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Understanding of *Unmada* in Ayurveda and Rational Application of Herbal Drugs - A Review

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ABSTRACT

Unmada depicts a range of different psychological conditions described under a single heading. The various components affected can be broadly classified under *Mana* (psyche), *Buddhi* (Intellect) and physical components. And depending on these different entities involved in the presentation of *Unmada*, the drugs are to be selected and treatment should be planned. With this idea, the classical texts and *Nighantus* were searched and the mode of action of drugs was analysed depending on their properties. Their possible role in different types of *Unmada* depending on *Dosha* predominance was assessed. The possible clinical application of these drugs in different Psychiatric conditions was supported with evidences from recent researches. It was found that among various drugs used in *Unmada*, some act by their nootropic property and the others by their high anti-oxidant activity. Some drugs help in repairing the damaged neurons. Some act directly on the neuro-humoral mechanisms (Glutamnergic, Dopaminergic). Some are found to have a potent anxiolytic effect. Some drugs have a depressant effect on CNS whereas others act as stimulants. Thus with this analysis, selection of drugs becomes easier in a given condition of Psychosis.

Key words: *Unmada*, Nootropics, Anti-oxidant, Anxiolytic, Depressant, Stimulant.

INTRODUCTION

Unmada is a group of Psychological disorders described in Ayurveda under a single heading. The pathological changes involve vitiation of *Tridoshas* in a person having *Alpasatva* (can be interpreted as lessened will power), affecting *Hridaya* which is the seat of *Buddhi*. This inturn affects the *Manovaha Srotas*, ultimately presenting with the derangement of various components such as *Mana* (Psyche), *Buddhi*

(Intellect), *Sanjna* (Consciousness), *Jnana* (Knowledge component), *Smriti* (Memory), *Bhakti* (Likes and Dislikes), *Sheela* (Mood), *Cheshta* (Physical activity) and *Achara* (Habits).^[1]

The various components involved in *Unmada* can be broadly divided into three headings.

1. *Mana* (Psychological component) which includes *Bhakti*, *Sheela* and *Achara*.
2. *Buddhi* which includes *Jnana* and *Smriti*.
3. *Cheshta* and *Sanjna* depicting the physical component.

Manas is said to be *Chanchala*. We come across two theories describing the nature of *Manas* in Ayurvedic literature namely "*Deerghashashkuli Bhakshana Nyaya*" and "*Shatapatra Suchibheda Nyaya*".^[2] These theories say that even though it appears that our mind gets associated with multiple senses at a time, it actually happens that the mind gets associated with only one sensory faculty at a single point of time. But it shifts its association from one sensory faculty to

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another so instantaneously that we do not understand the time gap in-between. *Manas* is said to be controlled by *Vayu* (*Vayuh Tantra Yantra Dharah, Niyanta Praneta Cha Manasah*).^[3] So whenever *Manas* is deranged, *Vata* is invariably involved.

There is another term '*Chetah / Chitta*' being described. Ayurveda considers this as a synonym of *Manas*.^[2] But some books of Philosophy consider *Chitta* as the component which is responsible for maintaining continuity of an action^[4] while *Manas* is known for its flickering nature. There is a class of disorders called Obsessive Compulsive Psychosis where in the affected person keeps on doing a particular act repeatedly. The '*Chitta*' component might be affected in such a condition.

The Yogic science describes *Chittavrittis*^[5] - *Kshipta, Mudha* and *Vikshipta* - predominated by *Raja, Tama* and *Satva Guna* respectively, indicating the possible role of *Satva Guna* in causing some pathology. And the *Ashtanga Yoga*^[6] described in the classics aims at controlling the *Chitta Vrittis*.

The second component *Buddhi* is described as '*Uhapohayoh Kaaranam* - the component responsible for discrimination and analysis'.^[7] On the other hand *Sarva Darshana Sangraha* describes *Buddhi* as fixed and something which can't become the site of discriminative perception.^[8] If we see the *Srushti Utpatti Krama* (Theory of evolution)^[9] explained in Ayurveda, *Mahat / Buddhi Tattva* is the first component which came into existence from *Avyakta* (the unmanifest). Then came the *Ahankara* which gave rise to *Trigunas* (3 qualities) of mind - *Satva, Rajas* and *Tamas*, each quality being responsible for specific traits or behaviors in man. Later came the *Pancha Tanmatras* and then the *Panchamahabhutas* which subsequently gave rise to the physical existence. In fact *Buddhi* is the metaphysical component which forms a link between the psyche and the physic. *Buddhi Vibhrama* leads to loss of "touch with reality" which is the important sign in Psychosis.

The recent classification of Psychosis as per DSM-5 mentions five domains: hallucinations, delusions,

disorganized thought (speech), disorganized or abnormal motor behavior (including catatonia), and negative symptoms for the diagnosis of the condition.^[10] Schizophrenia is one condition characterized by both positive and negative symptoms. During positive symptoms like hallucinations and delusions, *Rajoguna* appears to predominate. And during negative symptoms like emotional blunting and apathy, *Tamoguna* appears to predominate. Even in affective disorders like bipolar depression which is characterised by alternating phases of mania and depression, *Rajo* and *Tamo Gunas* appear to be alternating. Whereas if we consider Obsessive compulsive psychosis, *Satvaguna* appears to predominate, thus confirming the role of *Satvaguna* also as a cause for pathology.

Basis for selection of treatment/ drugs in Unmada

On the basis of different entities involved in the presentation of *Unmada*, the treatment modalities can be classified under the following headings:

1. For *Mano Vibhrama* - *Adravya Chikitsa* namely *Jnana, Vijnana, Dhairya, Smruti, Samadhi* as indicated by *Acharya Charaka*.^[11] This mainly includes counselling and meditation techniques.
2. For *Buddhi Vibhrama* - *Medhya Dravyas*
3. For *Sanjna Vibhrama* - *Sanjna Sthapana Dravyas*
4. Respective *Dosha Shamaka Dravyas*
5. *Hridya - Amla Rasa Dravyas*

Acharya Charaka has described a class of drugs called *Sanjna Sthapaka Dashemani* (ten drugs having the action of bringing back the consciousness).^[12] The author clearly mentions that these drugs subside the *Doshas* involved and act by virtue of their *Prabhava*.

Sanjnanasthapanani Sanjnam Jnanam Doshenanyathabhutam Yadaa Bhuvitumatankate Tadaa Aa Samyak Sanjnadushaka Doshamupahatya Prakrutau Sthapayanti Prabhavat.

Hingu Kaidarya Arimeda Vacha Choraka Vayastha Golomi Jatila Palankasha Ashokarohinyeti Dashemani Sanjnaasthaapakaani Bhavanti.

The identity of these drugs has been depicted in the table no. 1.^[12-14]

Table 1: Sanjna Sthapaka Dashemani

Drug	As per Acharya Chakrapani	As per Acharya Gangadhar
Hingu	Hingu - <i>Ferula foetida</i> , Apiaceae	-
Kaitarya	Parvatanimba - <i>Murayya koenigi</i> , Rutaceae	Katphalam - (<i>Myrica esculenta</i> , Myricaceae
Arimeda	-	Vitkhadira - <i>Acacia farnesiana</i> , Mimosoideae
Vacha	Vacha - <i>Acorus calamus</i> , Acoraceae	-
Choraka	-	Chorapushpi - <i>Angelica glauca</i> , Apiaceae
Vayastha	Brahmi - <i>Bacopa monnieri</i> , Scrophullariaceae	Brahmi Shakam
Golomi	Bhutakeshaha - <i>Elaeodendron glaucum</i> , Celastraceae	Bhutakeshi
Jatila	-	Jatamamsi - <i>Nardostachys jatamamsi</i> , Valerianaceae
Palankasha	Guggulu Jatamamsi va – <i>Commiphora mukul</i> , Burceraceae OR <i>Nardostachys jatamamsi</i> , Valerianaceae	Guggulu Gokshurako Va - <i>Commiphora mukul</i> , Burceraceae Or <i>Tribulus terrestris</i> , Zygophyllaceae
Ashokarohini	-	Katukaa - <i>Picrorrhiza</i>

		kurroa, Scrophullariaceae
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The properties of these drugs have been depicted in the table no. 2.^[13,14]

Table 2: Properties of Sanjna Sthapaka Dashemani

Drug	Part used	Rasa	Vee rya	Vipa ka	Gun a	Propert ies
Hingu	Oleo-gum-resin	Katu, Tikta	Ush na	Katu	Tiksh na	Vata-Kaphah ara, Krimigh na
Kaitarya - Parvatanimba	Root	----	----	----	----	Vishahara, Krimigh na
Kaitarya - Katphalam	Bark	Kash aya, Tikta, Katu	Ush na	Katu	----	Vata-Kaphah ara
Arimeda	Bark	Kash aya	Ush na	Katu	----	Kaphah ara, Vishagh na
Vacha	Rhizome	Katu, Tikta	Ush na	Katu	Tiksh na	Apasma ra, Kaphon mada, Bhuta-Jantu-Anilaha ra
Choraka	Root	Mad hura, Tikta, Katu	Him a	Katu	Lagh u, Tiksh na	Kapha-vatahar a, Vishagh na
Vayastha - Brahmi	Panchanga	Tikta, Kash aya,	Him a	Mad hura	Lagh u	Tridosh ahara, Medhya

		Madhura				
Golomi - Bhutakeshi	Leaf	----	----	----	----	----
Jatila - Jatamsi	Rhizome	Tikta, Kashaya	Himaa	Madhura	----	Tridosha, Medhya
Palanka - Guggulu	Gum-resin	Tikta, Kashaya	Ushna	Katu	Vishada, Laghu, Ruksa, Suksma	Tridosha, Krimighna
Palanka - Gokshura	Root	Madhura	Sheeta	Madhura	Laghu	Vatahara
Ashokarohini - Katuka	Root, Rhizome	Tikta	Himaa	Katu	Ruksa, Laghu	Krimighna

The drugs for *Sanjnasthapana* are used in the form of *Nasya*, *Anjana* or *Dhupana*.^{[15],[16]} Most of the drugs mentioned in this group are having *Tikta-Kashaya-Katu Rasa*, *Katu Vipaka*, *Ushna Veerya* and *Laghu-Ruksa Gunas*. Some drugs are also having *Tikshna* and *Sukshma Gunas*. *Sanjanasha* occurs due to blockage of *Sukshma Srotas* by *Doshas*.^[17] These drugs might help in removing the *Srotorodha* by their specific *Doshaghna* action. They might be exerting some irritant effect and thus help in bringing back the consciousness.

A wide range of *Medhya Dravyas* have been described in our classical texts. Few drugs like *Brahmi*, *Vacha*, *Shankhapushpi*, *Hingu*, *Lashuna*, *Jyotishmati* are commonly used in clinical practice to treat different psychological conditions. While there are some drugs

like *Nirgundi*, *Bilwa*, *Eranda*, *Dhatura* which are rarely used and their efficacy in this area is not yet explored.

1. **Brahmi** - is having *Tikta Kashaya Madhura Rasa*, *Madhura Vipaka*, *Sheeta Veerya* and *Tridoshahara* action. The mode of action can be explained as follows:

- In *Unmada* – when there is *Dhatu Kshaya* and *Pitta Vriddhi* w.r.t *Tikshna*, *Ushna Guna*, causing *Mano Vikriti*, *Smritihani* and *Buddhi Vibhrama*, *Brahmi* in the form of *Swarasa* or *Ghrita* should be used. It does *Pitta Shamana* and *Dhatu Poshana*.

Ksheena Manasasya Brimhanam Krutva Swakriyasu Yojayati.

- But in case of *Kaphapradhana Dosha* along with *Agnimandya*, *Brahmi* should not be the drug of choice. In such cases drugs like *Nirgundi* and *Vacha* should be chosen.^[18]
- *Bacopa monnieri* has been reported to repair damaged neurons by enhancing kinase activity, restoration of synaptic activity, ultimately enhancing nerve impulse transmission in brain.
- It is also found that it decreases stress induced biochemical marker (heat shock proteins and lipid oxides) in all regions of brain.
- The nootropic properties of *brahmi* have been reported to be possibly mediated by its constituents saponins, bacosides A & B through glutaminergic mechanism.^[19]
- *Brahmi* is found to act in Schizophrenia, possibly through dopaminergic mechanism. The main pathological changes taking place in Schizophrenia include increase in Dopamine level resulting in excess dopamine activity in mesolimbic system of Brain. There is also increase in 5-hydroxytryptamine, the enzyme which is having modulatory effect on dopamine. These changes lead to hallucinations and dramatic psychological effects. The antipsychotic potential of a drug is directly proportional to the dopamine (D2) blocking and 5HT2 receptor blocking potential of

the drug.^[20] *Bacopa monnieri* might be acting in this way.

- Role of herbs in psychosomatic disorders by KVRSS Ramgopal, Insights of Ay 2013 (proceedings) states that the herbs like *Brahmi*, *Shankhapushpi* act by their nootropic property and the herbs like *Lashuna*, *Vacha* etc., act by their high anti-oxidant activity.
2. **Shankhapushpi** - has *Kashaya Rasa*, *Madhura Vipaka*, *Ushnaveerya*, *Tridosahara* properties. It is mentioned as *Medhya*, *Manasa Rogahrit*, *Rasayani* and *Smritikantibalaprada* in the classics.^[13] In *Unmada* occurring due to *Dhatu Kshaya* and *Vata Vridhi*, *Shankhapushpi* can be used. Due to *Madhura Vipaka*, it does *Brimhana* of *Dhatu*, does *Dhatu Vriddhi*, *Ojo Vriddhi* and *Bala Vriddhi*. It also acts as *Vatahara*. Thus in *Vatottara Manasaroga* - *Shankhapushpi* is said to be the best whereas in *Pittottara Manasaroga* - *Brahmi* is best.

Different studies on *Evolvulus alsinoides* have shown that

- It has a potent anxiolytic activity in albino rats proved by elevated plus maze test, wherein the time spent in open arms of the maze increased after the administration of *Evolvulus alsinoides* extract. The open field exploratory behaviour also improved.^[21]
- The neuromuscular coordination decreased, indicating muscle relaxant activity.^[21]
- It was tested in amnesic rats using radial arm maze test (RAM) to find the food hole and by Barne's maze test to find target hole. In both the tests, the performance improved after the administration of drug extract. Thus the drug has a positive role in improving cognitive functions in Amnesia.^[22]
- It is having higher free radical scavenging activity and cholinesterase enzyme inhibitory activity.^[23]
- It dose dependently prevents STZ induced cognitive impairment by reducing oxidative stress.^[23]

3. **Vacha** - has *Katu Tikta Rasa*, *Katu Vipaka*, *Ushna Veerya*, *Kapha Vatahara* and *Pittavardhaka* properties. It is said to be the drug of choice in *Kaphaja Unmada*. It is also described as *Ayu-Medha-Smritikari*.

Apasmara Kaphonmada Bhuta Jantu Anilan Haret.^[13]

Vacha Ayurvedha Smritikari Raksho-Abhirakshini.^[18]

- *Vacha*, due to *Ushna Veerya*, acts as *Kaphahara* and increases *Pitta*. It probably potentiates *Sadhaka Pitta* and helps in *Medha Vriddhi*. It also does *Vishodhana* of *Dhatuposhaka Sara Bhaga* and thus helps in *Ojo Vriddhi*.^[18]
 - Dementia - is a psychological condition caused due to decreased cholinergic activity in brain. *Acorus calamus* has been proved to be a cholinergic drug of plant origin.
 - It acts as a stimulant and nootropic.^[24]
 - It has also shown a very high antioxidant activity.
 - Alpha and beta asarones isolated from the drug have been found to possess sedative, CNS depressant, behaviour modifying, anticonvulsant and memory enhancing abilities.^[25]
4. **Hingu** has *Katu Rasa*, *Katu Vipaka*, *Ushna Veerya* and *Kapha Vata Shamaka* properties. It is the main ingredient in many formulations used in the treatment of *Unmada*. In *Unmada* associated with *Sanjna Vibhrama*, *Hingu Churna* with *Madhu* administered internally or as *Anjana*, removes the *Avarana* caused by *Kapha Dosh* on *Sanjnavaha Srotas*. It does *Shodhana* of *Pranavaha* and *Sanjnavaha Srotas*, resulting in *Prana* and *Udana Vayu Anulomana*, thus bringing about the effect of *Sanjna Sthapana*.^[18]
- *Ferula foetida* has been recently found to have neuro protective properties.
 - It acts as a sedative and a stimulant.^[25]
5. **Jatamansi** - has *Tikta Kashaya Madhura Rasa*, *Madhura Vipaka*, *Sheeta Veerya* and *Tridosahara* properties. It is said to nourish the *Manas* and increase *Satva Guna*.

Chetah Prinayati. *Satvagunasya Vardhanam Karoti.*

- In *Tridoshaja Unmada*, *Jatamansi Churna* acts as *Tridoshahara*. It removes *Sroto Avarana* and does *Sroto Shuddhi*, thus resulting in *Dhatu Poshana* and *Ojo Vriddhi*. It also acts as *Rakshoghna* and *Nidrakara*.^[18]
 - *Valeriana wallichii* - Causes sedation by increasing Brain's GABA level. Increase in GABA level promotes a great night's rest. It calms anxiety.
 - This mode of action is similar to that of Alprazolam and Diazepam.
 - It can be used as a safe Psychotropic drug.^[25]
- 6. Jyotishmati** - is having *Katu Tikta Rasa*, *Katu Vipaka*, *Ushna Veerya* and *Vata Kaphahara* properties. The mode of action is similar to that of *Vacha*. Due to *Ushna Tikshna Guna* – does *Pitta Vriddhi*, potentiates *Sadhaka Pitta* and results in *Medha* and *Smriti Vriddhi*.^[18]
- *Celastrus paniculatus* - Seed oil reversed scopolamine induced memory impairment (in navigational memory task) in young adult rats.^[25]
 - An Ayurvedic proprietary product, MENTAT is proved to act in a similar way.^[24]
- 7. Kushmanda** - unlike the above mentioned drugs, possesses *Madhura Rasa* and *Vipaka*, *Naati Sheeta Veerya (Pakva Phala)*, *Laghu*, *Dipana* and specifically mentioned as *Chetorogahrit (Unmadahara)*.^[13]
- *Benincasa hispida* - has been proved to possess Anxiolytic effects by Elevated plus maze test and light dark transition test in mice.
 - It helps in the reduction of spontaneous motor activity (actophotometer)
 - It also possesses Anti depressant activity
 - It has been found to increases Antioxidants in different areas of Brain.^[26]
- 8. Sarpagandha** - possesses *Tikta Katu Rasa*, *Katu Vipaka*, *Ushna Veerya* and *Kapha Vatahara* properties. *Tikta Rasa* does *Ama Pachana* and

Dhatu Poshana, helps in *Ojo Vriddhi*. Also acts as *Nidrakara* by *Prabhava*.^[13]

- *Rauwolfia serpentina* is said to possess a potent Anxiolytic activity.
 - It relieves stress, irritability, excitement and aggression.
 - It is also having antihypertensive properties.
 - Used in anxiety, schizophrenia and psychosis.^[25]
- 9. Nirgundi** - mainly acts as *Vata Kaphahara* and *Smritidaa*. It helps to resolve *Nidranasha*. It also acts as *Krimighna*. It is good in *Unmada* due to *Vataprakopa*.^[13]
- 10. Yashtimadhu** - has *Madhura Rasa*, *Sheeta Veerya* and has been mentioned under *Medhya Rasayana*.^[27]
- 11. Kushta** is having *Katu Swadu Tikta Rasa*, *Ushna Veerya*.^[13] It is an important ingredient of different formulations used in *Unmada*.^[15,16]
- Alzheimer's disease is a condition characterised by abnormal aggregation of Amyloid B peptides into insoluble fibrils called Amyloid plaques.
 - *Glycirrhiza glabra* and *Saussurea lappa* - prevent aggregation of peptides and help in the dissociation of formed plaques. (Aggregation status monitored by thioflavin T fluorescence assay).^[28]
- 12. Katuki** - has *Tikta Rasa*, *Katu Vipaka*, *Sheeta Veerya* and *Kapha-Pitta Shamaka* effects. *Tikta Rasa* - does *Agni Dipana* and *Ama Pachana*. *Rasa Dhatu* is formed properly, which inturn does *Poshana* of *Hridaya* and *Ojo Vriddhi*.
- *Picrorhiza kurroa* has shown antioxidant and immunomodulatory activities.^[29]
- 13. Amalaki** is having *Alavana Pancharasa*, *Madhura Vipaka*, *Sheeta Veerya* and acts as *Tridoshahara*. It is a well known drug possessing *Rasayana* effect.^[13]
- *Emblica officinalis* is helpful in anxiety, agitation
 - Bipolar depression

- Memory loss and insomnia^[25]
- 14. **Ashwagandha** - has *Tikta Kashaya Rasa, Ushna Veerya, Vatahara, Balya* and *Rasayana* actions.^[13]
- *Withania somnifera* is useful in neurodegenerative disorders.
- It has cognition enhancing properties.
- It is very useful in anxiety, depression and Alzheimer's diseases^[25]
- 15. **Guduchi** - possesses *Katu Tikta Kashaya Rasa, Madhura Vipaka, Sheeta Veerya* and *Tridosahara* properties. It has been described as *Rasayani* and *Medhya*.^{[13],[27]}
- *Tinospora cordifolia* individually and in combination with *Bacopa monnieri* and *Evolvulus alsinoides*, showed improvement in cognitive functions.^[22]
- 16. **Vatsanabha - Aconitum ferox** - Contains alkaloids of fear and panic. It acts as sedative.^[25]
- 17. **Bilva** - Flavanoids present in *Aegle marmelos* are said to be responsible for anxiolytic effect through benzodiazepine receptors. It is a safe and effective drug.^[25]
- 18. **Eranda** - Ricinine, an alkaloid obtained from the extract of pericarp of castor bean (*Ricinus communis*) has shown memory enhancing properties.^[25]
- 19. **Kupilu** - *Strychnos nuxvomica* - Strychnine and Brucine alkaloids present in the drug help in depression and stress.^[25]
- 20. **Dhaturo metel** - High scopolamine production increases heart rate and induces relaxation in muscles.^[25]
- 21. **Chandana, Usheera** - Due to *Sheeta Veerya* exert *Jeevana* effect, do *Murcha Apanayana* and *Prana Dharana*. They help to resolve *Unmada, Madatyaya* and *Murcha*.^[18]
- *Santalum album* has been found to possess nootropic effect. The sandalwood oil and alcoholic extracts have been proved to have sedative effect. The oil has a relaxing effect on the nerves

and is used in agitated emotional states causing headaches, insomnia and nervous breakdown. The santalols have Central Nervous system depressant effects. Alpha santalol was shown to be a strong antagonist of dopamine D2 and serotonin 5HT2A receptor binding. The effect of alpha santalol was same as that of chlorpromazine as an antipsychotic agent.^[30]

- *Vetiveria zizanoides* oil has been proved to be having a potent antioxidant activity.^[31]
- 22. **Snuhi** - is mentioned to be having *Katu Rasa, Katu Vipaka, Ushna Veerya, Tikshna, Guruguna, Kapha-Vatahara, Pitta Prakopaka* and *Unmadahara* properties.^[13] Though *Snuhi* is not used for the treatment of psychological disorders in clinical practice, it has been found that the plants of euphorbiaceae have CNS depressant action.^[25]

Amla Phala Rasa is an ingredient in some of the formulations like *Lashunadi Ghrita*^[27] used in the treatment of *Unmada*. *Amla Rasa* is having the action of *Indriya Tarpana, Mano Bodhana* and is said to be *Hridya*. It also has potent *Vatahara* action. *Viguna Vatam Swamargam Anayati*.^[18]

Vitamin C is an anti-oxidant that protects against cellular damage due to inflammation or highly reactive oxygen free radicals. It inhibits peroxidation of Phospholipids.^[32]

Vit C supplement in Schizophrenia - a study reported a decrease in the Brief Psychiatric Rating Scale (BPRS) and Positive and Negative Syndrome Scale (PANSS) scores among patients on antipsychotic treatment after supplementation with Vitamin C, Vitamin E and Omega 3 fatty acids.^[33] But since the supplement was given in combination, it is difficult to conclude whether the effect is due to Vitamin C alone. Another important thing is to decide whether vitamin supplementation is necessary in all cases of Psychosis. Seeing the prominent *Vatahara* action of *Amla Rasa*, we can opt Vitamin C supplementation in *Vata* predominant conditions of *Unmada*.

- 23. **Purana Ghrita** is mentioned as *Tridosahara, Grahanaashaka*. The one which is 10 years old has

Katu Tikta Rasa, Ugra Gandha and the one which is 100 yrs old is similar to *Laksha Rasa* in appearance, *Sheeta, Sarvagrahapaha* and *Medhya*. Both the types are good in *Unmada* and *Apasmara*.^[27]

- Ghee is rich in antioxidants.
- It doesn't go rancid for a long time.
- It is rich in CLA - Conjugated linoleic acid which causes lymphocyte proliferation and increases macrophage phagocytosis. These (immunomodulatory) effects of CLA on cellular immunity were reported to persist for some time beyond the period of dietary supplementation.^[34]

24. Panchagavya - the *Ghritha* prepared from *Gomutra, Gomaya, Godadhi, Goghrita* and *Godugdha* is very commonly used in clinical practice for a wide range of psychological disorders. The combination is having *Tridosahara* effect and hence can be used in a wide range of psychiatric conditions. The properties of the ingredients as per the classics is as follows:

- *Gomutra - Medhya*
- *Godugdha - Jara and Samasta Rogahara*
- *Godadhi - Amla, Hridya*
- *Goghrita - Medha, Ojo Vardhaka*^[13]
- *Panchagavya Ghritha* has been proved to be having Immuno modulatory effect. It is found to enhance both cellular and humoral immune responses by upregulating the lymphocyte proliferation activity, secretion of cytokines and macrophage activity and reducing apoptosis in lymphocytes. They act as antiaging agents by preventing the free radical formation and efficiently repairing the damaged DNA.^[35]

CONCLUSION

Thus the treatment in *Unmada* should include specific *Doshahara Chikitsa* and use of *Medhya Dravyas* along with *Adravya Chikitsa* in order to effect maximum cure. Not only the *Shareerika Doshas* like *Vata-Pitta-Kapha* but also the *Manasika Gunas* like *Satva-Raja*

and *Tama* need to be assessed and the treatment should be planned. Among the wide range of *Medhya Dravyas* mentioned in the classics, depending on the *Dosha* predominance in a given patient, the most suitable drug can be selected. The *Medhya Dravyas* can be combined with other *Doshghna Dravyas* eg., combining with *Amla Phala Rasa* for the treatment of *Vataja Unmada* and using *Pittahara Dravyas* like *Chandana, Usheera* in case of *Pitta* predominant conditions. In all the cases, emotional support and counselling is most important to help the patient come out of the clutches of the disease. Balancing the *Trigunas* by following the rules told under *Achara Rasayana* and controlling the *Tridoshas* by appropriate *Ahara-Vihara* shall help the patient lead a normal life.

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