



ALCOHOL WITHDRAWAL OR DEPENDANCE SYNDROME AND EPILEPSY IN GENERAL

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ABSTRACT

Background: Alcohol is a predominant beverage that rolling out throughout the world, and has a hysterical influence in the human beings. But it shows a great role in substance use disorders. Alcoholic beverages are consumed around the world as an acceptable part of many recreational and ceremonial activities. Low to moderate use of alcohol may facilitate socialization, as it reduces anxiety and has a disinhibiting effect on social behaviors. Alcohol use disorders continue to be a concerning health issue worldwide. Harmful alcohol use leads to 2.5 million deaths annually worldwide^[1]. Each year more than 1% of gross national product in high income & middle-income countries

spend on alcohol national wide. The Alcohol related disorders are not only related to individuals but also harmful for those who associated with individual also. Usage of alcohol mainly causes Alcohol dependence syndrome, Alcohol Intoxication, Alcohol Withdrawal syndrome and Alcohol related seizures.

KEYWORDS: Alcohol Use Disorders, Alcoholism, Alcohol withdrawal syndrome, CAGE questionnaire.

INTRODUCTION

Alcohol is a predominant beverage that rolling out throughout the world, and has a hysterical influence in the human beings. But it shows a great role in substance use disorders. Alcoholic

beverages are consumed around the world as an acceptable part of many recreational and ceremonial activities. Low to moderate use of alcohol may facilitate socialization, as it reduces anxiety and has a disinhibiting effect on social behaviors. Alcohol use disorders continue to be a concerning health issue worldwide. Harmful alcohol use leads to 2.5 million deaths annually worldwide. Each year more than 1% of gross national product in high income & middle- income countries spend on alcohol national wide. The Alcohol related disorders are not only related to individuals but also harmful for those which associated with individual also.

The damage that long-term heavy alcohol consumption can do to the health of adults is well documented. Alcohol is classed as a 'sedative hypnotic' drug.^[2] Which means it acts to depress the central nervous system at high doses. At lower doses, alcohol can act as a stimulant^[3], inducing feelings of euphoria and talkativeness, but drinking too much alcohol at one session can lead to drowsiness, respiratory depression (where breathing becomes slow, shallow or stops entirely), coma or even death.^[4] Alcohol dependence syndrome is otherwise known as alcoholism has a gruesome effect on individuals. And alcohol dependence also led to the anxiety and depression (twice the risk of having major depression and a fourfold increased risk of experiencing both anxiety and depression.^[5] Recent studies shows that the alcohol reveals the Carcinogen property in animals and classified alcoholic beverages as carcinogenic to humans.^[6]

There is a hysterical relationship between alcohol overuse and epileptic seizures. Studies shows that regular alcohol consumption increase the risk of seizures by abruptly reducing or discontinuing consumption (withdrawal seizures). When a chronic alcoholic reframes from drinking partially or totally there occur withdrawal seizures (during abstinence). Moreover 90% of the seizures present within 7-48 hours after the last drink and with peak at 25-24 hours. In this time the patient may go through myoclonic or generalised seizures to the sensitivity towards stroboscopic stimulations on time lapse.^[7] In this 30% of the patient those who suffer from generalised seizures will present thereafter the clinical picture of delirium tremens. Withdrawal seizures during ethanol abstinence are a common occurrence, when a chronic alcoholic refrain from drinking partially or totally. Roughly 90% of the seizures present within 7-48 hours after the last drink, with a peak at 13-24 hours. During this time lapse the patient is highly sensitive toward stroboscopic stimulation, which might cause myoclonic or generalized seizures (the so-called photo-paroxysmal responses).^[8]

MATERIALS AND METHODS

Study Period

- This study was carried out for a period of 6 months(March 2018 – September 2018).

Study Design

- It was a prospective study which was carried out in patients arriving at Government Headquarter Hospital, Tirupur, Tamil nadu.

Study Method

- The study was conducted in Government Headquarter Hospital, Tirupur, and Tamilnadu.
- The study method involved selection of patients based on the data's collected from MRD and Live case Reports.
- Collection of Various Articles Related With Alcohol Use Disorders
- Designing of Performa
- Patient selection -Inclusion Criteria, Exclusion criteria.
- Laboratory findings of each patient.
- Assessment of Each Patient- CAGE Questionnaire and Other Questionnaire
- Role of pharmacist, aid in reduce Alcohol consumption- Pictorial, videos, pamphlets & Effective patient counselling.

RESULTS AND DISCUSSION

Table 1 and Figure 1 shows that age group from 30-50 are more prone to be having alcohol consumption and after that 50 and above aged patients, then its followed by below 30 year aged. Lower Minimum legal drinking Age (MLDA) laws have been associated with short term effects such as more traffic fatalities and teen suicides. Strong Pharmacist intervention is adequate for 9% of the study population.^[9]

Age (yrs.')	Frequency (n)	Percentage (%)
18 - 30	13	8.57
30- 50	39	55.71
50 and above	18	25.71

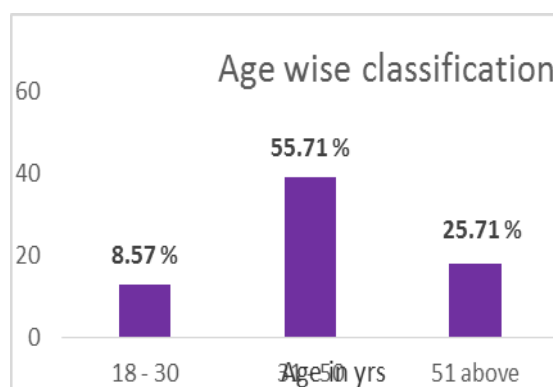


Table 2 and Figure 2 indicates that 65% of the patients population were more illiterate than literate (35%). Youths with lower health literacy may have lowered capacity for rational decision making, creating the observed relationship differential.

Patients	No of patients	Percentage (%)
Literate	24	34.29
Illiterate	46	65.71

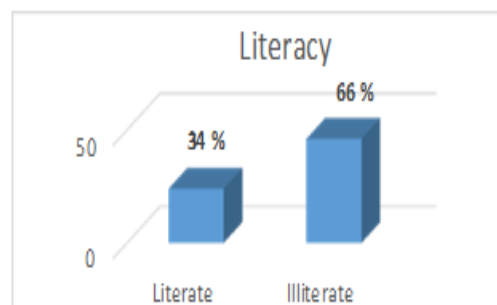


Table 3 and Figure 3 explains that 72% of the patients having smoking habits and 7% of other people having drug abuse nature. It is Given that smoking appears to be a risk factor for heavy drinking, and heavy drinking a risk factor for heavy smoking. Nicotine and Alcohol are also the substances ingested by humans which cause the greatest harm to health.^[10]

Habits	Number of patients (n)	Percentage (%)
Smoking	51	72.86
Drug abuse	5	7.14
Nil	19	27.14

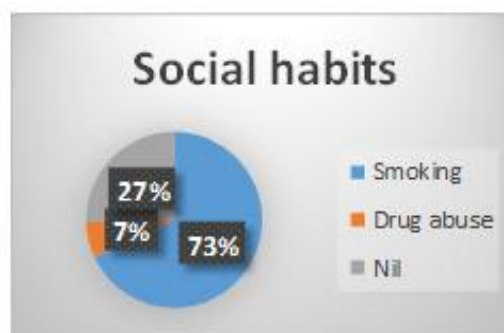


Table 4 and Figure 4 reprises that Hypertension were found to be more predominant co-morbidity in Alcoholics rather than DM > CHD > Liver Disease. Drinking too much alcohol can raise blood pressure to unhealthy levels. Having more than 3 drinks in one sitting temporarily increase the blood pressure but repeated binge drinking can led to long term increases.

Co-Morbidities	Number of patients
HTN	36
DM	16
CHD	11
Liver Disease	7

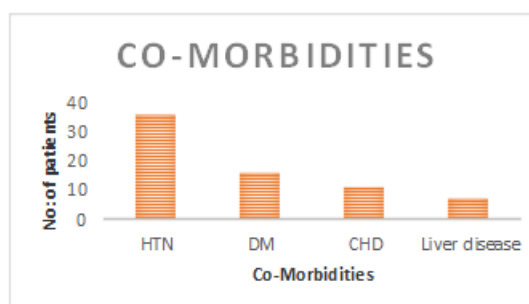
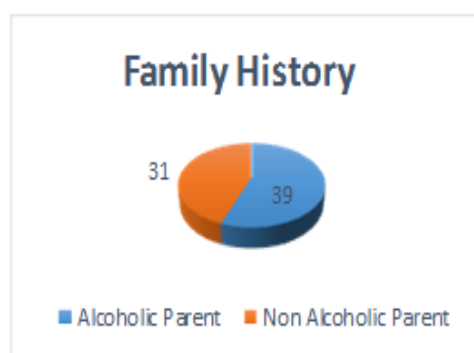


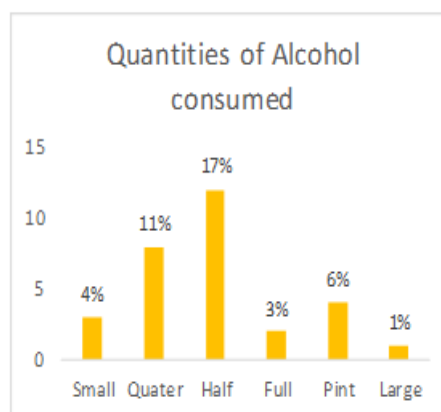
Table 5: and Figure 5 shows that 39 patients having their parents with alcoholic history and Rest of the 31 is not having a social history of Alcoholic family Background. The chronic stress of growing up in a chaotic and unpredictable environment such as the one adult children of alcoholics experience can led to significant alterations in : structure and function of brain, the way body responses to and manages stress, the expression of the individuals genes including what is eventually passed down to later generations.^[11]

Family History	Number of patients (n)
Alcoholic Parent	39
Non-Alcoholic Parent	31



Apart from the Questionnaire (Table 6 and Figure 6) Most of the People use 'Half 'of the quantity of alcohol (17%). Then it is followed by Quarter > Pint > Small > Full > Large.

Qty of alcohol consumed	Number of patients (n)	Percentage (%)
Small	3	4
Quarter	8	11
Half	12	17
Full	2	3
Pint	4	6
Large	1	1



The Cage Questionnaire Score shows that (Table 7 and Figure 7) a score mark of ‘2’ having significant value rather than other scores. The Cut down –Annoyed-Guilty-Eye Opener (CAGE) and Alcohol Use Disorders Identification Test (AUDIT) questionnaires may help identifying AUD patients. For CAGE Questionnaire of score 1 shows negative screening and Scores of 2 or higher had a 93% sensitivity / 76% specificity for the identification of ‘excessive drinking’ and a 91% sensitivity/77% specificity for the identification of alcoholism. Some clinicians also consider the ‘Eye Opener’ question as highly concerning for unhealthy drinking behavior, even if all other questions are answered negatively.^[12]

Score	No of patients	Percentage (%)
0	3	4
1	2	3
2	12	17
3	10	14
4	3	4

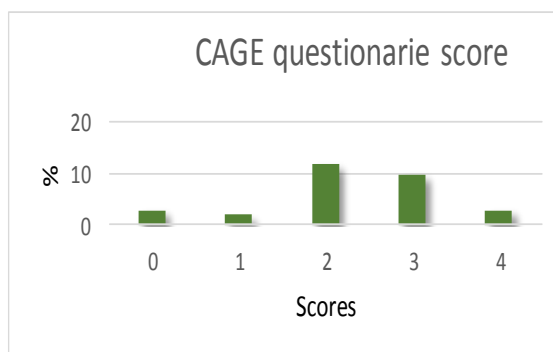
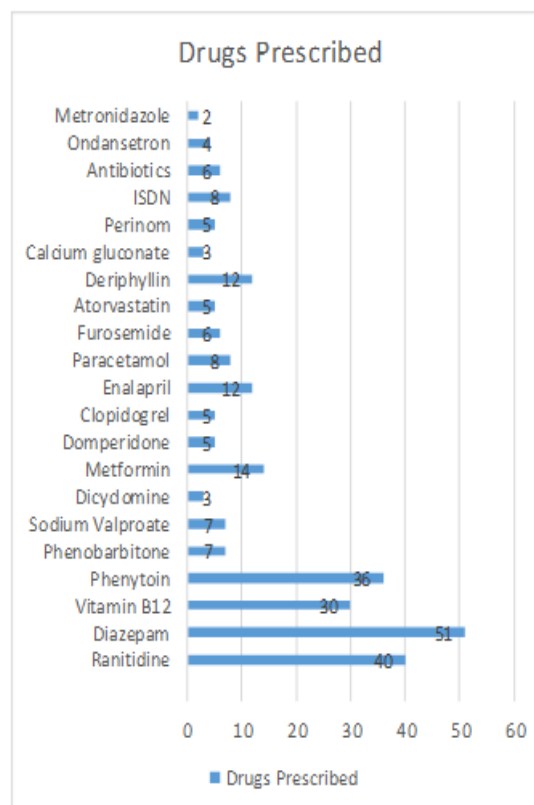


Table 8 and Figure 8 clearly represents the Drug chart and Graph which shows that Diazepam is prescribed most with equivalent prescription of Ranitidine followed by Phenytoin given apart of treatment (Seizure’s and Withdrawal symptoms). Then, it is followed by Vitamin B12, Metformin, ISDN, Phenobarbitone, Sodium Valproate, Enalapril, Furosemide, Paracetamol, Atorvastatin.

Drugs	Number of prescribed drugs
Ranitidine	40
Diazepam	51
Vitamin B12	30
Phenytoin	36
Phenobarbitone	7
Sodium valproate	7
Dicyclomine	3
Metformin	14
Domperidone	5
Clopidogrel	5
Enalapril	12
Paracetamol	8
Furosemide	6
Atorvastatin	5
Deriphyllin	12
Calcium gluconate	3
Perinom	5
ISDN	8
Antibiotics	6
Ondansetron	4
Metronidazole	2



CONCLUSION

Alcohol withdrawal / dependence syndrome represents a potentially life threatening medical condition typically affecting AUD patients abruptly decreasing or stopping alcohol consumption. The use of CAGE scale was found to be an important tool to diagnose AWS and start adequate treatment. Benzodiazepines represent the gold standard treatment as a result both for their high rate of efficacy and being the only medication with proven ability to prevent the complicated forms of AWS (seizure, delirium). Pharmacist as healthcare provider play important role in prevention, education and assistance of AUD. They should promote and provide alcohol risk reduction education and activities through effective counselling, distribution of pamphlets, leaflets, and pictograms among alcoholic patients.

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