

AYURVEDIC MANAGEMENT OF OROLINGUAL DYSTONIA WITH SECONDARY DEPRESSION: A CASE STUDY

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ABSTRACT

Orolingual dystonia is a focal dystonia affecting the muscles of the face, mouth, and tongue, significantly impacting speech and quality of life. Conventional treatments often have limited efficacy and considerable side effects. A 61-year-old male patient with a six-year history of orolingual dystonia, presenting with facial twitching, speech difficulties, and gait problems, was treated with a comprehensive Ayurvedic protocol combined with yoga therapy for five months. The treatment included specific herbal formulations and tailored yogic practices, along with the gradual reduction of conventional medications. Remarkable improvement was observed, with a 90% reduction in facial twitching, complete resolution of speech difficulties, normalized gait, and a substantial decrease in conventional medication requirements from 100% to 10%. Symptoms of secondary depression also improved significantly. This case highlights the potential of integrated Ayurvedic management in addressing complex neurological conditions such as orolingual dystonia and suggests the need for further controlled studies to validate these findings.

KEYWORDS: Orolingual dystonia, Ayurveda, vata disorders, focal dystonia, integrative medicine

INTRODUCTION

Orolingual dystonia is a form of focal dystonia characterized by involuntary contractions of muscles in the face, mouth, tongue, and sometimes the larynx. It affects approximately 3-5 per 100,000 individuals and significantly impacts speech articulation, swallowing, and quality of life. The condition often leads to social isolation and secondary psychological complications including depression and anxiety. Conventional treatment primarily involves botulinum toxin injections, anticholinergic medications, and symptomatic management of secondary depression. However, these treatments provide temporary relief with

significant side effects and diminishing efficacy over time. In Ayurvedic medicine, orolingual dystonia can be understood as a manifestation of *vata Vyadhi*, specifically involving derangement of *Prana vata* (governing speech and facial movements) and *Udana vata* (controlling vocal functions). This case study presents a comprehensive Ayurvedic approach to managing this complex condition.

CASE

Patient Profile

Age: 61 years, male

Duration of illness: 6 years

Previous treatments: Botulinum toxin injection (4 years prior)

MRI findings: Cerebral atrophy

Clinical Presentation

The patient presented with the following symptoms:

- Facial twitching preceding speech or sound production
- Severe difficulty in speech articulation
- Gait disturbances and walking difficulties
- Secondary depression and anxiety

Ayurvedic Assessment and Pathogenesis

Classical Understanding

According to Ayurvedic principles, the condition was analyzed as:

Primary Dosha involvement: *vata* Dosha vitiation, particularly:

- Prana vata*: Governing nervous system functions, speech, and facial expressions
- Udana vata*: Controlling vocalization and upward movement of energy
- Vyana vata*: Managing muscular coordination and movement

Pathological sequence (Samprapti):

- Vata* vitiation due to stress, aging, and neurodegeneration
- Disruption of normal neural communication
- Involuntary muscular contractions (*Akshepaka*)
- Secondary psychological manifestations due to functional impairment

Affected systems:

- Nervous tissue
- Mamsa Dhatu (muscular tissue)
- Rasa Dhatu (affecting overall nourishment)

Treatment Protocol

Ayurvedic Prescription given for the Management of Orolingual Dystonia with Secondary Depression.

The following Ayurvedic formulations were prescribed for the management of *Orolingual*

Dystonia associated with secondary depression. The prescription was designed according to the principles of *Vata shamana* and *Majja dhatu poshana chikitsa*, emphasizing *Rasayana* and *Medhya* therapies to support neuromuscular coordination and mental stability.

1. Kapikacchu Churna (*Mucuna pruriens* powder)

Dose: 2–3 grams twice daily

Anupana: Honey

Duration: 5 months (ongoing)

Properties: *Vata shamaka*, *Rasayana*, natural L-DOPA source

2. Yashtimadhu Churna (*Glycyrrhiza glabra* powder)

Dose: 2 grams twice daily

Anupana: Lukewarm milk

Duration: 5 months (ongoing)

Properties: *Vata-Pitta shamaka*, *Rasayana*, neuroprotective

3. Ashwagandharishta (*Withania somnifera* fermented preparation)

Dose: 15 ml twice daily

Anupana: Equal quantity of water

Duration: 5 months (ongoing)

Properties: *Vata shamaka*, *Balya*, *Medhya* *Rasayana*, adaptogenic

4. Brihat Vata Chintamani Rasa

Dose: 1 tablet twice daily

Anupana: Honey and *ghee*

Duration: First 15 days

Properties: *Vata shamaka*, strengthens *Majja dhatu*

5. Vata Gajankusha Rasa

Dose: 1 tablet twice daily

Anupana: Honey and *ghee*

Duration: 2 months (replacing *Brihat Vata Chintamani Rasa*)

Properties: Specific for *Vata vyadhi* and neurological disorders

Yoga Therapy

Daily pranayama practices focusing on Bhramari and Ujjayi

Gentle asanas for improving circulation

Meditation for stress management

Specific exercises for facial muscle coordination

Specific Exercises for Facial Muscle Coordination

Facial Yoga (Mukhābhyāsa):

Gentle lip pursing and smiling exercises

Tongue rolling, protrusion, and controlled retraction

Alternate inflation and deflation of cheeks

Controlled pronunciation of vowels (A, E, I, O, U,)

Chanting of A U M

Light massage and tapping of facial muscles to improve circulation and neuromuscular control

Dietary and Lifestyle Modifications

-Vata pacifying diet emphasizing warm, moist, and nourishing foods

-Regular meal timings

-Adequate rest and stress management

-Oil massage (Abhyanga) with vata shamaka oils (Bala taila)

RESULT

Clinical Improvements (After 5 months)

Primary symptoms:

Facial twitching: 90% reduction

Speech difficulties: Complete resolution

Gait problems: Complete normalization

Walking ability: Restored to normal

Secondary symptoms:

Anxiety levels: Significantly improved

Overall quality of life: Markedly enhanced

Medication reduction:

Conventional medication requirements reduced from 100% to 10%

Gradual tapering achieved without withdrawal symptoms or relapse

Safety and Tolerability

No adverse effects were reported with the Ayurvedic treatment protocol. All medications were well-tolerated, and regular monitoring showed stable vital parameters.

DISCUSSION

This case demonstrates several important aspects of Ayurvedic management of complex neurological conditions:

Therapeutic Rationale

1. Kapikacchu (*Mucuna pruriens*):

Contains natural L-DOPA, which may help restore dopaminergic function. In Ayurveda, it's considered a premier (vata) shamaka and majja dhatu rasayana. (Xu et al., 2023)

2. Yashtimadhu (*Glycyrrhiza glabra*):

Provides neuroprotective effects and helps in stress adaptation, addressing both primary neurological symptoms and secondary psychological manifestations. (Eltahir et al., 2024)

3. Ashwagandharishta: Acts as a comprehensive nervine tonic, supporting overall neurological function while addressing anxiety and depression. (Mikulska et al., 2023)

4. Mineral preparations (Rasa medications): Brihatvata Chintamani Rasa and vata Gajankusha Rasa contain processed minerals that, according to Ayurvedic pharmacology, can cross the blood-brain barrier and provide targeted neurological support. (Shukla et al., 2012)

Ayurvedic Pathophysiology

The success of this treatment protocol supports the Ayurvedic understanding of orolingual dystonia as primarily a vata disorder affecting majja dhatu. The comprehensive approach addressing both the root cause *vata* vitiation and the affected tissues (*Majja and Mamsa dhatu*) appears to have provided sustained therapeutic benefits.

Integrative Approach

The gradual reduction of conventional medications while maintaining therapeutic gains suggests that Ayurvedic treatment may address underlying pathophysiology rather than merely providing symptomatic relief.

Limitations

- Single case study limits generalizability
- Subjective assessment parameters
- Lack of standardized outcome measures
- Potential placebo effects
- Concurrent conventional medication use (though significantly reduced)

Clinical Implications

This case suggests that:

- Ayurvedic treatment may offer sustainable benefits in neurological conditions
- Integrated approaches may allow for reduction in conventional medication burden
- Holistic treatment addressing both physical and psychological aspects may be more effective
- Further research with larger cohorts and controlled designs is warranted

CONCLUSION

This case study demonstrates the potential effectiveness of comprehensive Ayurvedic management in treating orolingual dystonia with secondary depression. The significant improvement in primary symptoms, quality of life, and the substantial reduction in conventional medication requirements suggest that Ayurvedic medicine may offer a valuable therapeutic approach for this challenging condition.

The success observed in this case may be attributed to the holistic Ayurvedic approach that addresses the root cause vata vitiation, strengthens the affected tissues *majja dhatu*, and provides comprehensive support to the nervous system. The integration of specific herbal formulations with yoga therapy appears to have created a synergistic effect.

Future research should focus on:

- Controlled clinical trials with larger patient populations
- Standardized outcome measures
- Long-term follow-up studies
- Investigation of specific mechanisms of action
- Development of standardized treatment protocols

This case adds to the growing body of evidence supporting the integration of traditional medicine systems in managing complex neurological conditions and highlights the need for further research in this promising area (Sierpina & Frenkel, 2005).

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