

Research Article**Nasya and its efficacy in Alcohol withdrawal Syndrome****M Jithesh¹, Mohammed Shafeek², Uma Venugopal³, Renuka R Gayal⁴**¹Associate Professor, PG Department of Manasroga, V.P.S.V Ayurveda College, Kottakkal.²PG Scholar, Department of manasroga, VPSV Ayurveda college, Kottakkal³Medical officer, Govt Ayurveda research institute for mental diseases, Kottakkal⁴Professor and Head, Panchakarma, BSDT Ayurveda mahavidyalaya, Wagholi, Pune***Corresponding author**

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Abstract: Alcohol was considered as a healthy drink if administered judiciously from the vedic period itself and its medicinal properties are being explained, in the classics of Ayurveda. But the addictive use of alcohol has been a considerable health problem all over, as per the reported studies. The complications due to alcohol in the physical, mental, familial and social aspects and their management have been attempted by the medical world, with serious concern. As per the latest reports 1/3rd of the Indian population is using alcohol in an unhealthy manner, the complication being wide and varied among which, the Alcohol Withdrawal Syndrome is the dominant one. The presentation varies from mild sleep loss or anxiety to the life threatening situations like delirium. The modern medical management seldom works as expected in this group of affected, the management being quite conditional. Ayurveda has given utmost importance in explaining the disorders, arising from the unscientific use of madya, in the context of madatyaya. Various protocols based on the identification of the status of tridoshas are explained which includes sodhana, samana and satwavachaya chikitsa. Various medications are being used, with appreciated effects in the clinical practice. As per reports, the panchakarma procedure nasya seems highly effective, in managing the alcohol withdrawal syndrome. This study is an attempt to assess the efficacy of nasya with Ksheerabala tailam upto 7 days in the condition and also the efficacy is being compared with the allopathic counterpart. The study was a non Randomized trial with 30 subjects satisfying the DSM IV criteria for alcohol withdrawal and the assessment was done using the Clinical Institute Withdrawal Assessment for Alcohol Scale revised (CIWA-Ar). It was observed that there was significant improvement in both the groups statistically and on comparison, the study group showed significant effect as compared to control on the final assessment.

Keywords: Nasya, Alcohol withdrawal, Madya, Madatyaya, Ksheerabala taila.

INTRODUCTION

Alcohol and its intake are being recorded in history, as per the available literature as it was a part of the cultural, medical as well as social life for many. The various methods of intake and the attainments have also been described. Their medicinal as well as systematic uses have also been explained in the classics of Ayurveda [1].

As the prevalence of the unhealthy intake and its resultant effects are on the rise, it is creating immense concern to the medical world. The excess or unscientific use of alcohol is creating physical, mental as well as the social problems [2]. The alcoholism and its associated disorders have caused several deaths and non fatal injuries affecting the economic status of the society. It is also reported to have reducing the life expectancy by almost 10 years as per published studies [3]. Almost 20% of the patients attending the

psychiatry OPD have the misuse of alcohol in association as per reports [4].

As per the available data, about half of the individuals fall into the category of hazardous drinking. Similar is the high incidence of binge drinking and under aged drinking [5]. The harmful use of alcohol is said to affect the functioning of each and every system of the body, at various levels, depending on the various factors associated with the alcohol abuse.

Alcohol Withdrawal Syndrome

The commonest presentation in a deaddiction OPD nowadays, is the Alcohol Withdrawal Syndrome. These are the set of symptoms observed when an individual reduces or stops the alcohol consumption, after prolonged periods of excessive intake, being due to the hyper excitable state of the central nervous system. Chronic alcohol exposure results in a

compensatory decrease of the GABA-A neuroreceptor response to GABA evidenced by the increased tolerance of the effect of the alcohol [6]. Alcohol inhibits the NMDA neuroreceptor and chronic exposure results in up-regulation of these receptors. Absolute cessation of alcohol results in brain hyper excitability which manifests clinically as anxiety, irritation, agitation, tremor etc [7].

Clinical presentation

The severity of the manifestation varies from mild sleep disturbances and anxiety to severe life threatening conditions like delirium and convulsions. The severity of the presentation depends on the various factors including age, genetics, degree of alcohol intake, duration of intake and the number of previous detoxifications [8].

After 6–12 hours, minor withdrawal symptoms such as insomnia, tremor, mild anxiety, gastric upset, head ache, diaphoresis, and palpitation are seen. Within the time of 12 to 24 hours, alcohol hallucinosis i.e. visual, auditory as well as tactile are reported which usually resolves within 48 hours. Generalized tonic clonic seizure due to withdrawal usually may occur from 24 – 48 hours which is not having a better prognosis. After 48 – 72 hours are seen the withdrawal delirium, disorientation, tachycardia, hypertension, low grade fever, agitation, diaphoresis etc [9]. Several psychiatric disorders such as mood disorder, personality deterioration, impaired psychosocial function, suicidal behavior etc. seems associate with many of those with the alcohol withdrawal [10]. Social problems like family problems, work difficulties, road accidents and even crime is observed, much more in many of these subjects.

Management

The management is diverse as there are multiple perspectives in the pathogenesis of an alcoholic disorder [11]. Those who are approaching the physician as a medical condition, is to be given different protocol, than the one, with the psychological or social presentation. The aim is to focus on helping them get rid of alcohol followed by rehabilitation and social support to depart them from the area. The three relevant steps are intervention, detoxification and rehabilitation [12]. The intervention includes the effort for the alcoholic to accept the reality and to seek help so as to get rid of the problem.

Madya and Madatyaya

Any drug which does the action of mada or intoxication can be termed as madya. Mada can be termed as addiction, lust or madness. Madya yields better health due to prabhava and is included in the ahara by the Acharyas and is considered as the best among the paneeyas [13]. As the madya is having ushna, teekshna, sookshma, visada and vyavayi, it spreads instantly all over the body and these qualities

are used when drugs are given in the form of madya [14].

Madatyaya results when one consumes madya without following the restriction given by the Acharyas and that affects the body as well as the mind [15]. The excessive intake of unwholesome alcohol leads to madatyaya. The madya affects the hridaya resulting in the depletion of the ojus leading to mental distortion. The physical manifestations include antardaha, jwara, trishna, pramoha, vibrama and mada [16]. In the case of vatha kopa, the patient suffers from severe body ache, head ache, joint pain etc.

Most of the symptom varies as per the aggravated dosha eventhough the madatyaya is considered as Vathapaittika in nature [17]. The quality of madya, prakriti of the individual and also the nature of the intake affects the manifestation. For e.g. In Vathika madatyaya, the main symptoms are hidhma, swasa, sirah kampa, parswasoola, nidranasa and pralaapa [18].

Management of madatyaya

Eventhough all the doshas are involved in the pathogenesis, the primary dosha to be managed is Kapha followed by pitta and then vatha [19]. The appropriate sodhana procedures can be incorporated in the protocol which includes mainly vamana. This is to be preceded by snehapana and swedana. Vamana followed by virechana as well as vasthi with appropriate preparatory procedures and drugs are ideal. Nasya as well as moordhni tailas are having a crystal-clear role in this context. The treatment is to be continued with various processes of satwavachaya chikitsa, yoga, pranayama and behavior as well as familial therapies [20].

Nasya and its role in the management

As far as an Ayurvedic practitioner is concerned, the primary stage of the alcohol withdrawal syndrome is much critical as well as challenging. The sleep disturbances in the subject along with the visual as well as the auditory hallucinations are creating many problems for both. Our observation is that, if the patient is having sufficient sleep, there is definite decrease in the symptoms. But the internal medicines are not having expected results.

Here the panchakarma, nasya was tried with reported clinical efficacy in such patients. Nasya is having local, general as well as systemic action as per the Ayurvedic parlance. Nasya is having the mode of action on the siras which is not only a core marma, but also the seat of prana, manas as well as the indriyas [21]. The procedure of nasya is stimulating the limbic system, which is the key factor here which is associated with emotion, memory and learning. Ksheerabala taila is a much used combination in insomnia and associated

complaints and is also indriya prasada in action [22]. So this drug was used for performing nasya in this study.

CLINICAL STUDY

The Objectives of the study were to assess the efficacy of Marsa nasya with Ksheerabala taila in Alcohol withdrawal syndrome and also to compare the efficacy of Marsa nasya with modern conservative management.

STUDY DESIGN

It was a non- randomized controlled study with sample size of 40 selected from the psychiatry OPD of VPSV Ayurveda College, Kottakkal and Suraksha Deaddiction centre, Calicut with duration of 12 months.

Those in the age group of 25 – 50 years, satisfying the DSM IV diagnostic criteria for alcohol withdrawal syndrome and also fit for nasya, was selected after due written consent. The assessment was done with the Clinical Institute Withdrawal Assessment for Alcohol Scale-revised (CIWA-Ar) on the 1st day and the 7th day of the intervention [23].

RESULTS

Among the symptoms of the CIWA-Ar, the response attained of the 2 groups was compared with the student t test before and after the intervention. The response of the each group was also assessed before and after the therapy. The efficacy of the therapy was compared by performing the paired t test [24].

Table-1: Efficacy of the intervention on nausea and vomiting

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	2.65	0.35	86	2.30	1.62	6.32	< 0.001	> 0.05
Control	2.40	00	100	2.40	1.67	6.43	< 0.001	

In the symptom of nausea and vomiting, there were highly significant results in both the groups, but on comparison there was no statistical difference between the two groups in efficacy.

Table-2: Efficacy of the intervention on tremor

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	3.20	0.85	73	2.35	1.66	6.31	< 0.001	< 0.05
Control	3.15	0.40	87	2.75	1.21	10.17	< 0.001	

In tremor, the significance was at 1% level in both the groups, but on comparison, the control group showed significance over the study group at 5% level.

Table-3: Efficacy of the intervention on paroxysmal sweating

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	3.55	0.80	77	2.75	1.68	7.31	< 0.001	< 0.05
Control	3.25	0.25	92	3.00	1.48	9.02	< 0.001	

There was also highly significant result in both the groups in paroxysmal sweating and also the control group was better than the study group in relieving the peculiar symptom as per the observation.

Table-4: Efficacy of the intervention on anxiety

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	1.95	0.15	92	2.75	1.58	5.11	< 0.001	< 0.05
Control	1.85	0.30	83	3.00	1.61	4.32	< 0.001	

In the symptom of anxiety, there was also significant improvement in both the groups, but on comparison, the study group showed significance over the control at 5% level.

Table-5: Efficacy of the intervention on agitation

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	1.90	0.8	57	1.10	1.37	3.58	< 0.001	> 0.05
Control	2.15	0.30	86	1.85	1.38	5.96	< 0.001	

On agitation, it was observed that there was significant results at 0.1% level in both the groups after the treatment, but there was no difference statistically between the groups on comparison.

Table-6: Efficacy of the intervention on auditory hallucination

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	1.15	0.3	73	0.85	0.75	5.10	< 0.001	< 0.05
Control	1.25	0.20	84	1.05	0.99	4.70	< 0.001	

In the symptom of auditory hallucination, it was observed that there were highly significant results in both the groups with the control showing statistically better results on comparison.

Table-7: Efficacy of the intervention on Head ache, fullness in head

Group	Mean score		% of relief	Mean	SD	t	p	Unpaired t
	BT	AT						
Study	2.15	0.35	83	1.80	1.32	6.09	< 0.001	> 0.05
Control	1.85	0.15	91	1.70	0.98	7.77	< 0.001	

On headache and fullness in head among the included, there was also much significant improvement in both the groups of the study but there was no statistical difference between the groups on comparison.

On assessing the percentage of relief 25% were having moderate improvement, 45% were having marked improvement, 20% were cured and only 10% were unchanged after the therapy in the study group.

DISCUSSION

Among the seven symptoms which were studied after the intervention, it was found that there was high significant response in almost all the symptoms in both the groups (P< 0.001). This indicates that both the therapy is quite effective in managing the symptoms of alcohol withdrawal.

While comparing the efficacy between the groups, there was variation in the significance among the symptoms. The significant difference was observed in the symptoms of tremor, paroxysmal sweating, anxiety and auditory hallucination. The symptoms not responded was nausea and vomiting, agitation and head ache or fullness of the head.

The nasya which was performed is aimed at the sodhana of the head by the efficacy of the procedure and clears the corresponding srotuses. The type of nasya mentioned for the Vatha or Vatha associated or a dominant combination is the brimhana nasya [25]. Here we used the drug Ksheerabala taila which is Vatha as well as Pitta samana in nature. Also it is brimhana as well as indriya prasadana [26]. Tremor as well as the hallucinations, mainly auditory are much more Vathika in nature and responded as expected.

The anxiety and the associated disorders are Vatha as well as Pitta in manifestation in the initial stages and at a later stage becomes much more Vathika. So a drug like ksheerabala taila is having much relevance in the same and also the symptom responded as expected. Paroxysmal sweating is also due to aggravated Pitta resulting from the metabolism of madya, which is better managed by nasya with

ksheerabala taila. The auditory hallucination is much more Vathika in nature and gets responded to the nasya protocol.

The symptom of nausea and vomiting is much more Kaphaja in nature and needs a sodhana drug with much more Kapha samana property. The head ache or fullness of head is also Kaphaja in nature and needs a different approach with much more Kaphahara drugs. The patients with the agitation also, were not improved and seem to have responded to a much more Pittahara protocol including snehapana. The Nasya is not a perfect protocol for the management of Alcohol withdrawal, but is a very fruitful initial approach to be followed by other treatments, as the demand of the condition.

As per many studies Nasya drug is believed to have targeting the limbic system which is having a key role in neuroendocrine and the autonomic function²⁷. The area sringataka mentioned in the Ayurvedic treatises have to be discussed in this regard.

CONCLUSION

Madya and its related conditions are very much relevant in the society. Ayurvedic therapy seems quite effective for the same. The ideal protocol includes the sodhana, samana, individual, familial as well as social rehabilitary measures including the yoga and pranayama, as per the demand of the condition. This study is an initial attempt to assess the efficacy of the Ayurvedic strategy in the management of alcohol related disorders. Marsa nasya with Ksheerabala taila is effective as the Allopathic counterpart in the initial management of alcohol withdrawal syndrome. The eternal science of Ayurveda is able to answer the existing problem of alcohol and its abuse in the society.

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