

## AN OBSERVATIONAL STUDY TO ASSESS THE EFFECT OF ALCOHOLISM ON THE STATUS OF OJAS

Anu. K. S<sup>1</sup>, Anjali Sivaram<sup>2</sup>

<sup>1</sup>3rd MD Scholar, Dept. of Kriya Sharira, Govt. Ayurveda College, Kannur (670561), Kerala, India

<sup>2</sup>Associate Professor Dept. of Kriya Sharira, Govt. Ayurveda College, Kannur (670561), Kerala, India

Email: [anusudhakark@gmail.com](mailto:anusudhakark@gmail.com)

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### ABSTRACT

Alcohol consumption has become an integral part of daily life in many societies. Alcohol consumption has been increased nowadays because of various reasons. This increased rate of consumption has led to various ill effects on society. *Madya* by virtue of its ten *Guna* which are opposite to the *guna* of *ojas* causes *kshaya* of *ojas* when consumed in excess. As per Ayurveda, *Ojas* is one of the life sustaining factors of the body and mind. *Ojas* get vitiated because of various factors; *Madya* is one of the factors which cause the *kshaya* of *ojas*. To assess the effect of *madya* on *ojas*, alcoholics who attended the OPD of Govt Ayurveda College Hospital, Pariyaram were screened using AUDIT<sup>6</sup> score. Fifteen individuals who scored above 8 were assessed for the status of *ojas* with a validated questionnaire developed in the Department of Kriya Sarira as a part of MD research work. The data was statistically analysed. In this study it was found that alcoholism is closely related to *ojokshaya*. Alcoholics with AUDIT score more than 12 were found to be more degree of *ojo kshaya lakshana*

**Keywords:** *ojas*, *Madya*, AUDIT questionnaire, *Madatyaya*, Alcoholism

### INTRODUCTION

Alcoholism is one of the serious social problems which is rapidly increasing every year. The fastest growth is being observed in the developing countries of Asia more particularly in India. Drinking of alcohol makes the life of a man very miserable. Alcohol not only degrades the health of the person but also affects his family and society. The World Health Organization (WHO) has listed alcoholism as one of the three most deadly killer diseases of the 20th century<sup>1</sup>. Alcoholism

results in 2.5 million deaths per year. 32,000 young people between the age of 15 and 29 die out of alcohol related causes, thus resulting in 9% of all death in that age group. At least 20% of the patients in the mental health settings have alcohol dependent or alcohol related disorders, from both the genders and all the socio economic backgrounds<sup>2</sup>.

Alcoholism is not a new problem in Ayurveda and is described in Vedic literature. But its relation with

Health and Social Problems are continuously increasing day by day. In, the varieties of disorders caused by the excessive and improper use of alcohol are well described in Ayurveda as ‘*Madatyaya*’ or ‘*Panatyaya*’. It is a *Sannipataja Vyadhi* (caused by vitiation of all). It mainly vitiates *Ojas*, as *Madya* (alcohol) has the opposite quality of *Ojas*. *Madya* is treated as poison (neurotoxic cerebral inebriant poison) when consumed in high doses and as medicine in limited doses. In this contemporary era every disease is being understood by comparing it with modern parlance. Here is a small effort to understand the features of *Madatyaya* in terms of modern perspective. We can say that *Madatyaya* is not just an alcohol intoxication, dependence or withdrawal state, but it is the condition where multiple systemic dysfunctions are involved from immediate and severe manifestations. Neurological, gastro-hepatic and cardiac manifestations are the common features seen in the patients of *Madatyaya*

Long-term use of alcohol in excessive quantities is capable of damaging nearly every organ and system in the body. The developing adolescent brain is particularly vulnerable to the toxic effects of alcohol. Ethanol, the main type of alcohol in beverages, acts as a central nervous system depressant and has psychoactive effects in small amounts. Cell membranes are highly permeable to alcohol, so once alcohol is in the bloodstream it can diffuse into nearly every biological tissue of the body. Based on its abilities to change the human consciousness, ethanol is classified as a psychoactive drug.

The effects of alcohol on humans have been well researched and documented. Alcohol consumption at low or moderate doses acts primarily as a modulator of the neurotransmitter GABA. Activation of GABA receptors causes experiences such as relaxation, relief from anxiety, sedation, ataxia, increase in appetite, lowering of inhibitions and in some people violent behavior. There is a strong correlation between high levels of alcohol consumption and an increased risk of developing alcoholism, cardiovascular disease, malabsorption, chronic pancreatitis, alcoholic liver disease and cancer. Damage to the central nervous

system and peripheral nervous system can occur from chronic alcohol abuse.

According to Ayurveda, the supreme essence of all *sapthadhathus* from *rasa* to *sukra* is known as *ojas*. Although the major seat of *ojas* is *hridaya*, it is present all over the body<sup>3</sup>. *Ojas* itself is said to be the *Tejas* of the *Dhātus*. It belongs to the *prasada baga* of all *dhathwagnis*. Just like honeybee collects nectar from different flowers, *ojas* is formed as a result of the collection of *snehamsa* from *prasada paka* of all *dhathus*<sup>4</sup>. Its normality is very essential for the proper physiological functioning and its derangement will result in various diseases<sup>5</sup>.

The homeostasis of the body is maintained by *Ojas* (Essence of body tissues) through wellbeing of the body and mind, firm and well-developed muscles, unobstructed movements, clarity of voice and complexion and normal functioning of motor and sensory organs.

As per Ayurveda, *Ojas* is one of the life sustaining factors of the body and mind. *Ojas* get vitiated because of various factors; *Madya* is one of the factors which cause the *kshaya* of *ojas*.

#### **Materials and Methods**

1. Research proforma
2. *Ojas* assessment tool

#### **Study Design:**

Observational study was done in alcoholics

Problem drinking refers to drinking alcohol at levels that are associated with short-term and/or long-term harm.

- Age: 18-80 years, both gender with the habit of taking alcohol.
- Consecutive selection
- Preliminary screening with AUDIT<sup>6</sup> questionnaire.
- Written informed consent

#### **Source of Data:**

Alcoholics who attended the OPD of Govt Ayurveda College hospital, Pariyaram were screened using AUDIT<sup>6</sup> score.

#### **Method of Collection of Data:**

#### **Inclusion criteria:**

AUDIT scores of 8 or above.

**Exclusion criteria:**

1. Suffering from other substance abuse.
2. Suffering from other systemic or psychiatric illnesses.

**Assessment criteria:**

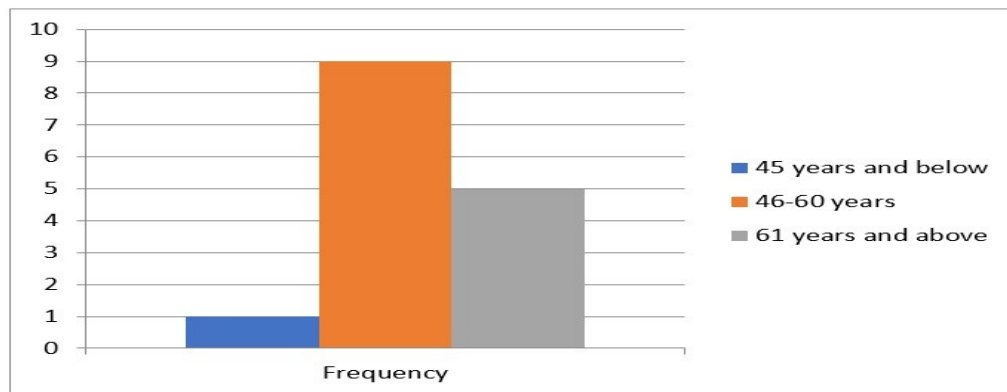
Research proforma contains questions regarding demographic data and AUDIT scale. Fifteen individuals who scored above 8 were assessed for the status of *ojas* with a validated questionnaire developed in the Department of Kriya Sharira, GAVC Kannur as a part of MD research work. It contains 37 questions based on physical, intellectual and attitude. Statistical test to be used: the collected data was tabulated using SPSS 16.0, using appropriate statistical tests.

Demographic data and other relevant information were analysed with descriptive statistics. Relationship between score of *ojas* and AUDIT score were analysed using Spearman correlation coefficient formula. The changes (one tailed) with p value < 0.05 will be considered as statistically significant.

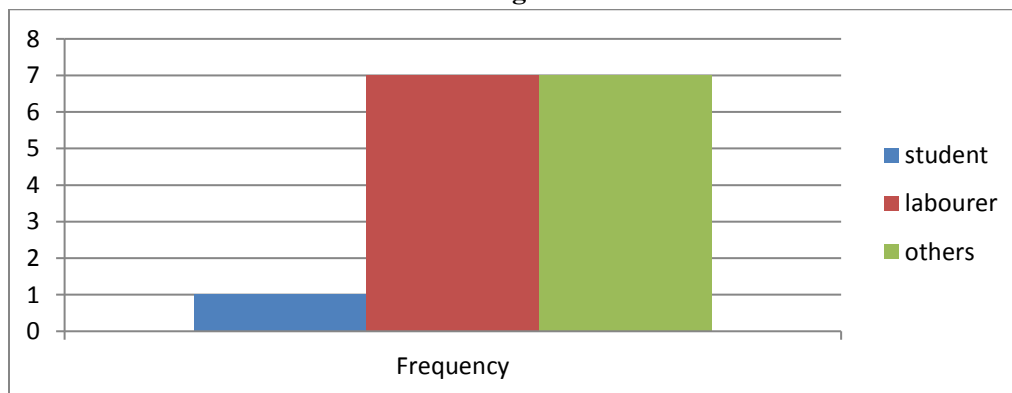
**Observation and Analysis:** The alcoholics who attended at Kriya Sharira OPD of GAVC Kannur were screened with AUDIT score and who fulfilled the inclusion criteria were selected for the study.

**Demographic Data:** out of 15 subjects, 9 were in the age group of 46-60 years, 5 were in the age group 61 years and above and one alcoholic in the age group below 45. All the 15 were male subjects. (Fig1, Fig 2)

**Fig1**

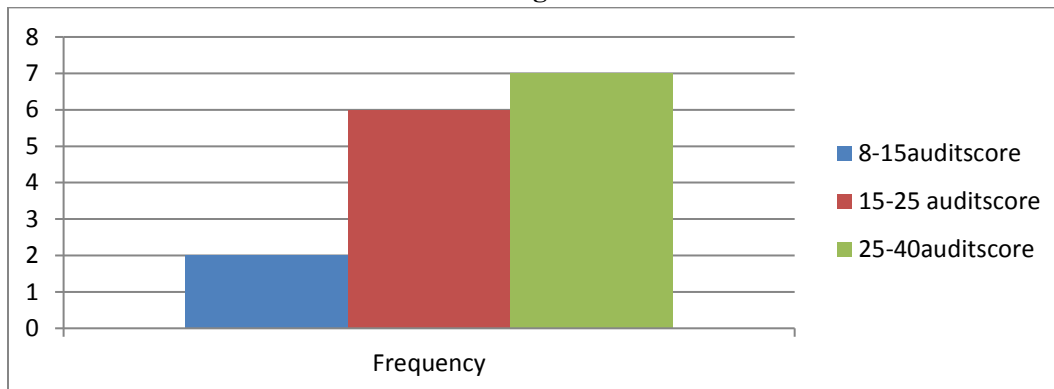


**Fig 2**



**Audit Score:** 15 alcoholics were observed with AUDIT score, among them 7 subjects had AUDIT score above 25, 6 subjects-AUDIT score 15- 25, and 2 subjects had AUDIT score 8- 15. (Fig3)

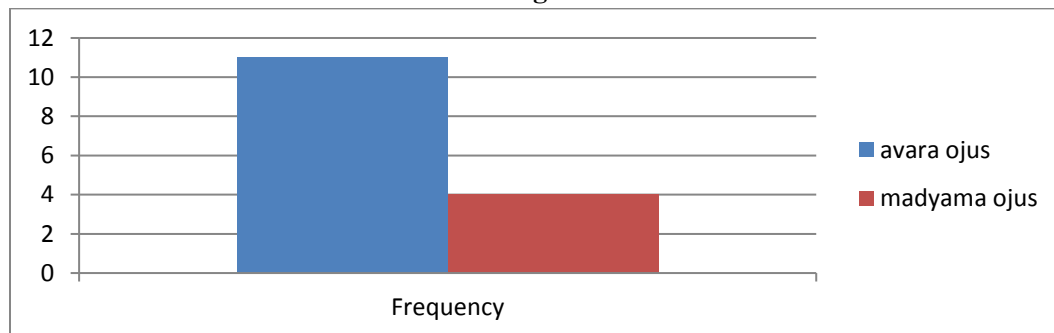
**Fig 3**



### Status of Ojas

Out of 15 subjects, *Madyama Ojas* is seen in 4 subjects and *Avara Ojas* in 11 subjects. (Fig 4)

**Fig 4**



**Results:** Significance between AUDIT score and score of *ojas* was assessed using Spearman's correlation coefficient. Here Spearman's correlation coefficient is negative 0.840. Negative correlation exists between AUDIT score and *ojas* score. If AUDIT score increases *ojas* score decreases. Spearman's correlation coefficient is -0.840 is significant at 0.01 level. Absolute value of correlation coefficient gives us the relationship of strength. Here very strong negative correlation exists between audit score and *ojas* score.

## DISCUSSION

Alcohol drinking habit is increasing nowadays. The assessment was conducted to analyse the effect of *madya* on *ojas*. *Ojas* is important for the maintenance of health. *Madya* has almost similar qualities as that of

*visha*. The qualities of alcohol are *laghu* (light), *ushna* (hot), *tikshna* (sharp), *suksma* (subtle), *amla* (sour), *vyavaaya* (pervading all of the body), *aasuuga* (swift), *ruuksha* (rough), *vikaasa* (expansive), and *visada* (drying). All these qualities are the opposite of qualities of *ojas*. Alcohol quickly and easily reaches the heart and has a direct effect on the ten qualities of the body's most subtle essence, *ojas*. Because its qualities are opposite those of *ojas* – which has a direct effect on the *sattva*, or purity of the mind – alcohol causes agitation or intoxication. The heart, which is the seat of many of the important qualities of the body necessary for life, is afflicted by the excessive intake of alcohol. Ten qualities of *madya* and other *Manasika* factors such as *chinta*, *saririka* (physical) factors like *Anasana*, *prajagara* etc. also contributed to the status of *ojas* in

alcoholics. In the study it revealed that the maximum number of patients belonged to the age group of above 45 years, this may be because of the domestic and work-related problems. This study reveals the prevalence of alcoholism is more in labour people because of physical and mental strain. Status of *ojas* is almost *avara* in chronic alcoholics. These *ojo kshaya lakshanas* are present in alcoholism also.

## CONCLUSION

*Ojas* is important for maintenance of health. *Ojas* is vitiated by various factors including *Madya*. The alcoholics were defined in terms of quantity of alcohol consumption and content of alcohol in a standard drink. Study was conducted in alcoholic with AUDIT score above 8 groups and the status of *ojas* was assessed. *Ojas* Score was lower in alcoholics with higher AUDIT score. This study shows that chronic consumption of *Madya* causes impairment of *ojas*.

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## Questionnaire to assess the status of *Ojas*

1. Are you afraid to have a visit to a hospital?  
a) Always afraid b) sometimes afraid c) never afraid
2. Do you have the feeling of fear when you are being watched by someone else?  
a) Always b) sometimes c) never
3. Do you feel any anxiety about misfortunes that will befall on you?  
a) Always b) sometimes c) never
4. Do you get tense about travelling outside alone?  
a) Always b) sometimes c) never
5. Do you have the feel of easy dislocation of joints?  
a) Always b) sometimes c) never
6. Do you feel weary?  
a) Always b) sometimes c) never
7. Do you feel any difficulty in moving your body?  
a) Always b) sometimes c) never
8. Do you feel heaviness in your body?  
a) Always b) sometimes c) never
9. Do you feel any change in complexion during the last six months?  
a) Always b) sometimes c) never
10. Do you feel exhausted even in the beginning of a heavy work?  
a) Always b) sometimes c) never
11. Do you always feel lazy?  
a) Always b) sometimes c) never
12. Do you feel drowsy while doing things?  
a) Always b) sometimes c) never
13. Do you often yawn?  
a) Always b) sometimes c) never
14. Do you feel sleepy even after having a sound sleep?  
a) Always b) sometimes c) never
15. Have you been losing consciousness frequently during the last six months?  
a) Always b) sometimes c) never
16. Do you feel that your body is getting slim during the last six months?  
a) Always b) sometimes c) never
17. Are you not able to enjoy even joyful moments?  
a) Always b) sometimes c) never
18. Do you feel that your body is dry?  
a) Always b) sometimes c) never

19. Do you feel that your lips are always dry?  
a) Always b) sometimes c) never
20. Do you feel thirsty even after drinking enough water?  
a) Always b) sometimes c) never
21. Do your nails break easily?  
a) Always b) sometimes c) never
22. Do you have hair loss?  
a) Always b) sometimes c) never
23. Do you have constipation?  
a) Always b) sometimes c) never
24. Does your body have inflammation that appears and disappears abruptly?  
a) Always b) sometimes c) never
25. Do you feel you don't have the required firmness in your body?  
a) Always b) sometimes c) never
26. Do you feel difficulty in doing daily chores?  
a) Always b) sometimes c) never
27. Can you bend down and straighten up with ease?  
a) Always b) sometimes c) never
28. Do you feel any difficulty in lifting even one-kilogram weight?  
a) Always b) sometimes c) never
29. Do you feel any difficulty while getting up from an armless chair?  
a) Always b) sometimes c) never
30. Do you feel any difficulty in getting up from bed?  
a) Always b) sometimes c) never
31. During the last six months have you felt having reduced voice while talking?  
a) Always b) sometimes c) never
32. In the past six months have you felt any strain in talking?  
a) Always b) sometimes c) never
33. Is your daily routine disturbed due to lack of memory?  
a) Always b) sometimes c) never
34. Do you find any difficulty in taking decisions regarding day today matters?  
a) Always b) sometimes c) never
35. Do you find situations in which you don't remember the tasks to be done one after another?  
a) Always b) sometimes c) never
36. Are you able to pray with concentration?  
a) Always b) sometimes c) never
37. Are you able to do things with concentration?  
a) Always b) sometimes c) never

**Total scores status of Ojus**

0-30 *Avara ojus*

30-60 *Madhyama ojus*

60-90 *Pravara ojus*

Scale	Positive questions	negative questions
Always	2	0
Sometimes	1	1
Never	0	2

## Audit Questionnaire

<b>The Alcohol Use Disorders Identification Test: Self-Report Version</b>						
<p><b>PATIENT:</b> Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest. Place an X in one box that best describes your answer to each question.</p>						
Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have six or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					<b>Total</b>	

**Source of Support: Nil**

**Conflict of Interest: None Declared**

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