

Personality Profile of Persons with Alcohol Dependence with and without Cirrhosis: A Hospital Based Comparative Study

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Background: Persons with alcohol dependence frequently suffer from co-morbid psychiatric disorders and personality disorders which influence drinking, social and occupational functioning, management and relapse. Are personality disorders similar in persons with alcoholic Cirrhosis and alcohol dependence?

Objective: To study the personality profile of persons with alcohol induced cirrhosis and alcohol dependence syndrome.

Materials and Methods: It is cross sectional, hospital based and comparative study with serial sampling involving a total of 80 patients, 40 in alcohol dependence with cirrhosis group and 40 in alcohol dependence without cirrhosis group. Study instruments used are Alcohol Intake database which has sections on socio-economic data and illness related data. International Personality Disorder Examination to diagnose personality disorder.

Results: 32.5% of the total sample had a personality disorder with 30% in the Alcoholic Cirrhosis group and 35% in Alcohol Dependence Syndrome group.

Conclusion: These results demonstrate a high frequency of personality disorders in patients with alcohol dependence and there is no significant difference in personality disorders between the two groups. We suggest that psychiatric intervention is needed in many patients to improve their likelihood of remaining abstinent from alcohol and for a better quality of life.

Keywords: Alcohol dependence, Cirrhosis, Personality disorder.



INTRODUCTION

Worldwide, alcohol is the most frequently used and socially accepted hepatotoxin¹. Alcohol induced liver injury has been one of the major adverse health consequences of excessive use of alcohol throughout much of the recorded history. Chronic alcohol use commonly causes three types of liver disease: fatty liver, alcoholic hepatitis/fibrosis and liver cirrhosis. The association of alcohol with cirrhosis was recognized by Matthew Baillie in 1793².

There is a paucity of literature as to how a case of alcohol dependence with cirrhosis and alcohol dependence syndrome (ADS) is different from a Psychiatrist's angle. Persons with alcohol dependence frequently suffer from co-morbid psychiatric disorders and personality disorders (PD) which influence drinking, social and occupational functioning, management and relapse. Are personality disorders similar in alcoholic cirrhosis and alcohol dependence?

It is important for both mental health professionals and persons handling people with substance abuse recognize co-morbid personality disorders and deal with them. People with co-morbid personality disorders are more likely to receive treatment in specialized mental health services than without co-morbid disorders³. Most of the studies looked at personality disorders in alcohol dependence alone.

Prevalence rates for personality disorders in the adult community range from a low of 2.8% to a high of 11%⁴. Prevalence figures are even more varied when mental health settings are considered. This fluctuation depends on the type of sample (General population/ Psychiatric patients), method of diagnosis (self report/ structured interview) and the type research design (retrospective, cross-sectional or longitudinal). Accurate diagnosis of personality disorder is still viewed as a complex and challenging task⁴.

In a large study 158 consecutively recruited alcohol-dependent patients attending a psychiatric outpatient clinic who were compared with 120 consecutively recruited psychiatric patients with non-addictive disorders, and 103 subjects from the general population chosen to match the patient samples for age, gender and socioeconomic level. In the alcohol dependent

patients, 44.3%, general clinical sample 21.7% and 6.8% of the normative sample showed at the least one personality disorder⁵.

Bridget F Grant in 2006 conducted face-to-face interviews in the 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (N= 43,093) in District of Columbia, including Alaska and Hawaii in United States. Participants were house-hold and group-quarters, aged 18 and older. Among individuals with a current alcohol use disorder, 28.6 percent (95 percent confidence interval, 26.7-30.6%) had at least one PD. Overall, alcohol use disorders were most strongly related to antisocial personality. Several authors have suggested that co-morbid personality disorders predict poor treatment response or outcome. A few studies have reported axis II co-morbidity benefit from treatment as much as those without⁶.

Throughout the past few centuries emphasis has been laid on importance of personality and personality pathology in the pathogenesis and course of addiction. This study is conducted to compare the personality profile of persons with alcohol dependence syndrome with cirrhosis and alcohol dependence syndrome without cirrhosis.

MATERIALS AND METHODS

It is a cross sectional, comparative study with serial sampling with total of 80 patients, 40 in each group, In-patients were recruited for a period of 6 months from the gastroenterology, medicine and psychiatry wards of Kasturba Medical College, Manipal, Karnataka, India which is a tertiary care teaching hospital.

Males aged between 18-60 years, with Diagnostic and Statistical Manual IV TR (DSM IV TR) diagnosis of alcohol dependence for at least 5 years and who could read or write any one language, with a reliable family member were taken for the study. Structured questionnaire was used and information was gathered from a close relative also. Persons not fit for interview, mental retardation, refusing consent were excluded. Written informed consent was taken from all subjects, and study was cleared by the Institutional Ethics Committee.

Table 1: Presence of Personality Disorders in the Study group

Personality Disorder	ADS with Cirrhosis	ADS without Cirrhosis	Total Sample	Significance
Present	14(35%)	12(30%)	26(32.5%)	P = 0.228
Absent	26(65%)	14(70%)	54(67.5%)	

Alcoholic cirrhosis was diagnosed based on the basis of histological evidence or a combination of abnormalities in at least two of the three evaluation modalities (clinical by a physician/gastroenterologist, biochemical or radiological). Alcohol dependence patients group is without evidence of cirrhosis and absence of past history of liver disease⁷. Study instruments used were Alcohol Intake database which has a section on socio-economic data and illness related data. The International Personality Disorder Examination (IPDE) used to diagnose personality disorder. IPDE was developed within the Joint Program for the Diagnosis and Classification of Mental Disorders of the World Health Organization and U.S. National Institutes of Health which provides a uniform approach for assessing personality disorders for both the DSM-IV and the ICD-10 classification systems. The interview is the most widely used of its kind and is the only personality disorder interview based on worldwide field trials. It has a screening questionnaire and clinical interview. It has demonstrated inter rater reliability and temporal stability.

Consecutive serial, sampling method used for recruitment. All patients who fulfilled the inclusion criteria were approached. During the study a total of 49 alcoholic cirrhosis patients were contacted for the study out of which 9 were excluded for various reasons – 3 refused consent, 4 medically not fit, 2 had early discharges. Out of the remaining 40, liver biopsy was done on 2 patients, Computed Tomography (CT) abdomen was done on 1 patient and Ultrasonogram (USG) abdomen and upper Gastrointestinal (GI) endoscopy were done on all patients. 44 patients with alcohol dependence without cirrhosis were approached out of which 4 refused consent, rest 40 were taken for the study. Cirrhosis was confirmed by a

gastroenterologist using the best current clinical practice however liver biopsy which is confirmatory couldn't be done on all patients due to ethical reasons.

Patients were interviewed once their medical/psychiatric condition was stable generally within two weeks of admission. Details of the first laboratory investigations were taken up for the study. Initially Alcohol Intake database was used in the first session and subsequently once rapport was established, IPDE was administered. After entering the data in SPSS software the two groups were compared.

RESULTS

The mean age of the total sample was 42.08 years. The mean age in years of the alcoholic cirrhosis group was 45.10 (\pm 7.60) and mean age of ADS group was 39.07 (\pm 8.05) which was statistically significant ($p=0.001$). Majority of the subjects in both the groups were married. 35 subjects (87.5%) were married, 4 subjects (10%) had separated from their spouse and 1 person (2.5%) was single in alcoholic cirrhosis group compared to 31 subjects (77.5%) were married, 1 person (2.5%) separated and 7 persons (17.5%) being single in the ADS group. Using likelihood ratio this difference was statistically significant.

Majority of the persons in both groups were educated up to secondary level, comparison showed no significance ($p=0.815$). There was no significant difference in the occupational status of the two groups. Family history of alcohol dependence in the first or second degree relatives of the two groups were not significant. 57.5% of the first degree relatives of the total sample and 71.3% of second degree relatives of the total sample had family history of alcohol dependence.

Table 2: Personality Disorders in both the groups

Personality Disorder	ADS with Cirrhosis	ADS group	Total Sample
Paranoid	1(2.5%)	2(5%)	3(3.8%)
Schizoid	0(0%)	0(0%)	0(0%)
Dissocial	2(5%)	2(5%)	4(5%)
Impulsive	5(12.5%)	4(10%)	9(11.25%)
Borderline	1(2.5%)	1(2.5%)	2(2.25%)
Histrionic	3(7.5%)	2(2.5%)	5(6.3%)
Anankastic	2(2.5%)	2(2.5%)	4(5%)
Anxious	3(7.5%)	1(2.5%)	4(5%)
Dependent	0(0%)	0(0%)	0(0%)

In the alcoholic cirrhosis group 14 subjects (35%) had a diagnosis of personality disorder compared to 12 subjects (30%) in ADS without cirrhosis group with a significance of $p=0.633$ as shown in **Table 1**. Overall 32.5% of the subjects had a personality disorder diagnosis. With a 95% confidence interval prevalence may be 20-45%. 3 subjects (7.5%) in each group had more than one personality disorder(**Table 1**).

Table 2 shows the presence of personality disorders in each of the group. Impulsive personality disorder was the most common in both the groups. No dependent and schizoid personality disorders were seen in the entire sample. Cluster B personality disorders was common in both the groups.

DISCUSSION

There is a paucity of literature looking at personality disorder in patients with alcohol induced liver cirrhosis and studies in this group is vastly outnumbered by the massive literature on alcohol dependence and perhaps it is unsurprising that, for many people they seem to amount the same thing. The present study attempted to look at the personality profile of persons with alcoholic cirrhosis and compared it with persons with alcohol dependence only. This

is important in terms of managing such cases as to tailor the needs. A study of this nature would help in delineating similarities/differences between the two groups and western/eastern findings in this area.

Demographic details reveal mean age of the total sample was 42.08 years and persons in alcoholic cirrhosis group (45 years) were older in age compared to the ADS group (39 years) indicating probably alcoholic cirrhosis occurs after long term use. This is in same line as in the alcohol dependence studies of Narawane NM; 1998 where mean age was 43 years, Stewart Smith et al 2006, where mean age was 50 years and William R Yates; 1998 where mean age was 46.1 years⁷⁻⁹. Majority in both the group were married as expected in this part of the world. However, the difference between the two groups in marital status was significant ($p=0.035$). ADS group had a higher number of unmarried persons. The levels of education, socio-economic class, occupation, family history of alcohol dependence were similar in both the groups. More than 50% of the total sample had a positive family history of alcohol dependence which is in accordance with the observation of Heath et al; 2002 who strongly proposed a genetic transmission of alcohol use disorders¹⁰.

In the study, there was almost a similar pattern of personality distribution. 32.5% of the total sample had a diagnosis of personality disorder. It was 30% in the cirrhosis group and 35% in the ADS without cirrhosis group. Estimates of the prevalence of Axis II disorders range from 30- 75% in alcohol dependence and from 30-90% in persons with drug dependence¹¹. Enrique Echeburua in 2005 noted 40% of alcohol subjects had personality disorder when assessed using IPDE on 30 subjects⁴. Later in a similar study in 2007, he found 44.3% of the 138 samples had personality disorder. Single personality disorders were the most common. Anankastic personality was the commonest. Cluster B and C were also common⁵. In our sample, impulsive personality disorder was most common in both the groups. With respect to three clusters, cluster B (Dissocial, impulsive, borderline and histrionic) was most common in both the groups. It is surprising to note that studies looking at the prevalence of all PD's are scanty, given the importance of diagnosis of PD in treating and prognosticating patients with alcoholism, more so for a patient with alcoholic cirrhosis and needing liver transplantation.

CONCLUSION

These results demonstrate the high frequency of personality disorders in patients with alcohol dependence and there is no significant difference in personality disorders between the two groups. Psychiatric intervention is needed in many patients to improve their likelihood of remaining abstinent from alcohol and for a better quality of life.

CONFLICTS OF INTEREST

None declared

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