Clinico-demographic profile, sexual dysfunction and readiness to change in male alcohol dependence syndrome inpatients in a tertiary hospital

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ABSTRACT

Persons with prolonged and heavy alcohol use generally suffer from alcohol dependence syndrome (ADS) and develop physical, sexual as well as psychiatric co-morbidity. Successful recovery to normalcy depends on multiple factors including patient's motivation. To study clinico-demographic profile, reasons for initiating alcohol use, sexual and psychiatric disorders and eagerness for treatment and quitting alcohol in ADS inpatients. Fifty consecutive ADS inpatients with matching controls were enrolled. Clinico-demographic profile, factors for initiating alcohol use, psychiatric and sexual co-morbidity and want for treatment and being abstinent was studied applying relevant scales. All subjects were males with a mean age of 37.5 years, 80% were married, majority were Hindu (88%) and from nuclear families (56%). Fifty two percent had an education level of Graduation or more and 68% of patients reported peer pressure to be the initiating factor for alcohol use. Seventy six percent had psychiatric co-morbidity including personality Problems and other Psychiatric disorders 19(38%), delirium tremens 14 (28.00%) and Mood disorders 12(24%).Depression being most common mood disorder (14%). Nicotine was the most common other substance of use 32 (64%). Sixty eight percent of the patient reported one or another sexual dysfunction. 68% of ADS inpatients acknowledged of having problems related to their drinking, expressed desire for change and were eager to avail treatment and to remain abstinent. ADS patients commonly suffer from psychiatric co-morbidity and sexual dysfunctions. They also wish to have effective treatment and to quit alcohol.

Keywords: ADS, psychiatric co-morbidity, sexual dysfunction, abstinence.

INTRODUCTION

People in all cultures, at all time through history, have sought out mood or perception altering substances and out of these alcohol is regarded as the oldest and most widely used one. Egyptian pictographs dated around 4000 B.C shows the existence of wine and there is documentary evidence of brewing and wine making as early as 3000 B.C.[1] In India alcoholic beverages appeared during the Indus Valley Civilization, the beneficial and detrimental effects of alcohol have been outlined In Hindu Ayurvedic texts. Around 55 B.C. the Romans introduced beer to the Europeans and the distillation Process emerged in Europe around the eleventh century.

In the 19th and early 20th centuries, alcohol dependence was called dipsomania before the term "alcoholism" replaced it. The term alcoholism was first coined in 1849 by Magnus Huss, but in medicine the term was replaced by the concepts of "alcohol abuse" and "alcohol dependence" in the 1980s. In 1979 an expert WHO committee decided to use "alcohol dependence syndrome" and disfavored the use of "alcoholism" as a diagnostic entity.[2]

Alcohol Dependence Syndrome (ADS) is a cluster of physiological, behavioral or cognitive phenomena and has the diagnostic criteria as presence of three or more of the following, during the last one year—A strong desire or sense of compulsion to take Alcohol, difficulty in controlling the use, withdrawal symptom when the use is abruptly stopped or there is drastic decrease in intake, tolerance, neglect of alternative pleasures, persistent use despite knowledge or evident harm.[3]

In the UK, roughly 93% of men and 87% of women drink alcohol.[4] About 12% of American adults have had an alcohol dependence problem at some time in their life. [2] The World Health Organization estimates that about 140 million people throughout the world suffer from alcohol dependence. In 2006, substance dependence or abuse was diagnosed in about 22.6 million persons in the United States.[5] Addiction-related morbidity and mortality pose a major burden to society, costing US economy more than $500 billion annually: about $181 billion for illicit drugs, $168 billion for tobacco, and $185 billion for alcohol (Drug information on alcohol).[6]

India is one of the largest producers of alcohol in the world and more than two-thirds of the total beverage

Table-1: Distribution of socio - demographic characteristics

Characteristics	Category	ADS Patients [N=50]	Control [N=50]
Age (in years)	< 20	6[12%]	4[8%]
	21-30	10[20%]	14[28%]
	31-40	18[36%]	20[40%]
	41-50	16[32%]	12[24%]
Religion	Hindu	44[88%]	44[88%]
	Muslim	4[8%]	4[8%]
	Others	2[4%]	2[4%]
Birth order	1st	20[40%]	18[36%]
	2nd	12[24%]	8[16%]
	3rd	8[16%]	12[24%]
	Other	10[20%]	12[24%]
Marital status	Unmarried	10[20%]	12[24%]
	Married	40[80%]	38[76%]
	Separated	0	0
	Widow	0	0
Family type	Nuclear	28[56%]	26[52%]
	Joint	16[32%]	12[24%]
	Extended	6[12%]	12[24%]
Education	Uneducated	6 (12%)	4 (8%)
	Up to X	12 (24%)	14(28%)
	Up to XII	6 (12%)	8 (16%)
	Graduation	12 (24%)	8 (16%)
	Post Graduate	10 (20%)	12 (24%)
	Professional	4 (8%)	4 (8%)
Occupation	Service	8(16%)	6 (12%)
	Skilled	6 (12%)	8 (16%)
	Semiskilled	6 (12%)	8 (16%)
	Unskilled	12 (24%)	14(28%)
	Business	12 (24%)	10 (20%)
	Unemployed	6 (12%)	4 (8%)
Monthly income in rupees	Up to 5,000	10 (20%)	6(12%)
	5001-10,000	14(28%)	12(24%)
	10,001-15,000	18 (36%)	24 (48%)
	>15001	8(16%)	8 (16%)

alcohol consumption in the south-East Asia region is in India, according to figures in the newly-compiled Alcohol Atlas of India. The prevalence of alcohol use is still low in India according to some studies done across the country. The consumption is 2 litres per person a year.[7] However, patterns of consumption vary according to the sex and the state.

Alcoholism has a higher prevalence among men, though in recent decades, the proportion of female alcoholics has increased. Current evidence indicates that in both men and women, alcoholism is 50–60 percent genetically determined, leaving 40–50 percent for environmental influences. Most alcoholics develop alcoholism during adolescence or young adulthood. The biological mechanisms underpinning alcoholism are uncertain, however, risk factors include social environment, stress, health, genetic, age, ethnic group, and sex.[8]

Alcohol damages almost every organ in the body, including the brain and leads to complications in all spheres of life—physical, mental, familial, financial, legal and social etc. Suicide is also very common in alcohol abusers and approximately 15 percent of alcoholics commit suicide. Psychiatric disorders are common in alcoholics, with as many as half of them suffering from co-morbid psychiatric disturbances. The most prevalent psychiatric symptoms are anxiety and depression disorders.[8]

Although alcohol in small doses appears to enhance sexual receptivity in women and increase arousal to erotic stimuli in men, heavy continued drinking may

Table-2: Distribution of ADS patients according to Different characteristics

Characteristics	Category	ADS Patients [N=50]
Most important reason for starting alcohol use	Self	2(4%)
	Curiosity	4(8%)
	Peer pressure	34 (68%)
	Family and Social tradition	4(8%)
	Family problem	4(8%)
	Easily availability of drugs	2(4%)
Number of reasons for starting alcohol use from the above	1	20(40%)
	2	22 (44%)
	3	6 (12%)
	4	2 (4%)
Duration of alcohol use since initiation	<1 yrs.	4(8%)
	1-5 yrs.	16 (32%)
	6-10 yrs.	18(36%)
	11-15 yrs.	8 (16%)
	>15 yrs	4(8%)

cause significant sexual impairment. Alcohol-induced sexual dysfunction is usually characterized by impaired desire, impaired arousal, impaired orgasm, or sexual pain.[9]

Now a day's emphasis is on primary secondary and tertiary prevention/ treatment in regard of substance use and estimates show that every dollar spent on addiction treatment programs yields a $4 to $7 reduction in the cost of drug-related crimes. With some outpatient programs, total savings can exceed costs by a ratio of 12:1.[10]

This study intends to look for following objectives in Inpatient ADS cases:

a) To study the relationship of alcohol abuse and socio-demographic factors,

b) To study the reasons for starting alcohol,

c) To examine associated psychiatric disorders and sexual dysfunction,

d) To study eagerness and motivation for treatment and remaining abstinent.

MATERIALS AND METHODS

Tools for the study:-

1. A specially designed proforma consisting of identification and socio-demographic data sheet.
2. International classification of diseases and health related problems, 10th edition (Chapter V) (1992, WHO).
3. A self designed proforma consisting of potential reason for starting the alcohol-

   Approved by the consultants psychiatrist of the department.
4. ASEX questionnaire – ASEX [Arizona Sexual Experiences Scale] is a self-report questionnaire and can be administered both by a clinician or self-administered and is intended for the assessment of sexual dysfunctions in psychiatric patients and people with health problems (men and women). It particularly evaluates modifications and alterations of sexual functions in relation to the intake of medicines or psychotropic substances.
5. SOCRATES questionnaire- SOCRATES [The stages of change readiness and treatment eagerness scale] is a instrument having 19 questions designed to

   Assess readiness for change in alcohol abusers. The instrument yields three factorially – derived scale scores: Recognition [Re], Ambivalence [Am], and taking steps [Ts].

Table-3: Psychiatric comorbidity and Types of psychiatric comorbidities**

Diagnosis	Category	Frequency (n)	(%)
Psychiatric Comorbidity** [No. of patients=38]	Mood disorders	12	24
	Substance use	37	74
	DSH [By hanging]	1	2
	Amnestic dyndrome	3	6
	Anxiety NOS	4	8
	Delirium tremens	14	28
	Schizophrenia and other psychotic disorders	8	16
	Personality problems and other psychiatric disorders	19	38
Mood Disorders	Hypomania / Mania alone	2	4
	BPAD	2	4
	Depression	7	14
	RDD	1	2
Use of other substance in ADS patients** [No. of patients=34]	Nicotine	32	64
	Cannabis	5	10
	Opioids	4	8
	Benzodiazepines	3	6

**Multiple response category – one respondent may have one or more responses

For this study, in twelve month, 50 consecutive inpatient ADS cases who got admitted in Deaddiction and detoxification ward, Department of Psychiatry, SMS Medical College and Hospital, Jaipur, India were enrolled while normal controls were taken from the patients' relatives or friends, who were not having any history of drug abuse and psychiatric intervention and having matching socio-economic condition. Written, informed consent

Table-4: Score on ASEX of ADS patients and normal control

Score	ADS patients [N=50]	Normal Control [N=50]
5-10	5 [10%]	27 [54%]
11-15	11 [22%]	17 [34%]
16-20	10 [20%]	4 [8%]
21-25	19 [38%]	2 [4%]
26-30	5 [10%]	0 [0%]

was taken from the participants. Very ill patients and patient refusing to participate in the study were not enrolled and excluded. Self-designed semi structured proforma was used to record the basic socio-demographic details and on a self designed proforma potential reason for starting the alcohol was noted. ASEX questionnaire and SOCRATES questionnaire was applied. Thorough investigations, evaluation and referrals were done as per requirement. The clinical diagnosis of all the patients was confirmed by consultant psychiatrist/s (based on ICD 10 criteria). Confidentiality and standard measure of care were observed throughout the study. All of the collected useful data were entered in computer database. Data were analyzed by using SPSS [Statistical package for social sciences].

RESULTS

As per the design of the study, a total number of 50 patients and same number of matching control in regard of socio-demographic details were included in the study.

Table-1 shows that maximum of ADS patients belonged to age group 31-40 years i.e. 36%, followed by age group 41-50% (32%), 20-30 years (20%) and up to 20 years (12%). Among Normal Controls 40% were representing 31-40 year age group, 28% in 20-30 year, 24% in 41-50 year and 8% in age group of up to 20 years. Eighty eight percent of ADS patients and normal control were *Hindu*; 8% of both group were *Muslim* and only 4% belong to any other Religion.

Among ADS patients, maximum subject belonged to first birth order (40%), than second (24%) than any other birth order (20%) and in last 3rd (16%). Among normal controls, it was found that 36%, 24% each and 16% of the subjects were from 1st; 3rd as well as any other and 2nd birth orders respectively. In ADS patients 80% were married and 20% were unmarried while among normal controls 76% were married and 24% were unmarried. Maximum of the ADS patients belonged to Nuclear family (56%) followed by joint (32%) and least from Extended family type (12%). Among normal controls 52% and 24% each belongs to from Nuclear than Extended and joint family type respectively.

In regard of education percentage of ADS patients in descending order was upto Xth and Graduate (24% each), Post Graduate (20%), uneducated and up to XII (12% each) and professional (8%), while in Normal subject upto Xth (28%); Post graduate (24%), up to 12th and Graduate 16% each and uneducated as well as professional 8% each.

As per their occupation in descending order of percentage, maximum ADS patients were unskilled and in business (24% each), in service (16%) and skilled, semi skilled as well as unemployed were 12% each. In case of normal control maximum were unskilled (28%), in business (20%), skilled and semi skilled 16% each, in service (12%) and least were unemployed (8%).

As per family income level ADS patients in descending order of percentage, 36% belonged to slab earning 10,001 to 15000; 28% were earning in range 5001-10000 Rs., 20% earned upto 5000 and only 16% were earning more than 15001 Rs. In case of normal control 48% belonged to slab earning 10001 to 15000; 24% were earning in range of 5001-10000 Rs.; 16% were earning more than 15001 Rs. and 12% earned upto Rs. 5000/-

Table -2 shows that most of the ADS patients reported peer pressure (68%) as the initiating factor, followed by curiosity, family and social tradition as well as family problem (8% each); self reasons and easy availability of drug as the least cause (4% each) for it. 44% of ADS patients has reported 2 reasons, 40% reported 1 reason; 12% reported 3 reasons and 4% reported more than 3 reasons for initiating alcohol use.

Of ADS patients 36%were taking alcohol from 6-10 years; 32% from 1-5 years; 16% from 11-15 years and 8% each were taking alcohol from either less than 1 year or more than 15 years.

As per Table-3 for psychiatric co-morbidity, Substance use not amounting to dependence is 37 (74.00%) followed by Personality Problems and other Psychiatric disorders in 19 (38%). Delirium Tremens was found in 14 (28.00%), followed by Mood disorders in 12(24%).Depression was the most common among mood disorders accounting for 7 (14%). Nicotine was the most common among substance use accounting for 32 (64%).

Table-5: Score on SOCRATES of ADS patients [N=50]

Scores »»»» / Subscale of socrates	High and very high	Medium	Low and very low
Recognition [N=50] »»	22[44%]	12[24%]	16[32%]
Ambivalence [N=50] »»	26[52%]	11[22%]	13[26%]
Taking steps [N=50] »»	16[32%]	19[38%]	15[30%]

Table -4 shows that 5(10%) of ADS inpatients scored 26-30 indicating severe sexual dysfunction, overall 34 [68%] ADS patient reported score of more than 15 on ASEX while only 6(12%) of the normal control reported so indicating the higher sexual dysfunction in them.

As per Table-5, 34 (68%) of ADS inpatients scored medium or more on the Recognition subscale indicating they directly acknowledge that they are having the problems related to their drinking, expressed a desire for change and perceived that harm will continue if they do not change. Most of the ADS inpatient scored medium or more on Ambivalence (i.e. wondering about if they are in control of their drinking and other harms) and Taking steps subscale of SOCRATES indicating that majority of the patient were eager to have the proper treatment and appeared to be fairly motivated to quit alcohol.

DISCUSSION

Alcohol abuse is a problem affecting a large population in India. National household survey as a part of survey on extent, pattern and trends of drug abuse in India (Subjects were male in the age group of 12-60 years) found that 21.4% were current users and 16.8% of them were found to be dependent based on ICD-10 criteria.[11] As per the National family health survey (2005-06) it was found that 32% men and 2% women in the 15-49 year age group currently drink alcohol.[12]

This hospital based cross sectional study was carried out in SMS Medical College and hospital, Jaipur, India to study the socio-demographic profile, co morbidity including sexual dysfunction and motivation to get treated and remain abstinent in ADS inpatients. Mean age of first admission to substance dependence treatment services are approximately 37.5 years which is comparable to other previous studies. Hindu religion (88%) dominated among ADS inpatients and it roughly hints towards the population mix of India and somewhat openness of Hindu religion towards alcohol use. First born, married persons and from nuclear families were having the maximum presentation in the study which can be understood from the social facts as well as the greater concern from the parents / spouse as well as because of their rapidly deteriorating conditions.

Regarding the alcohol use and educational level the literature reports mixed outcome but in this study we found more patients having higher educational level. We also found that majority of the ADS inpatient were having better occupational and income level profile indicating their better purchasing power and better health services related information. In this study mean duration of alcohol abuse before first coming to the de-addiction services is nearly eight years. This study like other studies done in the past revealed that peer pressure is the top most reason cited for the initiation of alcohol use and majority (88%) cited one or two reasons responsible for alcohol use initiation.[13-16]

Literature and past studies suggests that co-morbid psychiatric diagnoses in people with an alcohol related disorder are in their life time up to one third may have major depressive disorder, 25-50% meet the diagnostic criteria for anxiety disorder and suicide prevalence rate ranging from 10-15%.In this study 38(76%) of the patient were found to be having psychiatric co morbidity with other substance use at the top [34 inpatients i.e.68%] and nicotine being the most common substance to be used. All these findings are more or less keeping with other studies.[17,18]

Some of the previous studies found 61% of ADS patients reporting sexual dysfunction, the most common being erectile dysfunction followed by reduced sexual desire and frequently they may coexist in the same patient also.[17,18] Similar comparable findings in this study were also found and 34 [68%] ADS patient reported score of more than 15, indicating higher sexual dysfunction in them on ASEX while only 6(12%) of the normal control reported so.

ADS are generally described of having chronic course with multiple and frequent relapses and relapse is a rule rather than exception. In 2007 Reid et al. found that within the first year of their discharge from the substance dependence treatment programs nearly 70-90% return back to the substance use.[14] Complex interaction between the patient, family members, society and treatment related factors play a vital role in the phenomenon of relapse. In spite of the high relapse rate, it has been found that previous treatment possibly helps the patient not to return back to pretreatment alcohol use level and overall functioning of patients remains better. Regarding the eagerness to get treatment and change readiness in ADS inpatients, on analyzing the three components of SOCRATES (Recognition, Ambivalence and Taking steps) we found that majority of the patient wished to be treated and wanted to have a alcohol free life and it is in line of earlier done studies.[14,15,19,20]

Our study reveals that certain predictors or risk factors are associated with ADS and these patients commonly suffer from other psychiatric co morbidity. Sexual dysfunction is also commonly found in them. Most of the ADS patient tend to understand the gravity of the problem and wants to get treated so an effective treatment strategy involving all the stake holders can help these patients to overcome the problem.

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