A COMPREHENSIVE APPROACH FOR DEADDICTION OF CHRONIC ALCOHOLISM – CLINICAL STUDY

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ABSTRACT

Alcohol addiction is considered consumption of heavy dose of ethyl alcohol for a long period. Alcohol dependence is a previous psychiatric diagnosis in which an individual is physically or psychologically dependent upon drinking alcohol. Physiological dependence leads to alcohol addiction. Mamsyadi Kwath is one such formulaton which is said to be effective in psychiatric conditions. The ingredients are Jatamansi, Ashwagandh and Parsikayavani. The drugs having activities like Jatamansi having anti-depressant activities, Ashwagandha having Immunomodulatory effect, anti ageing, antistress activity, Parsikayavani having sedative as well as hypnotic activities. Mamasyadi kwath contains Jatamansi, Ashwagandh, and Parsikayavani. The drugs having activities like Jatamansi having anti-depressant activities, Ashwagandha having immunomodulatory effect, anti ageing, antistress activity, Parsikayavani having sedative as well as hypnotic activities. Other formulations are used for this clinical study having delightful ingredients is most effective in the management of chronic alcoholic de-addiction. Group A shows significant results in Serum Biliribin Direct, SGPT, serum protein due to contains the mamsyadi kwath and other formulations.

Both groups are shows significant results in other parameters like nausea, tremors, anxiety, agitation, paroxysmal sweat, orientation & clouding of sensorial, tactile disturbance, auditory disturbance, visual disturbance, headache, serum bilirubin total, SGOT, Haemoglobin.

KEYWORDS: Alcohol, Mamsyadi Kwath, Jatamansi, Ashwagandh, De-addiction, Anti ageing.

INTRODUCTION

Alcohol is one of the most common causes of chronic liver disease worldwide, with consumption continuing to increase in many countries. Patients with alcoholic liver disease (ALD) may also have risk factors for other liver diseases and these may interacts to increase disease severity.[1]

Alcoholism is very big rising problem in the world. According to W.H.O 38.3% of the global population consumed alcohol. Around 30% of the total population in India consumed alcohol in the year 2010, Consumption of alcohol in the country increased from1.6 liters from the period of 2003-2005 to 2.2 liters from the period of 2010-2012. The reports also state that in 2002 about 3.3 millions death or 5.9% of global death were attributed to alcohol consumption thus the above data clearly shows that Alcoholism is one of the major health and social problems faced by all over the world.[2] Alcohol addiction is considered when consumption of heavy dose of ethyl alcohol beverages for a long period, regularly and characterized by morbid desire to drink alcohol. Alcohol dependence is a previous psychiatric diagnosis in which an individual is physically or psychologically dependent upon drinking alcohol. Physiological dependence leads to alcohol addiction.[3]

In our classical text the alcohol addiction has described under the heading of Panapkrama, means sudden stop of alcohol leads to symptoms. In our classics 12 Ahara Varga explained among one of Madya Varga (Group of Alcoholic Preparations). Madya is used as Ahara Dravya as Anupana or as Aoushadhi. Alcoholic Praparations (Madya) is classified into two types on the basis of their uses viz; as medicine and as beverage. Madya (Alcoholic Beverages) is one which produces Mada (Excitement). When consumed with proper rules about quantity, time and procedure, it gives happiness, strength, reduces fear, strain and act a as Amrut (Nector) for the body. But the same when consumed without following these rules it results in Madatyaya.[12] It is need of time to develop, evaluate and elaborate this portion.[4,5]

Mamsyadi Kwath is one such formulaton stated by Yadavji Trikamji acharya in Sidhayog sangraha and Bheshaja samhita which is said to be effective in psychiatric conditions.

Ingredients of Mamsyadi Kwath

Drug	Botanical Name	Guna	Rasa	Virya	Vipaka	Karma
Jatamansi	Nardostachys Jatamansi	Laghu Snigdha	Tikta, Kasaya, Madhura	Sheeta	Katu	Medya, Balya, Bhutaghni
Ashwagandh	Withania Somnifera	Laghu Snigdha	Tikta, Kasaya	Ushna	Madhur	Balya, Rasayana, Vishaghna
Parsikayavani	Hyocymus Niger	Ruksh	Katu Tikta	Ushna	Katu	Grahi, Krimiroga

The ingredients are Jatamansi (Nardostachys Jatamansi), Ashwagandh(WithaniaSomnifera) and Parsikayavani (Hyocymus Niger) in an 8:4:1ratio, respectively.[6] The drugs having activities like Jatamansi having anti-depressantactivities,[7] Ashwagandha having Immunomodulatory effect,[8] antiageing,[9] antistress activity,[10] Parsikayavani having sedative as well as hypnotic activities.[11] Thus in this clinical trial patient of alcohol withdrawal will be managed by anti depressant activity along with sedative, liver tonic and appetizer to improve the hepatic function and general health.

MATERIALS AND METHODS

30 patient's desires to withdraw the alcohol will be selected from OPD of civil hospital dist. Jalandhar, Punjab. And will be admitted after proper physical examination. Selected 30 patients will be randomly divided in 2 groups-

1. Study group (Gp.-A) – Mamsyadi Kwath, Astangalavana Churna, Bhumiamalaki Ghanvati and Phalatrikadi Churna will be given in 15 patients of alcohol addiction and withdrawal.

2. Control group (Gp.-B) –Astangalavana Churna, Bhumiamalaki Ghanvati and Phalatrikadi Churna will be given in 15 patients of alcohol addiction and withdrawal.

Inclusion Criteria

1. Diagnosed patient of alcohol addiction.

2. Clinical manifestation of alcohol withdrawal patient including nausea, vomiting, tremors, anxiety, agitation etc which will be presented at that time.

3. Ageing between 20 – 60 years

4. Both sexes.

Exclusion Criteria

1. Alcohol addicted patients suffering from liver failure, gastrointestinal bleeding, Mallory-Weiss tears, Wernicke Korsakoff's syndrome (WKS), and cerebellar degeneration.

2. Alcohol addicted patients who are suffering from major psychiatric disorders.

3. Alcohol addicted patients suffering from major systemic illness like diabetes, hypertension, myocardial infarction, ischemic heart disease, pulmonary tuberculosis etc.

Drugs and Its Administration: Internal Medicine

1. Mamsyadi Kwath - 48ml twice daily for 1 month

2. Astangalavana Churna - 2gm twice a day after meal for 1month.

3. Bhumiamlaki Ghanvati - 500 mg twice a day after meal for 1 month

4. Phalatrikadi Churna - 3-6 gm twice a day after meal for 1 month.
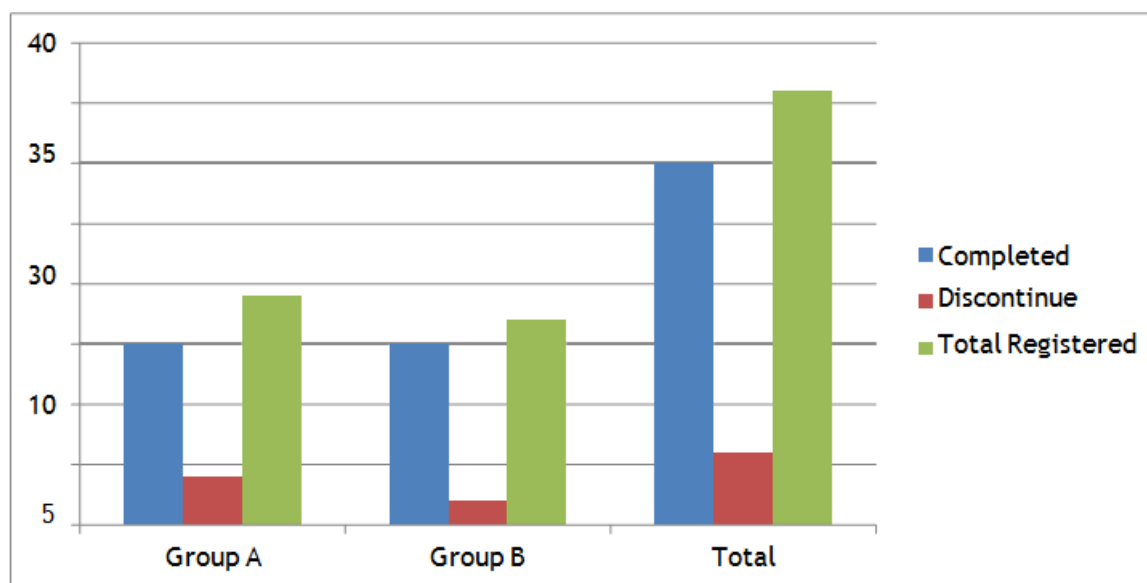
Assessment Criteria

The Alcohol Use Disorders Identification Test: Interview Version Read questions as written. Record answers carefully. Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year." Explain what is meant by "alcoholic beverages" by using local examples of beer, wine, vodka, etc. Code answers in terms of standard drinks.

OBSERVATION AND RESULTS

1- Distribution of Patient

Groups	No. of patients		Total patients
	Completed	Discontinue	
Group A	15	04	19
Group B	15	02	17

Graph 1: Distribution of Patient.

There were 19 patients registered into group A out of which 4 patients discontinue the treatment. Group B total 17 patients were registered for the trial but 2 patients discontinued the treatment.
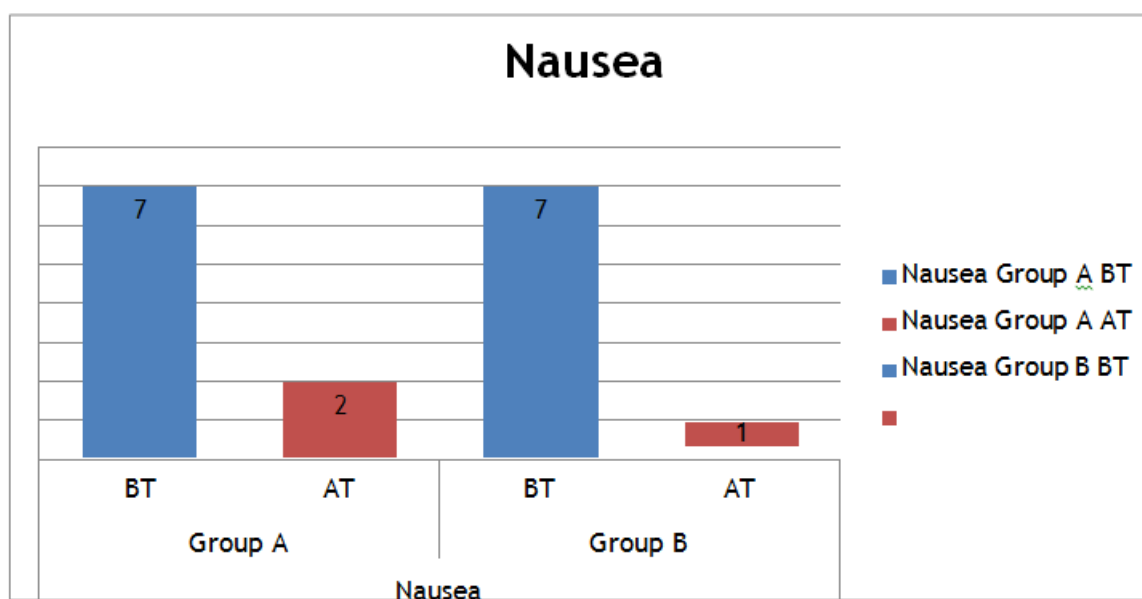
2- Age wise distribution

Age wise registered patient shows that the number of patients i.e. 36.66% (11 patient) were in age group 20-30 years followed by 23.33% (7 patient) in 31 – 40 years age group, 30% (9 patient) in 41-50 years age group and 20% (3 patient) in 51-60 years age group.

The statistical evaluation done by using data during the clinical trial. For parametric data like Sr.Bilirubin (Total & Direct), SGOT, SGPT, Sr.Protein, and HB paired and unpaired 't' test used. For Non-parametric test like Wilcoxon signed rank test used for the evaluation like nausea/vomiting, tremor, anxiety, agitation, paroxysmal sweat, orientation & clouding of sensorial, tactile disturbances, auditory disturbances, visual disturbances, headache.

- **Wilcoxon Signed Rank test of Nausea**

In this clinical study the test showed Group A result is significant at $p < 0.05$ and Group B shows $p < 0.05$ also significant before and after treatment. Between the group the value of Z – 1.2579, the P value is 0.10383, the result is not significant at $p < 0.05$.
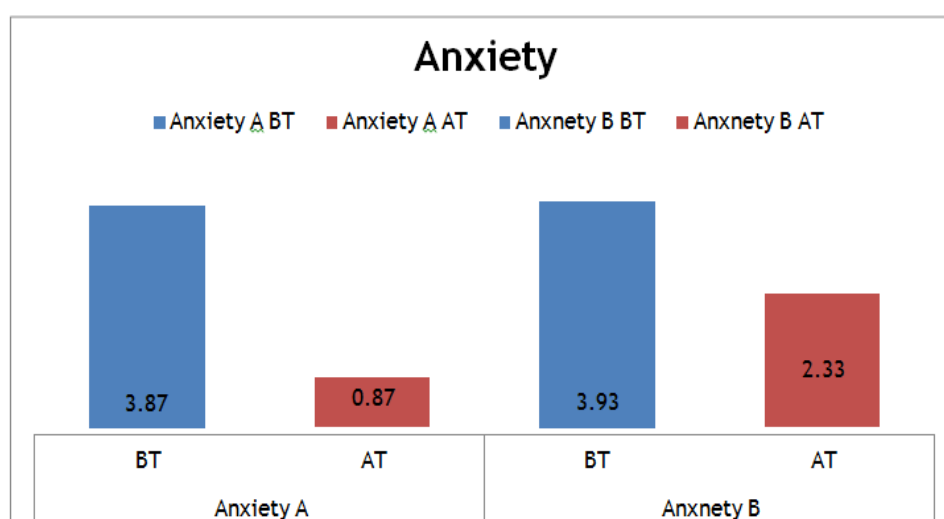
Graph 2: Wilcoxon Signed Rank test of Nausea.

- **Wilcoxon Signed Rank test of Tremors**

In this clinical study the test showed Group A result is significant at $p < 0.05$ and Group B shows $p < 0.05$ also significant before and after treatment. Between the group the value of Z − 2.3953, the P value is 0.008, the result is significant at $p < 0.05$.

- **Wilcoxon Signed Rank test of Anxiety**

In this clinical study the test showed Group A result is significant at $p < 0.05$ and Group B shows $p < 0.05$ also significant before and after treatment. Between the group the value of Z − 3.1798, the P value is 0.00074, the result is significant at $p < 0.05$.
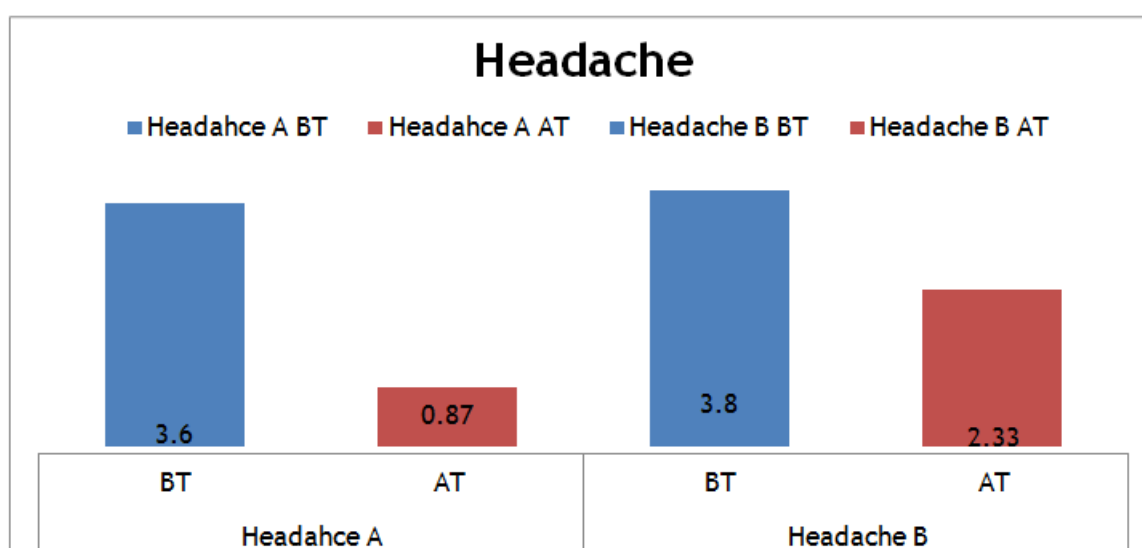

Graph 3: Wilcoxon Signed Rank test of Anxiety.

- **Wilcoxon Signed Rank test of Orientation**

In this clinical study the test showed Group A result is significant at $p < 0.05$ and Group B shows $p < 0.05$ also significant before and after treatment. Between the group the value of Z − 2.3534, the P value is 0.00939, the result is significant at $p < 0.05$.

- **Wilcoxon Signed Rank test of Headache**

In this clinical study the test showed Group A result is significant at $p < 0.05$ and Group B shows $p < 0.05$ also significant before and after treatment. Between the group the value of Z − 2.9025, the P value is 0.00187, the result is significant at $p < 0.05$.

Graph 4: Wilcoxon Signed Rank test Headache.

DISCUSSION

Alcohol especially ethyl alcohol is an inebriant cerebral poison, because in acute poisoning it affects mostly on brain. When a person consume ethyl alcohol in overdose, whatever the verity like beer, wine, brandy, rum, vodka, whisky, etc it causes acute toxicity which also called as acute alcoholism. Prolong and continuous drinking of alcohol causes long term hazards which are called chronic alcoholism. Habitual intoxication, prolonged and excessive intake of alcohol drink leading to break down in health and dependence of alcohol such that abrupt deprivation leads to withdrawal syndrome is called as alcohol addiction. As there is known de-addiction centre previously is working in more hospitals but it was very difficult to complete cure on this base selected for this study in the CIVIL HOSPITAL DIST. JALANDHAR (PUNJAB) 30 patient were selected. The 30 patient divided into 2 groups. Group A is study group the Mamsyadi Kwath 48ml twice daily along with control drugs were

given to 15 patient and Group B is control group in which only control drug like Astangalavana Churna, Bhumyaamalakighana Vati and Phalatrikadi Churna.

In this study the control group and trial group showed maximum 36.66% of patients belonging to 20 – 30 years of age group, 23.33% of patients belonging to 31-40 years age group, 30% of patients belonging to 41-50 years age group, 10% of patients belonging to 51-60 years age group, and the prevalence goes down in elderly people. This study showed 63.66% peoples do not have any specific variety of alcohol to drink. They drink any type of alcohol. Types of alcohol used will depend on situation and atmosphere of surrounding with their group. The 51.33 % patient told that they were taking alcohol once in a day and 22.6% patient twice in a day. It is because the working people at the end of the day become free from their job and also labor class gets money in evening and it is used to buy the liquor.

Discussion on Pathological Tests

Sr.Billirubin Total: Statistical interpretation of Serum Bilirubin Total at the confidence level of 95% ($p<0.05$), group A shows the significant result at looking of the values t – 3.309815 and p- 0.00258, group B also shows significant result t- 2.431829 and p- 0.01452, but between the groups not shows significant result t- 0.46283 and p- 0.323533 before and after treatment.

Sr.Billirubin Direct: Statistical interpretation of Serum Bilirubin Direct at the confidence level of 95% ($p<0.05$), group A shows the significant result at looking of the values t- 2.873685and p- 0.00613 because mamsyadi kwath plays role to give result, group B also shows not significant result t- 0.292174 and p- 0.38722, but between the groups not shows significant result t- 0.12536 and p- 0.450568 before and after treatment.

SGOT: Statistical interpretation of SGOT at the confidence level of 95% ($p<0.05$), group A shows the significant result at looking of the values t- 2.740872 and p- 0.00796, group B also shows significant result t- 3.730162 and p- 0.00112, but between the groups not shows significant result t- 0.24773 and p- 0.403077 before and after treatment.

SGPT: Statistical interpretation of SGPT at the confidence level of 95% ($p<0.05$), group A shows the significant result at looking of the values t- 3.212812 and p- 0.00313, group B also shows not significant result t- 0.729602 and p- 0.23883, but between the groups shows not significant result t- 0.51754 and p- 0.304421 before and after treatment.

Sr.PROTEIN: Statistical interpretation of Serum Protein at the confidence level of 95% (p<0.05), group A shows the significant result at looking of the values t- 2.047699 and p- 0.02992, group B also shows not significant result t- 0.495052 and p- 0.31412, but between the groups shows significant result t- 1.98117 and p- 0.28735 before and after treatment.

HAEMOGLOBIN: Statistical interpretation of Haemoglobin at the confidence level of 95% (p<0.05), group A shows the significant result at looking of the values t- 2.064492 and p- 0.02901, group B also shows significant result t- 1.783765 and p- 0.04807, but between the groups not shows significant result t- 1.04222 and p- 0.153112 before and after treatment.

CONCLUSION

Mamasyadi kwath contains Jatamansi, Ashwagandh, and Parsikayavani. The drugs having activities like Jatamansi having anti-depressant activities, Ashwagandha having immunomodulatory effect, anti ageing, antistress activity, Parsikayavani having sedative as well as hypnotic activities. Other formulations are used for this clinical study having delightful ingredients is most effective in the management of chronic alcoholic de-addiction. Group A shows significant results in Serum Biliribin Direct, SGPT, serum protein due to contains the mamsyadi kwath and other formulations. Both groups are shows significant results in other parameters like nausea, tremors, anxiety, agitation, paroxysmal sweat, orientation & clouding of sensorial, tactile disturbance, auditory disturbance, visual disturbance, headache, serum bilirubin total, SGOT, Haemoglobin.

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