

Case study

CASE REPORT ON ALCOHOL DEPENDENCE SENDROME

Abstract

Introduction: Alcohol dependence is psychiatric problem in which a person is psychologically and physically dependent upon alcohol consumption. “A chronic disease in which a person craves that contains alcohol and is unable to control his or her drinking”.

Clinical Finding: Without drink patient feel discomfort, anxious, loss of appetite, sleeping disturbance.

Diagnostic evaluation: blood test: Amylase – 31U/L, **RBS** (glucose-plasma-random) – 92mg% , **CBC Investigation** (Hb -13% , MCV – 84.3fl , MCH – 29.7picogm , total RBC count – 4.55millions/cu.mm , total WBC count – 6200cu.mm , monocytes – 04 % , granulocytes – 70% , lymphocytes – 25% , eosinophil – 01% , total platelets count – 3.38lac/cu.mm) .

Therapeutic intervention: Inj. Lorazepam 4mg × TDS , Inj. Thiamine 200mg × TDS , Inj. Neurbion fort × OD , Inj. Pantop 40mg × OD , Inj. Emset, Inj. Avil , Tab. Paracetamol 500mg × SOS.

Outcome: After treatment, patient shows improvement. His increase appetite, decrease the feeling of discomfort.

Conclusion: My patient was admitted to psychiatric male ward in AVBRH with a known case of alcohol dependence syndrome and he had complain related to disease condition and after taking appropriate treatment his condition was improved.

Keyword: alcohol dependence syndrome, alcohol withdrawal, alcoholism

Introduction

Alcohol is generally abused substances that are usually as many ‘under the influence’ stories as there are families. Alcohol is natural product that made by the reaction of fermenting sugar with yeast spores. While there are many types of alcohols, the variety in alcoholic beverages is known as scientifically as ‘ethyl alcohol’ and chemically as ‘C₂H₅OH’. Alcohol is classified into food because its contains calories; but it has no nutritive

value.(1) There are a number of alcoholic beverages make by using different source of sugar for the fermentation process for example,

1. Bear is made from malted barley.
2. Wine made from grapes or berries.
3. Whisky made from malted grains and
4. Rum made from molasses.

Alcohol has been used for centuries of obtain comfort from discomfort and tension. An average adult can metabolize 2 ounce of pure alcohol in 24 hours. Sing of intoxication appears when the blood concentration exceeds 0.2 percent. Alcohol consumption is accepted by low and supported by most people in our society as recreational act. (2)

The use of alcohol starts as a social event, leading to abuse or dependent use in some of the persons. In fact the average person with alcohol related problem is likely to be neatly dressed, to have no serious sings of alcohol withdrawal, to have a good family support and job, and may have physical or psychiatric complication. In alcohol abuse, there is defect of social, legal, interpersonal, and occupational functioning.(3) The type of liquor, amount and frequency pattern of alcohol intake and response of persons show great variability. Alcohol causes a depressant effect on the Central nervous system, resulting the changes in behavioral and mood pattern. The effects of alcohol on the CNS are proportional to the alcoholic concentration in the blood. (4)

According to experiences there are four phase of drinking behavior in alcoholics.

Phase I – Pre-alcoholic phase

Phase II – Early alcoholic phase

Phase III – True alcoholic phase

Phase IV – Chronic alcoholic phase

An overdose or excessive alcohol intake in a short period, can result in nausea and vomiting, self-harm, impulsive, unconsciousness and respiratory depression. This may cause aspiration, pneumonia or pulmonary

obstruction, liver disease, cancer of breast and mouth, throat, esophagus, voice box. Alcoholic induced hypotension and hypertension can lead to cardiovascular shock and death.(5)

PATIENT INFORMATION

Patient identification: A patient age 35 years old from baitul admitted to psychiatric male ward, AVBRH on 15/11/2021 with a known case of alcohol dependence syndrome . He is 65kg and his height is 170cm.

Present Medical History:

According to patient – patient says that ‘ I am admitted to AVBRH for the treatment of self as I am alcohol dependent , decreased sleep, decreased appetite, diarrhea, vomiting , headache and tremors .

According to patients relatives – patient relatives says that patient is chronic user of alcohol. The alcohol consumption since 10 year and the dependence pattern since 8years , currently daily drinking since 3 days and consuming 750ml/day, decrease appetite since 3days , disturb sleeping pattern since 1 day, nausea and vomiting .

Past medical history: A patient was diagnosed to have alcohol dependence syndrome at the age of 30 years when he was admitted due to sleeping disturbance and loss of appetite . Then he was admitted in hospital after 5 year with same chief complaint on 15th Nov. 2021.

Family history: There are seven members in his family including him. All family members are healthy in his family except him. He having joint family and in his family don't have any type of congenital disease .

Patient intervention and outcome : Mr. harshendrasing Rajput was admitted in hospital and is being treated for his problem with tab. Lorazepam 2mg orally , inj. Thiamine 200mg iv, inj.neurobion fort and he is taken medication properly and it help the patient stop consuming alcohol but after 8 months patient start consuming alcohol .

Etiology: The main cause of alcohol consumption is still unknown. Increase the intake of alcohol cause alcohol disorder due to chemical changes in the brain. That chemical changes of brain increase the pleasurable feeling when drink alcohol. That feeling of person makes want to drink more. Its difficult to stop drinking alcohol it means withdrawal of alcohol. Risk factor of using alcohol such as more than 15 drinks per week for male consumer and 12 drinks for female consumer, if the person consume more than 5 drinks daily, a mental health problem such as depression, anxiety or schizophrenia. High level of stress is one of the most cause of alcoholism.

Physical examination: There is not abnormality found in head to toe assessment, but patient look dull and restlessness. He is weak and not much co-operative. Decrease his weight due to loss of appetite.

Diagnostic assessment: blood test: Amylase – 31U/L , **KFT** (Urea – 31 mg/dl, Creatinine – 0.8mg/dl, Sodium – 139mmol/L, Potassium – 4.6mmol/L), **LFT** (ALT – 15U/L, AST – 22U/L, Alkaline phosphatase – 63U/L, Total protein – 6.5g/dl, albumin – 3.8g/dl, globulin – 2.7gm/dl, total bilirubin – 1.0 mg/dl), **RBS** (glucose-plasma-random) – 92mg% , **CBC Investigation** (Hb -13% , MCV – 84.3fl , MCH – 29.7picogm , total RBC count – 4.55millions/cu.mm , total WBC count – 6200cu.mm , monocytes – 04 % , granulocytes – 70% , lymphocytes – 25% , eosinophil – 01% , total platelets count – 3.38lac/cu.mm) .

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Discussion

Mr. harshendrasing Rajput age 35 years old admitted to psychiatric male ward in AVBRH on 15th Nov. 2021 with complaint of loss of appetite , sleeping disturbance, nausea and vomiting. He is known case of alcohol dependence syndrome which was diagnosed when he was 30 years old. He was admitted in the hospital and the investigation were done and appropriate treatment was started related to diagnosis. After getting treatment, he look better than before when he was admitted in hospital. He feels good and shows some improvement and the treatment was continued.

According to WHO one fourth to one third of male population consume alcohol in India.(6)

It include tolerance to alcohol consumption which means the person daily drink alcohol in higher amount they shows some effect and symptoms of mental and behavioral when some time does not take alcohol it means withdrawal. (7)

Alcohol is one of commonly used in India both in urban and rural area with high prevalence rate. Alcohol consumption is generally common in male than female. In 2005, the number of alcohol consuming people in India was 62.5 million people with 10.6 million people having alcohol related disorder. In India 20% to 30% admission in hospital due to alcohol related problems. (8)

If we can see that in the society and community people having or struggling with inability to handle the alcohol use and continuously facing a lots of problems related to alcohol consumption (depended and withdrawal) lots of

problem are created in India due to alcohol consumption such as road traffic accidents, crime, suicide , foetal alcohol syndrome, heart problem due to consuming alcohol by mother during pregnancy. (9)

Early intervention can help to prevent alcohol related problem in teenage. Teenage must have to alert about sign and symptoms that may indicated the problem related to alcohol consumption. The symptoms are loss of interest in activities and habits, red eyes, problem with co-ordination, frequent mood and behavior changes, slurred speech, memory lapses. (10)

How we can prevent the use of alcohol in teenage , set a good example related surrounding use of alcohol, talk openly , spend time with him it help to prevent the use of alcohol.

Conclusion

Alcohol depended syndrome is one of common case found in male, it is very important to treat early it will not develop complication related mental and physical health. It also importance to take preventive measures and health related counseling. My patient shows good improvement after taking treatment and treatment also still going on.

Ethical clearance: Taken from institutional ethics committee

Reference:

1. Alcohol (drug). In: Wikipedia [Internet]. 2021 [cited 2021 Nov 23]. Available from: [https://en.wikipedia.org/w/index.php?title=Alcohol_\(drug\)&oldid=1056586858](https://en.wikipedia.org/w/index.php?title=Alcohol_(drug)&oldid=1056586858)
2. Alcohol [Internet]. [cited 2021 Nov 23]. Available from: <https://www.who.int/news-room/fact-sheets/detail/alcohol>
3. Alcohol Abuse and Alcoholism: Signs, Symptoms, and Diagnosis [Internet]. [cited 2021 Nov 23]. Available from: <https://www.healthline.com/health/alcohol-use-and-abuse>
4. Banerjee N. Neurotransmitters in alcoholism: A review of neurobiological and genetic studies. *Indian J Hum Genet.* 2014;20(1):20–31.
5. Information NC for B, Pike USNL of M 8600 R, MD B, Usa 20894. 4 Physical Detoxification Services for Withdrawal From Specific Substances [Internet]. Detoxification and Substance Abuse Treatment [Internet]. Substance Abuse and Mental Health Services Administration (US); 2006 [cited 2021 Nov 23]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK64116/>
6. Eashwar VMA, Umadevi R, Gopalakrishnan S. Alcohol consumption in India– An epidemiological review. *J Fam Med Prim Care.* 2020 Jan 28;9(1):49–55.

7. Alcohol use disorder - Symptoms and causes - Mayo Clinic [Internet]. [cited 2021 Nov 23]. Available from: <https://www.mayoclinic.org/diseases-conditions/alcohol-use-disorder/symptoms-causes/syc-20369243>
8. Alcohol Use Disorder | National Health Portal Of India [Internet]. [cited 2021 Nov 23]. Available from: <https://www.nhp.gov.in/healthyliving/alcohol-use-disorder>
9. Understanding alcohol use disorders and their treatment [Internet]. <https://www.apa.org>. [cited 2021 Nov 23]. Available from: <https://www.apa.org/topics/substance-use-abuse-addiction/alcohol-disorders>
10. What is an alcoholic? How to treat alcoholism [Internet]. [cited 2021 Nov 23]. Available from: <https://www.medicalnewstoday.com/articles/157163>

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