Original Article

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Study to Describe the Association between Depression and Alcohol Dependence in a Teaching Hospital, Telangana

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Abstract

Introduction: Alcohol dependence and depression coexist with each other. Now a day's people use alcohol as a source to relieve their depression.But alcohol dependence increases the harmful effects on the body, also resulting in suicidal tendencies. *Aim of the Study:* To studythe association between depression and alcohol dependence. *Materials and Methods:* Adescriptive study was done in the department of Psychiatry at Kamineni Institute of Medical Sciences, L.B. Nagar, Telangana for duration of one year from May 2017 to June 2018. A total of 120 cases who had history of alcohol intake associated with alcoholic dependence and depression were included in the study. SADQ and HAM-D were used to assess severity of alcohol dependence and depression. *Results:* In the present study, majority of the patients were in the age group of 41-50 years (62.5%). 41.6% (50/120) started intake of alcohol at the age of 21-30 years.In the present study there was a male predominance, about 91.6% and females about only 8.3 %. Majority of the patients consumed > 60 gm/24hr of alcohol, i.e., 83.3%(100/120). 33.3% (40/120) were married, while 25% (30/120) were unmarried and 25% were divorced and 16.6% (20/120) were committed but not married. Depression was seen in all 120 cases. *Conclusion:* The prevalence of depression among alcohol-dependent persons is high. There is recovery from depression after alcohol detoxification and rehabilitation, and majority of the cases do not necessarily require treatment for the depression. In addition persons that are depressed have a significantly higher craving for alcohol after detoxification and rehabilitation. It is important to screen for depression and evaluate to determine the treatment needs during detoxification and rehabilitation.

Keywords: Alcohol Dependence and Depression.

Introduction

Alcohol in beverage form is among the most widely used psychoactive substance in the world. although there have been efforts to control alcohol use, adverse effects are widespread [1]. Consuming greater amounts of alcohol may contribute to harsher, more acute depressive symptoms [2,3]. Sufferers of depression who have a harmful relationship with alcohol have a higher risk of committing suicide, having marital problems and being divorced, spending more time in hospitaland overall a lower chance of recovering from depression in the future [4].

The full effects of alcohol on the brain are not yet fully understood. A number of clinical research studies have found that regularly drinking alcohol disrupts the brain's chemistry, altering the way it operates. Lowering the level of serotonin in the brain, the neurotransmitter responsible for regulating people's mood and disrupting other chemicals, may lead to the development of depressive-like symptoms [5]. Excessive drinking causes psychological irritability, nervousness, insomnia, guilt, anxiety, and depression and the likelihood of suicide increases 30 times when depressive symptoms are experienced by alcohol addicts [6].

The high depression inclination of patients with alcohol dependence may be a major problem in public

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health and the management of care services, as well as in personal problems because people demonstrating high rates of drinking among the general population are more likely to develop high alcohol use disorders [7].

Alcoholdependence is apsychiatric diagnosis in which an individual is physically or psychologicallydependent upon alcohol (also known formally as ethanol). In 2013 it was reclassified as alcohol use disorder, or alcoholism along with alcohol abuse in DSM-5 [8].

According to the DSM IVcriteria for alcohol dependence, at least three out of seven of the following criteria must be manifest during a 12-month period:

- Tolerance
- Withdrawal symptoms or clinically defined alcohol withdrawal syndrome
- Use in larger amounts or for longer periods than intended
- Persistent desire or unsuccessful efforts to cut down on alcohol use
- Time is spent obtaining alcohol or recovering from effects
- Social, occupational and recreational pursuits are given up or reduced because of alcohol use
- Use is continued despite knowledge of alcohol-related harm (physical or psychological) [9].

Aims and Objectives

- To study the association between depression and alcohol dependence.

Materials and Methods

Institutional ethical permission was taken and ethical issues were involved in the study. This was adescriptive study done in the department of Psychiatry at Kamineni Institute of Medical Sciences, L.B. Nagar, Telangana for duration of one year from May 2017 to June 2018. A total of 120 cases who had history of alcohol intake associated with alcoholic dependence and depression were included in the study.

All the patients were admitted in the psychiatric departmentand after obtaining the informed written consent, a thorough clinical history was taken using aself- administered questionnairethat includedage, sex, past history of alcohol consumption, duration of alcoholic intake, amount of alcohol intake per day, occupation status, age at which alcohol consumptionwasstarted. Personal history included marital status, type of family, socioeconomic status, dietary history, past history of other illnesses.

Questionnaire also included duration and symptoms of depression, any behavioural changes after alcohol intake and any withdrawal symptoms. Diagnosis of alcohol dependence and depression were made using MINI-PLUS according to ICD-10 diagnostic criteria [10]. The severity of alcohol dependence was assessed using Severity of Alcohol Dependence Questionnaire (SADQ) [11] and the depression was rated using Hamilton Depression Rating Scale for Depression (HAM-D) [12].

Inclusion Criteria

- Age group from 30-60 years.
- Both genders.
- History of alcohol intake.
- Patients with symptoms of depression.

Exclusion Criteria

- Age group above 60 years
- Patient refused to participate in the study.
- Patients with symptoms ofanxiety (other psychiatric disorders other than depression)

Results

In the present study, two-third of the patients were in the age group of 41-50 years (62.5%), followed by 20.8% in 31-40 years age group and 16.6% in 51-60 years (Table 1). 41.6% (50/120) patients started intake of alcohol at the age of 21-30 years. 33.3% (40/120) of patients had their first drink at the age of 31-40 years and 25% (30/120) at 15-20 years (Table 2).

There was a male predominance, i.e., about 91.6% and only 10 (8.3 %) were females (Table 3).

Majority of the patients consumed > 60 gm/24hr of alcohol, ie, 83.3% (100/120), 16.6% (20/120) patients consumed 50-60 gms/24 hrs (Table 4).

In the present study 70.8% (85/120) of patients had history of drinking alcohol for more than 10 years duration, 20.8% (25/120) had history of drinking alcohol for 6-10 years durationand only 8.3% had history of drinking alcohol for 1- 5 years duration (Table 5). 33.3% (40/120) patients were married, while 50% (60/120) were unmarried and divorced and

16.6% (20/120) were committed but not married (Table 6). 33.3% (40/120) were private service employees, 25% (30/120) were daily wage labourers, 16.6 (20/120)% were unemployed, 12.5% (15/120) were IT professionals, 8.3% (10/120) were students and, 4.1% (05/120) were doctors (Table 7).

Among married (40/120) cases the reason for drinking alcohol daily was family stress, income and work stress. They were taking alcohol on regular basis and socially. The patients who were divorced (30/120) were feeling lonely, stressed and frustrated due

Table 1: Age-wise distribution of cases

Age (in years)	No. of cases	Percentage (%)
31-40	25	20.8 %
41-50	**75**	62.5%
51-60	20	16.6%
Total	120	99.9%

Table 2: Age at first use of alcohol

Age at first use of alcohol	No. of cases	%
15-20 years	30	25
21-30 years	50	41.6
31-40 years	40	33.3
Total	120	99.9%

Table 3: Gender-wise distribution of cases

Gender	No. of cases	Percentage (%)
Males	110	91.6 %
Females	10	8.3%
Total	120	99.9 %

Table 4: Distribution of cases based on amount of alcohol consumption

Quantity consumed (Gm/24hr)	No. of cases	Percentage (%)
50-60 gm/24 hr	20	16.6%
>60 gm/24 hr	100	83.3%
Total	120	99.9%

Table 5: Distribution of cases based on duration of alcohol consumption

Duration of alcohol consumption (years)	No. of cases	Percent (%)
1-5 years	10	8.3%
6-10 years	25	20.8 %
>10 years	**85**	**70.8** %
Total	120	99.9

Table 6: Marital status

	No. of Cases	%
Married	40	33.3
Divorced	30	25
Unmarried	30	25
Committed (Not Married)	20	16.6
Total	120	99.9

Table 7: Occupation-wise distribution of the cases

	No. of Cases	%
Private service employees	40	33.3
Doctors	05	4.1
Students	10	8.3
IT professionals	15	12.5
Daily wage labourers	**30**	**25**
Unemployed	20	16.6
Total	120	99.8

Table 8: Relationship status and occupation

Relation Ship Status	No. of Cases	Occupation
Married(40)	20	Daily wage labourers
	15	Private service employees
	05	Doctors
Divorced(30)	10	Private service employees
	10	Unemployed
	10	Daily wage labourers
Unmarried(30)	10	Students
	15	Private service employees
	05	IT professionals
Committed (Not Married)(20)	10	Unemployed
	10	IT professionals
Total	120	--------

Table 9: Depression symptoms

Clinical features	No. of cases	Percentage (%)
Trouble Sleeping	60	50%
Loss of Interest in daily Activities	100	83.3%
Change in Appetite	40	33.3%
Restlessness	30	25%
Irritability	30	25%
Suicidal tendencies.	10	8.3%

to their relationship status and were drinkingdaily on regular basis. Unmarried patients (30/120) were drinking regularly due to stress given by parents and neighbours and work stress. All committed but not married cases (20/120) gave breakupin their relationship as reason for drinking on regular basis .

In the Present study 66.6% (80 /120) were Hindus, 25% (30/120) were Muslims and about 8.3% (10/ 120) were Christians. Family history of alcohol related disorder was found in 54.1% patients (65/120). Family History of psychiatric illness was noted in 37.5% cases (45/120). Two-third patients, that is, 66.6% (80/120) were of low socioeconomic status and remaining were from upper middle class 33.3% (40/120) (Table 8).

Depression was seen in all 120 cases studied. Majority of the patients gave a history of loss of interest in daily activities, i.e., 83.3% (100/120), 50% (60/120) had problems in sleeping pattern. Suicidal thoughts were seen in 8.3% cases (10/120). Hence, there was found to be a relation between alcohol intake and depression (Table 9).

Discussion

The present study included a total of 120 cases whereas Darshan et al. [13] studied a total of 129 subjects participated in there study. In a study by Abraham et al. [14], 70 men participated in the study. In the present study, 41.6% (50/120) patients started intake of alcohol at the age of 21-30 years. This was correlatingwitha study by Kuria et al. [15] study in which 60.5% of the participants had begun drinking alcoholbefore the age of 18years, with the mean AUDIT score being 28.6 for male and 26.6 for females.In another study by Kanwar et al. [16], mean age of initiating alcohol intake was 22.15 years.

In the present study, two third of the patients were in the age group of 41-50 years (62.5%), followed by 20.8% in 31-40 years age group and 16.6% were in 51-60 years age group. In a study by Kanwar et al. [16], the age of the patients in study group ranged from 24-55 years with mean age of 43.05 years (SD=8.57 years).

Present study showedmale predominance, i.e., 91.6% and females were only 8.3%. In a study by Darshan, et al. [13] 77.5% were males and 22.5% were females, while male: female ratio was 3.4:1. In a similar study by Kuria, et al. [15], majority (91.5%) was male and 8.5% were female. In a study by Kanwar et al. [16], majority of the patients was male (97.5%) and 2.5% were females.

In the present study, (33.3%) were married, while 50% were unmarriedanddivorced. 16.6% were committed but not married. In Darshan et al. [13] study, 70.5% of the study sample were single at the time of interview, 21.7% were married and 7.8% were

committed but not married. None reported to be in a live-in relationship. In a study by Kuria et al. [15], 51.1% were married, while 38.9% were single. The remaining participants were either separated or divorced.In a study by Abraham et al. [14] 87.1% (61) were married and 12.9% (9) were unmarried. In Bo-Yoon Choistudy [17], 34 (58.6%) were married, 17 (29.3%) divorced and separated, 7 (12.1%) were unmarried. In the presentstudy, 33.3% (40/120) were private service employees, 25% (30/120) were daily wage labourers, 16.6 (20/120)% were unemployed, 12.5% (15/120) were IT professionals, 8.3% (10/120) were students and, 4.1% (05/120) were doctors.

Conclusion

The prevalence of depression among alcohol-dependent persons is high. There is recovery from depression after alcohol detoxification and rehabilitation, and majority of the cases do not necessarily require treatment for the depression. In addition persons that are depressed have a significantly higher craving for alcohol after detoxification and rehabilitation. It is important to screen for depression and evaluate to determine the treatment needs during detoxification and rehabilitation.

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