

Research Article

Prescribing Pattern of Drugs in Alcohol Dependence in a Tertiary Care Hospital.

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ABSTRACT

Alcohol dependence is one of the more serious public health issues in the world. It not only affects health but is also a social and economic burden. Pharmacotherapy is the main stay of treatment along with behavioral therapy for alcohol addiction. The present study was done to analyze the prescribing pattern of drugs used in alcohol dependence.

Methods: The present study is a retrospective study which was carried out in the Department of Psychiatry, Dr. B.R.Ambedkar Medical College, Bangalore from March 2016 to August 2016. Demographic, disease and treatment details were collected and entered in the case performas. The results were analyzed using descriptive statistics.

Results: A total of 125 prescriptions were analyzed. The most common age group was between 30-60 years with a male predominance (95.2%). 72% of patients were treated for alcohol dependence whereas 28% who had other co morbidities like psychosis and depression were treated appropriately. The most commonly prescribed drugs were Vitamins (74.4%), Benzodiazepines (BZDs) (56.8%), anti-craving drugs (52%), antipsychotics (20%) and anti-depressant drugs (8%). Lorazepam (45.6%) and Baclofen (46.1%) were the most common drugs prescribed among BZDs and Anti-craving drugs respectively. For affective disorders Olanzapine (36%) was the commonest drug prescribed.

Conclusion: This study reveals that alcohol dependence is accompanied by other co-morbidities like psychosis, depression and anxiety. Combined therapy of Vitamins, BZDs, Anti-craving drugs along with Antipsychotic or Antidepressant drugs have been prescribed to the patients. Newer anti-craving drugs like Baclofen, Acamprosate and Naltrexone have also been prescribed.

KEYWORDS

Alcohol dependence, Benzodiazepines, Acamprosate, Naltrexone, Baclofen.

1. INTRODUCTION

The menace of alcohol consumption has been on a rise globally since the last few years. India has shown a rise of as high as 106.7% in the last 10 years. According to WHO about 30% of Indians consume alcohol, out of which around 50% are hazardous drinkers and the mean age has fallen from 28 years to 17 years unfortunately¹. Globally alcohol consumption results in 3.3 million deaths each year¹ (WHO Global status report on alcohol and health, 2014). In fact it is the 3rd largest risk factor for disease and disability in the world. In 2010, 5.5% of total DALYs (Disability Adjusted Life Years) were lost worldwide² (Lancet's global disease burden study). Various studies suggest that the younger drinkers, with family history of drinking and alcoholism are the vulnerable group to develop addiction³. Pharmacotherapy along with behavioral therapy plays an important role in preventing alcohol addiction.

Advances in neurobiology and their associated neurotransmitter systems in development of alcohol dependence are also the potential targets for pharmacological approaches⁴. Our study focuses on analyzing the prescribing pattern of drugs in alcohol dependent patients.

2. MATERIALS AND METHODS

After obtaining permission from the Institutional Ethics Committee, a retrospective, cross sectional study was conducted in Department of Psychiatry, DR. B.R.Ambedkar Medical College for a period of 6 months from March 2016 to August 2016.

2.1. Inclusion criteria

All patients above the age of 18 years who were diagnosed with alcohol dependence according to the DSM-4 TR (Diagnostic and Statistical Manual of Mental Disorders) criteria were included irrespective of gender.

2.2. Exclusion criteria

Patients with other substance abuse along with alcohol were not included. Demographic details, disease details and treatment details of patients suffering from Alcohol Dependence were entered in the case recording proformas. The results were analyzed using descriptive statistics

3. RESULTS AND DISCUSSION

A total of 125 prescriptions of patients suffering from alcohol dependence were analyzed. Out of which 119 patients were male (95.2%) and 6 were female (4.8%). 72% patients were treated for only alcohol dependence. 20% patients were also treated with antipsychotic drugs and 8% of the patients were prescribed with antidepressant drugs. The most commonly prescribed drugs were Vitamins (74.4%), BZDs (56.8%), anti-craving drugs (52%), antipsychotics (20%) and antidepressant drugs (8%). Among the BZDs, Lorazepam (80.2%) was the most common drug prescribed followed by Chlordiazepoxide (16.9%). For long term relapse prevention, anti-craving drugs like Baclofen (46.1%), Acamprosate (30.7%) and Naltrexone (23%) were prescribed. For associated affective disorders Olanzapine (36%), Haloperidol (30%) followed by Escitalopram (30%) and Nortriptyline (30%) were the most commonly prescribed drugs.

Prescriptions give an insight into the nature of health care delivery system in Drug Utilization Research⁵.

Psychosocial treatment has been effective in treatment of Alcohol dependence, however nearly 20% showed relapses⁶, therefore necessitating use of pharmacotherapy. Various studies like “Addressing alcohol addiction: lessons from a hospital based audit” by Prabhat Chand, CK Naveen et al⁷ explained the need of long term pharmacological interventions with various behavioral therapies as the key to decrease the alcohol addiction burden in the society. In our study multivitamins were prescribed to all patients with alcohol dependence. In a study done by Bhanu Prakash k et al⁸, multivitamins were the 2nd most common drugs prescribed in alcoholic liver disease. This indicates that multivitamins are necessary to treat nutritional deficiencies commonly suffered by alcoholic patients. For decreasing the withdrawal symptoms, BZDs like Lorazepam, Chlordiazepoxide and Diazepam were prescribed in our study which was in line with the studies done by Hoey LL et al⁹, where Lorazepam and Chlordiazepoxide are the common BZDs being prescribed. Hence, BZDs are effective in treatment of withdrawal symptoms in alcohol dependent patients. In our study Baclofen, Acamprosate and Naltrexone were the most commonly prescribed anti-craving drugs, emulating the Study conducted by Atul A etal¹⁰ and Julie Dupouy etal¹¹ which provided consistent evidence of use of Acamprosate, Naltrexone and Baclofen as anti-craving drugs.

This pattern of prescribing anti-craving drugs in alcohol dependence is similar to that approved by the US FDA.

Naltrexone, an opioid antagonist, blocks the effect of endogenous opioids which tend to increase after alcohol consumption.

Acamprosate is a derivative of the essential amino acid taurine and is structurally similar to GABA.

It enhances GABAergic neurotransmission, which is decreased in alcohol dependent patients. It also decreases the action of glutamate receptors, acts on calcium channels and reduces central nervous system hyper-excitability. All these actions make it effective for better abstinence from alcohol. Baclofen is a GABA receptor agonist; it blocks the synaptic reflexes by acting as an inhibitory neurotransmitter.

Previous studies¹² showed use of Disulfiram for alcohol craving. This change in the prescribing pattern in the anti-craving drugs is because of the better and clearer understanding of neurobiology of alcohol de addiction techniques⁷. There is a decreased trend of using Disulfiram, probably because of high requirement of patient’s willingness to stop alcohol completely and its associated adverse drug reactions.

In our study anti-craving drugs are prescribed as monotherapy where as in a study by Lohit K et al¹³ they were prescribed as combination therapy. Due to the complex neurobiology regarding de-addiction process, treatment with combination therapy of various anti-craving agents are advocated in patients not responding to monotherapy.

Alcohol dependence is associated with various psychiatric co morbidities. An integrated approach is essential to address this issue as seen in the study by Ismeneet al¹⁴. In our study too other co-existent affective disorders were treated with antipsychotics and antidepressants.

4. CONCLUSION

Alcohol dependence is seen to co-exist with various other co-morbidities like psychosis, anxiety and depression. The use of BZDs along with multivitamins and anti-craving drugs is the main stay of treatment for these alcohol dependent patients. Newer anti-craving agents like Baclofen, Acamprosate and Naltrexone have been prescribed in our study.

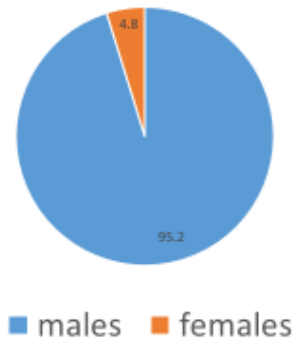
5. ACKNOWLEDGEMENT

None

6. REFERENCES

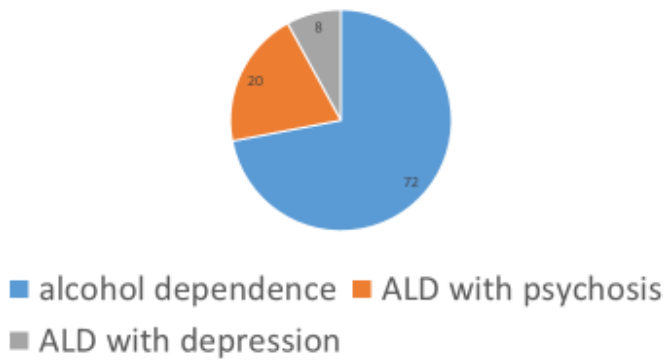
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Gender distribution in alcohol dependent patients

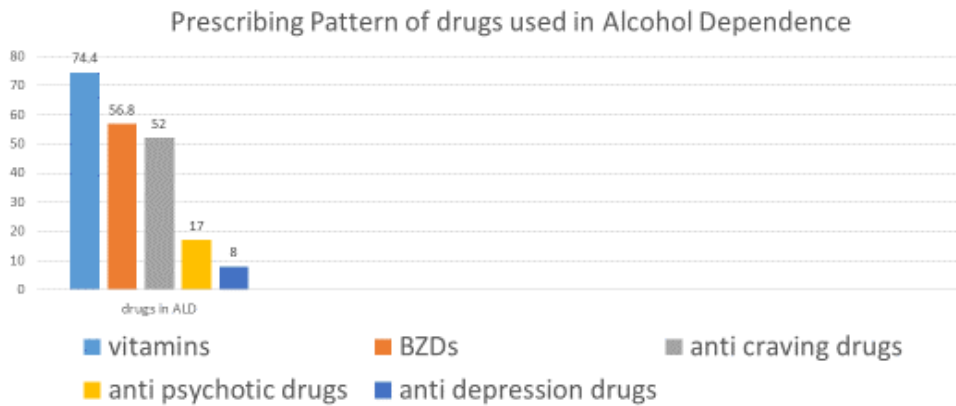


Graph 1. Gender Distribution of alcohol dependent patients.

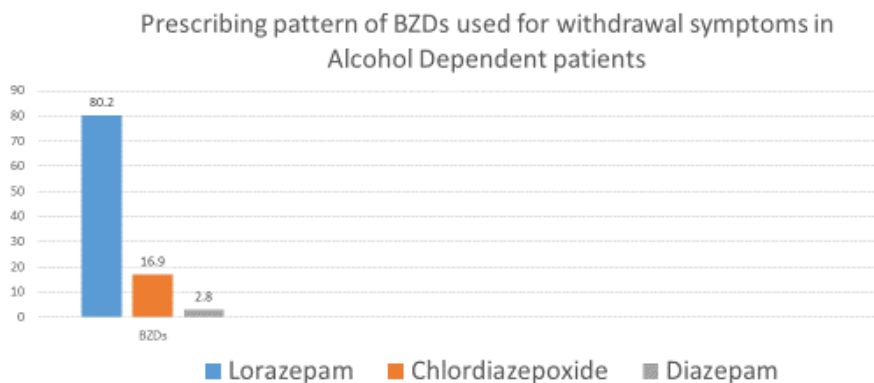
Alcohol Dependence with Psychiatric co-morbidities



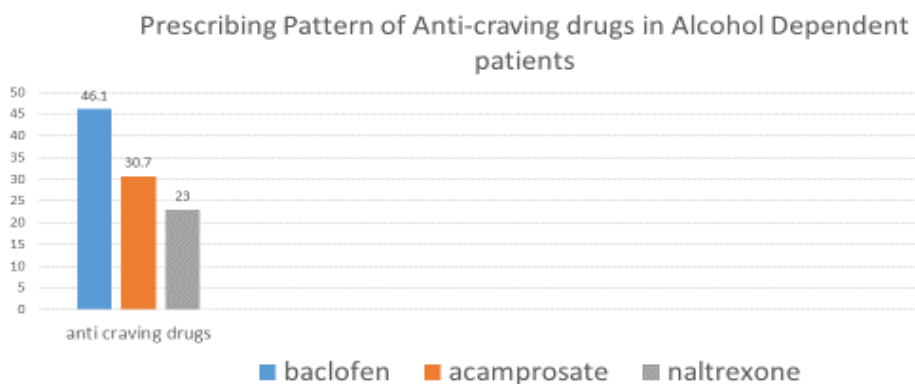
Graph 2. Alcohol Dependence with psychiatric comorbidities



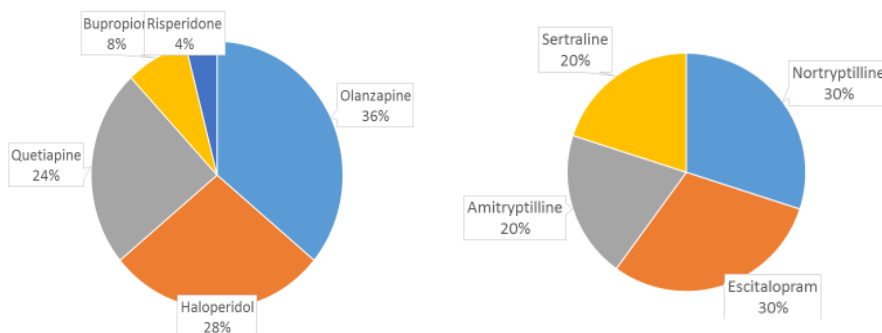
Graph 3. Prescribing pattern of drugs used in Alcohol dependence.



Graph 4. Prescribing patterns of Benzodiazepines for withdrawal symptoms in alcohol dependence.



Graph 5. Prescribing patterns of Anti-craving drugs in alcohol dependence.



Graph 6. Prescribing patterns of drugs for affective disorders in alcohol dependence.