

BENZHEXOL (ARTANE) ABUSE IN AN IRAQI FEDERAL PRISON IN KURDISTAN REGION



Nazar M Mohammad Amin* and Danial Saadi Hamid**

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ABSTRACT

Background

Artane is an anticholinergic drug which is prescribed by doctors to patients throughout the world. It is also abused by psychotic patients and nonpsychotic young people. This problem was highlighted in the Middle East recently. Prisons in Iraq were among the places where the abuse was obvious.

Objectives

This study was carried out to determine the prevalence of Artane abuse among the prison inmates, finding the demographic data about Artane abuser inmates and to find sources of Artane supplies to prison inmates

Methods

Among inmates of one of the prisons in Kurdistan Region, 508 were interviewed for addiction on various substances (in the period from 15th of January 2007 to 1st of October 2007).

Results

The research found 146 (28.7%) of the 508 interviewed to be dependent on substances. Artane was found to be the main drug that was abused by inmates. They were mostly young, single and were addicted on other substances with Artane.

Conclusion

Artane abuse is a problem in Iraq and Kurdistan Region that needs to be addressed by the medical, legal and social authorities in the region. Prisons are among the places that need to be looked at for this abuse.

Keywords: *Artane, Trihexyphenidil, Abuse, Prisoners, Benzhexol.*

* School of Medicine, Faculty of Medical Sciences, University of Sulaimani, Kurdistan Region, Iraq.
Corresponding email: nazar.amin@gmail.com.

** Department of Psychiatry, Sulaimani Teaching Hospital, Kurdistan Region, Iraq.

INTRODUCTION

Artane (Benzhexol, Trihexyphenidyl, or Parkizol) is an anticholinergic drug which is used as treatment of the rigidity of Parkinson's Disease as well as to relieve the extrapyramidal side effects of antipsychotics. Younger schizophrenic patients on Fluphenazine were observed to become dependent on benzhexol ⁽¹⁾ and it was used by those patients to relieve depression. As similarly a patient on Fluphenazine too was dependent on orphenadrine (another anticholinergic drug) because of its euphoriant effect ⁽²⁾. Patient may feign extrapyramidal symptoms in order to obtain Trihexyphenidyl ⁽³⁾. Abuse of anticholinergics, including Benzhexol in adolescents due to excitement and euphoria, were occasionally reported in the literature ^(4&5). Trihexyphenidyl and anticholinergics were abused among prisoners in US ⁽⁶⁾. Trihexyphenidyl was used in a patient with chronic schizophrenia for its euphoriant and anxiolytic effect ⁽⁷⁾. Abuse of Benzhexol was seen amongst the disaffected and disadvantaged youths attending a psychiatric clinic, who reported that their use of the drug was motivated by its hallucinogenic and euphorogenic properties ⁽⁸⁾. They reported on 21 benzhexol abusers where thirteen of them had appeared before the courts, seven on minor and property charges, six for violent offences, and nine had been imprisoned ⁽⁸⁾. Anticholinergics were found to produce abuse and dependence which are usually attributed to the drug's euphorogenic, antidepressant and energizing effects ⁽⁹⁾.

In a study on Trihexyphenidyl dependence in Saudi Arabia, abusers of Trihexyphenidyl were compared with users and found to be characterized by being unmarried, unemployed, smokers and having past and concurrent history of multiple drug abuse, and genetic loading of mental disorders ⁽¹⁰⁾.

A study conducted in Brazil Sao Paolo, on 21 Artane users and 16 ex users and was found to be single, unemployed, male polydrug users, who used Trihexyphenidyl in order to attain states of mental alterations, mainly hallucinations and deliriums. According to the users, jubilation and increased sociability are the main factors leading to abuse ⁽¹¹⁾. Benzhexol was used as a self medication by people in Hilla, Iraq to control aggressive outbursts, get high, to relax and to get rid of boredom ⁽¹²⁾. Abuse of Artane

(Trihexyphenidyl) was reported in psychiatric outpatients and youth who were not psychiatric patients in Oxford, UK. The availability of meeting places for the abusers and the cheap price were encouraging the abuse ⁽¹³⁾. Trihexyphenidyl abuse was also reported in a patient with a neurological disorder who was prescribed the drug for spasticity and deformity. The patient took massive amounts to relieve depression but became hooked on it ⁽¹⁴⁾. Media reports from Iraq after 2003 suggested increased misuse of substances in Iraq. The number of overdoses and intoxicated patients admitted to hospitals increased and Artane was among the most commonly misused drugs ⁽¹⁵⁾. A study from France revealed misuse of Trihexyphenidyl in male youth who misused other substances too ⁽¹⁶⁾. The problem of Benzhexol abuse for their hallucinogenic and euphoric effect made the forensic toxicology laboratories in UAE to find ways of detecting this drug with Procyclidine in urine ⁽¹⁷⁾.

The same problem was addressed in Jordan too because of the rising needs for detection of Trihexyphenidyl among other anticholinergics in urine or plasma ⁽¹⁸⁾.

The psychiatrists working in the city of Sulaimani, Kurdistan Region of Iraq observed that some schizophrenics and other psychotic patients on maintenance antipsychotics were demanding Artane with their antipsychotics despite the absence of extrapyramidal side effects. A few patients were taking Artane without using the antipsychotics. Occasionally they feigned dystonia or other extrapyramidal side effects to convince the physicians to supply them with Artane. They showed outbursts of anger and aggression if they were denied the drug. The pharmacists in the city also reported a demand for Artane by some people without medical prescriptions. Those who demanded Artane from the pharmacists included people without previous psychiatric disorders and patients with psychiatric disorders who abuse it as self medication. Prisoners who were included in this study were referred to the psychiatric clinic in the same city for treatment of symptoms resulting from withdrawal of Artane as reported by the prison health workers or the prisoners themselves. The prisoners had scars on their arms because they harmed themselves impulsively when they were denied Artane.

The authors worked on the relations between crime and addiction in an Iraqi Federal Prison and a number of the prison inmates admitted abusing Artane. The abuse of Artane inside the prison gives an indirect indication about the presence of this problem in Kurdistan region and the whole of Iraq.

The aim of this study was carried out to determine the prevalence of Artane abuse among the prison inmates, to find the demographic data about Artane abuser inmates and to find sources of Artane supplies to prison inmates.

MATERIALS AND METHODS

The Ethical Committee of the University of Sulaimani approved the proposal. The inmates were informed of the purpose of the interview which was conducted privately with each inmate. They had the right to refuse to participate. The research was conducted at 15th January 2008 and ended on 1st October 2008.

All 1652 inmates of Susie Federal Prison in Sulaimani, North East of Iraq were interviewed for the use of addictive substances. Five hundred and eight inmates declared using one of the

addictive substances including medical drugs, alcohol and agricultural products. They were interviewed by one researcher D.S.H directly with a semi structured interview using International Classification of Diseases ⁽¹⁹⁾.

Exclusion criteria included inmates with active psychiatric disorders who were on medication, inmates who were admitted during the study period because they were not there when the plan of the study was approved by the prison authorities as well as those who were due to be released during the study period.

RESULTS

Five hundred and eight (508) prison inmates claimed were found to abuse substances. 146 of them were regarded by the authors to be substance abusers because the users consume the substance in amounts or with methods neither approved nor supervised by medical professionals. The inmates gave no convincing reasons for taking the substances. 123 of those substance abusers were abusing Artane alone or in combination with other substances, figure 1.

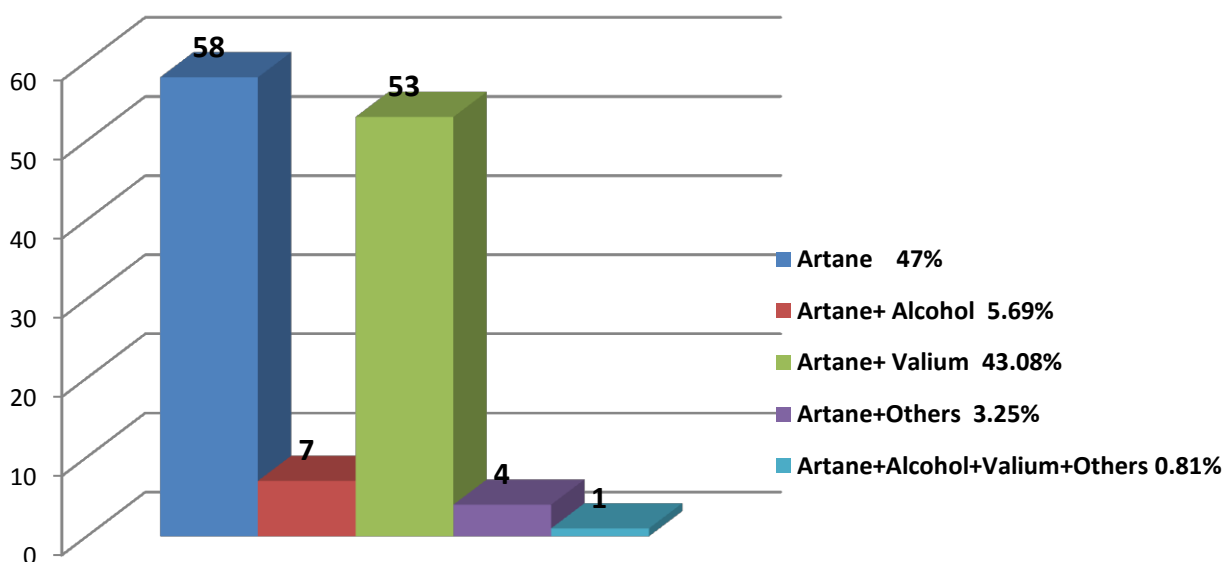


Figure 1. Frequency and percentage of dependence on Artane or in combination with other substances.

Table 1. Age, occupation, religion, address, nationality, educational level, marital state and economical state of Artane abusers.

	25y & less	26-30	31-35	36-40	41-45	46-50	56-60	60& over	
Age	8.2%	24.7%	26.7%	20.5%	14.4%	4.1%	0.7%	0.7%	
Occupation	Jobless 19.9%	Self-employed 66.4%	Civil servant 13%	Student 0.7%					
Address	Bagdad 52.7%	Najaf 20.5%	Kirkuk 14.4%	Mosul 2.7%	Wasit 1.4%	Dyala 4.1%	Basra 2.1%	Anbar 0.7%	Outside Iraq 1.4%
Religion	Muslim 97.9%	Christian 1.4%	Ezdy 2.8%						
Nationality	Iraqi 97.2%	Iranian 0.7%	Syrian 0.7%	Egyptian 0.7%	Palastinian 0.7%				
Educational state	Illiterate 36.3%	Primary 45.9%	Secondary 16.4%	Higher education 1.4%					
Marital status	Single 43.2%	Married 50.7%	Divorced 6.2%						
Economic status	Bad 61.6%	Medium 25.3%	Fair 13%						

Table 2. The source of Artane for the first time for each inmate.

Source	Frequency	Percentage %
Friend	78	63.5
Health worker	39	31.7
Friend and health worker	6	4.8
Total	123	100

DISCUSSION

The result of this study indicates presence of Artane abuse in Kurdistan region and Iraq. It is a relatively new observation with this extent. We used to hear about the odd cases occasionally before 1990. We think that a larger number of abusers are present in the community without being imprisoned. They are either not caught by police or not reported by doctors and pharmacists. The abuse of Artane started before the imprisonment as was found in table 2 and might have led to violation of law and imprisonment. Abuse of Artane and other anticholinergics was reported among prisoners in USA ⁽⁶⁾ but not to the same extent as was found in this study. The prisoners indicated that it was the euphoriant effect of Artane under the stressful prison circumstances that led them to seek the drug after learning them from the sources mentioned in table 2.

The presence of this number in about 10 months is not very large. Nevertheless, if it is compared with the years before 1991 as obtained from other prison records and mentioned by the prison authorities, it should be alarming to all of us in the region. The reasons for the abuse of substances in general was mentioned in the main study ⁽²⁰⁾ which included the loose border control with the neighboring countries after the political changes in Iraq. However, we assume that cause of Artane abuse is rather national and the problem was imported to Kurdistan region from the centre and south of Iraq. It is also a cheap medicine and easily obtained by prescription and by hand. 83% of the abusers were less than 40 years old which is threatening youth who are supposed to be bread earners for their families rather than being hooked on the drug or kept in prison.

The decrease in percentage of abusers as you go above the ladder in educational status might be useful in the plans for future solutions to this problem. This study should stimulate the researchers in the Iraq and Middle East to study this problem in more depth and get different specialties in an interdisciplinary work to find real solutions for this problem.

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