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CASE STUDY

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An Ayurvedic Approach for Polysubstance Dependence w.s.r. to *Madatyaya* – A Case Study

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Abstract

A poly substance dependent person is one who is addicted to three or more substances psychologically with no specific preference for any one substance. In these patients, alcohol is among the most commonly abused substance[1].Some studies have shown that adolescents have one of the highest rates of polysubstance dependence[2].According to *Ayurveda* all the *MadakariDravya* which causes *Mada* to the person comes under the classification of *Madatyaya/Panatyaya*. It is a *TridoshajaVyadhi*(disease caused by involvement of all three *Doshas-Vata, Pitta* and *Kapha*). It mainly vitiates *Ojas,*because*Madya(Madakaridravya)* contains opposite quality of ojas. Hence aneffort was made through *Shodana (Vamana, Virechana, Nasyakarma*) to treat the ill effects of poly substance use.

Keywords

Ayurveda, Madatyaya, Polysubstance dependence, Vamana, Virechana, Nasya

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INTRODUCTION

Person diagnosed with poly substance dependence is addicted to many substances often three or more, with no particular preference to any one specific substance. This can lead to significant physical, emotional, social and occupational distress. According to Diagnostic and Statistical Manual of Mental Disorders(4th edition; DSM–IV) the below mentioned case study fulfills criteria for identification of substance dependence in this patient. A patient has builds a level tolerance to different substances and needs more and more of the substance to feel the same effects that he felt during the initial use.The Patient can't stop taking the drug once he starts using it and continues to use despite of the knowledge of its harmful effects to one's health. Hededicates much of his time and energy to chasefor the next high and recoverfrom being intoxicated and avoiding withdrawal symptoms. He stops spending time with sober people in favor of being around active substance users[3].

A CASE REPORT

A 21 year old male Hindu patient belonging to the middle socio economic class presents with complaints of Alcohol use, Ganja use, Cigarette use since 4 yrs. Reduced intake of Food, Reduced interaction with family members, Patient was getting irritated for small things, Reduced activities in his daily Routine and Patient prefers to be alone at home since 1 ½ to 2yrs. Frequent demands for money and Lying spending excessive time in the company of his friends outside his house was worsened since 1 ½ to 2yrs and was brought to SKAMCH & RC, Bangalore for better management.

EXAMINATION OF PATIENT

- General condition of the patient is stable.
- Temperature - A febrile
- Pulse rate- 74/min
- BP – 110/80 mmofHg
- Pallor - Absent
- Icterus - Absent
- Weight – 60Kg
- Height –185 cms
- RS – NBVS
- CVS – S1 S2 heard

Mental status and CNS examination

- Conscious
- Oriented to time, place and person
- Attitude towards examiner – not fully cooperative guarded at times

- Gait and posture – normal

ASHTAVIDHPARIKSHA

- *Nadi*– 74bpm
- *Mala* – 1 to 2 per day hard stools
- *Mutra* – 3 to 4 times/day
- *Jivha –Aliptata*
- *Shabda –Prakrutha*
- *Sparsha –Prakrutha*
- *Druk –Prakrutha*
- *Akriti –Madhyama*

DASHAVIDHAPARIKSHA

- *Prakriti – Pitta Vata*
- *Vikriti –Madhyama*
- *Saara –Madhyama*
- *Samhanana –Madhyama*
- *Pramana* – Ht-185 cm
  Wt-60 kg
- *Sathmya – Sarvarasasatmya*
- *Satva – Avara*
- *Aahara Shakti –*

Abhyavaranashakthi –Avara

Jaranashakthi – Avara

- *Vyayamashakti –Madhyama*
- *Vaya –Madhyama*

PAST HISTORY

No H/O of DM, HTN, T.B, Asthma or any major illness.

No H/O of any Surgery.

NIDHANA

Aharaja –Teekshna, Rooksha, Amlaannapana

Viharaja –Avyayama, Divaswapna, Ratrijagarana.

Manasika –Pragnyaparadha, Shoka.

Abheshaja–Alcohol,Ganja,

Cigarette.(Patient had a habit to use some eye drops and tablets to over come these effects)

SAMPRAPTHI GHATAKA

Dosha – Tridosha, Rajas, Tamas

Dooshya- Rasa, Oja

Agni – Jataragnimandhyajanya, Dhatwagnimandhyajanya

Ama – Jataragnimandhyajanya, dhatwagnimandhyajanya.

Srotas – Rasavaha, Manovaha.

Srothodushtiprakara – Sanga

Udbavasthana – Amashayadbhava.

Adhishtana – Hrudaya

Vyakthasthana – Sarvashareera

Marga – Madhyama

Sadhyasadhyatha – Kruchrasadhya

DOSHA LAKSHNA

Dosha – Lakshana

Vata- IndriyaBhramsha

Pitta – Alpanidra, Mandaanala

Kapha – Alasya,Gourava, Atinidra in diwa

Rajas – Krodha, Dukhabahulata

Tamas – BuddhiNirodha,Agyana,Nastika, Akarmasheelata.

TREATMENT APPROACH

- *Shirodhara* with *Brahmitaila*
- *SarvangaAbhyanga* with *Moorchitatilataila*
- *Patrapindasweda*
- *Vamana Karma*
- *Virechana Karma*

(For both *Vamana Karma* and *Virechana Karma*, *Snehapana* with *Ashwagandagritha* till *samyaksnigdhalakshanas* and *SarvangaAbhyanga* with *Moochitatilataila* was used, for *VamanaKarmaMadanaphalapippalyadiyoga* and for *virechana Karma*with*Trivruthavalehya* was given)

- *Nasya Karma*

OBSERVATION (After Treatment)

- Interaction with family members is improved
- Improved food intake.
- Improved motivation to quit substance.
- Improved tolerance for irritation.

DISCUSSION

"*Buddimlumpathiyathdravyammadakaritaduchyathe*"[4] According *SharangadharaSamhitha*, *MadakariDravya* is that intake of which produces*Mada*(disturbance of the intellect). *AcharyaCharaka* has explained different stages of *mada*[5].According to modern science,addictions are mainly of two types;drug addiction(Alcohol,tobacco, cannabis, opioids, etc) and behavior addiction (Gambling, internet etc). There is high prevalence rate in India for various substances like Alcohol(21.4%),Cannabis(3.0%),Opioids(0.7%), and Tobacco (55.8%). According to one study, on prescription drugs for nonmedical use, more than half of the people who wereinterviewed said they hadobtained substance from a friend or relative. Online purchase of substance over internet was negligible. In the present case study also the patient substance was brought from his friends. In this kind of case understanding the cause *Nidanaparivarjana*,counsellingboth patient and family members plays a very important role in treatment of addiction. According to *Ayurveda*, even though *madya* has very good effects, when not consumed in proper method according to *prakruthi*,alsomode of consumption i.e., with food or without food,may result in adverse effects.

*Madya*can be compared to *Visha.Madhya* has 10 *gunas* which resembles poisons. There is difference of opinions about the number of *guna*s*of**Madyas* amongst acharyas. Thesegunas decides the toxic effects of *madya*that will be affecting on the body. Due to the properties like *Ushna*, *Tikshna*, *Sukshma*, *Vyavayi*, *Vikasi*etc, *Madya* gets rapidly spreads in the body. Alcohol has a depressant action on normal brain functioning. At first it depresses the parts of the brain that controls inhibitions leading to some activation. In small amounts it sedates and relieves anxiety. In higher doses it causes disinhibition which may be manifested in excessive talkativeness and exaggerated feelings of wellbeing.With increasing disinhibition, people can easily become aggressive and emotional. With higher doses there is increasing sedation, loss of motor control, judgment, poor reflex and balance and finally unconsciousness, coma and even death. According to studies, women become more intoxicated than men at an equivalent dose of alcohol this is due to significantly reduced activity of alcohol metabolizing enzymes in women compared to men. Women also have proportionately more fatty tissue and less body water content then men. Because alcohol is more soluble in water then in fat, a given dose becomes more highly concentrated in a female's fluid compartment than in a male's, also the ill effects of alcohol and various medical complications occur faster among women. Ganja/Marijuana/cannabis is a drug which usually comes in the form of dried flowers. The most common mode of use is by smoking using a clay pipe (chillum) in India. Cannabis is known to contain more than 400 chemicals. The main psychoactive ingredient is delta-9-tetra-hydro-cannabinol. Its actions are the result of its binding to the cannabinoid receptor, located in the brain's many cannabinoid receptors, which are mainly found in the parts of the brain that influence cognitive, sensory and time perception and coordinated movement. Effects of cannabis includerelaxation, euphoric feeling, and altered space-time perception, alteration of sensory perception, disorientation, and fatigue and stimulation of appetite. The effects of smoking cannabis begin immediately after the drug enters the brain system and lastsfor approximately 1 to 3 hours. If it is consumed along with food or drink, the immediate effects begin more slowly, usually within 1 hour and but last longer, for as long as 4 hours. Within a few minutes after inhaling cannabis smoke, there

is an increase in heart rate, may increase by 20 to 50 beats per minute or even double. The bronchial passages relax and become enlarged, and vasodilatation in eyes, making the eyes looks red. More than 3000 chemical constituents have been identified in smokeless tobacco, while more than 4000 are known to be present in tobacco smoke. Among these Nicotine, is the most addictiveto tobacco users. Nicotine is 1000 times more potentially addictive than alcohol, 100 times potentially addictive than barbiturates and 10 times more potentially addictive than cocaine or morphine.Nicotine's dopamine realizing ability is which causes pleasure through reward pathway in brain is linked to its addictive potential. However, in the long term, nicotine decreases the ability of the brain to experience pleasure. So, smokers and chewers develop tolerance, and need greater amounts of the same drug to achieve the same levels of satisfaction as before. Nicotine is also known to combine other neurotransmitters and contribute to the various effects: Acetylcholine (Arousal and Cognitive enhancement), Serotonin (Mood modulation and appetite suppression), Norepinephrine (Arousal and appetite suppression), Vasopressin(Memory enhancement), and Beta-endorphin (anxiety reduction). According to *Ayurveda* all the *madakaridravya* intake of which produces *mada* comes under *Madatyaya* or *Panatyaya.*According to *CharakaSamhita,* "*SarvamMadatyayamvidhyathTridoshamAdhikam*".[6] In this case study all the *doshas* are equally aggravated and the treatment was started with *kaphasthana* followed by *pitta sthana* and *vatasthana*. *VamanaKarma*(*Snehapana* with *AshwagandaGritha* till *SamyaksnigdhaLakshanas*, during *vishramakalasarvangaabhyanga* with *moorchitatilataila*, *Bashpasweda*followed by*Kaphautkleshakaraahara* was given.*Vamana* was done with *Madanaphalapippalyadi yoga*(*Vegiki* – 6 *vegas,Laingiki – Samyak,Antiki – Pittanta).* *TarpanadiSamsarjana Karma* was given.*Vamana* is very usefullin removing fat soluble waste materials. It also does total Biopurification of body.*Virechana* is not indicated in *Madatyaya*, but it is not an absolute contra indication. *Virechana is avoided* in acute intoxication or in severely emaciated or debilitated chronic alcoholics. *Virechana* is indicated in *Madatyaya*in*BhelaSamhita*. After 8 days of *pariharakala* from 9th day *Snehapana* with

AshwagandaGritha till *samyaksnigdhalakshanas* attained, during *vishramakalasarvangaabhyanga* with *moorchitatilataila* followed by *bashpasweda*,*Virechana* with *Trivruthavalehya* 70gms was given (*Vegiki-18vegas, Laingiki-samyak, Antiki-Kaphanta).Nasya*is having local, general as well as systemic action as per the *ayurvedic parlance*. *Nasya*acts on the *siras*, which is not only themain*marma*, but also the seat of *prana*, *manas*and the *indriyas*. The procedure of *nasya* stimulates the limbic system, which is amain factor here, which plays important role in emotional, memory and learning functions. *Ksheerabalataila* is much used combination in the present complaints and is also *indriyaprasada* in action.After 8 days of *pariharakala* from 9th day *Nasya* was advised with *Ksheerabala* 101 for 12 days was given in this case study.

CONCLUSION

*Madatyaya*is excessive intake of *madakaridravya*, where it vitiates all the three *doshas* and impairment of *ojas*.As there is accumulation of morbid *dosha* in large quantity all over the body.According to *AcharyaCharaka*, in the beginning, treatment should be given to the dominant *dosha*. If all the *doshas* are equally aggravated then start treatment of *kaphasthana-pittasthana-vatasthana*. Hence a physician should carefully cultivate a conscious approach towards use of his knowledge to get best clinical results. Even though*shodhana*plays a very important role in the chikitsa, *Daivavyapashraya, Yukthivyapashraya,Sathvavajayachikitsa* all are equally essential to prevent recurrence of alcoholic disorders.

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