

## AYURVEDIC MANAGEMENT OF SUBSTANCE INDUCED PSYCHOTIC DISORDER - CASE REPORT

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**ABSTRACT:** The hazardous or destructive use of any psychoactive substance, including alcohol and both legal and illegal drugs, is known as substance abuse. Substance-induced psychotic disorder appears to result from substantial drug exposure in individuals at high familial risk for substance abuse and moderately elevated familial risk for psychosis. In the current psychopharmacological scenario, the variety of substances which is able to provoke an episode of acute psychosis is rapidly increasing. Current surveys show marked increase in use of multiple substances.

A 29-year-old male was admitted in the IPD complaining that he was being controlled by some technology by implanting chips in his brain for 8 years. He began abusing drugs on multiple occasions when he was 16 years old. He doubted that people were talking about him and that they were following orders from someone else. There were self-harming behaviour and anger outburst in response to commands and all tasks were carried out in accordance with instructions. Perversion in *manas*, *buddhi*, *samjnaa-jnaana*, *smṛti*, *bhakti*, *śeela*, *ceshtaa* and *aacaara* is defined as *unmaada*, and all these *vibhramas* were seen in this case of SIPD. Here the substance induced psychosis is considered as *vishajonmaada* and its management is based on the *dosha* involvement in the pathogenesis. Treatment included *sodhana* and *samana* therapy for 33 days. PANSS score was 72 before treatment and changed to 60 after treatment and noticed significant changes in patient. This case report shows the importance of *ayurveda* management in a substance induced psychotic disorder.

**Key words:** Substance induced psychotic disorder, *vishajonmaada*, PANSS

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### INTRODUCTION

Substance induced psychotic disorders, sometimes called drug – induced psychoses, are brief psychotic syndromes triggered by substance use and persisting even for days or weeks after substance intoxication has resolved. Psychosis can manifest with hallucinations, delusions, disorganized thought, disorganized behaviour and negative symptoms such as anhedonia, flat affect, isolation or social withdrawal, which eventually lead to a loss of contact with reality. It is considered as a severe mental state requiring medical intervention. The Fifth Edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5) distinguishes substance induced psychotic disorder<sup>(1)</sup>.

*Ayurveda* explains psychotic symptoms under the broad term *unmaada*<sup>(2)</sup>. Based on

presentation of symptoms and causes, it is divided into *vaata*, *pitta*, *kapha*, *sannipaata* and *aagantuja unmaada*. The vitiated *doshas*, cause *manovaha-srotodushti* in *alpasatva* individual results in *ashta vibhrama* leading to *unmaada* <sup>(3)</sup>. This condition is considered in *ayurveda* as *vishajonmaada* as the substance use caused the *unmaada* features.

## **CLINICAL PRESENTATION WITH HISTORY**

A 29-year-old male, hailing from a middle socio-economic family, Kerala, unemployed for last one year due to the aggravation of symptoms of his morbidity. He was admitted at the Government Ayurveda Research Institute for Mental Health and Hygiene, Kottakkal with complaints of the feeling of being controlled by some others by implanting chip in his head, and being commanded to do misdemeanors through chip. He was admitted with referential uncontrolled negative thoughts, belief of being loved with celebrities, visualizing some persons, belief of having super natural powers like God by which he involved in misadventures and hurt himself, uncontrollable anger and crawling sensation throughout body. Detailed interrogation with patient revealed the history of multiple substance abuse for the last 8 years.

Patient is the first child of non-consanguineous parents and is a term baby. All the milestones were normal and he was an active child throughout the school time. He is very sensitive from his childhood. During diploma study period he started using gum for inhalation with friends just for curiosity. He couldn't finish the studies due to lack of concentration from uncontrolled gum inhalation during those time. As a part of job, he shifted to Bangalore and from there he started using multiple substances such as hash, cannabis, gum, alcohol and cigarette frequently as per availability. During this time, some odd behaviours noted by parents like reduced sleep, irritability towards sound, reduced appetite etc. After some days he started hearing sounds of commanding type and he thought that a chip is inserted inside his brain and he is under its control. After psychiatric consultation he started using antipsychotics and got relief from auditory hallucinations. Along with the medication, he continued the use of substance thus the symptoms again got aggravated.

Later he resigned from job due to disturbance with auditory commanding hallucinations. Antipsychotics didn't help him and so his illness worsened. He believed that he followed the instructions of some aliens. He had self-laugh and self-talk during this period. He heard the commands that he had extra superhuman powers like God and acts according to it. He had

self-harming tendency and he always thought that others are inserting thoughts into his brain and talking about him. He had a strong belief that celebrities are in love with him and they always came to see him and talking with him. He complained that such commands did not allow him to answer him properly to the questions put at him. He was admitted in mental hospital, Kuthiravattom, Kozhikode twice but didn't get considerable relief. No relevant family history was obtained. He is currently on antipsychotics and admitted in Government Ayurveda Research institute for Mental Health and Hygiene, Kottakkal for the management.

## AYURVEDIC CLINICAL EXAMINATION

**Table -1**  
***Daśa-vidha pareeksha***

<b><i>Dooshya</i></b>	<b><i>Dosha</i></b>	<b><i>Vaata Pitta</i></b>
	<b><i>Dhaatu</i></b>	<b><i>Rasa, rakta</i></b>
<b><i>Deśa</i></b>	<b><i>Bhoomi deśa</i></b>	<b><i>Saadharana</i></b>
	<b><i>Deha deśa</i></b>	<b><i>Sarvaśareera, manas</i></b>
<b><i>Balam</i></b>	<b><i>Rogi</i></b>	<b><i>Madhyama</i></b>
	<b><i>Roga</i></b>	<b><i>Madhyama</i></b>
<b><i>Kaala</i></b>	<b><i>Kshanaadi</i></b>	<b><i>Greeshma</i></b>
	<b><i>Vyadhyavastha</i></b>	<b><i>Puraana</i></b>
<b><i>Anala</i></b>		<b><i>Mandaagni</i></b>
<b><i>Prakṛti</i></b>	<b><i>Deha prakṛti</i></b>	<b><i>Vaata-kapha</i></b>
	<b><i>Maanasa prakṛti</i></b>	<b><i>Raajasa taamasa</i></b>
<b><i>Vayah</i></b>		<b><i>Youvana</i></b>
<b><i>Satva</i></b>		<b><i>Avara</i></b>
<b><i>Saatmya</i></b>		<b><i>Sarva-rasa saatmya</i></b>
<b><i>Aahaara</i></b>	<b><i>Abhyavaharana sakti</i></b>	<b><i>Madhyama</i></b>
	<b><i>Jarana sakti</i></b>	<b><i>Madhyama</i></b>

Pulse – 72 /mt, Heart rate -70 beats /min, BP-120/80 mmHg, Respiratory rate -16/min Table-

**Table 2**  
**Mental Status Examination**

<b>General appearance</b>		Lean, well dressed
<b>Eye contact with examiner</b>		Maintained
<b>Attitude towards examiner</b>		Cooperative
<b>Comprehension</b>		Intact
<b>Gait and posture</b>		Normal
<b>Motor activity</b>		Intact
<b>Social manner</b>		Maintained
<b>Rapport</b>		Established with ease
<b>Mannerisms</b>		Absent
<b>Speech</b>	Rate and quantity	Normal
	Volume and tone	Normal pitch
	Reaction time	Normal
	Flow and rhythm	Smooth
<b>Mood</b>		Sad
<b>Affect</b>		Euthymic, incongruent with mood
<b>Thought</b>	Form and process	Continuous, thought block, Circumstantiality, thought broadcasting, thought insertion, Thought withdrawal
	Contents	Referential delusion, delusion of control, grandiose, delusion, erotomaniac delusion
	Perception	Auditory hallucination, visual hallucination, tactile, hallucination
<b>Cognition</b>	Consciousness	Conscious
	Orientation to time, place & person	Intact
	Attention & Concentration	Intact
<b>Memory</b>	Recent	Intact
	Remote	
	Immediate	
<b>Intelligence, Abstract thinking, Visuo - spatial ability</b>		Intact
<b>Insight</b>		Grade 3
<b>Judgment</b>		Personal & social intact
<b>Impulsivity</b>		Present

**Table 3**  
**Ayurvedic Psychiatric Examination**

On ayurvedic psychiatric examination all ashta-vibhramas are present

**Time line-Addiction & Treatment history**

2013-2015	Gum inhalation (fevicol)
2015	Inhalation (fevicol), Hans, Cannabis, Beer
2016	Inhalation (fevicol), Hans, Cannabis, Beer
	Symptoms started ,psychiatric consultation , started Antipsychotics
2017-19	Hans, Beedi
	2020-21-Hans, Cannabis, Cigarette
	Admitted at Kuthiravattom Mental hospital twice
2021 November	Last substance use – Cannabis 4-5 time

**Diagnosis**

Symptoms present in patient satisfying diagnostic criteria of substance induced psychotic disorder in DSM 5<sup>(4)</sup>. All the mentioned symptoms are developed during or soon after substance intoxication. The symptoms preceded the onset of the substance and persisted for a substantial period for eight years.

**Therapeutic intervention**

**Table – 4**  
**Internal medicines**

Medicine	Dose	Anupaana	Aushadha kaala	Rationale
Kalyanakaghrita <sup>(5)</sup>	10 g	Milk	At bed time afterfood	Mangalya Medhya Unmaada-hara
Svetasankhapushpi curna (2g)	5 g	Lukewarm water	2 times a day after food	Medhya
Yasthi curna(1g) Asvagandha curna (2g)				Vaata-pitta samana

**Table 5**  
**Treatment schedule**

<b>Procedure</b>	<b>Duration</b>	<b>Medicines</b>	<b>Dose</b>	<b>Rationale</b>	<b>Observations</b>
<i>Virecana</i>	1 Day	Avipathi curna <sup>(6)</sup>	25g with luke warm water	<i>Vataanulomana</i> <i>Indriya-prasaada</i> <i>Bhuddhi-prasaada</i>	
Rookshana	2 Days	Tab Shaddarana <sup>(7)</sup> Gandarvahastadi Kashaaya <sup>(8)</sup>	2-0-2 After food	<i>Kapha haram</i> <i>Aama paacanam</i>	Appetite improved
Snehapaana	7 Days	Kalyanakagrita	30 ml- 60 ml - 120 ml-180ml -240 ml - 300 ml - 350 ml	<i>Smṛti medhaa-</i> <i>karam,</i> <i>Agnideepanam,</i> <i>Unmaada-hara,</i> addresses psychotic symptoms	<i>Samyak</i> <i>snigdhalakshana</i> attained on 7th day (Presence of <i>sneha</i> in stool, fatigue, <i>aruci</i> , nausea)
Abhyanga ushma sweda	3 days	Dhanvantaram taila <sup>(9)</sup>		<i>Dosha vilayana</i>	For attaining <i>vilayana</i> or <i>draveekarana</i> of <i>dhaatu-gata doshas</i>
<i>Virecana</i>	1 day	Avipathi curna	25 g with luke warm water	<i>Manodosha hara,</i> <i>Pittasamana,</i> <i>Koshtha sodhana</i> purpose	Patient comfortable, 8 vegas
<i>Yoga vasti</i>	8 days	<i>Sneha vasti</i> Thiktakam ghrtam <sup>(10)</sup>	75 ml	<i>Agni sthaapana,</i> <i>pittasaamaka</i>	Anger reduced
		<i>Kashaya vasti</i> Erاندamuladi nirooha <sup>(11)</sup>	750 ml	<i>Mana- prasaada</i> <i>kara</i>	<i>Vaatika</i> symptoms got reduced like auditory hallucinations reduced, Sleep improved
<i>Nasya</i>	7 days	Ksheerabala 7Avarthi <sup>(12)</sup>	1 ml	<i>Indriya</i> <i>prasaadanam</i>	Mingling with others improved
<i>Siropicu</i>	2 days	Ksheerabalataila <sup>(13)</sup>	15 ml	<i>Vaatapitta hara</i>	Auditory hallucination reduced, sleep improved, social mingling improved, anger reduced, reduction in unusual thought content

**Table 6**  
**Advice on discharge**

Medicines	Dose	Anupaana	Time	Rationale
Swethasankhapushpi curna <sup>(14)</sup> (2g) Aswagandhacurna (2g) <sup>(15)</sup> Yashti curna <sup>(16)</sup> (1g)	5 g	Lukewarm water	2 times a day after food	<i>Medhya</i>
Kalyanakaghrita	10 g	With milk	At bed time after food	<i>Unmaada naasana, Mangalya</i>

## RESULT

The assessment was done by using Positive and Negative Syndrome Scale (PANSS) which showed the total score of 72 before treatment. At the time of discharge his commanding hallucinations reduced considerably and he started mingling with others. In PANSS Scale, positive symptoms score reduced 23 to 20, negative symptoms score 12 to general psychopathology scale 36 to 30, and there was an overall change in score from 72 to 60.

## OBSERVATIONS

At the time of admission, he had symptoms of auditory hallucinations which is of commanding type. There were also delusions and impulsivity. After *rookshana* his appetite improved.

There was no improvement in patient's condition till *nasya*. Patient was cooperative with *snehapaana* and on the 7th day *samyak-snigdha-lakshana* was observed. *Snehapaana* was followed by *virecana*, with *Avipattycurna* by which 8 *vegas* were obtained. *Yogavasti* was started after *virecana* and then *nasya* was started. He restarted internal medicines. Slight improvement was noticed in attention and social avoidance after *vastikarma*. Changes noticed in auditory hallucination, delusions and other symptoms after *nasya-karma*

## DISCUSSION

Substances with psychotomimetic properties such as cocaine, amphetamines, hallucinogens and cannabis are widespread, and their use or abuse can provoke psychotic reactions resembling a primary psychotic disease<sup>(17)</sup>

*Unmaada* is a broad term comprising various kinds of psychiatric diseases which affect *manas*. *Avara-satvataa*, *taaamasika-maanasa prakṛti*, and *manobhighaata* are etiological elements that lead to the vitiation of *doshas*, resulting in *sthaana-samsṛaya* in *manovaha-siraa*, which in turn causes *unmaada*. *Vaata dosha* is important for controlling *manas*, and *vaata dosha-kopa* is the root cause of most mental illnesses. The *dosha* associated with *unmaada* determines how it is traditionally treated. *Snehapaana* is considered the most effective treatment in *vaatika unmaada*. Due to *aavarana*, *snehana* and *mṛdu-śodhana* are conducted in *unmaada*. While *virecana* is carried out in *paittika unmaada*, *kaphaja unmaada* is managed by the administration of *vamana*. *Samsarjana krama* is suggested after the *śodhana* treatment, and then *vasti* and *nasya* are advocated. The present case is diagnosed as *vishajonmaada* i.e., *unmaada* affected due to the use of psychoactive substances. There is no specific *cikitsaa-sootra* mentioned for *vishajonmaada* in classical texts. Treatment is based on *dosha* predominance and medicines as well as treatment is selected according to *doshaghna* and *vishaghna* properties.

*Avipathi curṇa* is a traditional ayurvedic formulation known for its purgative action. In the context of *vishajonmaada* (acute psychosis due to toxic substances), *Avipathi curṇa*'s *virecana* (purgative) action can be beneficial. Here, the patient's symptoms mainly involved *vaata* and *pitta doshas*. *Avipathi curṇa* has *vishaghna* property hence, initially, *virecana* was done with *avipathi curṇa*. It has *rookshana* action which was helpful in preparing the *koshtha* for *snehapaana*. *Virecana* helps to render improvement in *nidraa*, reducing *ushnata* and aggression (18), which was reported by a study done by Rajeena et al., in 2005. This is for reducing impulsivity and to make patient adaptive for further management. Prior to *snehapaana*, initially *rookshana* was done to correct *agni*. Patient had complaints of poor appetite and *aruci*. *Rookshana* was done for two days using *Shaddharana* tablet and *Gandharvahasthadi Kashaya* having *anulomana*, *aama-paacana* and *kapha-hara* properties. Appetite improved after *rookshana* process.

*Snehapaana* was done with *Kalyanaka ghrita* for seven days with a starting dose of 30 ml and the dosage was increased up to 350 ml. Ingredients of *Kalyanaka ghrita* have *deepana*, *medhya*, *vishaghna* and *unmaada-hara* properties which were mentioned in *unmaada cikitsa*. *Abhyanga* and *ooshma-sveda* were done with *Dhanwantharam Taila* having *unmaada-hara* property which aids in *doshavilayana*. After that, *virecana* with *Avipathi curṇa* was given to alleviate *pittadosha* as this *curṇa* has *alpavyaapat* and *sukhavirecaka* action. *Vasti* enhances *mana-sareera śuddhi*, and that is the drug of choice to alleviate *tridosha-kopa* in the body.



Tiktaka ghr̥ita is the drug used for *sneha-vasti* having *pitta śamana*, *unmaada-hara* and *gara-hara* actions and *Kashaaya vasti* with Erandamooladi kashaya was done along with it. After *vasti-karma* considerable changes were noticed in auditory hallucination and sleep quality.

*Nasya* is effective to clear *srotorodha* in *uttamaanga*. *Pratimarśa nasya* was done with Ksheerabala (7) for seven days, which has an action more on the *uttamaanga*. It has *br̥mhana*, *srotassodhana*, *indriya-prasaadana* and *rasaayana* properties. Improved socialization noticed after the *nasya* procedure. *Siropichu* was done with Ksheerabala taila having *vaata pitta-hara* action for two days.

After treatment a significant reduction was attained in the PANSS score. Changes noted at the time of discharge were a reduction in commanding hallucinations and impulsivity. Sleep and socialization were also improved.

## CONCLUSION

The significant side effects of the current psychotic medications open a need for better interventions. Ayurvedic management including *śodhana* and *śamana* provided significant results in the management of substance induced psychotic disorder. The treatment promising better management and improving the quality of life. More conceptual and clinical researches are needed for generalization of results.

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