PSYCHIATRIC CO-MORBIDITY IN ALCOHOL DEPENDENCE WITH AND WITHOUT CIRRHOSIS – A HOSPITAL BASED COMPARATIVE STUDY

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ABSTACT

Objectives: To study the psychiatric co-morbidity of persons with alcohol induced cirrhosis and alcohol dependence syndrome

Design: Cross sectional, hospital based, comparative study

Place and duration of the study: Kasturba Medical College, Manipal, Karnataka, India. 6 months.

Subjects and Methods: Total of 80 patients, consecutive, consenting, serial sampling method, 40 in alcohol dependence with cirrhosis group and 40 in alcohol dependence without cirrhosis group. Study instruments used were Alcohol Intake database which has a section on socio-economic data and illness related data. Mini International Neuropsychiatric Interview Plus scale (MINI PLUS) to diagnose co-morbid psychiatric disorder.

Results: 60% of the total sample had a co-morbid psychiatric disorder. Affective disorders were common in the alcoholic cirrhosis group compared to the ADS (Alcohol Dependence Syndrome) group.

Conclusion: There is a high frequency of psychiatric co-morbidity predominantly affective disorders in patients with alcoholic liver disease when compared with alcohol dependence alone and 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.

Key Words: Alcohol dependence, cirrhosis, co-morbidity.

INTRODUCTION

Worldwide, alcohol is the most frequently used and socially accepted hepatotoxin[1]. 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 1793[2].

There is a paucity of literature as to how a case of alcohol induced cirrhosis and alcohol dependence is different from a psychiatrist's angle. Persons with alcohol dependence frequently suffer from other psychiatric disorders which influence drinking, social and occupational functioning, management and relapse. Are psychiatric 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 psychiatric disorders and deal with them. People with co-morbid psychiatric disorders are more likely to receive treatment in specialized mental health services than without co-morbid disorders[3]. Most of the studies looked at co-morbid psychiatric disorders in alcohol dependence alone. The two main studies that have addressed the epidemiology of co-morbidity are the Epidemiological Catchment Area Study (ECA) and the National Co-morbidity Survey (NCS)[4,5].

Issac Ewusi Mensah et al; 1984, studied psychiatric morbidity in 71 persons with alcoholic liver disease and compared with a similar number of non-alcoholic liver diseases. The Schedule for affective disorders and Schizophrenia (SADS-L) and General Health Questionnaire (GHQ) was used. 47(66%) of those with alcoholic liver disease had psychiatric disorder compared to 23(32%) of the non alcoholic group. The commonest problems encountered in both groups were affective disorders and neuroses. The mean GHQ score was significantly higher in alcohol liver disease group 13.2 ±2.1 compared to the control group 6.2 ± 1.3[6].

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The aim of the research was to study the psychiatric co-morbidity of persons with alcohol induced cirrhosis and alcohol dependence syndrome.

SUBJECTS 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 who could read or write any one language, with a diagnosis of alcohol dependence for atleast 5 years with a reliable family member were taken for the study. 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.

Alcoholic cirrhosis was diagnosed on the basis of histological evidence or a combination of abnormalities in atleast two of the other three evaluation modalities (clinical, biochemical or radiological). Alcohol dependence patients group was without evidence of cirrhosis and absence of past history of liver disease. Study instruments used were Alcohol Intake database which has sections on socio-economic data and illness related data. MINI PLUS is used to diagnose co-morbid psychiatric disorder. The M.I.N.I. Plus is a psychiatric structured interview that takes approximately 30-45 minutes to administer. It uses decision tree logic to assess the major adult Axis I disorders in DSM-IV and International Classification of Diseases -10 (ICD-10). It elicits all the symptoms listed in the symptom criteria for DSM-IV and ICD-10 for 24 major Axis 1 diagnostic categories. Its diagnostic algorithms are consistent with DSM-IV and ICD-10 diagnostic algorithms.

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 fulfilling the study criteria were approached 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. 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.

44 patients with alcohol dependence without cirrhosis were approached out of which 4 refused consent, rest 40 were taken for the study.

Patients were interviewed once their medical/psychiatric condition was stable generally within two weeks of admission. Structured questionnaire was used and information was gathered from a close relative also. Details of the first laboratory investigations were taken up for the study. Initially Alcohol Intake database was used and subsequently once rapport was established MINI PLUS 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 1 shows 48 patients (60%) of the total sample had psychiatric disorder, 29 patients (72.5%) in the alcoholic cirrhosis group had a co-morbid psychiatric disorder compared to 19 patients (47.5%) in the ADS group ($p=0.022$).

Table 2 gives the break-up of the psychiatric disorders. Affective disorders were common in the Alcoholic cirrhosis group (45%) compared to the ADS group (17.5%). 22.5% of the patients in the alcoholic cirrhosis group had anxiety disorders compared to 25% in the ADS group. Panic disorder and generalized anxiety disorder was more seen in the ADS group.

DISCUSSION

There is a paucity of literature looking at psychiatric co-morbidity of patients with alcohol induced liver cirrhosis. Studies in this group are 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 psychiatric co-morbidity 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

Table 1

Psychiatric co-morbidity in both the groups

Psychiatric co-morbidity	ADS with cirrhosis	ADS without cirrhosis	Total sample	Statistics
Present	29 (72.5%)	19 (47.5%)	48 (60%)	p = 0.022
Absent	11(27.5%)	21 (52.5%)	32 (40%)	

Table 2

Presence of individual psychiatric disorders in both the groups

Psychiatric disorder	ADS with cirrhosis	ADS group	Total sample
Major depressive disorder	8(20%)	4(10%)	12(15%)
Dysthymia	4(10%)	2(5%)	6(7.5%)
Bipolar disorder	1(2.5%)	0(0%)	1(1.3%)
Adjustment disorder	5(12.5%)	1(2.5%)	6(7.5%)
Panic disorder	2(5%)	4(10%)	6(7.5%)
Phobias	6(15%)	4(10%)	10(12.5%)
Generalized Anxiety disorder	1(2.5%)	2(5%)	3(3.8%)
Other Substance dependence	2(5%)	1(2.5%)	3(3.8%)
Psychotic disorders	0(0%)	1(2.5%)	1(1.3%)

this nature would help in delineating similarities/differences between the two groups and western findings in this area.

Demographic details reveal mean age of the total sample was 42.08 years and persons in alcoholic cirrhosis group were older in age compared to the ADS group indicating alcoholic cirrhosis occurs after long term use. Mean age of the entire sample is in same line as in the studies of Narawane NM; 1998 were mean age was 43 year, Stewart Smith et al 2006, were mean age was 50 years and William R Yates; 1998 were mean age was 46.1 years[7,8,9]. 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 disorders[10]. There was no statistically significant difference between family history of alcohol dependence in first and second degree relatives of both the groups.

In this study 60% of the total sample had a psychiatric disorder. 72.5% of the alcoholic cirrhosis group had a co-morbid psychiatric disorder compared to 47.5% in the ADS group. Affective disorders were common in the Alcoholic cirrhosis group (45%) compared to the ADS group (17.5%). The high rate of affective disorders in cirrhosis group may be related to their physical illness and its complications or a part of long standing alcoholism is controversial[11]. However, only a proportion of the patients received a formal referral to psychiatric services. Panic and generalized anxiety disorders were seen more in the ADS group. In a similar study psychiatric disorders were more common in patients with alcoholic liver disease (66%) than in the control group (32%) with affective disorders, neuroses and antisocial personality being the commonest[11]. The present study has found a high proportion of co-morbidity in the patients with alcohol dependence which is on similar lines in the community samples by the NCA study of Kessler et al; (45%) and ECA study of Regier et al; (78%). In a multicentre trial, they found 52.3% have a co-morbid psychiatric diagnosis, among which anxiety and affective disorders were most frequent[12]. By using well validated psychiatric diagnostic instruments we found out that the psychiatric co-morbidity observed is different in ADS with cirrhosis and ADS without cirrhosis group. Most patients with alcoholic liver disease had psychiatric co-morbidity predominantly affective disorders and these are often covert and are generally not recognized by the medical staff who tend to concentrate more on managing the patients physical condition. Physical condition generally overshadows psychological factors underlying the illness,

consequently little attention is paid to assessing these factors and determining how they should be managed[11].

Limitations of the study are it included only male in-patients, small sample size, liver biopsy could not be done on all patients to confirm alcoholic cirrhosis, assessment of co-morbidity was done within two weeks however the ideal time would have been one month.

CONCLUSION

These results demonstrate there is a high frequency of psychiatric co-morbidity predominantly affective disorders in patients with alcoholic liver disease when compared with alcohol dependence alone. Ideally all such patients should be assessed by a psychiatrist during admission which may help them in remaining abstinent and for a better quality of life.

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