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# A Clinical Study to Evaluate the Efficacy of Mahakalyanaka Ghrita in Vataja Unmada w.s.r. to Schizophrenia

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## ABSTRACT

**Objectives of the study-** To evaluate the efficacy of *Mahakalyanaka Ghrita* in the management of *Vataja Unmada*/Schizophrenia and to study the etiopathogenesis of the disease. **Methods: Design of the Study-** Open labelled clinical study with pre and post-test design. **Patient Source-** Sri Dharmasthala Manjunatheshwara Ayurveda Hospital Kuthpady, Udupi. **Study selection-** Twenty patients diagnosed with *Vataja Unmada*/Schizophrenia were selected irrespective of their caste, creed and gender. **Intervention-** *Mahakalyanaka ghrita* was administered in 24gm dose with warm water once in the morning at 8 am on empty stomach for 28 days. **Follow up-** Patients were treated with study medicine for 28 days and follow up period was 28 days. **Total duration of study-** 56 days. **Statistical analysis:** The statistical analysis was done using paired t test. **Results:** Improvement of 7.91% in *Vataja unmada* rating scale, 16.33% in *manobhava* rating scale and 9.68% in positive and negative syndrome scale was seen. **Conclusion-** *Mahakalyanaka Ghrita* is safe and effective in reducing the symptoms of *Vataja unmada*/schizophrenia.

**Key Words** *Vataja Unmada, Schizophrenia, Mahakalyanaka Ghrita*

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## INTRODUCTION

*Unmada* is one among the *manasika vyadhis* which is discussed in detail by the *acharyas*. It covers a wide spectrum of diseases under one heading, and hence it holds a lot of importance for diagnosing and treating the currently existing psychiatric diseases.

*Unmada* is defined as the one in which there is disturbed or abnormal functioning of the mind. Due to the imbalance in *doshas* of the *manas*, the

mind is unable to function normally and the patient has difficulty in having normal perception and to maintain his inter personal and social relationships. *Unmada* has perversion of the eight factors that is *mano, buddhi, samjnajnana, smriti, bhakti, sheela, cheshta* and *achara*<sup>1</sup>.

The various etiological factors<sup>2</sup> contributing to this disease include *viruddha, dushta, asuchi anna, pana*, mind being afflicted with factors like *kama, shoka, bhaya*, etc., insulting *deva, guru*

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and *dvijas*, not following *sadvritta*, etc. these cause imbalance of the *manasika doshas* which causes vitiation of the *sharirika doshas* and the person who is having *alpa satva* easily suffers from this disease.

*Vataja unmada*<sup>1</sup> has presentation of increased physical and mental activities wherein we can see patient has *ativaak* and *aticheshta* as a primary symptom. He exhibits symptoms like constant wandering, laughing, smiling at inappropriate circumstances, constant and incoherent speech, desires for non edible objects and food. These symptoms can be present with some other *samana lakshanas* like that of *dhivibhrama*, *satvapariplava*, *mudha chetas*<sup>3</sup>, etc.

Similar to the above symptoms modern science explains schizophrenia. Schizophrenia is a disease which affects the thought process of the person and causes disturbances in verbal and motor behavior, perception and relationship with external world. The symptoms of the disease can be classified into positive, negative and general symptoms. The main diagnostic features of schizophrenia are hallucinations, delusions, inappropriate behavior and inappropriate speech.<sup>4</sup> Most of the symptoms match with that of *Vataja unmada* and hence both can be correlated, taking positive symptoms of schizophrenia into specific consideration for *Vataja unmada*.

The lifetime prevalence of schizophrenia appears to be approximately 0.3%-0.7%.<sup>5</sup> Treatment of schizophrenia with antipsychotics has improvement to some extent but with a number of side effects like Parkinsonism. Since it is a

chronic illness long courses of treatment are required. In Ayurveda for the treatment of *unmada* various *shodhana* and *shamana* treatments are available, and for *Vataja unmada* it is mentioned to administer *sneha* internally to the patients.<sup>6</sup> *Mahakalyanaka* is one such *ghrita* which is mentioned in the context of *unmada* which nourishes as well as palliates the disease<sup>7</sup>. Hence this study was planned to evaluate efficacy of *Mahakalyanaka Ghrita* in patients of *Vataja unmada*.

## OBJECTIVES OF THE STUDY

- To evaluate the efficacy of *Mahakalyanaka Ghrita* in the management of *Vataja unmada*/Schizophrenia.
- To study the etiopathogenesis of the disease.

## MATERIALS AND METHODS

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### Source of data-

- 20 patients fulfilling the diagnostic criteria of *Vataja Unmada*/ Schizophrenia were taken for the study.
- Patients were selected from the OPD and IPD of Sri Dharmasthala Manjunatheshwara Ayurveda Hospital, Udupi.
- *Mahakalyanaka Ghrita* was sourced from Sri Dharmasthala Manjunatheshwara Ayurveda Pharmacy, Udupi.

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### Method of collection of data

- Patients fulfilling the diagnostic criteria were selected irrespective of caste, creed and gender.
- Data was collected by interrogation with patient and patient party in the standardized case sheet proforma with all details of history, signs and symptoms, all points of examinations.

**Study design-** An open labelled clinical study with pre and post-test design.

**Intervention-** The medicine was orally administered in 24gm dose<sup>8</sup> with warm water once in the morning at 8 am on empty stomach for 28 days.

**Follow up duration-** Follow up was done on 28<sup>th</sup> day after treatment.

**Total duration of the study-** 56 days.

### Inclusion criteria

- Patients fulfilling the diagnostic criteria and willing to sign the informed consent.
- Patients between age group 16-70 yrs.
- Patients of both the sexes.

### Exclusion criteria

- Patients suffering from other schizophrenia spectrum disorders and complications of schizophrenia.
- Patients suffering from other psychiatric disorders.
- Pregnant women.

### Assessment criteria

- Self-assessment scores for signs and symptoms of *Vataja unmada*.
- Self-prepared scale on *mano bhavas*.

- Positive and negative syndrome scale for schizophrenia.

### Statistical analysis

Statistical analysis was done using paired t test where  $p < 0.05$  was considered as statistically significant.

### Diagnostic criteria

- Diagnosis was made on the basis of features of *Vataja unmada* with minimum features like *ativaak* and *atichesta*.
- Features of schizophrenia as mentioned in DSM-5.

## OBSERVATIONS

Out of 20 patients maximum belonged to group 51-60years as this group has either not fulfilled their desires of life or have excessive mental stress. 70% were females as they are more likely to take excessive stress and over think and some have *alpa satva* which makes it difficult for them to cope up with situations of life. 90% belonged to Hindu religion and 10% belonged to Muslim religion. This observation was due to more Hindu population in the area. 60% were married, marriage has a psychological effect as it acts a changing point in life, and due to difficulty in making adjustments in the new family patients tend to develop mental stress. Stress and responsibilities are high in people who are not able to fulfil their need due to financial restrictions like that of middle class and hence it was seen that 50% patients in this study were from middle class and 45% were from lower

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middle class. The disease was maximum seen in homemakers that is 60% as discussed above due to the women being at home not being able to share their problems with anyone and getting weak emotionally. *Alpa* quantity of food being a reason to aggravate *vata* was seen in 30% patients, and *katu rasa* and *tikta rasa ahara* which aggravate the *vata* was seen in 45% each, 90% consumed *ruksha*, 20% *shita* and 50% *laghu ahara* which acts as a contributing factor for the further *bhedavastha* of *unmada* into *Vataja unmada*.

70% were not on any modern medications, 30% were on modern medications and the results of the study drug was seen with the ongoing medicines as the condition of the patient with modern medications was the same for a long time. All the patients had unsatisfactory social relationships. Due to disturbed functioning of the mind the person is unable to maintain the social relationships. 70% patients had *vatapitta prakruti*. 100% patients had *avara satva* and as described above *avara satva* plays a very important role in manifestation of the disease.

## RESULTS

Patients treated with *Mahakalyanaka Ghrita* had reduction in *Vataja unmada* scale (table 1) symptom of constant wandering with relief of 17.5%, symptom of sudden movements with relief of 33.33%, symptom of constant and incoherent speech with relief of 25%, symptoms of always smiling, laughing at inappropriate

places with relief of 20% and symptoms of aggravation of condition by *vata* aggravating factors with relief of 7.1%. There was no reduction in symptom of riding undesirable vehicles, symptom of emaciation and roughness and in symptom of projected and reddish eyes. No patients had symptoms present like that of coming out of froth from mouth, loudly imitating musical instrument sounds, adoration for non-ornamental things, longing for eatables not available and disgust for food articles.

Patients had reduction in *mano vibhrama* intensity with relief of 23.21% and *mano vibhrama* frequency relief of 16.36%. In *buddhi vibhrama* intensity relief of 15.78% and frequency relief of 12.72%. In *samjnanana vibhrama* intensity relief of 7.69% and frequency relief of 10%. *Smriti vibhrama* intensity relief of 19.35% and frequency relief of 7.89%. *Bhakti vibhrama* intensity relief of 17.54% and frequency relief of 20.37%. *Sheela vibhrama* intensity relief of 19.29% and frequency relief of 17.54%. *Vachika cheshta vibhrama* intensity relief of 16.39% and frequency relief of 21.66%. *Sharrerika cheshta vibhrama* intensity relief of 11.76% and frequency relief of 8.33%. *Achara vibhrama* intensity relief of 22.80% and frequency relief of 16.98%. *Swapna vibhrama* intensity relief of 24% and frequency relief of 19.98% (table 2)

In positive and negative syndrome scale (table 3) among the positive scales symptom of delusions relief of 14.54%, symptom of conceptual disorganization relief of 13.33%, symptom of

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**Table 1** Effect on *Vataja unmada* rating scale

Symptoms	Mean		Difference in means	% of improvement	Paired t test	
	BT	AT			't'	P
Effect on constant wandering	2.00	1.65	0.35	17.5%	3.199	0.005
Effect on sudden movements	0.60	0.40	0.20	33.33%	2.179	0.042
Effect on constant and incoherent speech	2.40	1.80	0.60	25%	5.339	<0.001
Effect on coming out of froth from mouth	0	0	0	0%	0	1.0
Effect on always smiling, laughing at inappropriate places	1.75	1.40	0.35	20%	3.199	0.005
Effect on riding undesirable vehicles	0.05	0.05	0.0	0%	0	1.0
Effect on loudly imitating musical instrument sounds	0	0	0	0%	0	1.0
Effect on adoration for non-ornamental things	0	0	0	0%	0	1.0
Effect on longing for eatables not available	0	0	0	0%	0	1.0
Effect on disgust for food articles	0	0	0	0%	0	1.0
Effect on emaciation and roughness	0.80	0.80	0	0%	0	1.0
Effect on projected and reddish eyes	0.80	0.80	0	0%	0	1.0
Effect on aggravation of condition by <i>vata</i> aggravating factors	1.40	1.30	1.10	7.1%	1.453	0.163

**Table 2** Effect on *mano bhava* rating scale

Symptoms	Mean		Difference in means	% of improvement	Paired t test	
	BT	AT			't'	P
Effect on <i>mano vibhrama</i> intensity	2.80	2.15	0.65	23.21%	5.94	<0.001
Effect on <i>mano vibhrama</i> frequency	2.75	2.30	0.45	16.36%	3.943	<0.001
Effect on <i>buddhi vibhrama</i> intensity	2.85	2.40	0.45	15.78%	3.943	<0.001
Effect on <i>buddhi vibhrama</i> frequency	2.75	2.40	0.35	12.72%	3.199	0.005
Effect on <i>samjnajnana vibhrama</i> intensity	1.30	1.20	0.10	7.69%	1.453	0.163
Effect on <i>samjnajnana vibhrama</i> frequency	1.0	0.90	0.10	10%	1.453	0.163
Effect on <i>smriti vibhrama</i> intensity	1.55	1.25	0.30	19.35%	2.854	0.01
Effect on <i>smriti vibhrama</i> frequency	1.90	1.75	0.15	7.89%	1.831	0.083
Effect on <i>bhakti vibhrama</i> intensity	2.85	2.35	0.50	17.54%	4.359	<0.001
Effect on <i>bhakti vibhrama</i> frequency	2.70	2.15	0.55	20.37%	4.819	<0.001
Effect on <i>sheela vibhrama</i>	2.85	2.30	0.55	19.29%	4.819	<0.001

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<b>intensity</b>						
Effect on <i>sheela vibhrama</i> frequency	2.85	2.35	0.50	17.54%	4.359	<0.001
Effect on <i>vachika cheshta vibhrama</i> intensity	3.05	2.55	0.50	16.39%	4.359	<0.001
Effect on <i>vachika cheshta vibhrama</i> frequency	3.00	2.35	0.65	21.66%	5.94	<0.001
Effect on <i>shareerika cheshta vibhrama</i> intensity	1.70	1.50	0.20	11.76%	1.71	0.104
Effect on <i>shareerika cheshta vibhrama</i> frequency	1.80	1.65	0.15	8.33%	1.831	0.083
Effect on <i>achara vibhrama</i> intensity	2.85	2.20	0.65	22.80%	5.94	<0.001
Effect on <i>achara vibhrama</i> frequency	2.65	2.20	0.45	16.98%	3.943	<0.001
Effect on <i>swapna vibhrama</i> intensity	2.50	1.90	0.60	24%	5.339	<0.001
Effect on <i>swapna vibhrama</i> frequency	2.65	2.20	0.45	16.98%	3.943	<0.001

Table 3 Effect on positive and negative syndrome scale of schizophrenia

Symptoms	Mean		Difference in means	% of improvement	Paired t test	
	BT	AT			t'	P
Effect on delusions	5.50	4.70	0.80	14.54%	8.718	<0.001
Effect on conceptual disorganization	5.25	4.55	0.70	13.33%	6.658	<0.001
Effect on hallucinatory behavior	5.10	4.70	0.40	7.84%	3.559	0.002
Effect on excitement	4.20	3.80	0.40	9.52%	3.559	0.002
Effect on grandiosity	3.75	3.15	0.60	16%	5.339	<0.001
Effect on suspiciousness	4.95	3.95	1.00	20.20%	9.747	<0.001
Effect on hostility	3.10	2.65	0.45	14.51%	3.943	<0.001
Effect on blunted affect	3.0	2.60	0.40	13.33%	3.559	0.002
Effect on emotional withdrawal	3.60	3.25	0.35	9.72%	3.199	0.005
Effect on poor rapport	3.55	3.30	0.25	7.042%	2.517	0.021
Effect on passive social withdrawal	4.50	4.10	0.40	8.88%	3.559	0.002
Effect on difficulty in abstract thinking	2.80	2.75	0.05	1.78%	1.000	0.330
Effect on lack of spontaneity	3.15	2.80	0.35	11.11%	3.199	0.005
Effect on stereotyped thinking	3.00	2.65	0.35	11.66%	3.199	0.005
Effect on somatic concern	1.65	1.55	0.10	6.06%	1.453	0.163
Effect on anxiety	1.90	1.60	0.30	15.78%	2.854	0.010
Effect on guilt feelings	1.00	1.00	0.00	0%	0.0	1.0
Effect on tension	1.35	1.30	0.05	3.70%	1.0	0.330
Effect on mannerism	1.90	1.85	0.05	2.63%	1.0	0.330
Effect on depression	1.05	1.05	0.0	0%	0.0	1.0
Effect on motor retardation	1.10	1.10	0.0	0%	0.0	1.0
Effect on uncooperativeness	3.0	2.55	0.45	15%	3.943	<0.001
Effect on unusual thought content	4.75	4.25	0.50	10.52	4.359	<0.001
Effect on disorientation	2.65	2.25	0.40	15.09%	3.559	0.002

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<b>Effect on poor attention</b>	3.60	3.10	0.50	13.88%	4.359	<0.001
<b>Effect on lack of judgement and insight</b>	5.50	4.90	0.60	10.90%		<0.001
<b>Effect on disturbance in volition</b>	2.95	2.65	0.30	10.16%	2.854	0.010
<b>Effect on poor impulse control</b>	2.55	2.30	0.25	9.80%	2.517	0.021
<b>Effect on preoccupation</b>	2.75	2.55	0.20	7.27%	1.710	0.104
<b>Effect on active social withdrawal</b>	4.60	4.10	0.50	10.86%	4.359	<0.001

hallucinatory behavior relief of 7.84%, symptom of excitement relief of 9.52%, symptom of grandiosity relief of 16%, symptom of suspiciousness relief of 20.20% and symptom of hostility relief of 14.51% was seen. Among the negative scales symptom of blunted affect relief of 13.33%, symptom of emotional withdrawal relief of 9.72%, symptom of poor rapport relief of 7.04%, symptom of passive social withdrawal relief of 8.88%, symptom of difficulty in abstract thinking, relief of 1.78%, symptom of lack of spontaneity relief of 11.11% and symptom of stereotyped thinking relief of 11.66% was seen. Among the general scales symptom of somatic concern relief of 6.06%, symptom of anxiety relief of 15.78%, symptom of guilt feelings relief was 0%, symptom of tension relief of 3.70%, symptom of mannerism relief of 2.63%, symptom of depression relief was 0%, symptom of motor retardation relief was 0%, symptom of uncooperativeness relief of 15%, symptom of unusual thought content relief of 10.52%, in symptom of disorientation relief of 15.09%, symptom of poor attention relief of 13.88%, symptom of lack of judgment and insight relief of 10.90%, symptom of disturbance in volition relief of 10.16%, symptom of poor impulse

control relief of 9.80%, symptom of preoccupation relief of 7.27% and symptom of active social withdrawal relief of 10.86% was seen.

The overall effect of improvement in *Vataja unmada* rating scale was 7.91%, improvement in *Mano bhava* rating scale was 16.33% and in Positive and negative syndrome rating scale was 9.68%. Out of 20 patients given with *Mahakalyanaka Ghrita* none had the complete remission, all 20 patients had improvement in their symptoms and most were statistically significant.

## DISCUSSION

The external appearance of the individual depends upon the internal health of a person, health not only physical but also mental. *Manas* plays a very important role in the functioning of the *sharira* and one such disease which involves the impairment in the functioning of the *manas* and *sharira* is *unmada*, and it is given lot of importance by the *Acharyas*. *Unmada* is one of the chronic and grievous disease of the mind.

Broad spectrum of psychiatric diseases can be included under the heading of *unmada* which affect the personal, social and occupational

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functioning of the person. The features of *Vataja unmada* are constant wandering, irrelevant speech, laughing and smiling at inappropriate circumstances, roughness of the skin and emaciation of the body, etc. along with features of *ashta vibhramshas*. Schizophrenia is a disease in which there is impairment seen in the thought process of the individual, verbal behavior, perception, affect, motor behavior and relationship to the external world. Patient can present with either positive, negative or both the symptoms of schizophrenia. Positive symptoms like that of hallucinations, delusions, excitement, grandiosity, etc point more towards *Vataja unmada lakshanas*.

Both *shodhana* and *shaman* treatment are mentioned for the treatment of *unmada*. *Shamana* treatment is found to be more useful in managing such kind of conditions as patients cooperation is less when there is derangement in the mental functioning. *Ghrita* has been considered to be one of the best treatment for the diseases of the *manas* as studies have shown that due to its lipoidal nature it can easily cross the blood brain barrier and get rapidly absorbed in the central nervous system and *Mahakalyanaka ghrita* is indicated in *unmada*. Most of its ingredients have *tridosha shamaka*, *vatapitta* and *vatakapha shamaka* properties, these ingredients have *brimhana* property and it is said that this *ghrita* helps in nourishing and treating the disease. As we can see in *unmada* it is the disease of the brain. The medicine which is given should reach

the brain, nourish it and treat it by affecting the psychological functions.

It is seen in the study that most of the patients consumed food which was not fresh, these contribute to the *nidana* that is *asuchi bhojana*, *dushta bhojana* like consuming contaminated food. Consuming *viruddha aharas* like taking pickle and other sour and spicy items with milk and milk product, etc. Due to the changed lifestyle maximum people do not follow the behavioural conducts as well as daily routine mentioned in classics. Habits of getting up late, not taking bath in the morning hours, not offering prayers to god, intake of food at improper time, eating over previously undigested food, not respecting elders, quick exhibition of emotions like anger, jealousy and getting emotionally affected by every small thing happening in life, over thinking about day to day matters and these have impact over the thought process of the individual in turn increasing their stress. It is seen that children who are not brought up with care and attention due to busy life of parents such children are unable to share their feelings and troubles with anyone, and this affects their psychological development. This is more common in nuclear families. It is seen that the rate of patients having psychiatric illness is increasing, the main cause can be considered as change in diet and lifestyle patterns which makes people weak physically as well as mentally and they develop *avara satva*, and are unable to deal with their day to day problems, which further makes them personally, socially and



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occupationally non-functional and hence its seen that most of the patients with schizophrenia have unsatisfactory social life and married life.

### CONCLUSION

*Shamana* treatment with *Mahakalyanaka Ghrita* is effective in reducing the symptoms of *Vataja Unmada*. Overall improvement in *Vataja Unmada* rating scale was 7.91%. Improvement was seen in features of constant wandering, constant speech, inappropriate smiling. Overall improvement in *Mano Bhava* rating scale was 16.33%. Better improvement was seen in *mano*, *buddhi*, *sheela* and *vachika cheshta*, *achara* and *swapna vibhrama*. Overall improvement in Positive and Negative Syndrome scale was 9.68%. Positive symptoms had better improvement. All the 20 patients treated in the study had improvement in the symptoms of *Vataja unmada* at the end of 28 days of treatment.

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