

A PILOT STUDY ON THE EFFECT OF ARSENICUM ALBUM IN ALCOHOL DEPENDENTS *

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Summary

A study was undertaken to find out the effect of Arsenicum album in alcohol dependents at Central Research Institute for Homoeopathy, Kottayam, in the years 1991-93. This Institute has been actively engaged in the research work on Behavioural problems including Alcoholism and Drug addiction. In Homoeopathic literature many drugs have been mentioned for Alcoholism, but it is in the Boger-Boenninghausen's Characteristics and Repertory that alcoholism has been mentioned as a Behavioural disorder and Arsenicum album has been given as the most important drug for it. Taking this into consideration Arsenicum album was given to some patients without considering their individualities and was found very effective in producing an aversion to alcohol. This is only a pilot/empirical study and it will be beneficial to undertake further detailed and a controlled trial.

Introduction

Human beings have enormous capacity for damaging themselves in the pursuit of pleasure, whether through alcohol, drugs, heavy smoking etc. Among these, alcohol is the commonest one. Alcohol is consumed so widely in so many countries and is potentially very dangerous, but at the same time provides revenue as well as profit. The situation is same in our country also. Alcohol is so permissible and trusted a poison, so easy in access, consequently its effect may complicate or be complicated with psychopathic anomaly which favoured the taking of alcohol eg. episodic excitement or depression, anxiety, cerebral arterial diseases, paranoid state, hysteria etc. It is widely consumed in our country and is also one of the most important causes of impairment of mental and physical health, and social relationships. Furthermore, 'Alcoholism' or 'Alcoholic dependence' is a behavioural disorder. The specific behaviour that causes problem is the consumption of large quantities of alcohol on repeated occasions. The motivation underlying this behaviour is often obscure. When asked why they drink excessively, alcoholics occasionally attribute their drinking to a particular mood, such as depression, anxiety or to situational problems.

The incidence of alcoholism/dependence is increasing day by day inspite of various measures taken by the government, public bodies, medical men, psychologists, religious bodies, private institutions, excise etc., to reduce it. This is because of the easy availability of alcoholic drinks in each and every corner of our country. In this context, Central Research Institute for Homoeopathy, Kottayam, which deals with 'Behavioural problems' conducted a pilot study on Alcoholism and Drug addiction during the year 1991 to 1993. In Homoeopathic literature many drugs have been mentioned for Alcoholism and for its bad effects; but it is in the Boger Boenninghausen's Repertory, that Alcoholism has been mentioned as a mental symptom/behavioural problem, and Arsenicum album and Nuxvomica have been given as two important remedies for this behavioural problem. Though the relationship of Alcoholism and Arsenicum album has been mentioned in most of the authentic books but nowhere it has been mentioned under the chapter 'Mind' except in Boger Boenninghausen's repertory. Taking this into consideration experimental studies were conducted to find out the effect of Arsenicum album in Alcohol dependents. Arsenicum album was given to 10 patients irrespective of whether they took Toddy, Arrack, Whisky, Wine, Brandy, Rum etc. or their individual features. In all these cases Arsenicum album produced fairly good results. It not only produced aversion to alcoholic drinks, but also relieved most of the behavioural and withdrawal symptoms.

Comparative study of the symptomatology of Alcohol and Arsenicum album

Before going into the details of the methodology and results it will be informative to discuss and compare the symptomatology of 'Alcohol' and that of 'Arsenicum album' in human beings in smallest as well as large doses. The symptomatology which is given under Arsenicum album are those signs and symptoms which show its similarity to Alcohol and do not show the complete picture of Arsenicum album.

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Alcohol

The word Alcohol comes from the Arabic word 'Alkuhl' which means the essence. To understand alcohol and alcoholic dependence, it is useful to know about the alcohol itself and its fate in the body. Absorption of alcohol taken orally is rapid, for it is highly lipid soluble and diffusible, some from the stomach but mostly from the small intestine. The absorption is delayed by food, especially milk. A single dose of alcohol, say 60 ml. taken over a few minutes on an empty stomach will probably produce maximal blood concentration within one to one and a half hour, and will not be disposed off at all for 6 to 8 hours or even more (1). The most important action of alcohol is on Central Nervous System in which it causes depression. But the person who is so disabled by anxiety or nervous tension that his performance is gravely impaired, may improve with the correct dose of alcohol. The alleviation of anxiety may improve performance more than that the alcohol depresses it.

Symptoms and Signs of Alcohol

- a. Euphoric - Alcohol is a general anaesthetic and can be used as an analgesic and hypnotic
- b. Flushing - Alcohol induces peripheral vasodilatation by depressing the vasomotor centre
- c. Drowsiness
- d. Slurred speech
- e. Mental confusion
- f. Inco-ordination
- g. Unsteady gait
- h. Double vision
- i. Aggressive and violent behaviour
- j. Anxiety
- k. Depression
- l. Suicidal thoughts and delusions
- m. Stupor and delirium
- n. Sexual excitation - As Shakespeare has quoted that Alcohol provokes the desire but it takes away the performance
- o. Anorexia
- p. Fatty degeneration of the liver - most serious effect
- q. Cirrhosis of liver
- r. Gastritis and Peptic ulcers - Alcohol increases gastric acid secretion in moderately high concentration and produces local irritation and may cause gastritis and peptic ulcers.
- s. Acute pancreatitis
- t. Frequent urination - Alcohol acts as a diuretic by inhibiting the A.D.H.
- u. Degeneration of brain cells
- v. Peripheral neuropathy
- w. Cardiomyopathies
- x. Anaemia
- y. Thrombocytopaenia
- z. Withdrawal symptoms such as - nausea and vomiting, malaise, tachycardia, sweating, elevated blood pressure, anxiety, depression, irritability, hallucinations, delirium tremens, headache, convulsions, sleeplessness.

Arsenicum album

Arsenic has been known as a poison, hence it has been frequently used for suicidal purposes. But in small doses it stimulates almost all parts of the system producing the following signs and symptoms (2).

- a. Sense of well being and health; muscular system more active.
- b. Flushing - skin becomes bright and warm
- c. Mental confusion
- d. Vertigo
- e. Depression and loss of memory
- f. Anxiety and anguish
- g. Delirium
- h. Irritability
- i. Suicidal thoughts
- j. Delusions
- k. Strong sexual disposition
- l. Loss of appetite
- m. Fatty degeneration of the liver
- n. Cirrhosis of the liver - In cirrhosis, fatty degeneration of liver, induration and atrophy Arsenic has untold value (3).
Gastritis and ulceration of the stomach - Arsenic album has a particular action on mucous membrane of GIT through the solar plexus affecting mouth, stomach and duodenum producing destructive inflammation (4)
- p. Anaemia - due to disintegration of RBC.
- q. Hypertrophy of heart
- r. Orthopnoea, palpitation, increased pulse rate.
- s. Nausea, vomiting, retching
- t. Headache
- u. Spasms and convulsions
- v. Sleeplessness

- w. Others indications of Arsenicum album in Alcoholism are -
1. Arsenicum album causes debility which arises from defective metabolism and so it is used in exhaustion from abuse of alcoholic drinks. In delirium tremens, delirium is violent, patient has visual hallucinations of ghosts and fanciful figures with trembling of whole body. One of the exciting causes of Arsenicum album in stomach complaints such as hyperacidity, gastritis etc. is excess of alcoholic drinks (5).
 2. Desire for something which is refreshing, strengthening, stimulating such as wine and other beverages, desire for beer, brandy, coffee etc. Arsenicum album is indicated for a man of 40, lean, cachetic by drinking spirituous liquors, when there is much depression and collapse. Arsenicum album has been found useful in ailments from alcoholism (6).
 3. Arsenicum album has been used for alcoholism. Brandy and other alcoholic stimulants are antidotes to Arsenicum album and so Arsenicum album is an antidote to the bad effects of alcoholic stimulants. Arsenicum album is used in ailments from excessive drinking, strong desire for acids and alcohol, especially brandy; eructations, vomiting etc. after drinking alcohol or stimulants (7).
 4. Arsenicum album should be thought of in ailments from alcoholism (8).
 5. Arsenicum should be thought of in diseases from overuse of alcohol, patient must have their accustomed drinks; he has visions of ghosts, great weakness, tremors, suicidal tendency, picks up bed clothes, confusion and delirium (9).
 6. Mania-a-potu (Delirium tremens) - a rubric in the chapter 'Mind' of the Kent's repertory - Arsenicum album has 3 marks; under stomach - desires whisky, wine etc. Arsenicum album has 2 marks (10).
 7. Under the chapter 'Mind', in Boger Boenninghausen's Repertory the rubric "Alcoholism /intoxication" shows that Arsenicum album and Nux vomica have the highest marks out of 67 remedies. Under the chapter "Appe-

tite" the rubric 'desire for alcoholic stimulants' Arsenicum album has the highest position out of 33 drugs. Arsenicum album has desire for brandy and other alcoholic stimulants (11).

The symptomatology given above shows that, the symptoms/signs of acute and chronic alcoholic poisoning are almost similar to that of Arsenicum album in small as well as large doses. These similarities can be attributed to the success of Arsenicum album in producing aversion to alcoholic drinks in Alcoholic dependents.

Aims and Objectives

The aim and objective of this study was to find out the effect of Arsenicum album in Alcoholic dependents, to produce aversion to alcohol and to relieve the behavioural problems and the withdrawal symptoms. This paper presents analysis of 10 cases of Alcoholic dependents treated with Arsenicum album in the in-patient deptt. of Central Research Institute for Homoeopathy, Kottayam, during the years 1991 to 1993.

Material and Methods

A pilot study was conducted on 10 cases of Alcoholic dependence, treated in the indoor patients department of the hospital. The detailed case history was recorded in the prescribed proforma comprising of presenting complaints, history of the present complaints, family history, personal history which included all physical generals, mental dispositions and past illnesses, general and systemic examinations and other laboratory investigations. These patients were using different types of alcoholic drinks such as arrack, toddy, whisky, brandy, wine, rum etc. daily in large quantities for the last 8 to 30 years (Table III). The total number of cases their age group, the basis of diagnosis, the aetiological factors (the circumstances which lead these patients to become dependent on alcoholic drinks), the clinical findings, the pathological findings and the duration of treatment in the I.P.D. are given in the tables I to VIII respectively. From these tables it is evident that these patients started using alcoholic drinks due to group pressure and easy availability of the liquors. All of them became alcoholic dependents so that their customary, social and family relationships became disrupted, they developed delusional ideas, became confused, dyspeptic and indolent. In addition to these they developed different behavioural symptoms as mentioned in Table VI. Two of them developed cirrhosis of the liver but none of them became alcoholic psychotics.

Clinically Arsenicum album was prescribed to these cases as a specific. During the treatment, all these patients were made to abstain from alcoholic drinks. The essential thing in the treatment of Alcoholism, is the withdrawal of the alcoholic drinks. This can be effected for a time being by admitting the patients in the I.P.D. of the hospital (12). These patients were treated with Arsenicum album in 30th and 200th potencies, by giving the minimum dose possible to produce the desired effects. The subsequent doses were given in the events of aggravation of the symptoms only. In all these cases Arsenicum album was prescribed without considering their individualities and characteristics, but by considering Alcoholism as a behavioural problem and Arsenicum album as a specific to the alcohol dependence. These patients were kept in the I.P.D. for 15 to 40 days and were discharged with proper advice and suggestions, and to report once in every 15 days for further follow-up (Table VIII).

Table - I
No. of cases studied

Total	Male	Female
10	10	0

Table - II

Age Groups:	No. of cases studied		
	Min. - 30 yrs.	Max. - 62 yrs.	
Groups	T	M	F
1 day to under 20 years	0	0	0
20 years to under 40 years	2	2	0
40 years to under 60 years	7	7	0
60 years and above	1	1	0

Table - III

Duration of dependence:	No. of cases studied		
	Min. - 8 yrs.	Max. - 30 yrs.	
Groups	T	M	F
1 day to under 10 years	1	1	0
20 years to under 20 years	4	4	0
20 years and above	5	5	0

Table - IV
Basis of diagnosis

Basis of diagnosis	T	M	F
Clinical history/Symptoms	10	10	0
Pathological findings	0	0	0
Clinico-pathological	0	0	0

Table - V
Aetiological factors

Aetiology	T	M	F
Easy availability	6	6	0
Group pressure	7	7	0
Social pressure	3	3	0
Curiosity	1	1	0
Previous use	3	3	0
To get rid of worry	3	3	0

Table - VI
Clinical findings

Symptoms and signs	T	M	F
Irresistible desire for alcohol	10	10	0
Euphoric	9	9	0
Flushing	10	10	0
Staggering gait	5	5	0
Tremors	5	5	0
Restlessness	7	7	0
Mental confusion	8	8	0
Delusions - paranoid, persecution	7	7	0
Disruption of customary, social & family relationships	8	8	0
Sleeplessness	10	10	0
Anorexia and dyspepsia	9	9	0
Sweating	2	2	0
Irritable, quarrelsome	7	7	0
Anxiety and fear	5	5	0
Indolence	7	7	0
Contradictive, censorious	5	5	0
Oversensitiveness	5	5	0
Dyspnoea and cough	4	4	0
Pain, right hypochondrium	4	4	0
Pruritis	2	2	0
Cirrhosis of liver	2	2	0
Gastritis and peptic ulcers	2	2	0

Table - VII
Pathological findings

	T	M	F
E.S.R. increased (Min. 37 mm/hr, Max. 124 mm/hr)	5	5	0
Serum bilirubin increased (Min.3 mg% Max. 2.0 mg%)	4	4	0
S.G.O.T. increased (min.50 u/ml Max.)	1	1	0
S.G.P.T. increased (Min. 60 n/ml Max. 100 u/ml)	3	3	0
Alkaline phosphatase increased	0	0	0

Table - VIII

Duration of treatment: Min. - 15 days Max. - 40 days

Groups	T	M	F
1 day to 15 days	4	4	0
16 days to 30 days	5	5	0
31 days and above	1	1	0

Results

Each case was observed carefully after administration of Arsenicum album, for the development of aversion to alcoholic drinks and for the relief of symptoms and signs of long continued intake of alcohol. Out of 10 cases, 8 developed definite aversion to alcoholic drinks, 1 developed decreased affinity towards alcoholic drinks, and the other one developed a reduction in the amount and frequency of alcoholic intake, but most of the behavioural and physical symptoms were completely relieved with Arsenicum album (Tables IX and X). Out of 5 cases with raised ESR, 2 had showed reduction; 4 cases with raised Serum bilirubin and 3 cases with raised SGOT and SGPT also showed reduction (Table VII). Regarding the 'Miasm' which favours the alcoholic dependents, it has been observed that 'Psora' favours the development of alcoholic dependence than any other miasm (Table XI).

The cases studied were discharged from the IPD and are still under follow-up. 7 of them still maintain abstinence from alcoholic drinks even after being exposed to the previous environment, 2 of them took alcohol once and the other one did not report afterwards (Table XII).

Table - IX
Improvement indices*

	T	M	F
Improved: Marked	8	8	0
Moderate	1	1	0
Mild	1	1	0
Not improved	0	0	0
Worse	0	0	0

Table - X
Response to treatment

Clinical symptoms & signs	Total no. of cases			No. of cases disappeared			No. of cases mitigated		
	T	M	F	T	M	F	T	M	F
Irresistible desire to take alcoholic drinks	10	10	0	8	8	0	2	2	0
Euphoric	10	10	0	8	8	0	1	1	0
Flushing	10	10	0	9	9	0	1	1	0
Staggering gait	5	5	0	4	4	0	1	1	0
Tremor	5	5	0	4	4	0	1	1	0
Restlessness	7	7	0	6	6	0	1	1	0
Mental confusion	8	8	0	5	5	0	3	3	0
Delusions-Paranoid and persecution	7	7	0	6	6	0	1	1	0
Disruption of customary social and family relations	8	8	0	6	6	0	2	2	0
Sleeplessness	10	10	0	10	10	0	0	0	0
Anorexia/dyspnoea	8	8	0	5	5	0	3	3	0
Sweating	2	2	0	1	1	0	3	3	0
Irritable & quarrelsome	7	7	0	6	6	0	1	1	0
Anxiety and fear	5	5	0	5	5	0	0	0	0
Indolence	7	7	0	5	5	0	2	2	0
Contradictive, censorious	5	5	0	4	4	0	1	1	0
Oversensitive	5	5	0	3	3	0	2	2	0
Dyspnoea, cough	4	4	0	4	4	0	0	0	0
Pain, right hypochondrium	4	4	0	4	4	0	0	0	0
Pruritis	2	2	0	0	0	0	2	2	0
Cirrhosis of liver	2	2	0	0	0	0	2	2	0
Gastritis, peptic ulcers	2	2	0	1	1	0	1	1	0
Pathological findings									
E.S.R. increased	5	5	0	0	0	0	2	2	0
Serum bilirubin increased	4	4	0	3	3	0	1	1	0
S.G.O.T. increased	1	1	0	1	1	0	0	0	0
S.G.P.T. increased	3	3	0	2	2	0	1	1	0

* Criteria for improvement indices

1. Marked improvement : When the patient gets aversion to alcohol with complete disappearance of symptoms and signs of alcoholism
2. Moderate improvement : The patient shows no desire to take alcohol with partial relief of symptoms and signs of alcoholism
3. Mild improvement : Patient shows no desire to take alcohol when he is away from it, with partial disappearance of symptoms and signs of alcoholism.

Table - XI
Miasmatic Influence

Miasms	T	M	F
Psora	8	8	0
Sycosis	2	2	0
Syphilis	0	0	0
Mixed	0	0	0

Table - XII
Follow-up

	T	M	F
Abstinence continuing even after exposure to previous environment	7	7	0
Drunk once, has desire but avoids	2	2	0
Not reported	1	1	0

Discussion & Conclusion

The study undertaken to find out the effect of Arsenicum album in alcoholic dependents was informative and encouraging. Though the number of cases studied were limited (10 cases), all of them improved (8 cases improved markedly) with the treatment. Further more Arsenicum album was given without considering the individualistic features but by comparing the symptomatology of alcohol and that of the drug under study in healthy human beings in small as well as large doses. In all the cases it was found that not only the symptoms and signs of prolonged alcohol intake but the behavioural symptoms also were relieved to a maximum level. The follow-up study showed that the aversion to alcoholic drinks developed in majority of the cases was not due to the fact that they were kept away from it, but due to the effect of Arsenicum album, because they did not take alcohol even after exposed

to the previous environment where there was much group pressure and the alcohol was easily available.

The symptomatology of alcohol dependence is almost similar to the symptomatology of Arsenicum album in healthy human beings.

Further detailed and controlled clinical research trials may be undertaken for confirmation of the results obtained.

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References

1. D. R. Laurence and P.N. Bennet : Clinical Pharmacology - ELBS Edn. page 447.
2. William H. Burt, : Physiological Materia Medica 3rd Edn. Jain Publishing Co., New Delhi page 116.
3. Ibid : page 122.
4. Ibid : page 116.
5. E.A. Farrington. : Clinical Materia Medica, 4th Edn. Jain Publishing Co., New Delhi. page 518.
6. C. Hering : The Guiding Symptoms of our Materia Medica Vol.II page 54,102.
7. J.H. Clarke : A Dictionary of Practical Materia Medica, page 177,179,180
8. W. Boericke: Materia Medica with Repertory 9th Ed. page 79, Jain Publishing Co., New Delhi.
9. W.A. Dewey : Practical Hom. Therapeutics 3rd Ed. page 25 Jain Publishing Co., New Delhi.
10. J.T. Kent : Repertory of Homoeopathic Materia Medica 6th Ed. page 64, Jain Publishers, New Delhi.
11. C.M. Boger : Boger-Boenninghausen's Characteristics and Repertory.
12. R. B. Scott (Editors) : Price's Text Book of Practice of Medicine, ELBS 11th Ed. (1973), page 1348.

"Science teaches us to know; Science is theory. Art teaches us to do; Art is practice. Every Art has its foundation in science; every science finds its expression in Art".

Stuart Close; Genius of Homoeopathy
