

Mental Health Care in Geriatrics Through Rasayana

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ABSTRACT

India has, acquired the label of “an aging nation with 8.3% of its population being more than 60 years old. Due to increased elderly population, the prevalence of Geriatric specific psychiatric complications like Dementia, Delusional disorders, Hallucinations, Depression, Anxiety, Personality alterations, Alzheimer’s disease and age related neurological problems are increasing. With the help of Geriatric health care, the quality of life of elderly patients with mental impairments can be improved so that they can meet their daily needs. The aging process in the human beings during degenerative phase can be controlled or slow down with the help of Rasayans mentioned in Ayurved. These Rasayans acts as micronutrients. Some of these Rasayans are organ and tissue specific. Those specific to brain tissue are called MedhyaRasayan. In Ayurveda 'MedhyaRasayanas' e.g. MandukparniSwaras, YashtimadhuChurna with Ksheer (Milk), GuduchiSwaras, and Shankhapushpi Kalka are known to be beneficial for mental well being. This helps the mental patient to get relieve from stress, anxiety and depression.

Keywords: Jara, MedhyaRasayanas, Mandukparni, Yashtimadhu, Guduchi, Shankhapushpi

INTRODUCTION

Geriatric health care is the process of planning and coordinating care of the elderly with physical and mental impairments to meet their long-term needs and improve their quality of life. Elderly people are highly prone to mental morbidities due to ageing of the brain, problems associated with physical health, cerebral pathology, socio-economic factors such as breakdown of the family support systems, and decrease in economic independence. Many psychiatric complications like Dementia, Delusional disorders, Hallucinations, Depression, Anxiety, Personality alterations, Alzheimer’s disease and age related neurological problems can be seen in elderly people. Prevention and management of health problems could help the elderly to improve quality of life and remain self-dependent for their daily activities to maximum possible extent. Ayurveda has broad spectrum of preventing measures for combating the ageing process.

HALLMARKS OF BRAIN AGING

With normal aging, Human brain shrinks, resulting in reduction of white and grey matter and enlargement of ventricles. Dysregulation of Ca²⁺ homeostasis. Alteration of neuronal network activity. Oxidative Damage. Impaired DNA repair. Impaired adaptive stress response signalling is seen.

CONCEPT OF AGING IN AYURVEDA

Ayurveda defines mental health as a state of mental, intellectual and spiritual well-being. It is well establ-

ished that this state of mental harmony declines with advancing age leading to various degenerative conditions. According to Acharya Sharangdhara, loss of virility, strength, and cognitive power, is progressively noted from the 6th decade of life.

BalyamvriddhiscchavirmedhaTwakdrstisukravikramauBuddihKarmendriyamchetojivitamdasatohrset a¹.(Sa.S.Pu. 6/19)

Decades of life	Specific Loss from the Body	Suitable Rasayana Drugs
0-10	<i>Balya</i> (childhood)	<i>Vacha</i> (<i>Acoruscalamus</i>) <i>Kasmari</i> (<i>Gmelinaarborea</i>)
11-20	<i>Vridhhi</i> (growth)	<i>Bala</i> (<i>Sidacordifoila</i>) <i>Aswagandha</i> (<i>Withaniasomnifera</i>)
21-30	<i>Chavi</i> (luster)	<i>Amalaki</i> (<i>Emblica officinalis</i>)
31-40	<i>Medha</i> (intellect)	<i>Shankhapushp</i> (<i>convalvuluspluricalis</i>) <i>Jyotishmati</i> (<i>Celestrus paniculata</i>)
41-50	<i>Twak</i> (luster of skin)	<i>Bhringaraja</i> (<i>Ecliptaalba</i>) <i>Somaraji</i> (<i>Centratherumanthelminthicum</i>)
51-60	<i>Drusti</i> (Vision)	<i>Saptamrutaloha</i>
61-70	<i>Sukra</i> (sexual ability)	<i>Atmagupta</i> (<i>Mucunapurita</i>) <i>Munjataka</i> (<i>Orchislongifolia</i>)
71-80	<i>Vikrama</i> (physical ability)	
81-90	<i>Buddhi</i> (thinking ability)	
91-100	<i>Karmendriya</i> (locomotion)	

NEUROLOGICAL DISORDERS IN AYURVEDA

Ayurveda has described various kinds of mental Disorders² :

1. Unmada (Insanity)
2. Apasmara (Epilepsy)
3. Atattvaabhinivesha (Obsessive Disorders)
4. Bhaya (Fear)
5. Harsha (Excitation)
6. Shoka(Grief)
7. Udvega (Anxiety)
8. Avasada (Depression)

PSYCHOLOGICAL PROBLEMS IN OLD AGE

The honour, respect and status conscious elderly people especially feel gradually secluded from the family as well as society, Generation gap had also been noted to be a factor of stress in elderly. This particular condition may precipitate the state of anxiety and depression. Variation of mood is widely associated with long lasting crippling diseases. Pain in such conditions may lead to demoralization and depression. Most important disease occurring in elderly is dementia, Alzheimer’s type dementia is a major health problem in countries with increased longevity of its people, Sooner or later it is going to be a problem in India as well, Dementia is characterized by a gradual decline in cognitive abilities, such as memory, language, orientation alertness, reasoning and judgement. Number of psychiatric complications like delusional disorders, hallucinations, depression, anxiety, personality alterations and agitation may be found in dementia of Alzheimer’s type. Ultimately the disease may have proved to be fatal. The outstanding

pathological feature is death and disappearance of nerve cells in the cerebral cortex. This leads ultimately to extensive convolution atrophy, especially in frontal and medial temporal regions.

RASAYANA THERAPY IN AYURVEDA

Rasayana Therapy is a method to control or slow down or arrest the aging process in the human being during the degenerative phase of life and act as micronutrients. Rasayans work through three basic mechanisms:

1. Rasa enhancing or direct nutrient effect.
2. Agni enhancers or promoters of digestion and metabolism.
3. Srotas purifying agents or promoters of microcirculation and tissue perfusion.

Jara chikitsa is known as Rasayana chikitsa as said by Acharyas. Some of these Rasayans are organ and tissue specific. Those specific to brain tissues are called Medhya Rasayan.

MEDHYA RASAYANA

Medhya Rasayanas are group of medicinal plants with multi-fold benefits, specifically to improve memory and intellect. These drugs promote the :- Intellect (Dhi), Retention power (Dhriti), Memory (Smriti). Medhya Rasayana drugs are known to have specific effect on mental performance by promoting the functions of “Buddhi” and “Manas” by correcting the disturbances of “Rajas” and “Tamas”. This helps the mental patient to get relieve from stress, anxiety and depression. In Charaka Samhita, four drugs are mentioned as MedhyaRasayanas :

1. Yashtimadhu churna
2. Mandukaparni swarasa
3. Shankhapushpi kalka
4. Guduchi swarasa

Medhya Rasayana drugs acts as two types:

- ShitaVirya and Madhura Vipaka - it promotes kapha and enhances “Dharana Karma” (i.e., retention of cognition) e.g., Yastimadhu, Bramhi, Sankhpushpi etc.
- UshnaVirya and Tikta Rasa - it promotes pitta and enhances Grahana and Smarana (i.e., grasping power and Memory) e.g., Guduchi, Vacha, Jyotishmati .

Medhya drugs	Synonyms	Properties			
		Rasa	Guna	Virya	Vipaka
Mandukaparni (Centella asiatica Linn. Family - Umbelliferae)	Manduki, Twastri, Divya, Mahausadhi, Dosha karma – Kapha-Pitta shamak.	Tikta	Laghu	Sheeta	Madhur
Yastimadhu (Glycyrrhiza glabra Linn., Family – Fabaceae)	Yastimadhuk, Klitaka, Dosha karma – Vata- pitta shamak	Madhur	Guru, Snigdha	Sheeta	Madhur
Guduchi (Tinospora cordifolia Willd. Miers, Family – Menispermaceae)	Amrita, Madhuparni, Chinnamula, Cakra-lakshani, Amrita-valli, Chinna, Chin-nodhbhava, Vatsadani, Jivanti, Tantrika, Soma, Somavalli, Kundali, Dheera, Vi-shalya, Rasayani, Candrasasa, Vayastha, Mandali, Deva-nirmita, Dosha karma – Tri-dosha shamak	Tikta, Kasaya	Guru, Snigdha	Ushna	Madhur
Shankhapushpi (Convolvulus pleuricaulis Choisy. Family – Convolvulaceae)	Ksheerpushpi, Mangalyakusuma, Dosha karma – Vata- pitta shamak	Tikta	Snigdha, Picchil	Sheeta	Madhur

MODE OF ACTION OF YASHTIMADHU³

- Acc. to Charaka Samhita, it is *Jivaneeya, Sandhaneeya, Varnya, Kanthya*.
- *Karma of Yashtimadhu :- Vata-pittahara, Balakritta, Varnakritta, Swarya, Shothahara, Kshayahara*.
- The chemical constituent of liquorice are glycyrrhizin (about 2–9%), glycyrrhetic (glycyrrhetic) acid, isoflavonoids, chalcones, triterpenoids, coumarins and sterols, amines, gums, lignans, amino acids and volatile oils.
- Effect on Learning and Memory :- Glabridin (isolated from the *Glycyrrhiza glabra* roots) is a potential candidate for memory improvement and can be used in the management of Alzheimer patients.
- Aqueous extract of Liquorice also have an Anti-depressant effect.
- It also has Anti-oxidant property which gives neuroprotective effect resulting in reduced brain damage and improved neuronal function.

MODE OF ACTION OF GUDUCHI⁴

- Acc. To Charaka Samhita, it is *Vayasthapana, Rasayani, Balya, Agni Deepani, Medhya, Tridoshanahara*.
- Guduchi is known to be a rich source of trace elements (Zinc & Copper) which act as antioxidants & protects cells from the damaging effects of oxygen radicals generated during immune activation.
- The chemical constituents of Guduchi :- alkaloids, diterpenoid, lactones, glycosides, steroids, sesquiterpenoid, phenolics, aliphatic compounds and polysaccharides etc.
- Immunomodulator activity:- Aqueous *Tinospora* extracts were able to increase the leukocyte count & bone marrow cells significantly.
- Anti-stress & Tonic Activity- The plant of *Tinospora Cordifolia* brought about good response in children with moderate degree of behavior disorders and mental deficit. It has also significantly improved the I.Q. levels.

MODE OF ACTION OF SHANKHPUSHPI⁵

- Acc to Charak Samhita, it is *Medhya, Swarakarni, Rasayani, Unmadaghna, Nidrajnana and Majjadhatu Rasayana*.
- It contains carbohydrate-D-glucose, maltose, rhamnose, sucrose, starch, proteins, amino acids and the alkaloids-convolvine, convolamine, phyllabine, convolidine, confoline, convoline, subhirsine, convosine, and convolidine
- Whole plant showed memory-enhancing, anti-anxiety and CNS-depressant activity and significantly increases the scavenging activity of free radicals by its bioactive constituents which helps to attain antioxidant defence mechanism.
- It also has anti-convulsant property and showed the significant elevation in cell survival. Increase in the cell number after administration of Shankhapushpi provides considerable evidence of the efficacy of this drug in learning and enhancement of memory. It reduced alcoholic withdrawal anxiety, and increased the cortical hippocampal GABA level.

MODE OF ACTION OF MANDUKPARNI⁶

- Acc to Ayurveda, it is *Vayasthapana, Kapha-pitta shamak, Rasayana, Medhyavidhikar and Sarvapathya*.

- The active constituents are Saponins, Flavonoids, Tannins, vitamins B & C, Ca, Mg, and Na.
- It showed Sedative and anti-anxiety property.
- Cognition and antioxidant properties:- It is known to re-vitalize the brain and nervous system, increase attention span and concentration and to combat aging.
- Anti-epileptic effect:- It increases cerebral levels of GABA
- It also has Anti depressant effect.

CONCLUSION

Ageing is a biological phenomenon associated with an imbalance between the oxidative stress, pro-oxidants production and antioxidant protection system. There are no consistent results with anti-oxidant therapy and increased longevity although search is still on. With increasing longevity, the age-related disorders are likely to be increased in 21st century. Keeping this in mind Rasayana drugs may be advised as food supplement as well as medicine to minimize the ageing and related disorders. Specially Medhya rasayana may be useful in the degenerative disorders of brain, like dementia of senile and Alzheimer's types with the aim to correct the cognitive dysfunction and preventing the disease progression. Rasayana can be used in both curative and promotive aspects in Vardhakya. Young can be advocated to use Medhya Rasayana regularly as the period for the administration of Rasayanasis effectively in young and middle age groups. However, MedhyaRasayana can be effectively used in delaying the deteriorating aspects of Jara.

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