

**CLINICAL EFFICACY TWAKNAGAPUSHPADI CHURNA (PANA) IN MADATYAYA
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ABSTRACT

The habit of alcohol consumption leads to its addiction and causes alcohol intoxication. In this modern era because of globalization, there is more stress on human beings like increasing demand from family & friends, competitive work in occupational area; lifestyle disorders etc. are pushing employees, executives & even common men into high pressure. To resolve this problem number of people will go for addiction & one of which very common is that of alcohol. It is a drug which gives pleasure & relaxation to millions. The *Atisevana* or *Mithya yoga* of *Madya* causes '*Madatyaya*'. The classics of *Ayurved* narrate this disease *Madatyaya* with its types, symptoms (i.e. *Shwasa*, *Sharira Kamp*, *Trishna*, *Daha*, *Jwara*, *Aruchi*) and treatment. Excessive consumption of *Madya* directly affects '*Hridaya*', which is one of the vital organs of body and it is mainly associated with the *Rasavaha srotas*, *Manovaha Srotas* and *Oja* (Ch. Chi. Chapter 24) *Twaknagapushpadi Churna* are mainly seems to pacify the *tridoshas* and also normalizes the *Rasavaha srotodushti* which is the main aspect in the *samprapti*. As it is useful in *Sarvavidha Madatyaya*.

KEYWORDS: *Madya, Madatyaya, Twaknagapushpadi Churna.***INTRODUCTION**

According to Ayurveda, there are 10 *gunas* (properties) of poisons by which it act on body. These are *Ruksha*, *Ushna*, *Tikshna*, *Sukshma*, *Ashu*, *Vyavayi*, *Vikasi*, *Vishada*, *Laghu* and *Apaki* (Su.Kalp.Chapter 2) & *Anirdeshya rasa* (Ch.Chi Chapter 24) which exactly similar with all *gunas* (properties) of *Madya* except *Apaki* or *Anirdeshya ras*. Instead of *Apaki* or *Anirdeshya rasa*, *Madya* has *Amla rasa*. So the *Madya* is appropriately termed as *Visha*, by which *Madya* is so harmful causing opposite effects on body that's way it first make improper metabolism to create '*Dhatu shraithilya*' and painful crises in body. If alcohol (*Madya*) consumption goes to higher level i.e. excessive doses, it suppressed immunity of body and make '*Oja kshaya*' termed as *Madatyaya*, also sometimes it result to death. According to W.H.O. study, alcohol related problems account for more than 1/5th of hospital admissions, 18% of psychiatric emergencies, more than 20% of all brain injuries and 60% of all injuries reporting to India's emergency room. The average alcohol-dependent person decreases his or her life span by 10 to 15 years, and alcohol contributes to 22,000 deaths and two million nonfatal injuries each year. In Ayurveda *Twaknagapushpadi Churna* has mentioned by *Acharya Sushruta* in context of *Madatyaya*, because it fulfills the

main *chikitsa siddhant* given in different *ayurveda* texts and can be easily prepared by using easily available component drugs like *Twak*, *Dhanyak*, *Ela*, *Jiraka*, *Maricha*, *Nagkeshara*, *Pippali*, *Madhuka*, (*Shu.Utt. 47/31, Pg. 336*) *anupan* with *Kapittha swaras*, *Parushak swaras* and *jala*, This *Churna* can be easily available and the components are mainly seems to pacify the *tridoshas* and also normalizes the *Rasavaha srotodushti* because maximum drugs work as *Deepana*, *Pachana*, *Anulomana*, *Hrididya*, *Chardihar*, *Balya* and *Vajikarana*.

AIM AND OBJECTIVES OF THE STUDY

To find out the efficacy of "*Twaknagapushpadi Churna (pana)*" clinically in *Madatyaya* or Chronic alcoholism

OBJECTIVES

1. To carry out the conceptual and clinical study of "*Madatyaya*" or "Chronic Alcoholism".
2. To assess the clinical efficacy of "*Twaknagapushpadi Churna (pana)*" in the management of "*Madatyaya*".

To compare the results of treatment group with placebo group

Study Design**Type of study**

- Randomized single blind clinical study.
- Patients were observed before and after treatment.

Place of study

Total 60 patients were taken for Clinical trial was conducted at PRAYAS De-addiction Rehabilitation and Research Centre, Kolar road, Bhopal. Here, patients are admitting for 8-10 weeks on IPD basis and treated according to the need of patient and daily regimen, which includes early morning yoga, exercise in the evening, gardening, physical, and mental games, beside the individual and group counseling sessions as per their schedule.

Selection of Patients

A special pro-forma of case paper was designed to collect and record the information verbally reported by the patients. Here the signs and symptoms of *Madatyaya* described by the classics were used as the tools for assessment of the Variables. Consent of the patients was taken prior to commencement of clinical trials.

Selected patients for the clinical trials were divided in two groups

Trial Group (Group A):- 30 patients were included in this group with Daily regimen. They were given the trial drug as per the following dosage schedule.

Table 1: Dosage schedule (Group A).

1.	Drug →	<i>Twaknagapushpadi Churna.</i>
2.	Sevankala →	Adhobhakta (After Meals) Twice - morning and evening.
3.	Matra →	10 gm in divided doses.
4.	Anupan →	<i>Kapitha swaras, Parushak swaras</i> , equal amount of water
5.	Kalavadhi →	For 60 days

Control Group (Group B):- 30 patients were included in this group. They were given the placebo drugs.

Regular assessments were taken on 20th, 40th and 60th day respectively.

Counseling by experts of De-addiction centre:- Simple but regular counseling on individual, spouse and family level was done to all patients. Patients were made aware about the hazards of *Madatyaya*. The nature of disorder was explained and reassurance was given. The patients were helped to deal with emotional problems.

Inclusion criteria

- All the patients were diagnosed & assessed thoroughly on the basis of Ayurvedic classical signs & symptoms.
- Age group above 18 yrs and below 70 yrs of age.
- Patients consuming Alcohol more than 01 years.

Exclusion criteria

- Age below 18 yrs – As the number of patients of this category was Negligible at the centre.

- Occasional drinkers and Patient in emergency condition due to alcohol.

Patients with high risk diseases e.g. Diabetes Mellitus, hypertension, severe jaundice, advanced stage of liver cirrhosis, Advanced stage of liver cirrhosis, ascitis etc. there severe medical illness. Parameter for Evaluation;

Subjective Parameters

The symptom of *Madatyaya* are *Shwasa, Aruchi Daha, Trushna, Sharira kampa, Jwara.*

Objective Criteria

- Total S. bilirubin is done.

OBSERVATION AND RESULT**Table 2: Overall Effect of Group A and Group B.**

Assessment	Group A	Group B
Complete remission	02	00
Markedly Improved	12	00
Moderate Improved	13	00
Mild Improved	03	12
Unchanged	00	18

Table 3: An Effect on Subjective pare meter: (Wilcoxon matched paired single ranked test).

Chief complains	Group	Mean score		% Relief	S.D. (±)	S.E. (±)	't'	P
		B.T. Mean ± S.D	A.T. Mean ± S.D					
<i>Shwasa</i>	A	2.7±0.466	0.267±0.450	90	0.774	0.141	17.22	<0.001
	B	2.7±0.466	1.667±0.479	38.25	0.669	0.122	3.46	<0.01
<i>Trushna</i>	A	2.267±0.450	0.600±0.498	73.53	.479	0.087	19.03	<0.001
	B	2.8±0.407	1.767±0.430	36.89	0.61	0.112	2.204	<0.05
<i>Daha</i>	A	2.667±0.479	0.600±0.498	77.50	0.25	0.046	44.61	<0.001
	B	2.433±0.504	1.333±0.661	45.21	0.7112	0.130	4.46	<0.01

Aruchi	A	2.067±0.640	0.733±0.691	64.49	1.241	1.241	5.884	<0.01
	B	2.067±0.640	1.533±0.507	25.78	0.776	0.142	1.25	<0.10
Sharira kampa	A	2.67±0.420	0.53±0.237	80.14	0.64	0.118	18.32	<0.001
	B	2.70±0.498	1.57±0.237	41.85	0.899	0.164	1.12	<0.20
Jwara	A	2.60±0.498	1.33±0.237	48.84	0.82	0.151	8.38	<0.001
	B	2.56±0.126	1.97±0.824	23.43	0.889	0.162	1.07	<0.20

Note: Significant = S, Insignificant =IS, Highly significant =HS

Table 4: Intergroup Madatyaya Symptoms Comparison in Group A and Group B (Mann-Whitney Test).

Variable	Groups	Mean diff.	SD±	SE±	P	S
Shwasa	A	2.433	0.774	0.141	0.01	S
	B	1.033	0.669	0.122		
Aruchi	A	1.333	1.241	1.241	0.0016	HS
	B	0.533	0.776	0.142		
Trushna	A	1.667	0.479	1.667	0.0334	S
	B	1.033	0.615	0.112		
Daha	A	2.067	0.254	0.046	0.0355	S
	B	1.100	0.711	0.130		
Sharira Kampa	A	2.14	0.648	0.118	0.00135	HS
	B	1.13	0.899	0.164		
Jwara	A	1.27	0.827	0.151	0.001	HS
	B	0.60	0.889	0.162		

Table 5: Effect on Tottle S. Bilirubin Test.

Groups	Mean Diff.	SD±	P	S
A	1.033	0.235	<0.01	S
B	0.453	0.568	<0.50	IS
Intergroup	-	0.849	<0.001	HS

DISCUSSION

Effect on Shwasa

Trial Group A Shows 90 % improvement in *Shwasa* which is statistically highly significant on the other hand Group B shows improvement of 38.25% which is statistically significant. Intergroup comparison shows there is a significant difference between both the groups in treating and Group A is more significant than Group B that the level of $P < 0.01$. Hence it can be said that drug *Twaknagapushpadi Churna* is highly significant to treat the *Shwasa* symptom of *Madatyaya* than placebo.

Effect on Trushna

Trial Group A Shows 73.53% improvement in *Trushana* which is statistically highly significant on the other hand Group B shows improvement of 36.89% which is statistically significant. Intergroup comparison shows there is a significant difference between both the groups in treating and Group A is more significant than Group B that the level of $P < 0.05$. Hence it can be said that drug *Twaknagapushpadi Churna* is significant to treat the *Trushna* symptom of *Madatyaya* than placebo group.

Acharya Charaka says *Trushana* present in *Madatyaya* should be treated itself by madya. The effect observed in trial group may be due to properties of Deepana, Pachana and srotosodhaka and vattapitta shamak properties of drug. Deepana, pachana brings out digestion of

amadosha and clarifying rasadhusti and hence proper formation and nourishment of rasadhātu.

Effect on Daha

Trial Group A Shows 77.50% improvement in *Daha* which is statistically highly significant on the other hand Group B shows improvement of 45.21% which is statistically significant. Intergroup comparison shows there is a significant difference between both the groups in treating and Group A is more significant than Group B that the level of $P < 0.03$. Hence it can be said that drug *Twaknagapushpadi Churna* is significant to treat the *Daha* symptom of *Madatyaya* than placebo group.

Effect on Aruchi

Trial Group A Shows 64.49 % improvement in *Aruchi* which is statistically significant on the other hand Group B shows improvement of 25.78% which is statistically insignificant. Intergroup comparison shows there is a high significant difference between both the groups in treating and Group A is more significant than Group B that the level of $P < 0.001$. Hence it can be said that drug *Twaknagapushpadi Churna* is highly significant to treat the *Aruchi* symptom of *Madatyaya* than placebo group.

Aruchi means anorexia or no desire of food intake. As the patients of *Madatyaya* roga have also improper digestion, anorexia is often there. The reason for good result in Group A contains mostly Deepana, Pachana drugs. So it helps to cure Anorexia.

Effect on Sharira Kampa

Trial Group A Shows 80.14% improvement in *Sharira Kampa* which is statistically highly significant on the other hand Group B shows improvement of 41.85% which is statistically insignificant. Intergroup

comparison shows there is a high significant difference between both the groups in treating and Group A is more significant than Group B that the level of $P < 0.001$. Hence it can be said that drug *Twaknagapushpadi Churna* is highly significant to treat the *Sharira Kampa* symptom of *Madatyaya* than placebo group. Alcohol has a slowing effect on the brain and over the period of time brain adjusts its own chemistry to compensate for the effect of the alcohol.

Effect on Jwara

Trial Group A Shows 48.84% improvement in *Jwara* which is statistically highly significant on the other hand Group B shows improvement of 23.43% which too is statistically insignificant. Intergroup comparison shows there is a high significant difference between both the groups in treating *Jwara* and Group A is more significant than Group B at the level of $P < 0.001$. Hence it can be said that drug *Twaknagapushpadi Churna* is highly significant to treat the *Jwara* symptom of *Madatyaya* than placebo group. Incidence of this symptom may be probably due to Rasa dhatu dushti. Srotorodha of rasavaha srotas leads to vimargamana of pitta dosha and hence manifesting with *jwara*. Moreover in chronic alcoholics, the basal body temperature is usually raised due to dilatation of blood vessels. The effect observed may be due to these compounds having Pachana, Deepana, drugs.

Effect on Totle S. Bilirubin Test

Twaknagapushpadi Churna (Group A), mean difference of Total Bilirubin (mg/dl) showed decrease of 1.033, whereas in Placebo group there is decrease of 0.453 showing the insignificance in treating and Upon comparing between the groups for the same there is high significant difference was observed and Group A was found to be more significant than Group B.

Probable Mode of Action of *Twaknagapushpadi Churna*

Twaknagapushpadi Churna contains eight drugs. These drugs is effective in the disease *Madatyaya* due to their Deepana, Pachana, *Rasayana*, *Preenana*, *Madahara*, *Medhya*, *Srotoshodhana*, *Aamapachana*, *Rasayana* and *Vatanulomana* properties. In *Twaknagapushpadi Churna* most of the Dravya are having Laghu, Ruksha and Tikshna Guna. All these Guna helps in increasing Dhatwagni, by enhancing the basal metabolic rate. These also help in digestion of undigested matter and their removal. Laghu and Ruksha Guna are mainly Kaphahara. Tikshna Guna due to predominance of Agni Mahabhuta acts on the channels immediately and remove the obstruction by pacifying the Kapha. Ruksha Guna has absorption property thereby helped in removing obstruction by pacifying the Kapha. Also it is Kaphaghna, Kapha is one of the main Dosha in the Samprapti of *Madatyaya*, Acharya Charak mentioned if all the Doshas are equally aggravated, then Kapha should be treated first. It's also have balya brimhana and *Rasayana* drugs which increases oja *Rasayana* properties

of dravyas also regulates the metabolism and gives immunity and strength.

Madatyaya is Tridoshaja Vyadhi affecting mainly Vata-Pitta Prakriti personalities. sobeing Vata- Pitta Shamaka it helped in Samprapti Vighatana of *Madatyaya*. Deepana Karma of the katu, Tikta rasa helps in Jatharagni and Dhatwagni Deepana. Excessive intake of alcohol leads to agnivikriti and prolonged duration of it leads to formation of Amavisha i.e toxins accumulation at various sites chiefly concerned at liver and brain tissue level. Katu, Tikta rasa by virtue of deepana and pachana guna normalizes the agni and there by promoting the proper formation and nourishment of dhatus. Along with the help of katu and tikta rasa, it helps in digestion of Ama dosha and also clarifying the srotodusti leading to normalization of vayu gati in srotas. While describing the treatment Acharya Charak clearly states that during treating *Madatyaya*, alcohol should be administered because when a Kshara (alkaline) substance gets mixed with a sour substance, the outcome becomes sweet in taste, and therefore in place of alcohol the Anupana having the Amla taste.

Anupana as a vehicle for the delivery of the drugs at the level of pathogenesis because by the virtue of properties laghu and sukshma guna it reaches directly to the target organs and shows its karma maximum contents of these drug have ushna Virya. Upadhyaya et.al in 1979 at BHU, Varanasi has proved that the substance having Ushna Virya are accountable for increasing the basal metabolic rate, oxygen consumption and accelerate the breakdown of fat at mitochondrial level. According to Ayurveda, Ushna Virya helps in pacifying Kapha and Vata. Raised metabolic rate helps in fast destruction of cell debris and clearing the micro channels. As the micro channels are cleared the Vata become Anuloma that is how Samprapti Vighatana occurs. *Twaknagapushpadi Churna* 50% Dravyas have Madhur Vipaka and 50% Dravyas have Katu Vipaka. Madhura Vipaka might have helped in Samprapti Vighatana as-Vataghna, Vata Anulomana.

Totally there is a significant result found in Trial Group A that is *Twaknagapushpadi Churna* upon Control Group B

Madatyaya is Tridoshaja Vyadhi, due to Vata and Pittaghna Karma it may have helped in Samprapti Vighatana. Madhura Vipaka may pacifies to vitiated Vata, Oja, Hridaya and cooling effect (Shamana) on the Dhatus and Srotas

CONCLUSION

Clinical researched done on *Twaknagapushpadi Churna* shows it's good effect on *anorexia*, *dyspnoea*, *thirst*, *burning sensation* fever, insomania, tremor, palpitation etc. it's shows also good effect in improvement in serum bilirubin level. so it have hepatoprotective and anti-inflammatory action. By this study we can conclude that *Twaknagapushpadi Churna* is good drug for treating

Madataya patient and it also strengthens the chikitsa sura or line of treatment given by ayurvedic classics.

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