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# LITERARY REVIEW ON MEDHYA RASAYANA IN THE MANAGEMENT OF ANXIETY DISORDER

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#### **ABSTRACT**

Anxiety is a fundamental human emotion that serves as a natural response to stress and potential threats. However, for a significant portion of the global population, this feeling of worry and fear becomes persistent, excessive, and debilitating, interfering with daily life and functioning. These experiences are characteristic of anxiety disorders, a category of mental health conditions that are among the most common worldwide. Medhya Rasayana refers to a specific group of Ayurvedic herbs known for their beneficial effects on cognitive function, mental health, and rejuvenation. Many clinical and experimental evidence highlights the anxiolytic efficacy of these herbs, including Mandukaparni (Centella asiatica), Yashtimadhu (Glycyrrhiza glabra), Shankhpushpi (Convolvulus pluricaulis), and Guduchi (Tinospora cordifolia. This paper synthesizes the literary review of Medhya Rasayana supports anxiety disorder management.

**KEYWORDS:** Anxiety Disorder, Ayurveda, Medhya rasayana.

### INTRODUCTION

Anxiety is a normal and often temporary response to stress and fear while anxiety disorder is a persistent, excessive, debilitating conditions that interferes with daily life. Anxiety disorders are among the most prevalent mental health conditions worldwide, characterized by symptoms such as persistent nervousness, palpitations, insomnia, irritability, and impaired concentration.

**Anxi**ety disorders encompass several specific conditions, each with unique features but sharing the central elements of excessive fear or anxiety. The main types include:<sup>[1]</sup>

- 1. **Generalized Anxiety Disorder (GAD)**: Chronic, excessive worry about everyday matters for at least six months. Accompanied by symptoms like restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbance.
- Panic Disorder: Recurrent, unexpected panic attacks and persistent concern about having more attacks.
- 3. **Phobias**: Intense, irrational fears of specific objects or situations, leading to avoidance behaviours and significant distress.
- 4. **Social Anxiety Disorder**: High levels of fear and worry about social situations where the person may feel embarrassed, humiliated, or judged.
- 5. **Agoraphobia**: Fear of situations where escape might be difficult or help unavailable, often leading to avoidance of public places.
- 6. Separation Anxiety Disorder: Excessive fear or worry about being separated from people to whom an individual is emotionally attached.
- 7. **Selective Mutism**: Consistent inability to speak in certain social situations, while communicating freely in others (primarily affects children).

## **Pathophysiology of Anxiety Disorder**

Category	Component	Role in Anxiety Pathophysiology		
1.Neural Circuits	Amygdala	Overactivity leads to exaggerated responses to perceived threats.		
	Prefrontal Cortex (PFC)	Impaired connectivity with the amygdala reduces inhibition, amplifying anxiety		
	Hippocampus	Altered function is associated with impaired regulation of stress and anxiety		
2.Neurotransmitter Systems	Serotonin (5-HT)  Low activity in specific brain regions contribute to symptoms			
	Norepinephrine (NE)	Overactivity leads to physical symptoms of anxiety (e.g., palpitations, sweating) and heightened arousal		
	Gamma-aminobutyric acid (GABA)	Reduced function leads to increased neuronal excitability, making individuals more susceptible to anxiety		
	Glutamate	Enhanced transmission is linked to stress and anxiety; antagonists show anxiolytic effects		
3.Hormonal & Stress Pathways	Hypothalamic–Pituitary–Adrenal (HPA) Axis	Dysregulation results in altered release of CRF, ACTH, and cortisol, leading to sustained anxiety.		
	CRF and Neuropeptides	Increased CRF levels are associated with heightened anxiety and stress responses		

Treatment Approach for anxiety disorder:

- **Pharmacological Treatments:** SSRIs and SNRIs are first-line therapies but many patients have a partial response or relapse.
- **Psychotherapeutic Interventions:** Cognitive Behavioural Therapy (CBT), Acceptance and Commitment Therapy (ACT) etc.

## General method of treatment for Manasik roga in Ayurveda

Ayurveda consider mind as an integral part of the life, it accomplishes the balanced state of vata, pitta, kapha, rajas and tamas to maintain psychosomatic health. Ayurvedic treatment for anxiety disorder integrates medicines (Ashwagandha, Brahmi, Jatamansi, medhya rasayana etc.), Panchakarma therapies (Abhyanga, Shirodhara, Nasya), dietary and lifestyle modification, yoga and meditation (pranayama), and Satvavajaya chikitsa<sup>[2]</sup> (Ayurvedic psychotherapy) etc done to restore doshic balance, improve resilience, and reduce anxiety symptoms.

Acharya Charaka has mentioned mainly four types medhya Rasayana: [3]

- 1. Mandukaparni
- 2. Yashtimadhu
- 3. Guduchi
- 4. Sankhapushpi

Medhya Rasayana drug are two types:<sup>[4]</sup>

- Sheeta Virya and Madhura Vipaka Dravya, it Promotes Kapha and enhances Retention / dharana Karma. Eg. – Yashtimadhu, Sankhpusphi.
- Ushana Virya and Tikta Rasa Dravya, it promotes pitta and enhances Grahana/Grasping,
   Smriti/Memory. Eg. Guduchi

Table<sup>[5]</sup>

Sanskrit Name	Ayurvedic Properties	Active compounds	Actions	Mental health benefits
Mandukaparni (Centella asiatica)	Tikta, kashaya	Asiaticoside, madecassoside,	Enhances learning and	Improves
	Madhura	asiatic acid (implied from	memory; reduces stress;	concentration;
	Sheeta virya	Centella); modulates dopamine,	modulates	anxiolytic effect;
	Madhur vipak	serotonin (5-HT), noradrenaline	neurotransmitter system	reduces anxiety
Yashtimadhu (Glycyrrhiza glabra)	Madhur,	Glycyrrhizin, glycoside,	Increases cerebral blood	Reduces oxidative
	Sheeta virya	isoliquiritin, liquiritin, steroid	flow; regulates blood	brain damage;
	Madhur	estrogen, hispaglabridin B,	sugar; antioxidant	enhances memory
	vipaka	isoliquiritigenin, paratocarpin B	protects neurons.	and cognition

Guduchi (Tinospora cordifloria)	Katu, Tikta, kashaya rasa; Ushna virya Madhur vipaka	Tinosporone, tinosporic acid, cordifolisides A–E, syringin, berberine, giloin, gilenin, glucan polysaccharide	Maintains alertness; normalizes stress- related neurotransmitter changes	Improves grasping and retention; prevents cognitive decline
Sankhapushpi (Convolvulus pluricaulis)	Tikta,kashaya rasa, sheeta virya, Katu vipaka	Convolidine, confoline, phyllabine, subhirsine, scopoline	Brain stimulation; controls stress hormones (adrenaline, cortisol)	Reduces anxiety and stress; enhances memory, mood, and concentration; slows brain aging.

## **Mechanisms of Action**<sup>[5,6]</sup>

- Neurotransmitter Modulation: Medhya Rasayana herbs regulate dopamine, serotonin, noradrenaline key neurotransmitters involved in mood and anxiety regulation.
- Stress Hormone Suppression: Lowering of circulating corticosterone and cortisol, mitigating stress-induced anxiety symptoms.
- Antioxidant Activity: Elevation of superoxide dismutase, glutathione peroxidase, and glutathione levels, protecting against oxidative brain stress.
- Neuroprotective and Adaptogenic Effects: Enhanced neuronal growth, improved synaptic density, and increased resilience to environmental and psychological stressors.

## DISCUSSION

Medhya Rasayana offers a holistic, evidence-supported approach to the management of anxiety disorders. By modulating key neurotransmitter pathways, suppressing stress hormones, and providing neuroprotection, these Ayurvedic nootropics present a viable alternative or adjunct to conventional psychiatric medications, especially for mild to moderate anxiety. This literary study effectively covers connection between traditional Ayurvedic concepts with modern biological understanding. The study reviews that these herbs normalize the secretion of key neurotransmitters like dopamine, serotonin, and acetylcholine, which are essential for mood, memory, and cognitive processing. This provides a strong basis for further research and demonstrates a potential synergy between traditional and contemporary medicine.

### **CONCLUSION**

Anxiety disorders are common, disabling, but highly treatable conditions. Increased awareness, early detection, and expanding access to evidence-based treatments are essential for reducing the global burden of disease posed by anxiety disorders. This review study

concludes that the four Medhya rasayana herbs Mandukaparni, Yashtimadhu, Guduchi, and Shankhapushpi offer a promising and accessible approach to mental health. Their ability to enhance intellect, retention, and memory demonstrates a holistic mechanism that goes beyond simple symptom management.

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