ABSTRACT

Consumption of Mandukparni Swaras, Yashtimadhu Churna with Ksheer, Guduchi Swaras, and Shankhapushpi Kalka. – these Medhya Rasayana drugs are anxiolytic in nature, life promoting, disease alleviating, promoters of strength, agni, complexion, voice and medhya. Medhya Rasayana drugs are used for inhibition and dealing of mental disorders of all the age groups. These drugs promote the power of acquisition (Dhi), Retention (Dhriti) and recalling capacity (Smriti). Mood disorders are known to be associated with considerable burden of disease, suicides, poor quality of life and high economic costs. Therefore, it has become a major public health problem today. Unfortunately, modern medicine based on neurological drugs have met with inadequate success in treatment of various neurological disorders. Good qualities of the cells and tissues of the body through better nutrient effect, enhancing the digestion, metabolism and/or augmenting the microcirculation and tissue perfusion are all achieved by consuming Medhya Rasayan.

KEYWORDS

Medhya Rasayana, Mandukaparni Swaras, Yashtimadhu Churna, Guduchi Swaras, Shankhapushpi Kalka
INTRODUCTION
Anxiety is characterized as an emotion by an unpleasant state of inner turmoil, which is often accompanied by nervous behaviour such as, somatic complaints, and rumination\(^1\). Anxiety is the subjectively unpleasant feelings of dread over anticipated events, such as the feeling of imminent death\(^2\). The American Psychological Association (APA) defines anxiety as “an emotion characterized by feelings of tension, worried thoughts and physical changes like increased blood pressure.” Anxiety is different from fear, fear is a response to a real or perceived immediate threat or threat of any past event\(^3\), whereas in case of anxiety it is an expectation of future threat. Each and every person in this one life must experience anxiety at some point in his or her life. Anxiety can cause both psychiatric and physiological symptoms. Person with anxiety suffers with change in sleeping patterns and changes in habits like increase or decrease in food intake, mental confusion and tension. Around the world about 12% of people are affected by this anxiety disorder in a given year and between 5-30% are affected at some stage in their life\(^4\) and They occur about twice as often in females as males, and generally begin before the age of 25\(^5\). The most affected age is between the age of 15 and 35. Unfortunately there is limited success in treatment of various neurological and psychiatric disorders in modern medicine. In modern medicine antidepressants, benzodiazepines, tricyclics, and beta-blockers are normally prescribed but these drugs have many side effects. Benzodiazepines are prescribed, but they can be highly addictive. There are many side effects of Benzodiazepines like jitters, nausea, and sexual dysfunction. According to Ayurveda, equilibrium of Agni of Dhatu, Vayu, Doshas and Srotas are essential factors for maintaining normal strength, colour, balance and longevity of the life. Dhee, Dhriti and Smriti are considered as Medhya and these are interrelated with each other. The subdivision of Medhya is as follows; Grahanshakti (Power of Acquisition), Dharana shakti (Power of Retention), Vivekshakti (Power of Discrimination) and Smriti (Power of recollection). Consumption of Medhya Rasayan help the one to attain longevity, memory, intelligence, freedom from illness, youthfulness, excellence of lustre, complexion and voice, optimum strength of physique and sense organs, perfection in deliberation, respectability and brilliance. Rasayana is the means of attaining excellent dhatus i.e. body cells and tissues. The aim of Rasayana Chikitsa is to nourish blood, lymph, flesh, adipose tissue and
sperm. This prevents the individual from chronic diseases.

2. MODE OF ADMINISTRATION
Effect of *Medhya Rasayan* depends on the mode of administration. *Medhya Rasayan* is of two types: *Kutipraveshika* and *Vatatapika*. *Kutipraveshika* (*Kuti* means cottage, *Pravesha* indicates enter) is the intake of *Rasayan* as an indoor management in which the person lives in a specially prepared cottage for a particular period of time. In *Vatatapika*- (*Vata* means air and *Atapa* means heat or sun) mainly good for people who are engaged in outdoor activities. By consuming *Mandukaparni Swaras*, *Yastimadhu Churna with Ksheer*, *Guduchi Swaras*, and *Shankhapushpi Kalka* with proper mode of administration helps in Neurological and Psychiatric disorders that are generally associated with loss of memory, cognitive deficits, impaired mental function etc.

3. MEDHYA RASAYANAS
The word *'Medhya Rasayanas'* have been derived from the Sanskrit words *'Medhya'* meaning intellect or cognition, and *'Rasayana'* meaning 'rejuvenation. The medicinal plants in the Ayurvedic system are classed as brain tonics or rejuvenators. Earlier studies indicate that these plants are used both in conventional medicine and herbal medicine. It offers benefit that pharmaceutical drugs lack. *Medhya Rasayanas* include *Mandukaparni, Yastimadhu, Guduchi* and *Shankhapushpi*.

3. A. Mandukaparni (*Centella asiatica linn.*)
*Mandukaparni* is *Centella asiatica Linn.* Family – *Umbelliferae*. It is *Tikta Rasa*, *Laghu Guna, Sita Virya, Madhur Vipaka*. Through the inhibition of *AChE* it inhibits the memory impairment induced by Scopolamine and it acts on behaviour besides being neuroprotective brain growth promoter. *Mandukaparni* is effective in reducing brain regional lipidperoxidation (LPO) and protein carbonyl (PCO) levels, it has neuronal dendritic growth stimulating property and improve the altered levels of neurotransmitters such as acetylcholine, 5HT, GABA (gamma-aminobutyric acid) and Glutamate, epinephrine, nor-epinephrine and it helps to improve the mental ability of person and fatigability of subjects under stress, inhibit the formation of beta amyloid plaques owing to the oxidative stress and activation of glial cells and thereby delay the neuronal apoptosis. *Mandukaparni* is Useful in treating mental retardation, improves memory span and reaction time, *Asiatic acid (AA)*, a pentacyclic triterpene in *Mandukaparni* attenuates glutamate-induced cognitive deficits of mice and protects SH-SY5Y cells against glutamate-induced apoptosis *in-vitro*, influence the neuronal morphology.
and promote the higher brain function of juvenile and young adult mice, cognitive enhancement, prevent oxidative stress, enhance neuronal dendrites, dendritic growth in the hippocampal CA3 neurons in adult rats. antidepressant activity. The significance of Mandukaparni as a neuroprotective agent have already been used traditionally since decades in ayurvedic medicine. Various evidences of different modes of action of Mandukaparni were reported different studies which includes its neuroprotective potential by its different modes of action such as enzyme inhibition, dopamine neurotoxicity in Parkinson's disease, decreasing oxidative stress and prevention of amyloid plaque formation in Alzheimer's disease. Asiatic acid (AA), a pentacyclic triterpene in Mandukaparni, possess neuroprotective effects both in vitro and in vivo.

3. B. Yastimadhu (Glycyrrhiza glabra Linn.)

Yastimadhu is Glycyrrhiza glabra Linn., Family – Fabaceae. Glycyrrhizin (GL) is a triterpene present in the roots and rhizomes of licorice (Glycyrrhiza glabra). It has Madhur Rasa, Guru, Snigdha Guna, Sita Virya and Madhur Vipaka. Through the inhibition of AChE it inhibits the memory impairment induced by scopolamine and it acts on behaviour besides being neuroprotective brain growth promoter. It also has role in Spatial learning, preliminary free radical scavenging, cerebral ischemia and antioxidant capacity towards LDL oxidation. The neuroprotective effect was found in the kainic acid induced neuronal cell death in mouse. This is because of induction of suppression of gliosis and proinflammatory markers. In a study the ethanol extract of Yastimadhu (AEGG and EEGG) and anticonvulsant potential of aqueous and its action on markers of oxidant stress is shown in pentylentetrazole (PTZ)-induced seizure in albino rats. Antidepressant-like activity of Yastimadhu is demonstrated in mouse models of immobility tests. This is not mediated by increase of serotonin but mediated by increase of brain norepinephrine and dopamine. Memory-strengthening activity of Yastimadhu in exteroceptive and interoceptive behavioural models of memory is also shown by other investigators.

3.C. Shankhapushpi (Convolvulus pluricaulis Chois)

Shankhapushpi is Convolvulus pleuricaulis Chois. Family – Convolvulaceae. Shankhapushpi is known worldwide for its action on boosting memory and improving intellect power and advantageous for brain related disorders like epilepsy, mental retardation etc. It is Tikta Rasa, Snigdha, Picchil Guna, Sita Virya and Madhur
Vipaka. It is effective in anxiety disorders, decrease in Pentobarbitone induced sleep, reverses the social isolation related stress, increased total motor activity and stress-induced antinociception in experimental model. It helps in memory enhancing and has effects on mood elevating, helps to retard brain aging, help in regeneration of brain cells and in Dendritic arborization which is the neuronal basis for improved learning and memory, increase in AGhE activity in CA1 with AS and CA3 and has anxiolytic effect. In a study on aqueous extract of Shankhpushpi against neurotoxicity induced by Aluminium Chloride in rat cerebral cortex the investigators have found the neuroprotective effect. Researchers also found the evidences of anticonvulsant activity of Shankhpushpi in many experiments as well as its antioxidant effect is also demonstrated by earlier studies.


*Guduchi* is *Tinospora cordifolia* Willd. Miers, Family – Menispermaceae. Guduchi has Antioxidant effect helps in memory enhancing and possess anti-stress action. It is useful for treatment of *Bhrama* (Vertigo), in improving behaviour disorders, mental deficit and IQ levels. It is Tikta, Kasaya Rasa, Guru and Snigdha Guna, Usna Virya and Madhur Vipaka. It possesses strong free radical scavenging properties against reactive oxygen and nitrogen species diminishing the expression of iNOS gene, reduction in thiobarbituric acid reactive substances and an increase in reduced glutathione catalase and superoxide dismutase (anti-oxidant). In a study by the investigators involving 6-hydroxy dopamine (6-OHDA) lesion rat model of Parkinson's disease the neuroprotective activity of ethanol extract of *Guduchi* of aerial parts have been found. Enhanced verbal learning and memory and logical memory (of immediate and short-term type), enhances cognition (learning and memory) in normal rats and cyclosporine induced memory deficit, anti-stress, anti-depressant and anxiolytic properties, improvement in sensible memory impairment.

4. Other benefits of Medhya Rasayan

*Rasayana* helps a person in achieving the finest quality of *Rasadidhatus* which helps to increase life span, improves intelligence, stabilizes youthfulness, cures disease, improves luster, voice, complexion, and makes body and senses strong and healthy etc. *Rasayana* drugs acts as Adaptogen i.e., Increases the ability of an organism to
adapt to environmental factors, Nootropic- Promote intelligence and functions of brain and Antioxidant- Circumvent the damage caused by oxygen free radical and *Guduchi* causes an overall decrease in the yield of central monoamines, implicating the participation of nor epinephrine, dopamine and 5 HT in learning and memory process towards long term retention of information\textsuperscript{22}. *Guduchi* has anti-pyretic, anti-diabetic, rejuvenative, anti-inflammatory and many other properties. *Guduchi* is one among the four drugs of *Medhya Rasayan* which has anxiolytic and tranquilizing effect, which helps to maintain the mental health of human beings\textsuperscript{23}.

**DISCUSSION**

Medhya rasayan is considered the best anxiolytic drug in Ayurveda. It helps to decrease the anxiety and help the one to live peaceful and blissful life. Now adays many people work for long hours which automatically build anxiety and stress in people life. *Medhya Rasayan* is a blessing to those people. As stress and anxiety is not caused only by official work it can be caused by many other factors like relationships breakdown, social anxiety, homework stress among students etc. this *medhya rasayan* can be consumed by any age group and every day. So, everyone should consume *Medhya Rasayan* everyday *Rasayan nitya sevnam*. So, to maintain a balance between social and personal life, to take the perfect benefit of every opportunity, to live a stress free and blissful life *Medhya Rasayan* is a blessing.

**CONCLUSION**

Charak and Sushrut both mentioned four drugs under medya rasayan i.e., *Mandukparni Swaras, Yashhtimadhu Churna* with *Ksheer, Guduchi Swaras*, and *Shankhpushpi Kalka*. These help to perform various brain functions and helps to attain anxiety free life. Anxiety is basically the core of many diseases in the present era. These drugs of *Medhya Rasayan* are easily available and every person of any age group can consume it without having any side effects. *Medya rasayan* gives it best effect if consumed with its proper vehicle and proper mode of administration. As many house workers can consume it by *Kutipraveshika Vidhi* and other outside workers can consume it with *Vatatapika Vidhi*. Anxiety is affecting many people around the world and leads to severe health problem. *Medhya Rasayan* is a blessing in modern era for many anxiety disorders and hence the best anxiolytic drug in Ayurveda.
REFERENCES


