

A Critical Review on Medhya and Rasayana Dravyas W.S.R Nootropic and Antioxidant Drug

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Abstract—Ayurveda has two aims i.e., promotion and prevention of health and other cure from the disease. So, it is necessary to rejuvenate the body system through Rasayana dravyas for better harmony of the body, mind and soul. The Rasayana drugs and formulations provides long life, Medha (good memory), Smriti (intelligence), health, youthful life, excellence of lustre, good colour complexion and voice, broad mindness, increase of strength of body and sense organs, success in speech, sexual power and brilliance. good memory power acts as a catalyst in all walks of life, be it academic success or maintenance of personal relationships. Memory is the mental capacity of retaining and reviving facts, events, impressions, etc., or of recalling or recognizing previous experiences. Rasayana drugs act as Nootropic- by promoting intelligence and functions of brain e.g., Medhya Rasayana. This present study will be design to screen the drugs having both Medhya and Rasayana action.

There are some dravyas which is recommended as Medhya and Rasayana action e.g Brahmi, Ashwagandha, Shankpushpi, Mandukparni.

This study will throw a light on the probable mode of action of dravyas (Rasayana and Medhya) on the basis of their rasapanchaka i.e rasa, guna, virya, vipaka, doshghanta and their pharmacological action.

Index Terms—Dravyas, Medhya, Rasayana, Nootropic

Aim And Objectives

- To enlist dravyas which shows Medhya as well as Rasayana action.
- To assess the selected dravyas on their probable modality as rasayana and medhya
- To classify Medhya and Rasayana dravyas with their: -
- Rasa
- Guna
- Virya
- Vipaka
- Doshghanta

I. INTRODUCTION

The Rasayana drugs and formulations provides long life, Medha (good memory), Smriti (intelligence), health, youthful life, excellence of lustre, good colour complexion and voice, broad mindness, increase of strength of body and sense organs, success in speech, sexual power and brilliance.^{1,2,3}

Modern research has proved that herbs listed as Rasayanas have antioxidant, immunomodulators, adaptogens, nootropic drugs and some drugs act on polumorphonuclear activation.⁴

Rasayana dravyas are now determined to aid the physiology in overcoming such oxidative injury. Rasayana promotes the natural enzymatic defence mechanism of the body. Most of the rasayana dravyas were found to be antioxidant.⁴ For e.g Brahmi, Ashwagandha, Shankpushpi, Mandukparni

II. NOOTROPIC EFFECT

Medhya Rasayana has nootropic action and useful in degenerative disorders of brain, like Senile Dementia and Alzheimer's. This Rasayana also corrects cognitive dysfunction and preventing the disease in progression. To keep the memory intact and to be able to remember at will, were the major problems faced by the sages. It is not surprising to understand, they hardly worked to find a solution for these burning issues, because many sages sole livelihood had been the profession of memorizing and remembering. They overcame the weakness of the human mind by inventing the control mechanisms of that weakness, such as dhi (understanding), dhrti (keeping) and smrti (remember) and assorted all of them under the concept of medh" (strong intelligence) monnier

In Ayurveda, many drugs have been mentioned to improve the Medha, e.g., Ashwagandha, Brahmi,

Shankpushpi, Mandukparni etc. These drugs have also been mentioned as Rasayana.^{212-213 5,6}

III. DRUGS SHOWS MEDHYA ACTION (NOOTROPIC EFFECT)

Drug name	Nootropic effect
Brahmi	Extract of Brahmi was manifest in learning responses as it augmented both the cognitive function and mental retention capacity. The chemical constituent responsible for the facilitator effect of Brahmi on learning schedules was identified as a mixture of two saponins designated as bacosides A and B. ⁷
Shankpushpi	Convolvulus pluricaulis is an age-old remedy for different mental ailments. Charaka said it as the intellect promoter. The whole plant is effective in reducing different types of stress. ⁸
Ashwagandha	Ashwagandha roots is used for general debility, consumption, nervous exhaustion, insomnia, and loss of memory. kub the active component (withanolide) of ashwagandha is used in the treatment of neurodegenerative disorder. ⁹
Mandukparni	Leaf extract of centella asiatica can be used to improve neuronal dendrites in stress and neurodegenerative and memory disorders. ¹⁰ A recent researches showed that centella asiatica by acting as a strong antioxidant exerted significant neuroprotective effect and in preventing age-related oxidative damage to rat brain. ¹¹

Table no.1 Drugs show rasayana action (antioxidant effect)

Drug name	Antioxidant effect
Brahmi	The memory enhancing, mild sedative effects as well as relief in epilepsy and insomnia of this herb may be due to this antioxidant activity. ¹²
Ashwagandha	It is decribed as jivaniya and Rasayana, Ashwagandha believed to maintain oxidation process by pacifying Tridoshic balance. The roots of the plant are classified as Rasayanas and described to boost health and longevity by augmenting defenses against disease, arresting the ageing process, revitalizing the body in debilitated conditions and thus generating a sense 3 of well-being. ¹³
Brahmi	Flavanoides and phenols are natural antioxidant, phenol and flavanoid content in ethanolic and aquous extract of brahmi is responsible for radical scavenging effect. ¹⁴⁻¹⁵
Mandukparni	Recent research showed that centella asiatica by acting as a strong antioxidant exerted significant neuroprotective effect and in preventing age-related oxidative damage to rat brain. ¹¹

List of dravyas along with their botanical name and family Table no.2

Dravya	Botanical name	family	Part used
Ashvagandha	Solanaceae	Withania somnifera Dunal.	Root, leaves
Brahmi	Scrophulariaceae	Bacopa monnieri(Linn.) Pennel	Whole plant
Shankpushpi	Convolvulaceae	Convolvulus pleuricaulis Choisy	Whole plant
Mandukparni	Umbelliferae	Centella asiatica(Linn.) Urban	Whole plant

List of dravyas according to Raspanchaka Table no.3

Dravya	Rasa	Guna	Virya	Vipaka	Doshghanta
Ashvagandha	Tikta, Kashaya	Snigdha, Laghu	Usna	Madhura	Vatakaphashamaka
Brahmi	Madhur, Tikta, Kashaya	Laghu	Sheeta	Madhura	Vatashamaka
Shankpushpi	Tikta	Sarak	Sheeta	Madhura	Pittakaphanashak
Mandukparni	Madhur, Tikta, kashaya	Sarak, Laghu	Sheeta	Madhura	Kaphapittashamaka

IV. OBSERVATION AND RESULT

Observation according to Rasa

Rasayana and Medhya dravyas with their respective Rasa and numbers Table no.4

S.no.	Rasa	No. of dravya
1.	Madhur	4
2.	Tikta	4
3.	Kashaya	3

Observation according to Guna Table no.5
Rasayana and Medhya Dravyas with their respective Gunas and numbers

S.no.	Gunas	No. of Dravya
1.	Laghu	3
2.	Sarak	2
3.	Snigdha	1

Observation according to Veerya
Rasayana and Medhya Dravya with their respective veerya, Panchmahabhuta and numbers Table no.6

S.no.	Veerya	No. of dravyas
1	Sheeta	3
2	Usna	1

Observation according to Vipaka
Rasayana and Medhya Dravya with their respective vipaka and number

Vipaka	No. of dravyas
Madhura	4

5.9 Observation according to Doshghanta Table no.8
Rasayana and Medhya Dravyas with their respective Doshghanta and numbers

Sno.	Doshghanta	No. of Dravyas
2.	Vatakaphashamaka	1
4.	Vatashamaka	1
5.	Pittakaphashamaka	2

V. DISCUSSION

A total of 4 drugs were found having Rasayana as well as medhya effect which was evaluated in table no.4 to table no.8. It has been observed that dravyas are having Madhur, tikta, Kashaya rasa is maximum in number and Madhur rasa have predominance of Prithvi and jala mahabhuta Prithvi provides stability of the body,

heaviness and development, Madhura rasa dravyas are more likely to have rasayana effect. Table no.4

Tikta rasa dravyas it is made out of combination of vayu and akash, its gunas are ruksha, sheeta, laghu. Pittashamaka and rakta prasadna due to its sheeta guna. its action is Dhatu shodhana. Tikta rasa act as medhya rasayana by promoting medha (memory) by pacifying pitta (sadhak pitta). E.g brahmi. Table no.4 Kashaya rasa dravya is a combination of Prithvi and vayu Mahabhuta. Its gunas are ruksha, sheeta, guru. kashaya pacify the kapha of rakta dhatu due to its ruksha guna, which purifies the rakta dhatu, which leads to rasayana and Medhya karma. Table no.4

Laghu guna acts as kaphahara and vatavardhaka, it undergoes laghu paka, pachana are the pharmacological actions exerted btu laghu guna. It improves the digestion. Laghu guna is the main feature in Akasha, Vayu and dhatu shodhan Agni mahabhutas, laghu guna act as Medhya as well as rasayna karma. dravyas having Madhur vipaka are maximum in number and predominance of Prithvi and jala mahabhuta. table no.5,7

According to doshghanta,Pittakaphashamaka dravyas are maximum in number (table no.8) in the study of medhya and Rasayana dravya. table no.6

As per veerya is concerned about 19 dravyas having sheeta veerya sheeta virya is Prasadana, Jivaniya, Rakta prasadana and balyam, sheeta virya Dravya shows Medhya or rasayana effect. Table no.6

VI. CONCLUSION

Recent researches verified the role of Medhya dravyas showed nootropic effect and Rasayana Dravyas as antioxidant, free radical scavenging activity and nootropic activities (antidepresant). All 4 Dravyas exhibit Medhya and Rasayana karma related pharmacological activity on screening. All 4 Dravyas are showing antioxidant activity and exhibit nootropic effect. According to the modern science antioxidant property, immunomodulator activity and nootropic effect is mainly responsible for rejuvenation, daily use of these Medhya dravyas promoting intelligence and functions of brain. Rasayana dravyas will promote vitality, maintain positive health and attain youthfulness by maintaining balance of tridosha and psyche. Medhya and Rasayana Dravya is very helpful to maintain healthy body and mind in today's environmental condition and life style. It is required to

give information to people and aware them for Medhya Rasayana and its use and also there are lot of opportunities to work on it. (modern Medhya Rasayana)

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