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"ROLE OF YOGA THERAPY IN RELAPSE PREVENTION AND QUALITY OF LIFE IN PATIENTS WITH ALCOHOL DEPENDANCE"

Nephrology

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ABSTRACT

Background-alcohol is a social problem and directly related to deterioration in quality of life.
A society views alcohol use primarily as a moral or a legal problem, when it creates difficulties for the user or ceases to be entirely volitional it becomes the concern of all the helping professions. Relapse prevention is a major challenge in the treatment of alcoholism. Yoga and meditation have been proposed as an effective treatment for substance abuse and addictive behaviour , we have selected this study to assess role of Yoga therapy in relapse prevention of alcohol in patients with alcohol dependence .
Material and methods: In this prospective randomised study 110 patients with a diagnosis of alcohol dependence using ICD 10 criteria belonging to age between 18 -60 years were enrolled and divided into two groups : **Group A**: Subjects who would receive yoga therapy along with conventional pharmacotherapy and psychotherapy for alcohol dependence **Group B**: Subjects who would receive conventional pharmacotherapy and psychotherapy for alcohol dependence. Statistical analysis done by SPSS 24.0 software used for descriptive analysis paired t test and independent t test evaluation .
Results: Assessment of relapse status was done at 3rd and 6th month .There was no significant association between group A and B in states of lapse ,relapse, and abstinence but there was a difference between percentage of patients relapsed and those remaining sober indicating that yoga when combined with conventional pharmacological and psychological therapy was more beneficial. In our study there is a improvement in mean physical domain score ,mean psychological domain, mean social domain, mean environmental in the yoga group.
Conclusion: Yoga and conventional therapy are effective in the treatment of alcohol dependence. However if we combine Yoga with conventional therapy the beneficial effects comes much earlier.

KEYWORDS

Alcohol Dependence ,relapse ,yoga ,pharmacotherapy.

INTRODUCTION

According to the World Health Organization, the global burden of disease attributable to alcohol and illicit drug abuse amounts to over 5% of the total burden of disease and the harmful use of alcohol claims 2.5 million lives per year. In northern India including Delhi, the 1-year prevalence of alcohol use has been estimated as 25 to 40% in the general population, whereas in southern India, this rate has been estimated as 30 to 50%. In southern India, the prevalence of alcohol use is higher among people of lower socio-economic status and those with lower levels of education. A large-scale survey over 32,000 people performed in 2001 in India found alcohol use rates of 20 to 38% in males and 10% among females There is growing concern regarding substance use disorders as relapse rates continue to remain as high as 80-95% in the first year after alcohol or tobacco cessation.

Relapse prevention is a major challenge in the treatment of alcoholism. There is evidence that approximately 90 % of alcohol dependents are likely to experience at least one relapse over the 4-year period following treatment.

According to the cognitive processing model, alcohol use becomes a habit that requires little conscious effort or attention and craving is a non-automatic process that requires mental effort and is limited by a person's cognitive capacity. Predictive factors for relapse in alcoholism include treatment drop out, anxiety symptoms, depressive symptoms and high craving for alcohol. Although conventional methods for relapse prevention can be somewhat successful, complementary therapies like yoga and mindfulness meditation are increasingly recognized for their ability to enhance recovery from addiction, in part by targeting stress-related cognitions, emotions, and behavioral urges such as craving.

The philosophy of yoga, with a focus on the ways in which yogic breathing, postures, meditation, concentration, and moral and ethical foundations can increase resilience. The relationship between addiction and stress as a conceptual foundation for how yoga and mindfulness may help treat or preempt addictive behaviors, including associated patterns of thinking, emotional processing, physiology, and behavior.

We have taken up this study to asses and compare role of yoga therapy in prevention of relapse in patients with alcohol dependence with conventional pharmacotherapy and psychotherapeutic counselling. We have also analysed change in quality of life and eagerness to change among alcohol dependent patients .

MATERIAL AND METHODS

The prospective, randomized study was carried out on all clinically stable patients with alcohol dependence attending Medicine and Psychiatry OPD and those admitted in Medicine and Psychiatry IPD of S.V.B.P. Hospital Meerut, from January 2016 to September 2016. Informed written consent of all the patients was taken. All the patients were followed up for 6 months from the date of enrolment.

TYPE OF STUDY: Prospective, randomized study

INCLUSION CRITERIA

- Patients with a diagnosis of alcohol dependence using ICD 10 criteria
- Male Patients age between 18 -60 years
- Patient who give written informed consent.

EXCLUSION CRITERIA

- Patient<18 years or >60 years
- Female patients
- Patients with alcohol with drawl seizures and delirium tremens
- Uncooperative/unable to provide informed consent
- Any other substance abuse except tobacco
- Any other severe mental illness like schizophrenia, bipolar disorder or severe co morbid medical condition like malignant hypertension , diabetic patients with complications , encephalopathy , myocardial infarction.

Ethical clearance was taken from the institutional ethical committee.

INSTRUMENTS USED IN STUDY

- AUDIT Questionare To Screen Alcohol Dependent Patients
- CIWA Scale To Screen Patients Having Withdrawl Symptoms
- Psychosocial Assessment By Semi Structure Performa For Demographic Details
- WHOQOL BREF Questionnaire For Quality Of Life Assesment
- SOCRATES Scale For Assessment Of Eagerness To Change

STATISTICAL ANALYSIS

Stastical analysis done by SPSS 24.0 software used for descriptive analysis,paired t test and independent t test evaluation.

STUDY DESIGN

Patients with alcohol abuse attending Medicine and Psychiatry OPD and those admitted in Medicine IPD of S.V.B.P. Hospital Meerut were subjected to AUDIT SCALE for screening for ALCOHOL DEPENDENCE. Total 110 numbers of patients of alcohol dependence syndrome diagnosed according to the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) criteria were taken for the study.

110 patients with alcohol dependence were enrolled and divided into two groups :

Group A: Subjects who would receive yoga therapy along with conventional pharmacotherapy and psychotherapy for alcohol dependence

Group B: Subjects who would receive conventional pharmacotherapy and psychotherapy for alcohol dependence.

After taking written informed consent, samples were divided into two groups each containing 55 patients. Both the groups (case and control) underwent detoxifi cation for the required time period. After this phase was over both the groups were given anticraving drugs as per the suitability. The anticraving drugs used in this hospital are acamprosate, naltrexone, topiramate, baclofen and ondanesetron.. Additionally, the case group were taught yoga by the primary investigator and advised to practice yoga at home for at least five days a week in early morning hours for 60 minutes , a yog pustika guide book in simple hindi language was given to all cases to help them in performing yoga and following yogic lifestyle

Patients were evaluated with Clinical History taking and Physical examination.Blood sampling for CBC,RFT,LFT and Arterial blood gas Analysis was done.Patients were evaluated by using WHOQOL , and eagerness to change using SOCRATES (The Stages of Change Readiness and Treatment Eagerness Scale)Participants were followed at end of 1st week 2nd week, 2ND month, 3rd month and at 6 months with a margin of ±5days on each visit using CIWA SCALE for withdrawl symptoms , during these follow ups patients were motivated for alcohol abstinence . At the end of 3rd and 6th months both groups were assessed for soberity , lapse and relapse. At 6 months final data for , WHOQOL DOMAINS and SOCRATES SCALE was compared with baseline data.

RESULTS

Table 1 : No of patients in study at 3 & 6 months respectively

Group	Patients enrolled	At 3 months	At 6 months
Group A	55	52(94.5%)	46 (83.60%)
Group B	55	51(92.7%)	46 (83.60%)

MEAN YEARS OF ALCOHOL CONSUMPTION

Table 2: Distribution of cases according to Mean duration since first drink in years

	GROUP A (N = 55)	GROUP B (N = 55)	p value
Mean duration since first drink in years	9.74±3.94	9.39±3.84	0.649

The mean age since first drink was asked from both the groups and it was calculated that mean age since first drink was 9.74±3.94 in group A and that in group B was 9.30±3.89 with a p value 0.518 (stastically not significant).

TYPE OF ALCOHOL PREFERRED

Table 3: Distribution of cases according to Type of drink taken preferably

TYPE OF DRINK TAKEN PREFERABLY	GROUP A (N = 55)	GROUP B (N = 55)
Country made	25 (45.5%) P	22 (40%)
Whiskey	20 (36.4%)	22 (40%)
Beer	10 (18.2%)	11 (20%)

In group A 25 (45.5%) subjects used country made alcohol , 20(36.4%) subjects used whiskey and 10 (18.2%) used beer as their preferred drink .

In group B 22 (40%) subjects used country made alcohol , 22(40%) subjects used whiskey and 11(20%) used beer as their preferred drink .

It was observed that country made alcohol was preferred in age group 35-50 years age in unemployed , unskilled , illiterate participants. Whiskey was choice among professional, graduate,clerical participants of age group 25-35 years age. Beer was preferred in younger , unmarried students of age group 20-25 years age .

Table 4: Distribution of cases according to Reason for abstinence

REASON FOR ABSTINENCE	GROUP A (N = 55)	GROUP B (N = 55)
Self motivation	18 (32.7%)	18 (32.7%)
Family and social problems	21 (38.2%)	22 (40%)
Health problems	16 (29.1%)	15 (27.3%)

REASON FOR ABSTINENCE

43 (39.09%) of the total 110 participants indicated that they wanted to abstain alcohol due to family problems like dispute with spouse, family members and neighbors , 36 (32.72%) indicated that they wanted to abstain because of their self motivation they said they had low self belief and were of no use to society and family when drunk .31 (28.18%) indicated health problems like loss of weight ,fatigue , nausea,vomiting, gastrointestinal symptoms, depression and insomnia.

In group A – 21(38.20%) participants had family problems,18(32.7%) had self motivation to abstain , and 16 (29.10%) had health problems.
In group B –18(32.70%) participants had family problems,22(40%) had self motivation to abstain , and 15 (27.30%) had health problems.

Table 5 : Baseline Whoqol Score

s. no.	Parameters	GROUP A (N=55)	GROUP B (N=55) P	P value
1	Physical	11.48±0.50	11.78±0.62	0.574
2	Psychological	12.46±0.721	12.98±0.683	0.871
3	Social	11.72±0.68	11.93±0.772	0.150
4	Environmental	12.57±0.501	12.33±0.474	0.768

Table 5 shows baseline WHO quality of life in 4 domains – physical , psychological ,social and environmental mean scores in participants of group A and group B .

It is evident that at baseline, there is no statistically significant difference between the yoga and control groups in any of the 4 domains and were comparable. (paired t test p-value>0.05)

Table 6 : Baseline Socrates Score

S.No.		GROUP A (N=55)	GROUP B (N=55)	P value
1	Recognition	25.89±0.82	25.91±1.189	0.113
2	Ambivalence	10.24±0.480	10.22±0.663	0.226
3	Taking Steps	29.07±1.569	29.26±0.801	0.192

Table 6 shows baseline SOCRATES score in 3 domains – recognition , ambivalence and taking steps mean scores in participants of group A and group B .

It is evident that at baseline, there is no statistically significant difference between the yoga and control groups and were comparable (paired t test p-value>0.05)

After the baseline values were recorded patients were explained about warning symptoms of alcohol withdrawl and about what medications to be taken at home. Patients were then followed up at 1st week ,2nd week , 2nd month , 3rd month and finally at 6 month . during all these visits patients were analysed for withdrawl symptoms using CIWA SCALE and history of any episode of lapse or relapse was taken.

Table 7 ; Ciwa Scale Score On Various Visits During Study (mean Score)

GROUP	1ST WEEK	2ND WEEK	2ND MONTH	6 MONTH
A	8±1.75	7±1.64	5±1.15	4±1.48
B	9±1.68	7±1.75	6±1.34	5±1.85

ASSESSMENT OF RELAPSE

Participants of both the groups were analyzed at 3rd and 6th month of study regarding their abstinence status notified in 3 aspects – lapse,relapse, and abstinent.

Table 8 : AT 3RD MONTH

GROUP	Lapse	Relapse	Sober/abstinent
A (N=52)	21 (40.30%)	9 (17.35%)	22(42.30%)
B (N=51)	24 (47.05%)	10 (19.60%)	17(33.33%)
p value	0.736	0.195	0.333

There was no significant association between group A and B in states of lapse (p value = 0.736) relapse (p value = 0.195) and abstinence/sober (p value =0.333) as the p values were more than 0.05.

Table 9: AT 6TH MONTH

GROUP	Lapse	Relapse	Sober/abstinent
A (N=46)	18 (39.13%)	6 (13.09%)	22 (47.87%)
B (N=46)	24 (47.05%)	11 (23.91%)	15 (32.60%)
p value	0.423	0.184	0.138

There was no significant association between group A and B in states of lapse (p value = 0.423) relapse (p value = 0.184) and abstinence/sober (p value =0.138) as the p values were more than 0.05.

Hence it is inferred that although there was no stasticaly significant improvement but there was a difference between percentage of patients relapsed and those remaining sober indicating that yoga was beneficial in preventing relapse and persisting soberity among the two groups .

Table 10 : Intergroup variation in BREF score domains at 6 months

	GROUP A	GROUP B	MEAN DIFFERENCE	P VALUE
Physical	14.35±0.486	13.35±1.10	1.00	0.001
Psychological	16.39±0.274	14.54±0.580	1.840	0.015
Social	14.70±1.26	13.59±0.498	1.100	0.002
Environmental	15.37±0.53	13.89±0.567	1.470	0.113

It is evident from the table 10 showing intergroup variation, that at 6 months the patients on yoga therapy have significant difference from control group (independent t-test p value<0.05) in BREF score of physical ,psychological and social domains .

DISCUSSION

The present study evaluated the effect of Yoga on prevention of relapse, change in quality of life levels and eagerness to change with comparison to conventional therapy in patients with alcohol dependence . The study has shown that there was no statically significant reduction in relapse rate after yoga practice but there was significant increase in quality of life score and eagerness to change score in participants of yoga group. Total 110 numbers of patients of alcohol dependence syndrome diagnosed according to the tenth revision of the International Statistical Classifi cation of Diseases and Related Health Problems (ICD-10) criteria were taken for the study. After taking written informed consent, samples were divided into two groups each containing 55 patients. Both the groups (case and control) underwent detoxifi cation for the required time period. After this phase was over both the groups were given anticraving drugs as per the suitability. The anticraving drugs used in this hospital are acamprosate, naltrexone, topiramate, baclofen and ondanesetron. Additionally, the case group were taught yoga by the primary investigator and advised to practice yoga at home for at least five days a week in early morning hours for 60 minutes , a yog pustika guide book in simple hindi language was given to all cases to help them in performing yoga and following yogic lifestyle .

Maximum number of patients in both group fall in age group of 31-40 years , All the 110 enrolled subjects were males, majority of subjects in both groups were married living together with spouse , educated below intermediate school, preferred country made alcohol followed by whiskey and beer , mean age since first drink was 9 years approx in both the groups , majority of the patients had previous attempts for alcohol abstinence and social and family problems was found to be major reason for their abstinenece . Both the groups were comparable on parametres such as type of alcohol used, duration of alcohol used, frequency of alcohol used, and reason for past attempts for abstinence.

A similar study was done by **Dipesh Bhagabati et al in a** tertiary care hospital, Guwahati, Medical College & Hospital, Department of Psychiatry in which Maximum number of patients in the case group fall in age group of 18-39 years while in the control group, maximum number fall in 40-59 years age group. All the 100 enrolled subjects were males, majority of subjects in both groups were Hindu, married, educated below class ten, and belonged to rural areas. Another pilot study was conducted in Sweden by **Hallgren** on small number of patients of alcohol dependence (N=18), who were randomised to receive either the usual treatment (psychological and pharmacological treatment) or treatment as usual plus ten-week yoga therapy. The groups were assessed before treatment and six months after treatment. Alcohol consumption reduced more in the yoga group.

In our study assessment of relapse status was done at 3rd and 6th month. At 3 month & 6 month-there was no significant association between group A and B in states of lapse (p value = 0.736) relapse (p value = 0.195) and abstinence/sober (p value =0.333) as the p values were more than 0.05.

Hence it is inferred that although there was no statically significant improvement but there was a difference between percentage of patients relapsed and those remaining sober indicating that yoga when combined with conventional pharmacological and psychological therapy was more beneficial in preventing relapse and maintaining abstinence than conventional therapy alone.

In a study named **CAUSES OF RELAPSE POST TREATMENT FOR SUBSTANCE DEPENDENCY WITHIN THE SOUTH AFRICAN POLICE SERVICES** done by **MAHENDHREE CHETTY** reflects that the majority (32) of respondents (73%) had experienced a relapse following treatment whereas only 12 of the respondents (27%) stayed sober. These findings were also consistent with research (Connors et al., 1996:5; Miller et al., 79 1996:155; Perkinson, 2004:180; Lewis et al., 2002:105; Johnson, 2003:271) that the problem of relapse remains to be a challenge to many substance abusers post treatment for substance dependency.

In our study there is a improvement in mean physical domain score, mean psychological domain score, mean environmental domain score in the yoga group. In study conducted by **Naorem Jiteswori Devi** at Newlife drug de-addiction centre, Manipur with study title " **EFFECT OF YOGA ON DEPRESSION AND QUALITY OF LIFE IN DRUG ABUSERS** also compared effect of yoga on quality of life of substance abuse patients.There was significant reduction after yoga intervention in depression scores (BDI-II) (p=0.000) and significantly increased in Quality of life Domain 1, 2 and 3 (p=0.000, p=0.043, p=0.015).

Another study was done by **Khalsa et al** on pilot treatment program for substance abuse that integrated a comprehensive array of yoga, meditation, spiritual and mind-body techniques. It showed improvements on a number of psychological self-report questionnaires including the Behavior and Symptom Identification Scale and the Quality of Recovery Index. It concluded that application of comprehensive spiritual lifestyle interventions may prove effective in treating substance abuse. This study is consistent with these findings, indicating that practice of the yoga can help in improving quality of life and reducing depression in drug abusers.

CONCLUSION

Yoga and conventional therapy are effective in the treatment of alcohol dependence. However if we combine Yoga with conventional therapy the beneficial effects comes much earlier. It is also that the magnitude of improvement is much more than the conventional therapy alone. Thus addition of yoga therapy to conventional therapy in the treatment of alcohol dependence appears beneficial and promising.

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