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Sexual Dysfunction in Males with Alcohol Dependence Syndrome

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Abstract

Introduction: Sexual dysfunction leads to distress and poor interpersonal relationships in alcohol dependent males with an active sexual life. If not addressed, it may precipitate relapse.

Aims: Aim of the study is to assess the prevalence and type of sexual dysfunction in alcohol dependent males and its relation to duration and quantity of alcohol consumed.

Material and Methods: One hundred male subjects admitted to a de-addiction center, attached to a tertiary care rural teaching hospital meeting the diagnosis of alcohol dependence syndrome [F10.2] were assessed for sexual dysfunction using Arizona Sexual Experience Scale (ASEX), International Index for Erectile Dysfunction questionnaire (IIEF) and Sexual dysfunction checklist (SDCL).

Results: Sixty one percent had one or more sexual dysfunctions. The most common being decreased sexual desire, premature ejaculation, frequency dissatisfaction and erectile disorder. The amount of alcohol consumed and the duration of alcohol dependence appeared to be significantly associated with sexual dysfunction.

Conclusion: Sexual dysfunction is common in subjects with alcohol dependence syndrome. Long term dependence and heavy drinking had a positive linear relationship with sexual dysfunction. Psychiatrists should routinely evaluate and treat the sexual dysfunction to prevent relapse and improve interpersonal relations.

Keywords: Alcohol dependence syndrome, Sexual dysfunction, Male.

Introduction

Alcohol use has been recorded from times immemorial across the world. The term alcohol has been derived from the Arabic word 'alkull' meaning essence and was considered as food of gods, priests, and warriors.[1,2] In the present times, alcohol is the preferred drink to celebrate and also to relieve ones sorrows.[1]

Use of alcohol is a universal phenomenon, but the practice and patterns differ from people to people, culture to culture and time to time. In many societies the use of alcohol during teenage and adult life is very common. For a large number of youth it may signify nothing more than experimentation.[3]

In India, epidemiological studies have shown a prevalence rate of alcohol dependence syndrome ranging from 16-50%.[4] According to national household survey 2000-2001, prevalence rate of alcoholism was 21%.[5] A study done in rural part of South India, reported 14.2% of hazardous alcohol use among the population sample studied.[6]

Alcohol dependence is associated with various physical illnesses like gastric ulcers, neuropathies and vitamin deficiencies. It is associated with psychological illnesses like depression, anxiety, psychosis, adjustment disorders, sleep disorders, sexual disorders and suicide.[1,7]

Alcohol has deleterious effects on sexuality. Many people use alcohol to "loosen up" in anticipation of having sex with a partner, and it is a commonly held belief that alcohol is an aphrodisiac. Though in low dose alcohol does indeed remove inhibitions, exacerbates desire and sometimes allows the shy to pass the act, in high doses and long term use alcohol may inhibit sexuality and trigger latent aggression resulting in social disasters[8] including crimes like rape and incest.[9]

Chronic alcohol abuse or dependence, inevitably has a devastating effect on sexuality like erectile disorders in men along with loss of sexual desire .A significant decrease in sexual arousal in women and difficulty in experiencing orgasm for men and women.[10]

Men in particular have suffered from numerous sexual dysfunctions associated with long term alcohol use.[11]

With this background the present study aims to study the prevalence, type of sexual dysfunction in male alcohol dependent subjects and their association with the various parameters of alcohol intake.

Aims and Objectives

a. To study prevalence of sexual dysfunction in male subjects of alcohol dependence.
b. To study the types of sexual dysfunction
c. To study the relationship of sexual dysfunction with the drinking patterns of alcohol, like duration and quantity of alcohol consumed.

Materials and Methods

The study was an observational study, cross sectional in nature. Male patients admitted in the De-

addiction ward of a tertiary care teaching hospital between October 2009 and September 2011 were taken up for the study. The study protocol was submitted to ethics committee of the hospital where the study was to be conducted and approval was taken. One hundred patients diagnosed with alcohol dependence syndrome , fulfilling the inclusion/exclusion criteria and willing to give written informed consent were taken up for the study. They were subjected to a detailed psychiatric interview and assessed on different scales. The data so obtained was analyzed.

Inclusion Criteria

- Males in the age group of 20-50 years fulfilling the ICD-10 diagnostic criteria for alcohol dependence syndrome (F10.2).
- Subjects having a regular sex partner

Exclusion Criteria

- Patients with sexual dysfunction prior to alcohol use.
- Any other co morbid Axis-1 psychiatric disorders
- Any co-morbid physical disorders which can cause sexual dysfunction.
- Any other substance use barring Nicotine.
- Use of drugs affecting sexual function.

All subjects were taken from the inpatient ward of the hospital, after the period of detoxification was complete. A semi-structured proforma was used to record the socio demographic factors and alcohol use patterns including duration and amount of alcohol consumed. The quantity of alcohol usually consumed per day was measured in standard drinks; where 1 drink =30ml. spirits = 330 ml, beer =1/3 sachet of arrack [12]. Sexual dysfunction was rated for the last one year and temporary or situational complaints were not considered. The number and type of sexual dysfunction were documented by using the sexual dysfunction checklist. The degree of dysfunction was measured by the Arizona sexual experience scale and the international index for erectile dysfunction. The data so obtained was statistically analyzed by SPSS 10 software.

Tools used for assessment

1. The international classification of diseases (ICD-10)[13] for diagnosing alcohol dependence
2. Semi structured proforma for recording socio demographic data and the amount and duration of alcohol use.
3. Sexual Dysfunction Check List (SDCL)[12]
4. Arizona Sexual Experience Scale (ASEX)[14]
5. International Index for Erectile Dysfunction (IIEF-5)[15]

Sexual Dysfunction Check list (SDCL)[12]: The Check List contains items corresponding to 12 areas of sexual dysfunction described in the Diagnostic Criteria for research, ICD-10 Classification of Mental and Behavioral Disorders.[13] The disorders specifically tapped by the checklist were aversion to sex, low sexual desire, difficulty in achieving and in maintaining erection, premature ejaculation, inhibited or delayed ejaculation, orgasm with flaccid penis, anorgasmia, pain at the time of coitus, dissatisfaction with frequency of intercourse per week, satisfaction with own and partner's sexual functioning. Sexual dysfunction was rated during the last one year period and occasional and transient episodes or events were ignored.

Arizona Sexual Experience Scale (ASEX)[14]: Arizona Sexual Experience Scale by Labbate and Lare (1992). It consists of 5 items dealing with various aspects of sexual functioning. Each item is rated on a 1 to 6 point scale from "Greater than normal" to "Totally absent". Total possible score is 30. Significant scores – total score > 18 or single score > 5 or three items individual score > 4.

International Index for Erectile Function (IIEF-5)[15]: International Index for Erectile Function (IIEF-5) by Rosen,R.C.,et al., 1999. It consists of 5 items dealing with various aspects of erectile functioning like confidence to get erection, erections hard enough for penetrations, ability to maintain erection at penetration and till completion of intercourse, satisfaction to sexual intercourse. Each item is rated on a 1 to 5 point scale. IIEF-5 is widely used as a diagnostic tool for erectile dysfunction. The IIEF-5 score is the sum of the ordinal responses to five items. Total score 22 to 25- no erectile dysfunction, 17 to 21- mild erectile dysfunction, 12 to 16 mild to moderate erectile dysfunction, 8 to 11 moderate erectile dysfunction, 5 to 7 severe erectile dysfunction. In the present study scores < 11 were considered as significant erectile dysfunction.

Results

About 49 % of the study sample fell in the age group of 31-40 years. Most of the subjects are literate and 92% of the subjects studied up to high school. Above 97 % of the subjects are married. Of the entire sample 88 % of the sample consumed alcohol daily. 51 % of the subjects were dependent on alcohol for more than 1 to 2 years (Table 1).

Table 1: Sociodemographic Details

Variable	Group	No. of Subjects (%)
Age group in years	21-30	25 (25.00)
	31-40	49 (49.00)
	41-50	26 (26.00)
Educational level	Nil	01(01.00)
	Primary	01 (01.00)
	Middle	06 (06.00)
	High school	30 (30.00)
	Intermediate	35 (35.00)
	Degree	21 (21.00)
	Professional	06 (06.00)
Marital status	Unmarried/ divorced but having a regular sexual partner	03(03.00)
	Married	97 (97.00)
Type of drinking at present	Binge drinking	46 (46.00)
	Daily drinking	88 (88.00)
	Early morning drinking	28 (28.00)
Duration of alcohol dependence [in years]	1 – 2	51 (51.00)
	> 2 – 4	40 (40.00)
	>4 or above	09 (09.00)

61% of the subjects reported sexual dysfunctions. Of these decreased sexual desire was the most common (35 %) followed by percent premature ejaculation (30%), frequency dissatisfaction (21%) and erectile disorder (18%). (Table 2)

Table 2: Showing frequency of sexual dysfunction

Sexual Dysfunction	No. of subjects (%)
Aversion to sex	05 (05.00)
Decreased sexual desire	35 (35.00)
Difficulty in achieving erection	18 (18.00)
Difficulty in maintaining erection	18 (18.00)
Premature ejaculation	30 (30.00)
Delayed ejaculation	06 (06.00)
Orgasm with flaccid penis	15 (15.00)
Anorgasmia	08 (08.00)
Coital pain	01 (01.00)
Frequency dissatisfaction	21 (21.00)
Dissatisfaction of sexual relation with partner	10 (10.00)
Gross preoccupation with own sexual dysfunction	16 (16.00)
Nil complaints	39 (39.00)

Majority (46%) had more than one sexual dysfunction. (Table 3)

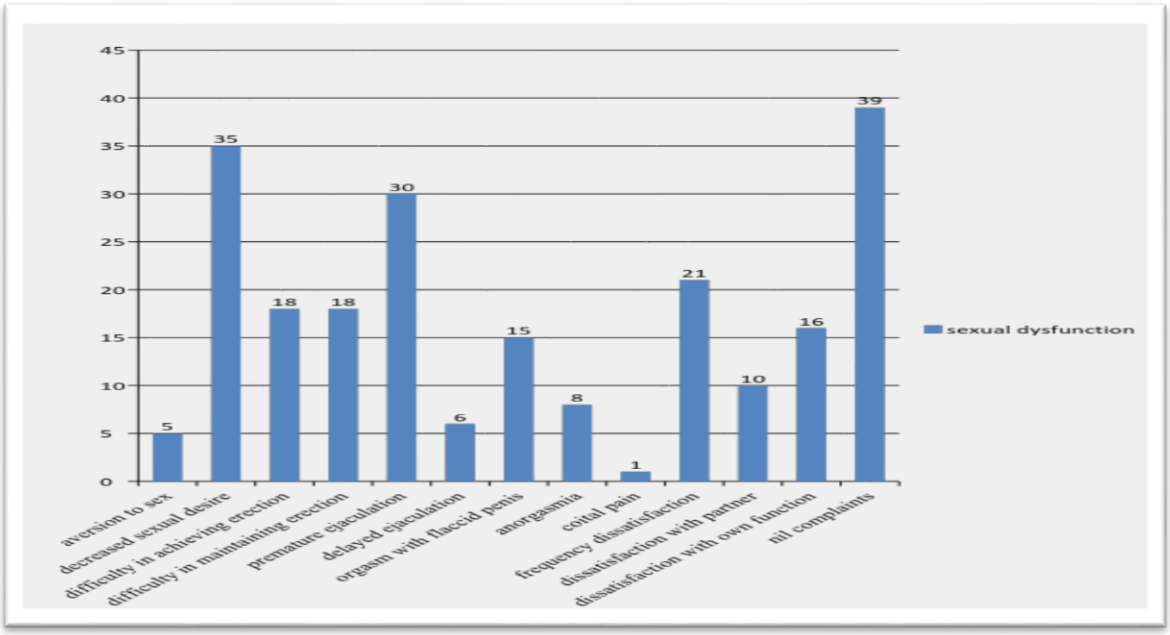

Fig. 1: X Axis – Type of Sexual Dysfunction; Y Axis – Number of Subjects

Table 3: Patterns of Sexual Dysfunction

Type of complaint [sexual dysfunction]	No. of subjects (%)
Single complaint	15 (15.00)
More than 1 complaint	46 (46.00)
Nil complaints	39 (39.00)

In keeping with the results of the sexual dysfunction checklist, 61% of subjects scored significant on the Arizona sexual experiences scale. (Table 4) and 18% scored significantly on the International Index of Erectile Function (IIEF-5). (Table 5)

Table 4: Arizona scores of patients (ASEX)

ARIZONA scores	No. of subjects (%)
Significant	61 (61.00)
Non-significant	39 (39.00)

Significant scores – total scores > 18, or single score >5, or 3 items individual score >4

Table 5: International Index of Erectile Function [IIEF-5] scores

IIEF-5 scores	No. of subjects (%)
> 12	82 (82.00)
< 11	18 (18.00)

18% of the subjects were having significant IIEF-5 scores suggestive of erectile dysfunction.
IIEF-5 scores < 11 were considered as having significant erectile dysfunction in the present Study.

Subjects who have had more than 4 years of alcohol consumption reported greater frequency of sexual dysfunction. 90% of subjects in the current study with more than 4 years of alcohol use had sexual dysfunctions. The number of sexual dysfunctions also increased with the number of years of alcohol use. Subjects using alcohol less than 4 years had reduced sexual desire as the most common complaint, whereas subjects with more than 4 years reported premature ejaculation in addition to reduced desire. Duration of alcohol abuse was significantly associated with sexual dysfunction. (Table 6)

Table 6: Duration of alcohol dependence and Sexual dysfunction

Duration of alcohol consumption in years	Sexual dysfunction				
	One complaint	More than one complaint	Nil	Total n	p value
1 – 2 years	8	20	23	51	0.000
>2 – 4 years	5	19	16	40	
>4 years	2	6	1	9	
Total	15	46	39	100	

P<0.05 is considered significant

Majority of the subjects consuming more than 13 standard units of alcohol per day were having sexual dysfunction. Premature ejaculation was th e most common complaint in persons taking 7-12 Standard Units of alcohol per day, while decreased desire was reported in those taking more than 13 Standard Units. The number of sexual dysfunction complaints was significantly associated with the standard amount of alcohol consumed per day. (Table 7)

Table 7: Standard units of alcohol vis-à-vis sexual dysfunction

Quantity of alcohol consumed		Sexual dysfunction				
		single complaint	more than one complaint	no complaints	Total n	P value
quantity	0-6	0	1	0	1	
	7-12	3	4	14	21	
	13-24	8	28	16	52	0.000
	>24	4	13	9	26	
Total		15	46	39	100	

P<0.05 is considered significant

Discussion

Sexual dysfunction is seen commonly in alcohol dependent subjects. Sixty one percent of our study subjects reported various problems with their sexual performance, which is comparable with existing studies where the prevalence has ranged from 70-85%[11,16,17] Of the 61% of alcohol dependent subjects reporting sexual dysfunction, majority reported erectile dysfunction followed by reduced sexual desire. Various types of sexual dysfunctions have also seen to coexist. For instance Van Theil and Lester[10] reported that erectile dysfunction and reduced sexual desire were frequently seen to be coexisting.[10] Vijaysenan et al,[11] found that of 97 male inpatients admitted for the treatment of alcoholism, 71% had suffered from sexual dysfunction for a period of more than 12 months prior to admission to a hospital. The disturbances noted were diminished sexual desire (58%), ejaculatory

incompetence (16%), and premature ejaculation (4%).[11]

Findings of the study done by Vivek Benegal and Bijji Simon Arackal[12] were also similar. They found out that of the 100 male inpatients admitted with alcohol dependence syndrome, 72% of the subjects had complained of one or more problems with sexual functioning. The most common condition reported was premature ejaculation followed by low sexual desire and erectile dysfunction.[12]

The most common condition in our study was decreased sexual desire followed by premature ejaculation. Other studies have also reported decreased desire as the most common sexual dysfunction. However premature ejaculation was reported more in our study (30%) as compared to other studies. Study by Mandell et al[17] reported higher sexual dysfunction than other studies as subjects were still drinking minimally or moderately at the time of interview.

The symptoms reported in SDC checklist were positively associated with the amount of alcohol consumed (Standard drinks).Similarly increased consumption of alcohol for longer duration appeared to increase sexual dysfunctions. This could be possibly explained by the fact that the repeated and excessive consumption of alcohol leads to central and peripheral neuropathy and a multi-organ damage including testicular atrophy, cirrhosis and gynaecomastia. Testosterone decreases and estrogen increases thereby changing the androgen/oestrogen ratio.[9,18,19] Progressive damage to testes and reduction of sex hormones leads to loss of secondary sexual characteristics and impotence and infertility.[19]

Higher levels of alcohol intake may result in greater neurotoxic effects. It has been reported that heavy alcohol use may contribute to a reversible vagal neuropathy, which is perhaps reversible on abstinence.[12]

People who are chronic abusers of alcohol may have fewer long term relationships. They may be unable to find or maintain sexual partners. Social, health, and financial difficulties make them less desired sexual partners thereby adding to the already existing sexual dysfunction.

So not only the amount and duration of alcohol consumed but the psychosocial difficulties encountered with long term alcohol use may contribute towards sexual dysfunction and hence a necessary area to be addressed during management of alcohol use disorders.

Conclusion

This study highlights the wide spread prevalence of sexual problems in the heavy drinking population. Where other factors like marital conflict and smoking maybe related to sexual dysfunction in subjects with alcohol dependence, physical effects of acute and chronic alcohol intake are also important causes for various sexual dysfunctions like decreased sexual desire, premature ejaculation, frequency dissatisfaction and erectile dysfunction.

There is ample evidence from previous studies that alcohol induced sexual dysfunction, for the most part, is reversible with cessation of alcohol use.[12] Thus this information can be used in motivational counseling of heavy drinkers to provide impetus for change.

Behavioral Marital Therapy (BMT)[20] or an interactional couple's therapy improve sexual satisfaction among subjects with sexual dysfunction. Sexual adjustment is one of the last areas of the alcoholic's marriage to improve after treatment. It is also one of the areas which is often not elicited during clinical assessment.

Increasing awareness in both the treating physician and the users of alcohol on the high prevalence of sexual dysfunction would go a long way in providing better detection and treatment.

Limitations and Future Directions

Present study is observational in nature. Long term prospective studies on the effect of abstinence of alcohol on sexual dysfunction can be taken up for further studies. Study was conducted on alcohol dependent males who were admitted. Therefore the findings are not only limited to the male gender but also to patients requiring inpatient treatment. Hence our findings may not be generalized to patients who have less severe forms of alcohol use.

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