

A Retrospective Study of Symptom Profile of Psychiatric Complications in Alcohol Dependence Patients Admitted in Psychiatric Ward in Chennai

D. Vijayanand¹, S. Dhanya Dedeepya², L. Lavanya³

^{1, 3} Department of Psychiatry, Saveetha Medical College, Kuthambakkam, Tamil Nadu, India.

²Saveetha Medical College, Kuthambakkam, Tamil Nadu, India.

ABSTRACT

BACKGROUND

Alcohol dependence is a psychiatric diagnosis in which an individual is physically or psychologically dependent on alcohol. It includes the presence of alcohol tolerance, physical dependence, and an inability to control alcohol intake. Alcohol dependence is a severe mental health problem associated with health issues, social and financial burden not only for the patient but also for the family members. The purpose of this study was to analyse the psychiatric complications in patients with alcohol dependence syndrome (ADS) admitted in psychiatry ward.

METHODS

A retrospective review of records of patients admitted in male psychiatry ward at a tertiary care center was done. The data was collected among 200 male patients admitted in the psychiatry ward from January 2019 to December 2019. Patient's demographic details like their age, gender, socioeconomic status, locality, religion, marital status, and psychiatry comorbidity were noted.

RESULTS

Secondary data was collected from 200 patients admitted in the psychiatry ward. Percentage analysis was done. The patient's demographic details like their age, gender, socioeconomic status, locality, religion, marital status and their psychiatry complications were considered. Complications like sleep disturbances, tremors and seizures were mainly observed in this study. Major findings of the study were anxiety, depression, psychosis, cognitive impairment, cravings and relapses which were common symptoms among alcohol dependence patients admitted in psychiatric ward.

CONCLUSIONS

Alcohol dependence can lead to severe psychiatric disorders. Heavy consumption of alcohol can affect brain function and alter various chemical and hormonal systems in brain known to be involved in the development of many common mental disorders. The intoxicating effects which result due to intake of alcohol can result in temporary impairment of judgment and motor skills.¹ Alcohol addiction can lead to development of tolerance and dependence, as well as abnormal social and occupational functioning.² People who are married in the age group between (30 to 49) years from rural areas with low socioeconomic status are mostly found to be dependent on alcohol.

KEYWORDS

Alcoholism, Addiction, Behaviour, Drinking

Corresponding Author:

*Dr. D. Vijayanand,
Department of Psychiatry,
Saveetha Medical College,
Kuthambakkam, Tamil Nadu, India.*

E-mail:

vijayanandsanatana1711981@gmail.com

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BACKGROUND

Alcohol dependence syndrome is a major psychiatric diagnosis, which makes an individual physically or psychologically dependent on alcohol. Chronic alcohol intake is often associated with depression, and it appears to induce major depressive disorder.³ These symptoms can persist for longer time and can lead to severe psychiatric complications like psychosis, tremors, seizures, depression, cognitive impairment. It can affect an individual's personality and behaviour. The people dependent on alcohol are broadly classified into five subtypes like young antisocial, young adult, intermediate, functional chronic severe types. The risk factors for alcoholics include sensation seeking, anxiety sensitivity and hopelessness use disorders, each associated with specific risky drinking motives.⁴

Objectives

The purpose of this study was to analyse the psychiatric complications in patients with alcohol dependence syndrome admitted in psychiatry ward.

METHODS

A retrospective review of records of patients admitted in male psychiatry ward at a tertiary care center was done. The data was collected among 200 male patients admitted in the psychiatry ward from January 2019 to December 2019. The patient's demographic details like their age, gender, socioeconomic status, locality, religion, marital status and psychiatry comorbidity were noted. Patients without any psychiatric complications and co-morbidities were excluded from the study.

Statistical Analysis

Data were collected and entered into the Microsoft Excel sheet. Statistical analysis was done by the statistical software STATA 11.0. Categorical variables were represented as frequency (percentage). Graphical representation like bar graph and pie chart were done using excel sheet.

RESULTS

Secondary data was obtained from 200 patients admitted in the psychiatry ward. Percentage analysis was done. The patient's demographic details like their age, gender, socioeconomic status, locality, religion, marital status, and their psychiatry complications were considered. Major findings of the study were anxiety, depression, psychosis, cognitive impairment, cravings, and relapses which were common symptoms among alcohol dependence patients admitted in psychiatric ward.

In this study, 188 (94 %) patients were married, 11 (5.50 %) were single and 1 (0.50 %) was separated. Result shows

183 (91.5 %) most of the patients were Hindu, followed by Christian 11 (5.50 %) and Muslim 6 (3 %). Most of the psychiatrist patient were in the low economy status 176 (88 %), high 24 (12) economic group. 178 patients were from rural, 21 were from urban and 1 from semi urban. 183 ADS 124 (62 %) was the most important diagnosis in the psychiatrist patient followed by ADS withdrawal 63 (31.5 %), ADS binge drinking 6 (3 %), ADS relapse and abstinent 2 (1 %) and others 3 (1.5 %).

Most common symptoms of ADS were sleep disturbance 39 (31.5 %) followed by tremors 25 (20.16 %), narcotic dependence 8 (6.45 %), seizures and anger outburst were 7 (5.6 %), 5 (4 %) were giddiness.

DISCUSSION

Categories of Alcohol Dependence Syndrome

Alcohol related psychiatric complications data was presented in Table 1 which was prepared based on diagnostic and statistical manual of mental disorders (DSM - 5), 2013, American Psychiatric Association, fifth Edition (5). The common complications seen in this study were sleep disturbances, tremors, seizures, giddiness, and anger outburst. People were also seen to be dependent on nicotine. There were also symptoms of psychosis, suicidal attempts, slurred speech, anxiety, and inappropriate behaviour. Cravings and relapses were also observed.

It is found from the study that various categories of alcohol dependence exist. They are ADS uncomplicated withdrawal, ADS complicated withdrawal, ADS binge drinking, ADS relapse, ADS with acute withdrawal state, ADS currently abstinent, ADS currently abstinent with relapse, ADS drug induced extra pyramidal symptoms (EPS), ADS on remission, ADS with tremors. Further, problems like unemployment, socialising with people, family problems, and peer pressures result in dependence on alcohol. Thus, it is evident that alcohol dependence is decreasing the daily activities, strong desire to drink, unable to avoid drinking.

Diagnosis	N
ADS	124
ADS uncomplicated withdrawal	52
ADS complicated withdrawal	9
ADS binge pattern / drinking	6
ADS relapse	2
ADS with acute withdrawal state	2
ADS currently abstinent	1
ADS currently abstinent with relapse	1
ADS drug induced EPS	1
ADS on remission	1
ADS with tremors	1
Total	200

Table 1. Various Categories of Alcohol Dependence Syndrome

Classification of Patients with Various Categories of Diagnosis of ADS

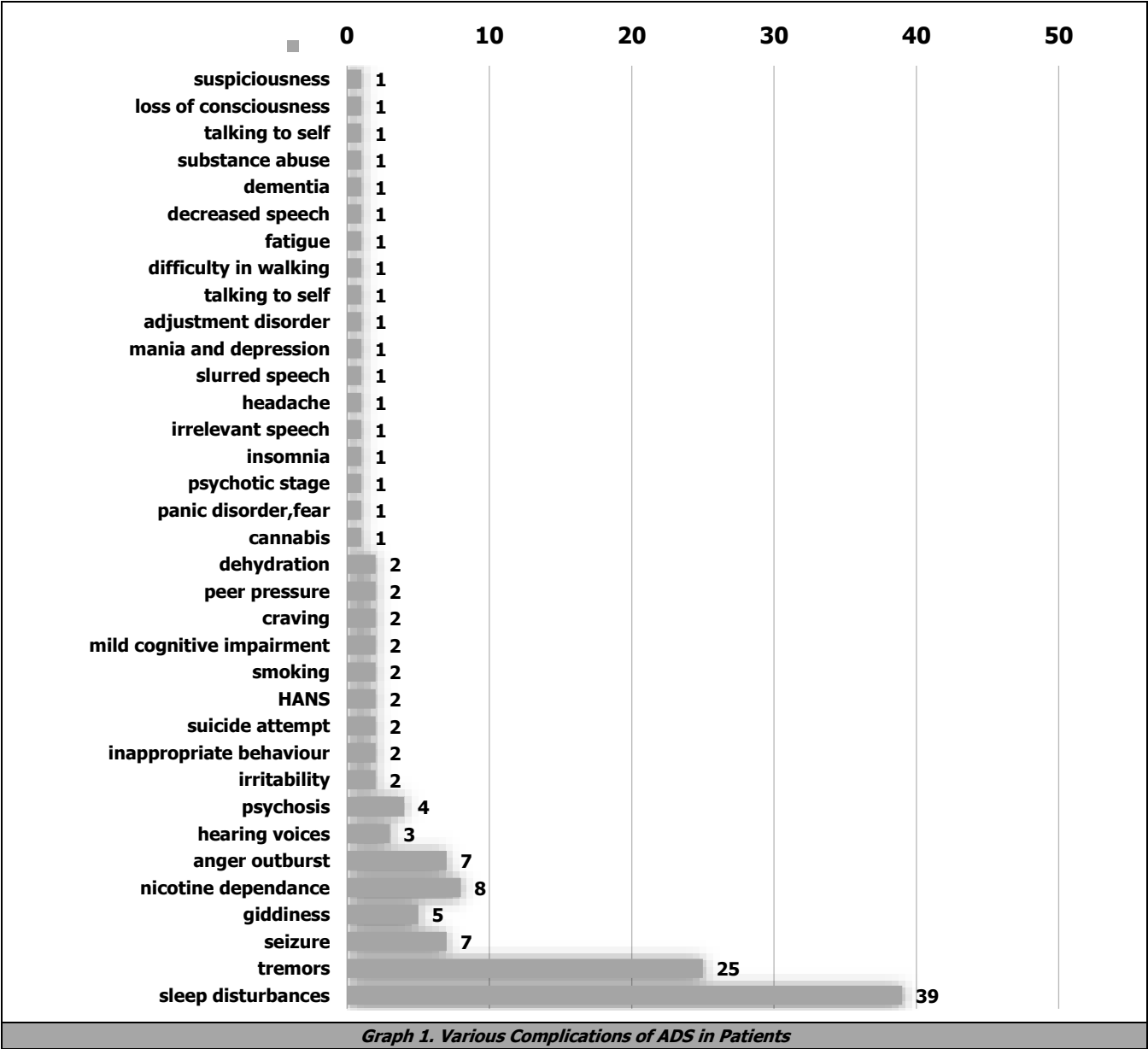
Various research studies found that alcohol intoxication occurs when there is increase in alcohol levels in the blood. Alcohol use disorder tends to develop progressively and is known to pass through generations in families. Alcohol consumption is a risk factor for many chronic diseases and

conditions. Many people begin to drink alcohol during adolescence and young adulthood. Alcohol consumption during this developmental period may have profound effects on brain structure and function. Heavy drinking has been shown to affect the neuropsychological performance of young people and may impair the growth and integrity of certain brain structures. Furthermore, alcohol consumption during adolescence may alter measures of brain functioning. The average volume of alcohol consumed, consumption patterns, and quality of the alcoholic beverages consumed likely have a causal impact on the mortality and morbidity related to chronic diseases and conditions. Alcohol withdrawal symptoms are seen when consumption of alcohol is greatly reduced. Alexis C. Edwards (2012) stated that conditions like conduct disorder and attention-deficit or hyperactivity disorder are often associated with alcohol problems in adulthood.⁵ This study supports the previous research done by Alexis C Edwards (2012). In this study it was found that ADS (62 %) was seen commonly among people followed by ADS withdrawal (31.5 %), ADS binge

drinking (3 %), ADS relapse and abstinent (1 %) and others (1.5 %).

Joseph Studer, Stephanie Baggio, (2014) stated that peer pressure plays a major role in the development and continuation of alcohol use and misuse.⁶ Young adulthood is usually the time when people develop lifelong patterns of alcohol use. This study supports the previous research and found that during middle age (30 to 49 years), cognitive function and mood is affected due to binge drinking in young age.

The reason for alcohol dependence in middle age group is mostly due to financial crisis and family issues. Chassin, L., Flora, D. B. (2004) stated that increase in familial alcoholism, negative emotionality, and low constraint are due to persistent dependence.⁷ This study supports the previous research done by Chassin, L., Flora, D. B. (2004). Apart from alcohol dependence, people were found to be dependent on substance abuses like nicotine, tobacco. Frustration and stress which occurs due to work pressure leads to a variety of behavioural changes and increased drinking.

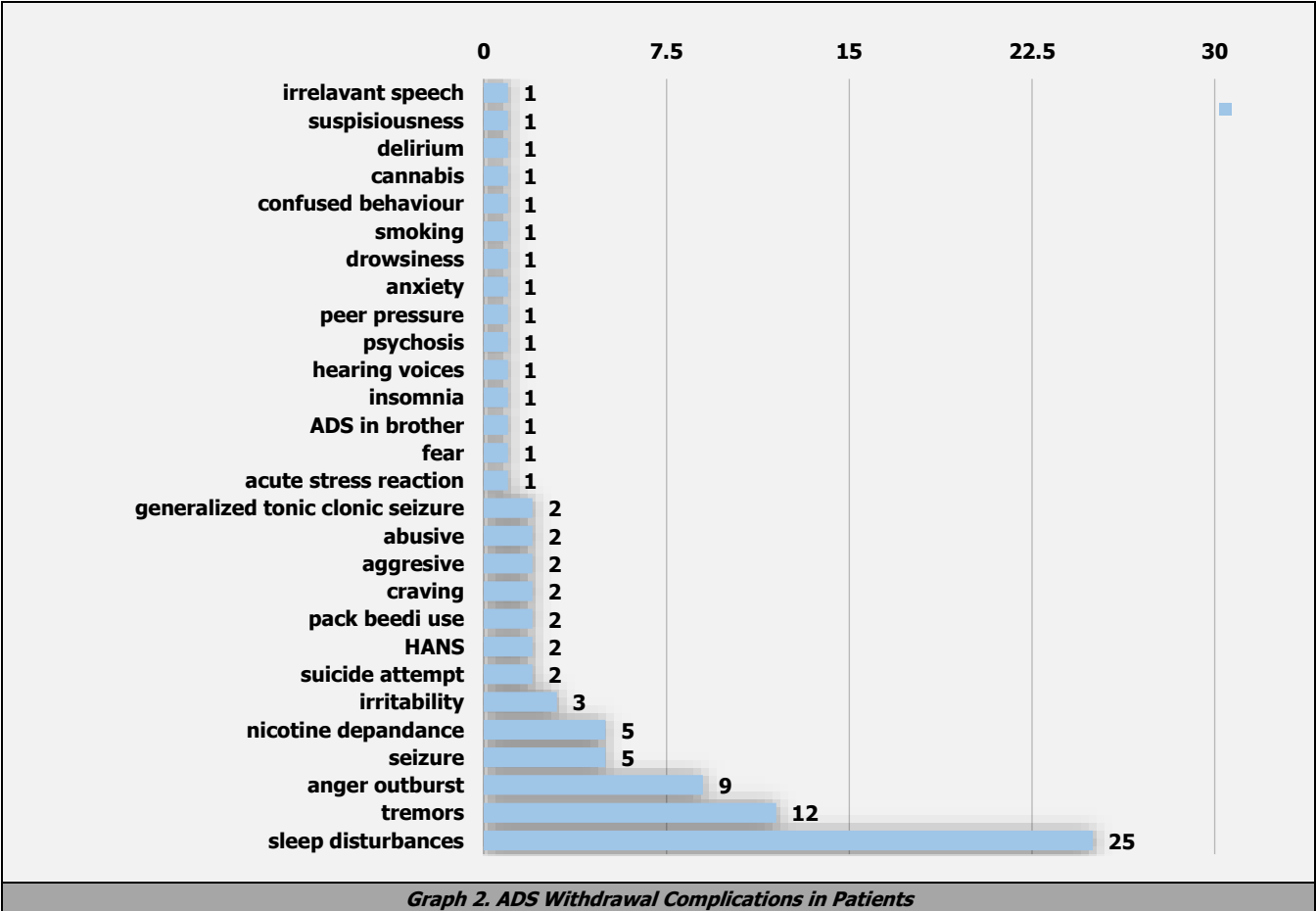


Complications of ADS in Patients

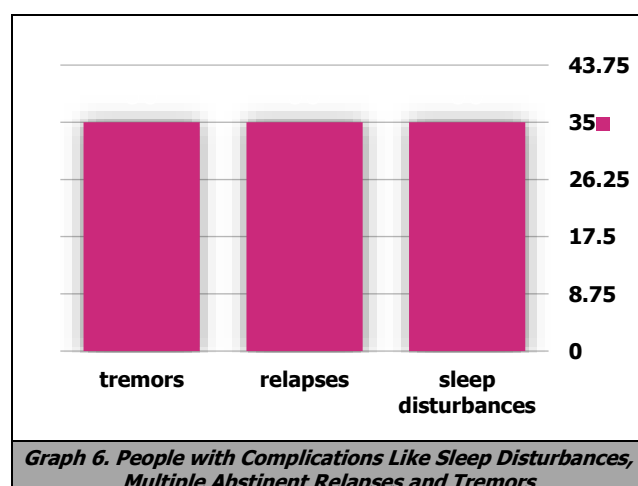
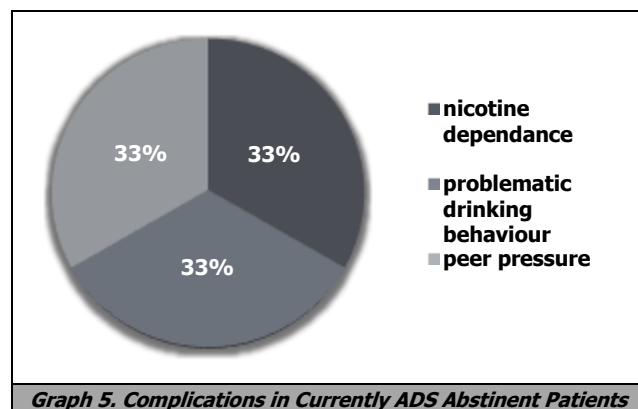
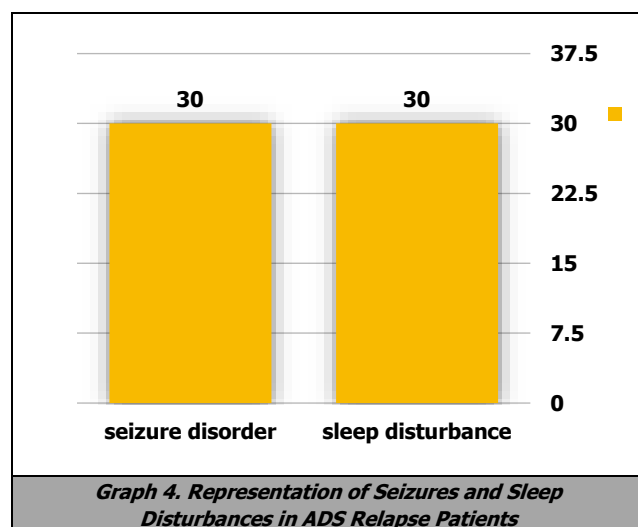
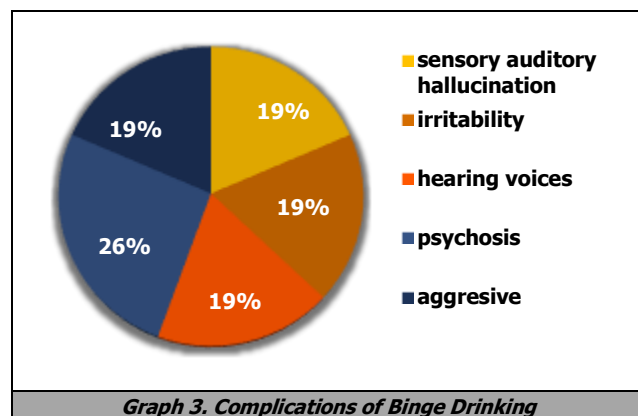
R. Raguram (2013) stated that alcohol dependence is a stubborn, often uncontrollable, desire to consume alcohol. People who are often dependent on alcohol have adverse health and social consequences.⁸ This study supports the previous research done by R. Raguram (2013). According to International classification of diseases, (ICD-10) 2019, Alcoholism is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its manifestations. Among 200 patients in this study, majority of the people were married (188) with rural background (178) belonged to low socioeconomic status (176). Patients in this study are ranged in age between 13 and 76 years. The features of alcohol dependence syndrome according to (ICD-10) are currently abstinent, but in a protected environment, continuous use, episodic use and active dependence.

Alcoholism and chronic use of alcohol are associated with numerous medical, psychiatric, social, and family problems. Alcoholism and chronic use of alcohol are associated with numerous medical, psychiatric, social, and family problems. It is found from the study that the major complications seen in the alcohol dependence patients are sleep disturbances, tremors, seizures, giddiness, anger outburst, psychosis, panic disorder, depression, irrelevant speech, inappropriate behaviour. Patients are also seen having symptoms like suspiciousness, altered sensorium, hearing voices, dehydration. Previous studies have found that chronic intake of alcohol can cause sleep disturbance and induce sleep

disorders. Drinking alcohol can disturb the structure and duration of sleep, alter total sleep time, and affect the time required to fall asleep. Sleep disturbances include frequent awakening, restless sleep, insomnia and night tremors. Robert J, Veatch, Lynn M (2008) stated that adolescents age is known to have high rates of sleep disorders and substance abuse, both are found to be associated with deleterious effects on mood, attention, and behaviour.⁹ This study supports the previous research done by Robert J, Veatch, Lynn M (2008). These sleep disturbances can cause daytime drowsiness, reducing the efficacy of performance of daytime tasks. People were also found to be dependent on nicotine. Leo Sher, David Lester (2010) stated that alcohol abuse may result in suicide attempts through disinhibition, impulsiveness and impaired judgment.¹⁰ This study supports the previous research done by Leo Sher, David Lester (2010). E. B. Rimm, K. J. Joshipura (2003) stated that intake of alcohol can result in destruction of neutrophils, macrophages, and T-cell functions infections.¹¹ This study supports the previous research done by E. B. Rimm, K. J. Joshipura (2003). Louis ED (2009) stated that higher levels of chronic ethanol consumption increases the risk of developing essential tremors.¹² This study supports the previous research done by Louis ED (2009). Tremors are usually seen in chronic alcoholics, and they can also be a symptom of withdrawal. In this study it is found that sleep disturbances and tremors are the major withdrawal complications among patients which supports the previous research.



Graph 2. ADS Withdrawal Complications in Patients



Seizures and Sleep Disturbances in ADS Relapse Patients

Another important symptom is seizures, which are brief episodes of loss or disturbance of consciousness with or without body movements. Heavy drinkers who suddenly decrease their alcohol consumption or abstain completely may experience alcohol withdrawal.

Signs and symptoms of alcohol withdrawal can include, among others, mild to moderate tremors, irritability, anxiety, or agitation. The most severe manifestations of withdrawal include delirium tremens, hallucinations, and seizures. These manifestations result from alcohol-induced imbalances in the brain chemistry that cause excessive neuronal activity if the alcohol is withheld.

Continued excessive alcohol consumption can lead to the development of dependence that is associated with a withdrawal syndrome when alcohol consumption is ceased. However, too much alcohol present in the body can trigger a seizure and withdrawing from long term alcohol abuse can lead to delirium tremens, which includes seizure as symptom patients. Bernd Lenz & Johannes Kornhuber (2012) stated that alcohol-withdrawal seizure is an important complication during detoxification in alcohol-dependence patients.¹³ This study supports the previous research done by Bernd Lenz & Johannes Kornhuber (2012). Heavy alcohol consumption causes a drop in blood sugar levels, which can cause seizures.

Seizures require emergency treatment since they can cause brain damage. The relationship between alcohol and mental health is bi-directional, with evidence suggesting that among individuals who are predisposed to alcohol consumption are those who are prone to episodes of depression, anxiety and stress. The people who have the habit of binge drinking of alcohol found to have irritability, psychosis and tend to be aggressive. Hallucinations and hearing voices are also observed in patients.

Physical sensations, thoughts and emotions, desires trigger and result in craving and relapse. Cognitive impairments are seen in individuals with psychotic disorder in the chronic state. These impairments can cause loss of functional outcome leading to the disabling nature of schizophrenia, bipolar disorder, and psychotic depression. The people who are currently abstinent from alcohol seem to have problematic drinking behaviour.

The other complications of ADS include multiple abstinent relapses and tremors. The spectrum of alcohol withdrawal symptoms ranges from minor symptoms like sleeplessness and tremors to serious complications like withdrawal seizures and delirium tremens.

In this study it was found that seizures and sleeping disturbances were found among ADS relapse patients. Further, ADS relapse patients had complications like sleep disturbances, multiple abstinent relapse, tremors which supports previous research.

CONCLUSIONS

Alcoholism leads to severe psychiatric disorders. It can impair an individual's social and mental health. Hence, it is

suggested that treatment include detoxification, counselling, abstinence from alcohol for several weeks. Alcohol dependence results in major physiological consequences and causes subsequent changes in quality of life. The treatment of alcohol withdrawal must be followed by treatment for dependence on alcohol. Hence, it is important to provide treatment for alcohol dependence since it alters the overall wellbeing of an individual, and thereby reducing the productivity in their day to day activities. Alcohol-focused treatment is effective in reducing depression, sleep disturbances, tremors and mainly alcohol abuse.¹⁴ Legislation restricting or prohibiting advertisements that directly or indirectly promote use of alcohol should be ensured. The treatment options include motivational interviewing to evaluate their situations, detoxification to manage withdrawal symptoms, cognitive-behavioural therapies, and judicious use of drugs to decrease the cravings and relapses. Medical treatment includes benzodiazepines especially intermediate acting drugs such as chlordiazepoxide and diazepam are the mainstay in treating alcohol withdrawal and even convulsions and delirium tremens. Studies suggest that serotonin uptake inhibitors such as zimeldine, citalopram, vialaline and fluoxetine may reduce alcohol consumption. Naltrexone, an opioid antagonist, is also found to be effective in reducing the urge to drink. The major aversive agent to alcohol in clinical use is disulfiram and other drugs which are used to prevent complications include haloperidol, beta blockers, clonidine, and phenytoin.

Data sharing statement provided by the authors is available with the full text of this article at jebmh.com.

Financial or other competing interests: None.

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