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A CONCEPTUAL REVIEW ON MEDHYA CHURNA

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ABSTRACT

Medhya Dravyas described in classical Ayurvedic texts possess unique nootropic, Rasayana and Sattvavardhaka properties beneficial for improving cognition, memory, concentration and overall mental well-being. The present review conceptualizes and rationalizes a **proposed Medhya Churna Kalpa**, intended to be prepared using classical Medhya herbs such as *Brahmi (Bacopa monnieri)*, *Mandukaparni (Centella asiatica)*, *Shankhapushpi (Convolvulus pluricaulis)*, *Yashtimadhu (Glycyrrhiza glabra)* and *Vacha (Acorus calamus)*. The Kalpa is designed to be **palatable for children**, with **easy dose fixation**, and **one-year shelf-life**, as per standard Churna Kalpana guidelines. This article reviews classical properties, modern neuropharmacology, Rasapanchaka, potential pharmacodynamic effects, and proposes a detailed **mode-of-action flowchart** integrating Ayurvedic and biomedical mechanisms. Evidence from experimental and clinical studies suggests neuroprotective, antioxidant, anxiolytic and cognitive-enhancing effects of Medhya herbs. This conceptual review supports the plausibility and relevance of developing a standardized Medhya Churna formulation to enhance cognitive health.

KEYWORDS: Medhya Churna; Medhya Rasayana; Cognitive enhancement; Ayurvedic nootropics; Neuroprotection.

1. INTRODUCTION

Cognition, memory and mental performance are essential for learning, intellectual growth and overall psychological functioning. The classical Ayurvedic texts describe a group of

herbs termed **Medhya Rasayanas**, which improve *Dhee* (intellect), *Dhruti* (retention) and *Smriti* (recall). Medhya Dravyas such as *Brahmi*, *Mandukaparni*, *Shankhapushpi*, *Yashtimadhu* and *Vacha* possess properties indicated for cognitive enhancement, mental strength and stress modulation.[1–4]

Churna Kalpana, one of the oldest pharmaceutical preparations in Ayurveda, is widely used due to its **simplicity, palatability, easy dose adjustment, and stable shelf life of about one year.**[5] The present article conceptualizes a **proposed Medhya Churna formulation**, which is yet to be prepared but designed based on classical standards and contemporary evidence.

This review evaluates the pharmacological properties, formulation rationale, and potential mechanisms of action of the proposed Medhya Churna to establish a scientific basis for future formulation and clinical evaluation.

2. MATERIALS AND METHODS

This review was prepared using

- Classical Ayurvedic texts (*Charaka Samhita*, *Sushruta Samhita*, *Bhavaprakasha*, *Yogaratnakara*).
- Peer-reviewed databases (PubMed, Scopus, AYUSH Research Portal).
- Research studies on *Bacopa monnieri*, *Centella asiatica*, *Convolvulus pluricaulis*, *Glycyrrhiza glabra* and *Acorus calamus*.
- Rasapanchaka and pharmacodynamic interpretations based on classical literature.

  Inclusion criteria: studies related to Medhya herbs, cognitive enhancement, neuroprotection, antioxidant activity, and Ayurvedic Rasayana effects.

3. RESULTS

3.1. Proposed Composition of Medhya Churna

Although not yet prepared, the Kalpa is proposed to consist of:

- **Brahmi (Bacopa monnieri)**
- **Mandukaparni (Centella asiatica)**
- **Shankhapushpi (Convolvulus pluricaulis)**
- **Yashtimadhu (Glycyrrhiza glabra)**
- **Vacha (Acorus calamus)**

These herbs collectively possess Medhya, Rasayana, Tridoshahara and Sattvavardhaka properties.[1–4]

3.2. Rasapanchaka (Proposed Interpretation)

Dravya	Rasa	Guna	Veerya	Vipaka	Karma
Brahmi	Tikta, Kashaya	Laghu, Sara	Shita	Madhura	Medhya, Tridoshahara
Mandukaparni	Tikta, Madhura	Laghu	Shita	Madhura	Medhya, Rasayana
Shankhapushpi	Tikta	Laghu, Snigdha	Shita	Madhura	Medhya, Nidrajanana
Yashtimadhu	Madhura	Guru, Snigdha	Shita	Madhura	Rasayana, Ojovardhaka
Vacha	Tikta, Katu	Laghu, Tikshna	Ushna	Katu	Medhya, Vata-Kapha Shamana

3.3. Proposed Pharmacological Effects

- Neuroprotective and antioxidant actions[2,3]
- Enhancement of cholinergic transmission[1]
- Improvement in learning, memory and concentration[6–8]
- Stress reduction via HPA axis modulation[4]
- Rasayana effect promoting Ojas and mental stamina[5]
- Srotoshodhana of Mano Vaha Srotas improving signal conduction

4. DISCUSSION

The proposed Medhya Churna Kalpa is based on classical Ayurvedic wisdom and modern scientific evidence. Classical texts identify Medhya Dravyas as capable of improving cognitive faculties through their Medhya, Rasayana and Sattvavardhaka properties.[1] Modern studies on *Bacopa monnieri* show enhancement of synaptic plasticity, antioxidant action and improved cognitive performance.[2,4] *Centella asiatica* supports neuronal dendritic growth, learning and memory.[3] *Shankhapushpi* has anxiolytic and nootropic potential.[7] *Yashtimadhu*, being a Rasayana drug, improves Ojas, mental clarity and memory retention.[5] *Vacha*, with Tikshna and Medhya properties, enhances attention, speech and cognition.

The proposed formulation is particularly suitable for children due to its **palatability**, **powder form for flexible dosing**, and **year-long stability**. The mode of action operates through the improvement of *Dhee–Dhruti–Smriti*, ManoVaha Srotoshodhana, Agni enhancement and Ojas promotion, correlating with modern mechanisms like antioxidant activity, neurotransmitter modulation and stress hormone balancing.

Thus, the conceptual Medhya Churna represents a scientifically rational formulation that deserves further pharmacognostical, phytochemical and clinical validation.

5. CONCLUSION

This review conceptually proposes a scientifically rational Medhya Churna formulation incorporating classical Medhya herbs. The planned Churna balances classical Rasapanchaka principles with modern neuropharmacological evidence. The combined Medhya, Rasayana, antioxidant, neuroprotective and anxiolytic properties suggest strong potential for improving cognition, memory and mental well-being. Future work should involve formulation standardization, analytical profiling and clinical trials to validate safety and efficacy.

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