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A Critical Review of formulation *Medhya Vati*

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ABSTRACT-

A multiherb formulation *Medhya vati*.It contains mainly four drugs, which are described for *medhya* properties in *Charaka Chikitsha* chapter 1.These drugs are described for *Rasayana* and *medhya* properties. The contents of *Medhya vati*are having mainly *Kashya, tikta, madhurrasa,snigdha, pichchila ,guru gunas,sheet virya andvata-pitta doshaghnata*. These drugs are used to promote the *Dhi, dhriti and smriti*.These*medhya* drugs have specific effect on *mana* and *buddhi* to relieve stress, anxiety and depression.

Key Words- *Charaka Chikitsha*, *dhriti*, *buddh*, stress

Introduction:

In modern civilisation and competitive world, the psychological and social life of person is disturbed. Psychological factor consequence in physical health. *Medhya* drugs play an essential role in the treatment of psychiatric and psychosomatic diseases. So*Medhya*

*Vati*has been selected for the study due to *Medhya* and *Deepana*, *Pachana* properties. These drugs promote the intellect (*Dhi*), Retention power (*Dhriti*), memory (*Smriti*). In fact, they produce Neuro-nutrient effect by improving cerebral metabolism.[i]*Medhya* drugs are known to have specific effect on mental performance by promoting the functions of "*Buddhi*" and "*Mana*" which helps to relieve the stress, anxiety and depression. `

1. *Medhya Vati* Action on *Dosha:* From the *Samprapti* of *Grahani Dosha,* it is clear that the main *Dosha* involved is *Tridosa. Medhya Vati* is *Tridoshshamaka*&have *MedhyaPrabhava*.

***Vatashamaka &Vatanulomana* Property:** Due to *Snigdha* and *Laghu Guna,* acts as a *Vatashamaka.*

***Pitta shamaka* Property:** Due to *Tikta Rasa, Snigdha Guna, Sheeta Veerya*and*Madhura Vipaka,*it balances the *Pitta.*

***Kaphashamaka* Property:** Due to presence of dominant *Tikta Rasa.* It is effective for*Amapachana* and *Kaphashamana.*

Srotosodhana*[ii]*: *Tikta Rasa* is helpful for *Srotovishodhan.*

2.Action on *Dushya*: The combination shows, dominancy of *Tikta Rasa*. *Tikta* helps in improving the digestion thereby causing formation of healthy *RasaDhatu*.

3.Action on *Srotasa*: *Tikta Rasa is* helpful for *Srotovishodhana*due to *Amapachana* andimproving digestion.

4.Action on *Ama*:*Tikta Rasa* is combination of *Vayu & Akasha Mahabhuta*. So, it helps in digestion of *Ama* due to *Laghu* and *Ruksha Guna* of *Vayu Mahabhuta*.

Mode of action of *Medhya Vati*:

Medhya Vati acts as a *Rasayana* which nourishes and rejuvenates the mind. It used to enhance all aspects of mental performance. It is comprehensive cure of both somatic and psychological diseases. It establishes health and immunity in the body a part form nourishing the tissues and providing longevity. *Medhya Vati* have *Tridoshashamaka*and *Medhya* property.*Medhya Vati* decreases mental stress and maintain proper *Rasa Dhatu* formation and corrects *Agnidushti* also.

Selection of Formulation:

Due to following advantages *Vati Kalpana* has been selected for the study:

- *Vati* is easily palatable.
- Bitter taste and irritating odour of the drugs can be masked.
- Due to greater duration of shelf life, its potency can be retained longer[iii]
- Dose fixation is quick.
- Easy to pack and dispense.

Contents of *Medhya Vati*[iv]:

S.No.	***Drug Name***	***Botanical Name***	***Ratio***
1.	*Shankhapushpi*	*Convolvulus pluricaulis Chois*	*1 Part*
2.	*Yashtimadhu*	*Glycyrrhiza glabra Linn*	*1 Part*
3.	*Guduchi*	*Tinospora cordifolia Wild.*	*1 Part*
4.	*Mandukparni*	*Centella asiatica Li*	*1 Part*

Synonyms of *Medhya Vati* Ingredient[v] :

S.No	***Drug***	***Synonyms***
1.	*Shankhapushpi*	*Shankhapushpi, Shankhava,Ksheerapushpi,Mangala kusuma*
2.	*Yashtimadhu*	Yashtimadhu, Madhuka, Klitaka, Madhuyashati, Mulethi, Jethimadhu
3.	*Guduchi*	*Amruta, Guduchi, Chandrasa, Chakrangi, Chakrangi, Chinnaruha, Chinnodbhava, Jwarari*, Giloy, Gurach
4.	*Mandukparni*	Mandukaparni, Manduki, Bramhi, Sarasvati

***Ganas*of *Medhya Vati* Ingredient[vi] :**

S.No	***Drug***	***Gana***
1.	*Shankhapushpi*	***Acharya Charak :*** Tikta Skandha, Medhya Rasayana
2.	*Yashtimadhu*	***Acharya Charak :*** *Jeevaneeya, Sandhaneeya, Varnya, Kanthya, Kandughana, CHardinigraha, Shonitasthapana, Mutraviranjaniya, Snehopaga, Vamnopaga, Asthapanopaga* ***Acharya Sushrut :*** *Kakolyadi, Sarivadi, Anjanadi*
3.	*Guduchi*	***Acharya Charak :*** *Vayasthapana, Dahaprashamana, Triptighana, Stanyashodhana* ***Acharya Sushrut :*** *Guduchiyadi, Patoladi, Valli panchamula, Kakolyadi and Aragvadhadi*
4.	*Mandukparni*	***Acharya Charak :*** *Tiktaskandha, Prajasthapana, Vayasthapana* ***Acharya Sushrut :*** *Tikta varga*

Pharmacodynamic properties of *Medhya Vati*[vii]:

S.n.	Drug	Rasa	Guna	Virya	Vipaka	Prabhava	Dosha *karma*
1.	*Shankhapushpi*	*Tikta*	*Snigdha, Pichchila*	*Sheeta*	*Madhura*	*Medhaya*	*Vatapitta shamaka*
2.	*Yashtimadhu*	*Madhura*	*Snigdha, Guru*	*Sheeta*	*Madhura*	--------	Vatapitta shamaka
3.	*Guduchi*	*Kashaya, tikta*	*Snigdha, Laghu*	*Ushana*	*Madhura*	--------	Doshatrayahara
4.	*Mandukparni*	*Kashaya, tikta*	*Laghu*	*Sheeta*	*Madhura*	--------	Kaphapittahara

Approximate Rasa Panchaka of*Medhya Vati* :

1	**Rasa**	*Madhura*	1	16.66%
		Amla	0	0 %
		Lavana	0	0 %
		Katu	0	0 %
		Tikta	3	49.99 %
		Kashaya	2	33.33%
2	**Guna**	*Snigtha*	3	42.9 %
		Laghu	2	28.6 %
		Pichchila	1	14.3 %
		Guru	1	14. 3 %
3	**Virya**	*Ushna*	**1**	25 %
		Sheeta	3	75 %
		Anushna	0	0 %
		Madhur	4	100 %

4	**Vipaka**	*Katu*	0	0 %
		Amla	0	0%
5	**Doshakarma**	*Vatahara*	2	28.6 %
		Pittahara	3	42.9 %
		Kaphahara	1	14.3 %
		Tridoshahara	1	14.3 %

Chemical constituents &*Karma* of *Medhya Vati*[viii].

S.No	Drug	Chemical Constituents	Therapeutic Action
1.	*Shankhapushpi*	Hydrocotylin, Glycoside asiaticoside, Vellerine	Sothahara, Agnidipana, Amapachana, Jvarahara, Mastiskadourbalya, Unmada, Apasmara, Grahani, Kasa, Svasa, Svarabheda, Kustha, AjirnaVrana, Kshayaja, Kamala, Pandu, Pidika
2.	*Yashtimadhu*	Berberine, Choline, Tembetarine, Magnoflorine, Tinosporine, Palmetine, Isocolumbine	Sangrahani, Agnideepani, Amahara, Dahahara, Mehahara, Kamala, Kushta, Vatasra, Jvara, Krimihara, Prameha, Shwasa, Kasa, Arsha, Krichra, Hrudya, Chakshushya, Vayasthapana, Vrushya
3.	*Guduchi*	glycyrrhizin, Isoliqurin, Eastrogen, glucose, Sucrose, menite etc	Varana, Shotha, Visha, Chardi, Trashana, Glani, Chayapaha, Asrajit, Chakshushya, Balakrut, Varanakruta, Shukral, Keshya, Svarya
4.	*Mandukparni*	sankhpushpine, purrtalline, B-sitosterol, Kaepferol, N-Heacosanol etc.	*Kaphanisaraka, Raktastambhana, Kushthaghni, Mutravirechaniya,Medhya, Balya, Keshya, Dahaprashamana, Dipana, Pachana*

Pharmacological action and related researches:

1. *Shankhapushpi*[ix]-

Indian Council of Medical Research has given quality standards for C. pluricaulis drug in its publication. Although these plants proved their scientific potential in central nervous

system depression, anxiolytic, tranquillizing, antidepressant, antistress, neurodegenerative, antiamnesic, antioxidant, hypolipidemic, immunomodulatory, analgesic, antifungal, antibacterial, antidiabetic, antiulcer, anticatatonic, and cardiovascular activity. These are reported to contain several types of alkaloids, flavanoids, and coumarins as active chemicals that bring about its biological effects. The plant has been found to be effective in reducing different types of stress including psychological, chemical and traumatic. The ethanolic and methanolic extracts of the whole plant reduced spontaneous motor activity, potentiated pentobarbitone hypnosis and morphine analgesia, reduced fighting response, abolished the conditioned avoidance response, antagonized convulsive seizures and tremorine induced tremors in mice. The juice of whole plant prevents excessive menstruation. The fine paste made by grinding the plant is helpful to cure abscess. Ethanolic extract of whole plant when administred to cholesterol fed gerbils, reduced serum cholesterol, Low density lipoprotein cholesterol, triglycerides and phospholipids significantly after 90 d. The root extract of this plant regulated hyperthyroidism in female mice. The juice of fresh whole plant of C. pluricaulis possessed anti-ulcerogenic effect and is comparable to sucralfate. Ethanolic extract of the entire plant exerted a negative inotropic action on amphibian and mammalian myocardium. It also exerted spasmolytic activity on smooth muscles.

***2. Yashtimadhu*[x]-**

This study explained the gastrointestinal effects of isoliquiritigenin, a flavonoid isolated from the roots of *Glycyrrhiza glabra* in vivo & in vitro. The results indicated that isoliquiritigenin plays a dual role in regulating gastrointestinal motility, both spasmogenic and spasmolytic (Chen G, et al., 2009). Licorice flavonoid oil (LFO), was investigated for anti-obesity action in dietinduced obese rats. The addition of 2% LFO in a high-fat diet significantly decreased the weight of abdominal adipose tissue and the levels of hepatic and plasma triglycerides. The enzymatic activities of acetyl-CoA carboxylase and fatty acid synthase, the rate-limiting enzymes in the fatty acid synthetic pathway, were significantly decreased by LFO, whereas the enzymatic activity of acyl-CoA dehydrogenase, the rate-limiting enzyme in the fatty acid oxidative pathway, was significantly increased (Kamisoyama et al., 2008). The effects of hydrophobic flavonoids from *Glycyrrhiza glabra* on abdominal fat accumulation and blood glucose level in obese diabetic KK-A(y) mice, were investigated. The results indicated that licorice hydrophobic flavonoids have abdominal fat-lowering and hypoglycemic effects, possibly mediated via activation of peroxisome proliferator-activated receptor-gamma (PPAR-gamma) (Nakagawa K, et al., 2004). As cancer chemopreventive agents, a new chalcone derivative a novel group of neolignan lipid esters, and seven known phenolic compounds (formononetin, glabridin, hemileiocarpin, hispaglabridin B, isoliquiritigenin, 4'-O-methylglabridin, and paratocarpin B) were isolated from the roots and stolons of licorice (*Glycyrrhiza glabra*).

***3. Guduchi*[xi]-**

The *Ayurvedic* Pharmacopoeia of India, along with other therapeutic applications, recommends the dried stems in jaundice, anaemia, polyuria and skin diseases. Analgesicactivity: The aqueous extract of *Tinospora Cordifolia* has a significant anti inflammatory activity. The mode of action resemble that's of an NSAID. It significantly reduces the pain and morning stiffness in rheumatoid arthritis. Immuno modulatory activity: Tinospora Cordifolia stimulates granulocytes macrophage formation. It shows predominant neutrophilia and stimulation of macrophage. Anti diabeticactivity: *Tinospora Cordifolia* roots,leaves and stems have anti diabetic activity.The aqueous extract of *Tinospora Cordifolia* shows a significant hypoglycemic effect in animal model which is equivalent to one unit of insulin.Its hypoglycemic activity is claimed due to control of glucose metabolism by inhibiting gluconeogenesis.It is also claimed that Tinospora Cordifolia reduce the activity of glucose 6 phosphates in liver which again rests in decreasing the blood sugarlevel in blood. It has been reported that 1,2-substituted pyrolidines isolated from the stem is responsible for anti- diabetic activity of *Guduchi*. .

***4. Mandukparni*[xii]-**

A laboratory study was reported in which aqueous extract of CA was found to be effective in inhibiting gastric lesions induced by ethanol administration. The authors concluded that the CA extract presumably strengthened the gastric mucosal barrier and reduced the damaging effects of free radicals. Animal studies showed that CA extracts inhibited gastric ulceration induced by cold and restraint stress, in rats. The antiulcer activity was compared to famotidine (H2 -antagonist) and sodium valproate (antiepleptic or antiseizure). Both the drugs and the herb extract showed a dose-dependent reduction of gastric ulceration, which, except for the antiulcer effect of famotidine, could be reversed with bicucullin methiodide (specifi c GABAA antagonist).

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