup>3</sup>. The disruption of Vata dosha leads to premature ejaculation and erectile dysfunction, while Pitta aggravations cause inflammatory disorders of the reproductive organs. Simultaneously, depletion or vitiation of Shukra Dhatu diminishes sexual vigor.

Vajikarana therapies aim to restore the functional integrity of reproductive tissues, enhance Ojas (vital essence), and balance Tridosha. Hence, rejuvenative herbs and mineral preparations like Ashwagandha, Shweta Musali, Trivang Bhasma, and Suvarnamakshik Bhasma were historically emphasized for revitalizing sexual health and vitality (Pandey, 2016)<sup>4</sup>.

### 2.2 Diabetes and Sexual Dysfunction: An Interlinked Pathology

Madhumeha (diabetes) is classified under Prameha disorders and linked with Kapha and Vata imbalances resulting in deranged Medo Dhatu metabolism (Sharma, 2015)<sup>1</sup>. Chronic hyperglycemia contributes to endothelial dysfunction, peripheral neuropathy, and hormonal dysregulation, culminating in sexual impairments (Tiwari, 2000)<sup>5</sup>.

Hence, effective management of sexual dysfunction in diabetic patients requires interventions that simultaneously address metabolic derangement, nerve health, and reproductive tissue integrity — a multitarget approach inherent to Ayurvedic Rasayana formulations.

## 3. Respiratory Disorders: The Ayurvedic Kasa Concept

Cough (Kasa) is classified in Ayurveda based on the dominant dosha pathology:

- Vataja Kasa: Dry cough, scanty sputum, chest pain.
- Pittaja Kasa: Yellowish sputum, burning sensations.
- Kaphaja Kasa: Thick white mucus, congestion.

Management involves doshic balancing, srotoshodhana (cleansing of channels), and strengthening lung tissue (Pranavaha Srotas) (Sharma, 1999)<sup>6</sup>. Chronic or improperly treated cough may evolve into deeper pathologies like Kshaya (tissue depletion), aligning with post-viral syndromes seen today (e.g., post-COVID-19 coughs).

## 4. Formulation Rationale: Synergy of Classical Ingredients

### 4.1 Rasayana Vajikarana Yoga

- Trivang Bhasma: Provides trace elements crucial for enzymatic reactions, glucose regulation, and testosterone synthesis (Mishra, 2013)<sup>2</sup>.
- Suvarnamakshik Bhasma: Known for improving metabolic rate, enhancing hematopoiesis, and supporting nervous system health (Sharma, 2015)<sup>1</sup>.
- Ashwagandha (*Withania somnifera*): An adaptogen reducing cortisol and boosting testosterone levels, enhancing sexual vigor and resilience (Singh & Bhalla, 2011)<sup>7</sup>.
- Shweta Musali (*Chlorophytum borivillianum*): A potent Vajikarana herb enhancing spermatogenesis, libido, and physical stamina (Patwardhan & Mashelkar, 2009)<sup>8</sup>.

### 4.2 Kasa-Shwasa Hara Yoga

- Sitopaladi Churna: Soothes irritated respiratory mucosa, balances Vata and Kapha, and enhances immunity (Gupta & Mishra, 2014)<sup>9</sup>.
- Yashtimadhu (*Glycyrrhiza glabra*): Anti-inflammatory and mucoprotective, critical for persistent cough relief (Sharma, 1999)<sup>6</sup>.
- Talisadi Churna: Acts as a mucolytic and mild bronchodilator (Gupta & Mishra, 2014)<sup>9</sup>.
- Abhrak Bhasma: A Rasayana for respiratory tissue regeneration and immunomodulation (Kuttan, 2012)<sup>10</sup>.

## 5. Systems Biology Alignment: Ayurveda's Modern Relevance

The therapeutic design aligns with contemporary systems medicine models, where diseases are understood as network disruptions rather than isolated events.

- Formula 1 targets endocrine, neurological, vascular, and metabolic nodes.
- Formula 2 targets immunological, epithelial, and neurological nodes involved in cough reflex hypersensitivity.

Such a multidimensional intervention reflects Ayurveda's Tridosha and Dhatu theories applied in the context of modern biological complexity (Patwardhan & Mashelkar, 2009)<sup>8</sup>.

## 6. Need for Structured Clinical Evaluation

Despite rich theoretical grounding, empirical Ayurvedic interventions require methodical clinical validation to meet modern scientific standards. Structured documentation, validated outcome measures (e.g., IIEF-5, LCQ), and adherence to ethical research protocols bridge the gap between traditional practice and contemporary clinical expectations (Smith, 2023)<sup>11</sup>.

This study addresses this necessity by systematically evaluating therapeutic outcomes, safety profiles, and patient-reported improvements over a sustained 12-week period.

## 7. Aim of This Case Series

Thus, the objective of the present case series is twofold:

- To assess the efficacy and safety of these two proprietary Anubhuta Yogas in real-world clinical settings.
- To contribute preliminary evidence supporting their integration into standardized Ayurvedic protocols and future randomized controlled trials.

## II. II. MATERIALS AND METHODS:

### 1. Study Design and Ethical Considerations

This study was designed as a **prospective, observational, open-label case series** conducted over a period of 12 weeks. Patients were enrolled from an Ayurvedic specialty outpatient department after fulfilling the predefined inclusion and exclusion criteria.

Prior to enrollment, all patients were provided with detailed information about the study objectives, procedures, potential benefits, and risks. **Written informed consent** was obtained from each participant in accordance with the principles of the **Declaration of Helsinki (2013 revision)** for ethical human research. The study protocol was reviewed and approved by the Institutional Ethics Committee (IEC).

To maintain patient confidentiality, anonymized identifiers were used in all data collection and reporting.

### 2. Study Population

#### 2.1 Inclusion Criteria

##### **Formula 1 (Rasayana Vajikarana Yoga)**

- Male patients aged between **25 and 65 years**.
- Diagnosed with one or more of the following:
  - Erectile Dysfunction (ED)
  - Premature Ejaculation (PME)
  - Loss of Libido
  - Diabetic complications (neuropathy, fatigue)
  - Mild to moderate infections associated with sexual dysfunction
- Willingness to abstain from any other herbal, ayurvedic, or allopathic sexual performance-enhancing agents during the study.

##### **Formula 2 (Kasa-Shwasa Hara Yoga)**

- Male and female patients aged **18–70 years**.
- Diagnosed with:
  - Dry cough (*Shushka Kasa*)
  - Productive cough (*Aadra Kasa*)
  - Allergic cough
  - Post-viral cough
- Presence of cough symptoms for **more than one week** and less than **six months** duration.

## 2.2 Exclusion Criteria

- Severe systemic diseases (e.g., uncontrolled diabetes mellitus, renal failure, cardiac failure).
- Patients on corticosteroids, beta-blockers, or immunosuppressive therapy.
- Known allergies to any components of the formulations.
- Active tuberculosis or malignancy-associated cough.
- Psychiatric illnesses affecting compliance or reporting.
- Pregnant and lactating women (for Formula 2 group).

## 3. Formulation Details and Intervention

### 3.1 Formula 1: Rasayana Vajikarana Yoga Composition

Ingredient	Quantity per Dose (mg)
Trivang Bhasma	125
Suvarnamakshik Bhasma	125
Ashwagandha Churna	250
Shweta Musali Churna	250
<b>Total</b>	<b>750 mg</b>

**Administration:** 750 mg capsule, administered orally, twice daily (BID) after meals, with warm milk.

### 3.2 Formula 2: Kasa-Shwasa Hara Yoga Composition

Ingredient	Quantity per Dose (mg)
Sitopaladi Churna	250
Yashtimadhu Churna	250
Talisadi Churna	125
Abhrak Bhasma	125
<b>Total</b>	<b>750 mg</b>

**Administration:** 750 mg capsule, administered orally, twice daily (BID) after meals, with honey for dry cough and warm water for productive cough.

## 4. Preparation of the Formulations

All ingredients were sourced from **GMP-certified Ayurvedic pharmacies** following strict quality control protocols.

Each herb and bhasma underwent:

- **Organoleptic evaluation** (color, taste, texture)
- **Phytochemical analysis** for key active compounds (where applicable)
- **Bhasma standardization tests** including Rekhapurnatva (finger line test), Varitaratva (floating test), and Niruttha (heat test).

Final capsules were prepared in a hygienic, aseptic environment and filled using **calibrated semi-automatic capsule fillers** to ensure uniform weight and dosage.

## 5. Baseline Assessments

At enrollment (Day 0), detailed history taking and clinical examination were performed. The following baseline parameters were recorded:

### 5.1 Demographic and Clinical Data

- Age
- Gender
- Marital status
- Occupation
- Dietary habits (veg/non-veg)
- Smoking, alcohol history
- Exercise patterns
- Existing comorbidities
- Current medications

### 5.2 Disease-Specific Baseline Measurements

*For Formula 1 Group:*

- International Index of Erectile Function (IIEF-5) Questionnaire
- Sexual health interview
- Fasting Blood Sugar (FBS) and Postprandial Blood Sugar (PPBS)
- HbA1c levels

- Peripheral neuropathy evaluation (if diabetic)
- Semen analysis (optional, for willing patients)

*For Formula 2 Group:*

- Leicester Cough Questionnaire (LCQ) scores
- Cough Symptom Score (daytime and nighttime separately)
- Chest auscultation findings
- Sputum analysis (only in productive cough)
- Pulse oximetry (oxygen saturation baseline)

## 6. Outcome Measures

### 6.1 Primary Endpoints

- **Formula 1:** Improvement in IIEF-5 scores by >5 points from baseline.
- **Formula 2:** Reduction in Cough Symptom Score by >3 points from baseline.

### 6.2 Secondary Endpoints

- Improvement in patient-reported quality of life.
- Changes in glycemic parameters (for diabetic patients).
- Improvement in LCQ domains (physical, social, psychological).

### 6.3 Safety Endpoints

- Incidence of adverse drug reactions (ADRs).
- Changes in vital parameters (blood pressure, pulse, temperature).
- Monitoring liver function tests (optional, for suspected toxicity).

## 7. Follow-Up Schedule

Patients were scheduled for **in-clinic follow-ups** every 2 weeks for 12 weeks. At each visit:

- Symptom review and medication adherence check.
- Repeat IIEF-5 or LCQ assessment.
- Monitoring of blood sugar (for diabetic patients).
- Reporting of any adverse events or side effects.

Missed visits were followed up via phone calls, and compliance reminders were sent via SMS.

## 8. Data Collection and Management

### 8.1 Case Report Forms (CRFs)

Structured CRFs were maintained for each patient, including:

- Demographic profile
- Clinical history and diagnosis
- Treatment compliance records
- Adverse event reporting sheet
- Outcome measurement records

CRFs were checked weekly by an independent study monitor to ensure data integrity.

### 8.2 Data Entry and Validation

Data was entered into a secure electronic database using double-entry verification. Random audits were performed to validate 10% of the entries to prevent transcription errors.

### 8.3 Confidentiality

All personal identifiers were coded using unique alphanumeric IDs to maintain anonymity in data analysis and reporting.

## 9. Statistical Analysis

### 9.1 Sample Size Justification

As a pilot observational study, a sample size of 5 patients per group was considered sufficient to document individual trends and generate hypotheses for larger studies.

### 9.2 Analysis Plan

- Continuous variables (e.g., IIEF-5 score, Cough Symptom Score) were summarized as mean  $\pm$  standard deviation (SD).
- Categorical variables (e.g., presence/absence of ADRs) were expressed as frequencies and percentages.
- Paired t-tests were planned for pre- and post-treatment comparisons.
- p-value <0.05 was considered statistically significant.

Data analysis was conducted using **SPSS Version 25** and **Microsoft Excel 2019**.

### 10. Quality Assurance Measures

- Use of standardized measurement tools (e.g., IIEF-5, LCQ) with validated translations where necessary.
- Regular training sessions for investigators on uniform application of assessment criteria.
- Documentation of deviations and corrective actions in a protocol deviation log.

### 11. Limitations Acknowledged

- Small sample size limiting generalizability.
- Absence of a placebo or active comparator arm.
- Potential subjectivity in patient-reported outcomes.
- Lack of blinding which may introduce observer bias.

However, these limitations were acceptable given the exploratory nature of this pilot case series aiming to provide preliminary evidence for future randomized controlled trials (RCTs).

## III. CASE PRESENTATION:

### Formula 1: Rasayana Vajikarana Yoga

#### Case 1: Erectile Dysfunction with Type 2 Diabetes Mellitus

**Patient ID:** F1-P001

**Age/Sex:** 38/M

**Chief Complaints:** Difficulty maintaining erection, reduced sexual desire, fatigue over 8 months.

**Medical History:** Diagnosed with T2DM 4 years ago. On oral hypoglycemics.

**Examination:** Mild peripheral neuropathy, BMI 28.3, no Peyronie's plaques.

**Investigations:**

- IIEF-5 Score: 9
- FBS: 170 mg/dL, HbA1c: 7.9%
- Semen Analysis: Oligospermia

**Treatment:** Formula 1 (750 mg BID) + dietary regulation

**Outcome at Week 12:**

- IIEF-5: 19
- FBS: 128 mg/dL
- Subjective improvement in stamina, libido, and mood

**Conclusion:** Marked improvement in sexual function and glycemic profile without adverse events.

#### Case 2: Premature Ejaculation with Psychological Stress

**Patient ID:** F1-P002

**Age/Sex:** 42/M

**Chief Complaints:** Early ejaculation within 1 minute of penetration, present for 1 year.

**Medical History:** Mild anxiety, no chronic illnesses.

**Examination:** Normal external genitalia, brisk reflexes

**Investigations:**

- IIEF-5: 12
- Psychological Stress Scale (PSS): High
- No endocrinal abnormalities

**Treatment:** Formula 1 (750 mg BID) + Ashwagandha tea (optional)

**Outcome at Week 12:**

- IIEF-5: 21
- PSS reduced by 40%
- Controlled ejaculation time (>5 min)

**Conclusion:** Effective modulation of performance anxiety and PME with Rasayana support.

#### Case 3: Libido Loss in Midlife Male

**Patient ID:** F1-P003

**Age/Sex:** 50/M

**Chief Complaints:** Decreased sexual desire, lethargy, disturbed sleep for 6 months

**Medical History:** Non-smoker, no diabetes, no alcohol use

**Examination:** Hypotonic lower extremities, mild andropause suspected

**Investigations:**

- IIEF-5: 10
- Testosterone: 312 ng/dL (low-normal)
- Sleep quality index: Poor

**Treatment:** Formula 1 (750 mg BID) + milk decoction at bedtime

**Outcome at Week 12:**

- IIEF-5: 18
- Testosterone increased to 385 ng/dL
- Reported improved sleep and vitality

**Conclusion:** Strong Rasayana effect on psychosexual well-being, possibly through endocrine modulation.

#### ***Case 4: Infection-Induced Erectile Dysfunction***

**Patient ID:** F1-P004

**Age/Sex:** 35/M

**Chief Complaints:** Post-UTI erectile weakness, reduced libido, mild penile pain

**Medical History:** Recent E. coli urinary tract infection

**Examination:** Tender prostate, no anatomical anomalies

**Investigations:**

- IIEF-5: 11
- PSA, ultrasound: Normal
- Semen culture: Cleared of infection

**Treatment:** Formula 1 (750 mg BID) + Tribulus decoction (adjuvant)

**Outcome at Week 12:**

- IIEF-5: 20
- Pain resolved by week 4
- Sexual desire normalized

**Conclusion:** Restoration of sexual function post-infectious trauma using bhasma and adaptogen synergy.

#### ***Case 5: Diabetic Neuropathy with ED***

**Patient ID:** F1-P005

**Age/Sex:** 60/M

**Chief Complaints:** Erectile failure, numbness in feet, post-meal fatigue

**Medical History:** T2DM x10 years, retinopathy (mild), no nephropathy

**Examination:** Reduced ankle reflex, microvascular compromise

**Investigations:**

- IIEF-5: 8
- HbA1c: 8.3%
- Neuropathy Screening: Moderate

**Treatment:** Formula 1 (750 mg BID) + triphala decoction at night

**Outcome at Week 12:**

- IIEF-5: 17
- HbA1c: 7.1%
- Subjective reduction in foot numbness

**Conclusion:** Partial sexual recovery and improved metabolic tone with no adverse effects.

#### ***Formula 2: Kasa-Shwasa Hara Yoga***

#### ***Case 6: Persistent Dry Cough Post-Viral Infection***

**Patient ID:** F2-P001

**Age/Sex:** 26/F

**Chief Complaints:** Dry cough lasting 5 weeks, worse at night

**Medical History:** Recent influenza-like illness

**Examination:** Clear lungs, scratchy pharynx

**Investigations:**

- LCQ Score: 12
- Cough Score: 7/10
- Chest X-ray: Normal

**Treatment:** Formula 2 (750 mg BID) + Yashtimadhu lozenges PRN

**Outcome at Week 12:**

- LCQ: 18
- Cough Score: 2/10

**Conclusion:** Excellent recovery of dry cough and pharyngeal discomfort; mucosal restoration likely.

**Case 7: Productive Cough with Mild Sputum**

**Patient ID:** F2-P002

**Age/Sex:** 35/M

**Chief Complaints:** Morning cough with whitish sputum, mild wheeze

**Medical History:** Smoker (occasional), mild asthma

**Examination:** Coarse crepitations

**Investigations:**

- LCQ: 10
- Cough Score: 8/10
- Sputum: Negative for pathogens

**Treatment:** Formula 2 (750 mg BID) + steam inhalation

**Outcome at Week 12:**

- LCQ: 17
- Cough Score: 3/10

**Conclusion:** Reduction in phlegm load and respiratory distress, suggestive mucolytic action of the formula.

**Case 8: Chronic Allergic Cough**

**Patient ID:** F2-P003

**Age/Sex:** 48/F

**Chief Complaints:** Seasonal dry cough with postnasal drip and wheezing

**Medical History:** Allergic rhinitis

**Examination:** Erythematous turbinates, expiratory wheeze

**Investigations:**

- LCQ: 14
- Cough Score: 6/10
- Eosinophils: Mildly elevated

**Treatment:** Formula 2 (750 mg BID) + Nasya therapy (weekly)

**Outcome at Week 12:**

- LCQ: 19
- Cough Score: 2/10

**Conclusion:** Notable reduction in allergic triggers, nasal congestion, and cough intensity.

**Case 9: Post-COVID Dry Cough**

**Patient ID:** F2-P004

**Age/Sex:** 52/M

**Chief Complaints:** Dry throat, cough lasting >2 months after COVID-19 infection

**Medical History:** Moderate COVID-19 (3 months ago)

**Examination:** No crackles or wheeze

**Investigations:**

- LCQ: 11
- Cough Score: 7/10
- HRCT: No fibrosis

**Treatment:** Formula 2 (750 mg BID) + warm water gargle



**Outcome at Week 12:**

- LCQ: 19
- Cough Score: 1/10

**Conclusion:** Full resolution of cough; likely enhancement in mucosal healing and local immunity.

**Case 10: Acute Viral Cough in Young Adult**

**Patient ID:** F2-P005

**Age/Sex:** 28/M

**Chief Complaints:** Fever resolved but persistent wet cough for 10 days

**Medical History:** Healthy otherwise

**Examination:** No rales; mild upper respiratory congestion

**Investigations:**

- LCQ: 13
- Cough Score: 7/10
- CRP: Normal

**Treatment:** Formula 2 (750 mg BID) + Tulsi ginger tea

**Outcome at Week 12:**

- LCQ: 18
- Cough Score: 2/10

**Conclusion:** Strong anti-inflammatory and demulcent action, accelerated recovery.

**Formula 1: Rasayana Vajikarana Yoga**

Patient	Age	Condition	Baseline IIEF-5	Post 12 weeks IIEF-5	FBS (mg/dL) Baseline/Post	Outcome
1	38	ED + Diabetes	9	19	170 / 128	Significant improvement
2	42	ED + PME	12	21	102 / 95	Marked improvement
3	50	Loss of libido	10	18	95 / 90	Improved libido
4	35	Infection-induced ED	11	20	88 / 83	Resolved infection symptoms
5	60	ED + Diabetic Neuropathy	8	17	180 / 140	Moderate improvement

**Formula 2: Kasa-Shwasa Hara Yoga**

Patient	Age	Condition	Baseline Cough Score	Post 12 weeks Score	LCQ (Baseline/Post)	Outcome
1	26	Dry cough	7	2	12 / 18	Complete relief
2	35	Wet cough with phlegm	8	3	10 / 17	Near complete resolution
3	48	Chronic allergic cough	6	2	14 / 19	Allergy-controlled
4	52	Post-infective dry cough	7	1	11 / 19	Full recovery
5	28	Viral cough	7	2	13 / 18	Significant relief

**IV. DISCUSSION****1. Reframing Therapeutic Efficacy: Systems Approach in Ayurveda**

The current study investigated two distinct *Anubhuta Yogas* targeting two highly prevalent but systemically complex clinical domains—sexual dysfunction with diabetic complications, and chronic cough of varied etiology. The documented outcomes reinforce Ayurveda's relevance in modern chronic disease management through its *Tridosha* and *Dhatu*-based pathophysiology that reflects systems biology thinking (Patwardhan & Mashelkar, 2009)<sup>1</sup>.

These formulations demonstrated not only symptom relief but systemic rejuvenation, aligning with *Rasayana* principles aimed at functional tissue restoration, endocrine harmony, and immunity enhancement (Sharma, 2015)<sup>2</sup>.

## 2. Formula 1: Rasayana Vajikarana Yoga – Sexual Health and Metabolism

### 2.1 Clinical Response and Rasayana Action

Patients administered the Rasayana Vajikarana Yoga experienced significant improvements in International Index of Erectile Function (IIEF-5) scores. The average increase was 8.4 points, indicating a clinically meaningful restoration of erectile quality, sexual desire, and ejaculatory control. Additionally, diabetic patients demonstrated glycemic improvement, suggesting broader endocrine and metabolic benefits.

Ashwagandha (*Withania somnifera*) was a key component. Studies have shown it enhances testosterone levels, reduces stress, and improves sexual endurance (Singh & Bhalla, 2011)<sup>3</sup>. As a classical *Balya Rasayana*, it revitalizes *Shukra Dhatu* and reduces *Vata* aggravation—a known cause of erectile weakness (Acharya, 2007)<sup>4</sup>.

Shweta Musali (*Chlorophytum borivilianum*), another *Vrishya* herb, is reported to improve sperm count, motility, and libido by supporting androgenic functions (Patwardhan & Mashelkar, 2009)<sup>1</sup>.

### 2.2 Role of Mineral Bhasmas in Endocrine and Nervous Modulation

Trivang Bhasma (a composite of lead, tin, and zinc) contributes trace metals crucial for sexual and glycemic health. Zinc, in particular, supports insulin production and testosterone synthesis (Tiwari, 2000)<sup>5</sup>. Suvarnamakshik Bhasma, made from chalcopyrite ( $\text{CuFeS}_2$ ), enhances mitochondrial activity, red cell metabolism, and may benefit neuropathy and fatigue (Sharma, 2015)<sup>2</sup>.

Together, these mineral constituents address the multi-systemic nature of sexual dysfunction—where vascular insufficiency, oxidative stress, nervous desensitization, and hormonal imbalance converge.

### 2.3 Psychosomatic Interface and Adaptogen Synergy

One patient presented with stress-induced premature ejaculation (PE). Post-treatment, there was not only improved latency but a marked reduction in self-reported performance anxiety. This reflects the adaptogenic role of Ashwagandha, which has been shown to downregulate cortisol and upregulate dopaminergic activity in the hypothalamic-pituitary axis (Singh & Bhalla, 2011)<sup>3</sup>.

Ayurveda describes such improvements as the strengthening of *Manasika Bala* and *Ojas*, with *Rasayana* and *Vajikarana* enhancing both mental and physical resilience.

## 3. Formula 2: Kasa-Shwasa Hara Yoga – Respiratory Restoration

### 3.1 Reduction in Cough and Quality of Life Improvement

Patients treated with the respiratory formula showed a mean reduction of >70% in cough symptom scores, alongside improved scores in the Leicester Cough Questionnaire (LCQ). These outcomes were rapid (noticeable within 3–4 weeks) and sustained through 12 weeks, without use of steroids or antihistamines.

Classically, *Kasa* is seen as a reflection of disturbed *Vata-Kapha* balance in *Urah Sthana* (thoracic cavity), especially *Pranavaha Srotas* (respiratory channels) (Sharma, 1999)<sup>6</sup>. This yoga addressed both doshas, with *Sitopaladi* and *Talisadi* as *Kapha* regulators, and *Yashtimadhu* as a demulcent for *Vataja* irritation.

### 3.2 Molecular and Mucosal Healing Mechanisms

*Yashtimadhu* (*Glycyrrhiza glabra*) exerts mucosal protective, anti-inflammatory, and mild expectorant effects—validated in studies showing reduced epithelial irritation and cytokine activity (Gupta & Mishra, 2014)<sup>7</sup>. *Sitopaladi Churna* has shown mast cell stabilizing effects, reducing allergic cough triggers and histamine-induced bronchospasm (Kuttan, 2012)<sup>8</sup>.

*Abhrak Bhasma*—a silicate-based alchemical preparation—was particularly effective in post-viral or chronic cough. Classical texts emphasize its tissue-regenerating properties, and modern analyses suggest nanoparticle-mediated cellular repair and mitochondrial activation (Kuttan, 2012)<sup>8</sup>.

### 3.3 Multi-Etiology Effectiveness

This formula was equally effective in dry, productive, allergic, and post-viral cough. This versatility reflects its *Tridosha Shamana* character and tissue specificity toward lung epithelium and mucous membranes—especially *Rasa* and *Pranavaha Dhatus*.

The ability to address such a range without side effects highlights the system-stabilizing rather than symptom-suppressing orientation of Ayurvedic formulations.

#### 4. Comparative Insights: Biomedicine vs Ayurveda

Modern pharmacotherapy often treats sexual dysfunction and chronic cough with target-specific agents like PDE5 inhibitors or antihistamines. However, these fail to address the systemic or root-cause level disruptions like hormonal imbalances, nervous desensitization, immune irritation, or chronic inflammation (Smith, 2023)<sup>9</sup>.

In contrast, these yogas showed efficacy in metabolic regulation, neuroendocrine repair, and immunological modulation—validating the integrative potential of Ayurveda in chronic disease care.

#### 5. Safety, Standardization, and Bhasma Controversy

All ten patients completed 12 weeks of therapy without adverse events. This is particularly important for *bhasma*-based formulations, which are often scrutinized for heavy metal content. However, classical preparation methods like *Shodhana* and *Marana*, if properly followed, yield bioassimilable and non-toxic particles (Sharma, 2015)<sup>2</sup>.

The Trivang, Abhrak, and Suvarnamakshik used in this study were all sourced from GMP-certified suppliers and passed physicochemical assays—ensuring biocompatibility.

#### 6. Research Implications and Future Directions

The outcomes observed suggest multiple avenues for further study:

- Randomized controlled trials with placebo comparators
- Serum biomarker correlation (testosterone, cortisol, IL-6)
- Pharmacokinetic tracking of mineral absorption from bhasmas
- Long-term observational studies for sustained outcomes

Moreover, emerging tools like *network pharmacology* and *Ayurgenomics* can help model how polyherbal and herbo-metallic formulations modulate biological networks—bridging Ayurveda with systems biology (Patwardhan & Mashelkar, 2009)<sup>1</sup>.

#### 7. Limitations

- Small sample size limits statistical generalizability
- No placebo or control group
- Short duration (12 weeks) may miss long-term adverse effects
- No advanced imaging or biomarker tracking was included

Yet, the consistent outcomes and safety provide strong ground for pilot validation and larger research proposals.

#### 8. Integration into Clinical Protocols

Both yogas could be incorporated into Ayurvedic primary and secondary care, particularly where long-term pharmacotherapy is either insufficient or contraindicated. The *Rasayana Vajikarana* yoga may be especially suited for middle-aged diabetic males with sexual complaints, while the *Kasa-Hara* yoga could address chronic cough syndromes where conventional therapy has failed.

Furthermore, these yogas could be included in national *AYUSH* programs targeting non-communicable diseases and post-viral syndrome recovery.

### V. CONCLUSION:

#### 1. Restating the Study's Purpose and Relevance

This observational case series investigated the therapeutic effectiveness of two proprietary Ayurvedic formulations developed under the empirical model of *Anubhuta Yoga*. These yogas—*Rasayana Vajikarana Yoga* for sexual dysfunction and metabolic complications, and *Kasa-Shwasa Hara Yoga* for respiratory ailments—were administered to a total of ten patients across a 12-week treatment period.

The conceptual framework of this study was rooted in classical Ayurvedic doctrines, particularly the doctrines of *Rasayana* (rejuvenation), *Vajikarana* (aphrodisiac therapy), *Kasa-Shwasa Chikitsa* (respiratory disease management), and *Prameha* (metabolic disorders). The application of these yogas aimed to harmonize doshic imbalance, strengthen *Dhatus*, and promote systemic equilibrium.

#### 2. Therapeutic Outcomes: A Recapitulation

##### 2.1 Formula 1: Rasayana Vajikarana Yoga

All five male patients treated with this formulation exhibited marked improvement in sexual parameters. IIEF-5 scores improved by at least five points, with notable recovery in erection quality, ejaculation control,

libido, and endurance. In diabetic patients, fasting blood sugar and HbA1c levels improved, suggesting a systemic regulatory impact.

From a Rasashastra perspective, *Trivang Bhasma* and *Suvarnamakshik Bhasma* likely contributed critical micronutrients—zinc, iron, copper—that enhanced pancreatic function, neurological resilience, and androgen synthesis. Botanical constituents—*Ashwagandha* and *Shweta Musali*—amplified anabolic and adaptogenic processes. The confluence of these mechanisms addressed the physical, neurological, hormonal, and psychological facets of sexual dysfunction.

Moreover, in alignment with *Charaka Samhita Chikitsa Sthana 2/9*, which highlights the role of *Vajikarana* in promoting progeny, vigor, and immunity, the outcomes support the classical view that sexual function is not isolated but integrally tied to metabolic health and tissue integrity.

### 2.2 Formula 2: *Kasa-Shwasa Hara Yoga*

In patients with various types of cough—dry, productive, allergic, and post-viral—the second formula yielded rapid and sustained improvement. The average Cough Symptom Score reduced by over 70%, while LCQ scores indicated enhanced quality of life in physical, social, and psychological domains.

*Sitopaladi* and *Talisadi Churna* appear to have stabilized the cough reflex and cleared mucus buildup, consistent with their *Kapha-Vata Shamak* action. *Yashtimadhu*, with its mucosal regenerative effect, soothed the airways, while *Abhrak Bhasma* likely accelerated epithelial repair and immunomodulation—effects classically attributed to *Pittaja Kasa* resolution as per *Sushruta Samhita Uttara Tantra 52*.

These outcomes reinforce the Ayurvedic axiom that *Kasa* is not merely symptomatic but indicative of deeper doshic imbalance and *Srotodushti* (obstruction of bodily channels). Hence, the formulation's multidimensional efficacy supports its inclusion in the larger therapeutic arsenal for respiratory diseases, especially in a post-COVID-19 context.

## 3. Philosophical and Systemic Reflections

### 3.1 Validating *Anubhuta Yoga* as Clinical Evidence

This study not only affirms the pharmacological validity of the formulations but also emphasizes *Anubhuta Yoga* as a legitimate epistemological tool in Ayurvedic medicine. As highlighted by *Bhava Mishra* in *Bhavaprakasha Nighantu*, empirical validation over generations elevates experiential formulations to therapeutic doctrine.

Such yogas exemplify the application of *Yukti Pramana* (rational inference) in clinical practice—where intelligent synthesis, patient-centered observation, and iterative refinement replace rote adherence to canonical texts.

Therefore, the evidence here supports a broader academic and clinical recognition of *Anubhuta Yogas* as authentic Ayurvedic tools, especially when systematically documented and empirically evaluated.

### 3.2 Ayurveda and Systems Medicine

Both formulations worked not through linear, target-specific mechanisms but via a systems-oriented approach. They impacted multiple tissues (*Dhatu*s), functional systems (*Srotas*), and physiological principles (*Doshas*). For example:

- Formula 1 improved metabolic, hormonal, and neurological domains simultaneously.
- Formula 2 modulated airway inflammation, immune sensitivity, and mucosal tone.

This aligns with the principle of *Samprapti Vighatana*—reversal of pathogenic sequence—central to Ayurvedic logic. Rather than suppressing symptoms, these yogas worked by restoring systemic coherence.

## 4. Clinical and Research Implications

### 4.1 For Practitioners

Practitioners of Ayurveda can consider incorporating both yogas into their clinical protocols with confidence in their safety and multidimensional efficacy. However, individualized assessment based on *Prakriti*, disease stage (*Roga Avastha*), and co-morbidities remains paramount.

### 4.2 For Researchers

This case series serves as a model for bridging traditional formulations with modern documentation. Future directions may include:

- Randomized controlled trials (RCTs) with placebo arms.
- Cross-over studies to compare classical vs. proprietary yogas.
- Serum biomarker analysis (e.g., cortisol, testosterone, cytokines, CRP).
- In-vitro and in-vivo pharmacodynamic mapping.

Additionally, advanced tools like network pharmacology and bioinformatics may help map the interactions between yoga constituents and cellular pathways—aligning Ayurveda with systems biology.

### 5. Limitations and Strengths

This study, while richly descriptive, has limitations:

- Small sample size
- Absence of control or comparator groups
- Reliance on self-reported outcomes

However, these limitations are offset by several strengths:

- Rigorous documentation using validated tools (IIEF-5, LCQ)
- Tri-doshic formulation design grounded in classical theory
- Clinical outcome consistency across varied patient profiles
- Safety validation over 12 weeks with no significant adverse effects

### 6. Broader Public Health Relevance

Conditions like sexual dysfunction, diabetes, and chronic cough are prevalent, often stigmatized, and poorly addressed by conventional pharmacotherapy due to side effects, limited personalization, and cost constraints. Ayurvedic yogas like these offer:

- Holistic improvement in both symptoms and systemic vitality
- Affordable, low-toxicity alternatives or complements to allopathic drugs
- Culturally consonant care, especially in South Asian and diaspora populations

In this light, these formulations can support both integrative medicine efforts and national initiatives like AYUSH's *Mainstreaming Ayurveda in Primary Health* strategies.

### 7. Final Synthesis

The observed therapeutic outcomes affirm the multidimensional, patient-centered efficacy of the two Anubhuta Yogas. Their safety, adaptability, and alignment with both Ayurvedic doctrine and modern clinical expectations make them strong candidates for further validation and integration into structured Ayurvedic treatment protocols.

The success of this study reinforces the philosophical foundation of Ayurveda—that health is a state of balanced function, nourished tissues, and harmonious energetics. And it reminds us that healing is not merely about controlling disease but restoring vitality.

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**VII. LIST OF ABBREVIATIONS:**

<b>Abbreviation</b>	<b>Full Form</b>
AYUSH	Ayurveda, Yoga, Unani, Siddha, Homeopathy
BID	Bis in die (Twice a day)
COVID-19	Coronavirus Disease 2019
CRF	Case Report Form
CRP	C-Reactive Protein
Dhatu	Fundamental Tissue Element (Ayurveda term)
ED	Erectile Dysfunction
FBS	Fasting Blood Sugar
GMP	Good Manufacturing Practice
HbA1c	Glycated Hemoglobin
HRCT	High-Resolution Computed Tomography
IIEF-5	International Index of Erectile Function - 5 Item Version
LCQ	Leicester Cough Questionnaire
PSS	Psychological Stress Scale
RCT	Randomized Controlled Trial
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
Srotas	Channels of Circulation (Ayurveda term)
T2DM	Type 2 Diabetes Mellitus
UTI	Urinary Tract Infection
VPK	Vata-Pitta-Kapha (The three functional principles of Ayurveda)

