

5-Year Retrospective Evaluation of Drug Addicts with Psychiatric Problems in the Emergency Department

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Abstract

Original Research Article

Introduction: Illicit drug addiction and comorbid psychiatric disorders are among the most complex patient groups in the emergency department. In this study, to share the results of patients who admitted to our emergency department after illicit drug abuse and accepted hospitalization and treatment in the rehabilitation clinic. **Methods:** The study was planned retrospectively and in two centers. The medical records of patients who were admitted to the emergency department between 1th of January 2015 and 31th of December 2019 and subsequently received addiction treatment in our rehabilitation clinic were examined. Among the patients included in the study, the data of the patients with positive results in the urine drug and alcohol screening were analyzed and the study was completed. **Results:** In our study, the mean age was 32.09 y. It was observed that 12.5% of the cases had a psychiatric disorder. The most frequently detected illicit drugs are amphetamine and cannabis. The average length of stay was 11.57 days. The average number of admissions to the emergency department was 5.81 ± 3.03 . The most common symptoms at admission were injury 114 and muscle pain 94. **Conclusion:** Especially low socioeconomic level increases susceptibility to illicit drug abuse. In addition, individuals with psychiatric problems also tend to use illicit drugs. With illicit drug abuse, the possibility of being involved in judicial cases also increases. It is appropriate to follow up patients who apply to the emergency department by rehabilitation units for their long-term treatment.

Keywords: Psychiatry, Toxicology, illicit drug.

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1. INTRODUCTION

Emergency services are frequently used for patients who can not reach substance addiction treatment centers for various reasons or are not willing to receive treatment [1]. In the follow-up and treatment of this patient group, not only substance addiction, but also many additional diseases, especially psychiatric diseases, can be seen [1]. Therefore, they apply to emergency services due to both illicit drug abuse and psychiatric diseases [1]. It is very important to refer these cases, whose patient management is difficult and complicated, to illicit drug addiction treatment centers during their discharge from the emergency department.

It is difficult to determine the actual frequency of use of addictive, non-therapeutic, illegal drugs and their effects on society and individuals. Knowing the diversity of illicit drug use and addiction in various socioeconomic groups of the society can make important contributions to the studies to be carried out for both the treatment and prevention of illicit drug

abuse and addiction. Also treatment of illicit drug abuse typically involves a combination of pharmacotherapeutic and psychotherapeutic approaches aimed at managing abstinence, detoxification, and achieving a reduction in use or abstinence. These combination treatments are applied in rehabilitation clinics. Consequently, there is an urgent need to explore treatment modalities that can improve outcomes in illicit drug abuse treatment. There are very limited of publications in the literature especially on substance addiction associated with psychiatric illness.

In our study, the data of our patients who admitted to our emergency department between 2015 and 2020 were referred to the Substance Addiction Rehabilitation Center (AMATEM) and accepted the addiction prevention program and were treated. It is aimed that these information sharing be useful in the treatment and follow-up of dependent patients in emergency services and contribute to the studies to be done.

2. METHODS

The study was carried out by taking the necessary legal traces from the Republic of Turkey Ministry of Health Kayseri State Hospital. In this study, patients who applied to our emergency department between 1th of January 2015 and 31th of December 2019, who were evaluated by emergency medicine specialists in our emergency department and who had psychiatric consultation were included in the study. The study was completed by examining the psychiatric outpatient clinic diagnoses of the patients, whether they were admitted to addiction rehabilitation in outpatient and inpatient, the type of illicit drugs they used, age and gender, and other descriptive data. DSM-V criteria determined by the Centers for Disease and Control-CDC were used in the diagnosis of illicit drug abuse. The work flow chart is given in Figure 1.

At the time of the study, the study was started with 553 patients who were admitted to our emergency department and followed up with illicit drug intake. Six patients with insufficient data, 32 patients who applied for the second time, 9 patients who were found to use only alcohol, 18 patients due to repeated admissions and 7 patients with insufficient data were excluded from the study. The study was completed with 481 patients, with only the first applications of the patients with repeated applications.

The data obtained from the patients were computerized. Statistical analyzes were evaluated using the SPSS (22.00) statistical package program. Descriptive statistics for measurement values: as mean \pm standard deviation; for count variables: number and ratio (%) are given.

3. RESULTS

The mean age was 32.09 ± 10.27 and the age range was (17-66). 462 (96%) of these patients were male and 19 (4%) were female. Marital status of the patients; There were 216 single (44.9%), married 264 (54.9%) and widowed 1 (0.2%). Descriptive statistics of our study are given in Table 1 and Figure 2.

It was evaluated whether the patients had psychiatric or physical diseases other than substance addiction. There were 15 (3.1%) with physical illness and 60 (12.5%) with psychiatric illness. Psychiatric disorders are given in Table 2.

When the education levels of the patients were examined, primary school was 109 (22.7%), secondary school 197 (41.0%), high school 167 (34.7%), university 8 (1.6%).

In the distribution of patients according to occupational groups, unemployed 162 (33.7%), worker 117 (24.3%), tradesman 144 (29.9%), retired 19 (4.0%), student 12 (2.5%), soldiers 5 (1.0%), barbers 8 (1.7%), farmers 4 (0.8%), artists 2 (0.4%). 41.4% (n: 199) of the cases were admitted to the emergency services as forensic cases. In illicit drug abuse; while amphetamine and cannabis use was the most common, 80 patients (16.6%) were found to use intravenous drugs (Figure 3 & 4). It was determined that all of the patients smoked and the average number of cigarettes per day was 20.45 ± 1.99 .

Number of inpatient follow-up and treatment in the rehabilitation unit; 424 (88.1%) hospitalized once, 42 (8.7%) hospitalized twice, 7 hospitalized 3 times (1.5%), 4 hospitalized 4 (0.8%), 5 hospitalized 1 (0.2%), 1 patient (0.2%) hospitalized 7 times, 1 (0.2%) hospitalized 25 times were detected. The average length of stay of the patients was found to be 11.57 ± 8.08 days. While 138 of our patients (28.7%) were discharged by our clinicians, 339 (70.5%) of them left during the treatment with the knowledge of our clinicians and voluntarily, and 4 (0.8%) patients left without notifying the doctor.

When the number of referrals to our emergency service was examined, it was observed that there were no or 71 admitted patients, on average, 5.81 ± 3.03 . Emergency room admission symptoms; complaints of muscle pain 94 (19.5%), chest pain 43 (8.9%), injury 114 (23.7%), dyspnea 75 (15.6%), and loss of consciousness 25 (5.2%) was found to be with.

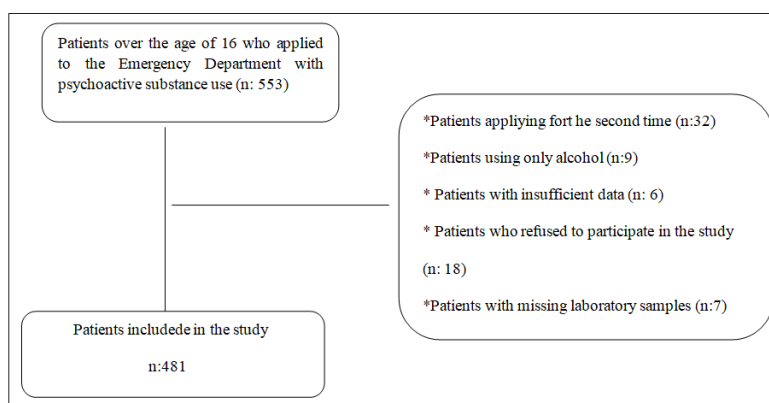


Figure 1: The work flow chart

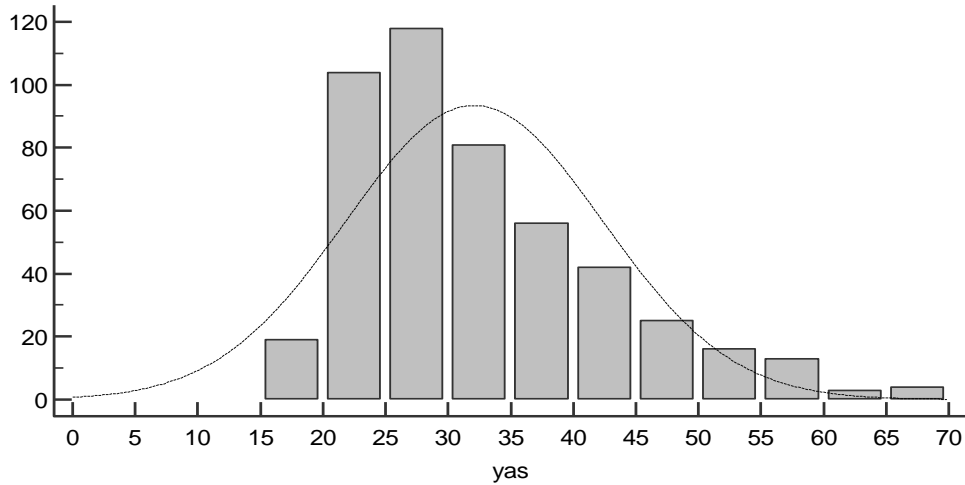


Figure 2: Age distribution chart

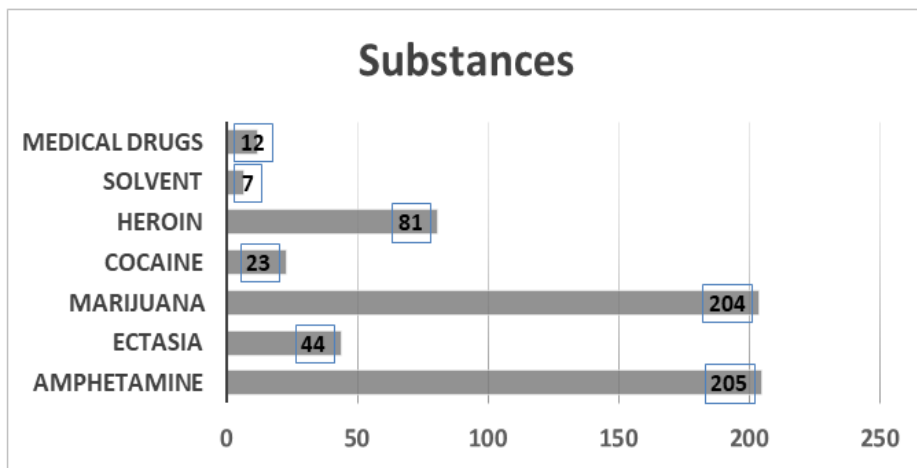


Figure 3: Items in patients followed in Amatem Clinic

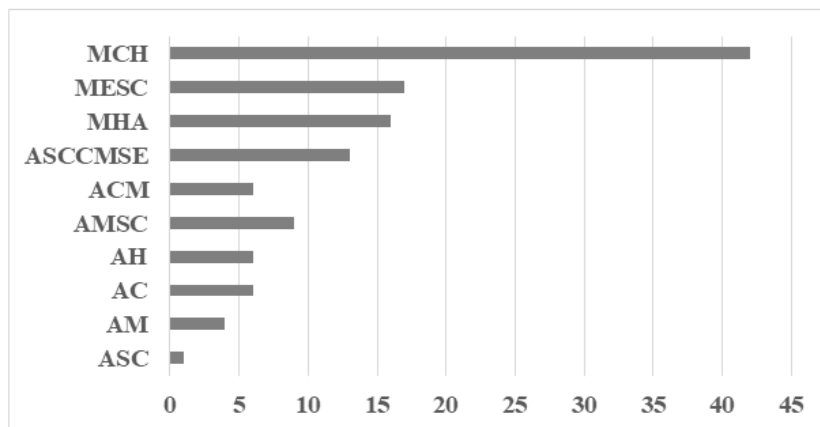


Figure 4: Multiple substances used together

Substances

- MCH: Marijuana-Cocain-Heroin
- MESC: Marijuana-Ectaisa-Synthetic Cannabinoid
- MHA: Marijuana-Heroin-Amphetamine
- ASCCMSE: Amphetamine-Synthetic Cannabinoid-Cocain-Marijuana-Solvent-Ectasia
- ACM: Amphetamine-Marijuana-Cocain

- AMSC: Amphetamine-Marijuana-Synthetic Cannabinoid
- AH: Amphetamine- Heroin
- AC: Amphetamine-Cocain
- AM: Amphetamine-Marijuana
- ASC: Amphetamine-Synthetic Cannabino

Table 1: Characteristics of the patients

Variable	n(%) or mean±SS
Age	32,09±10,27
Male	462(96,0)
Female	19(4,0)
Physical Discomfort	
Yes	15(3,1)
No	466(96,9)
Psychiatric Disease	
Yes	60(12,5)
No	421(87,5)
Education	
Primary School	109(22,7)
Secondary School	197(22,0)
High School	167(34,7)
University	88(16)
Marital Status	
Married	264(54,9)
Single	216(44,9)
Widow	1(0,2)
Judicial Application	
Yes	199(41,4)
No	282(58,6)
Iv drug using	
Yes	80(16,6)
No	401(83,4)
Method of Discharge	
Voluntary discharge	339(70,5)
By the clinic	138(28,7)
Leaving the clinic without permission	4(0,8)
Symptoms During Emergency Application	
Muscle pain	94(19,5)
Chest Pain	43(8,9)
Trauma	114(23,7)
Dyspnea	75(15,6)
Loss of consciousness	25(5,2)

Table 2: Disease types of those with psychiatric diseases

Disease	n(%)
Anxiety	8(1,7)
Bipolar Disorder	5(1,0)
Behavioral disorder	7(1,5)
Depression	35(7,3)
Psychosis	5(1,0)

4. DISCUSSION

Management of cases with psychiatric illnesses together with illicit drug abuse is a very troublesome situation for emergency service healthcare personnel. In addition to the diagnosis and treatment of the patient, it should be kept under physical control.

In studies conducted in European Union countries, the rate of illegal drug abuse among adults was found to be 25%. Again, in many studies, it was found that the majority of the average age of substance users was under 30 and 25% were under 20 [2, 3]. In studies conducted in our country, it was found that

starting substance use was between the ages of 15-19. Similarly, in our study, the age distribution of our case group was found to be 17-66 years.

In our study, it was observed that the most common illicit drugs types were amphetamine group, similar to the literature. The second most common illicit drug was cannabis. The most frequently illicit drug abuse in Hong-Kong and Taiwan are reported as amphetamine and heroin [4, 5]. Similarly, amphetamine use has become an increasing problem in Asia [6]. The most frequent use of amphetamines and heroin among registered illegal drug users in China is observed, and

this number increases by 122% annually [7, 8]. In these young and productive age groups, it is thought that access to illegal drugs, especially synthetic cannabinoids and amphetamine group drugs, is relatively easier, problems arising from legal gaps, and psychological problems triggered by social and economic reasons are common in young ages.

In our study, it was observed that the most common reason for patients presenting to the emergency department was due to muscle pain and injury. In addition, he was admitted for reasons such as shortness of breath, chest pain, loss of consciousness. In the current studies in the literature, applications with withdrawal symptoms of illicit drug abuse are mentioned (46). In our study, in addition to the symptoms in the literature, muscle pain was the most common reason for admission to the emergency department due to the effect of the substance.

The relationship between psychoactive illicit drug abuse and criminal potential has been known for a long time [9]. In many studies conducted in Europe and the USA, connections on this subject are mentioned [10]. As mentioned in these studies, the rate of committing crimes with substance use increases 3-4 times [11]. It was determined that 41.4% of the cases in our study applied as a judicial case.

In another similar Amatem study in our country, it was reported that 21.5% of the subjects applied as a forensic case before illicit drug abuse. This rate was found to be 34.8% among multiple illicit drug users. In the same study, it was reported that 36.4% of the admitted cases were legal cases after illicit drug abuse [9]. It is seen that the results of our study are compatible with the literature information. With the illicit drug abuse, the frequency of being involved in crime increases. Patients whose illicit drug addicts are diagnosed with drug addiction during their application to emergency services and possible forensic drug use should be directed to amatem clinics.

In our study, it was determined that the illicit drug abuse mainly were amphetamine and its derivatives and cannabis. After these substances, it was observed that the third most frequent use was heroin. In multiple illicit drug abuse, although cannabis, heroin and cocaine are the most common multiple drug abuse, it has been found that cannabis, ecstasy and amphetamine type drugs abuse secondly. In another similar study conducted in our country in 2013, it was reported that the illicit drug abused were 53.3% opioids, 14.6% alcohol, 5.6% cannabis and 3.6% volatile substances and amphetamine derivatives and synthetic stimulants [9]. Again, in the same study, it was reported that more than 22% of the cases had multiple drug abuse. The most common use of amphetamines and heroin is observed among registered illegal drug users in China [7, 8]. In similar studies in the literature,

amphetamines, cocaine, and synthetic cannabinoids rank first in multiple illicit drug abuse [12].

In our study, it was seen that 79.4% of the subjects were at the education level of high school and below. Again, it was observed that the majority of the subjects were unemployed or those working on their own jobs without a compulsory work defined as tradesmen. In a study conducted among the patients who applied to the Amatem clinic in Ankara in 2013, it was observed that the majority of the cases were primary education graduates or people with no education [9]. In the study conducted in Ankara Amatem, it was observed that 33% of the cases were unemployed and 33% were workers [9]. Similarly, the study on substance addiction among patients admitted to the emergency service in the USA supports that illicit drug abuse is more common in those with a low socioeconomic level [1]. It is seen that there are similar results to our study in the distribution by professions. These results suggest that there may be a positive relationship between low education and socioeconomic level and substance use. Lack of compulsory work time or determination by the individual may cause them to tend to illicit drug abuse more easily.

While psychiatric illness was observed in 12.5% of the cases in our study, depression was found most frequently. There is evidence in a study conducted among patients admitted to the emergency department that there is a positive relationship between illicit drug abuse and psychiatric diseases. This association was observed more frequently in manic and hypomanic patients [1]. In other studies in the literature, it was reported that anxiety disorders were the most common psychological disorders associated with illicit drug abuse [13]. In the Amatem study of Ankara, 20.9% of the subjects had received inpatient treatment before, and this rate was 27.5% in multiple substance users. According to studies in the literature, psychosomatic substance addiction is observed with a higher rate in patients with psychiatric diseases [14]. In psychiatric patients who were treated inpatients, this rate was found to be between 25-75% in different studies [15, 16]. Again, in a study conducted among inpatients in a psychiatry clinic, 47% of male patients and 24% of female patients had at least one substance use. has been determined [17]. Branda et al., In their study, it was reported that 64% of 100 consecutive patients hospitalized in a psychiatry clinic had a substance use [17]. In addition, there is a consensus in the literature that disruptive behavior disorders are associated with substance use [18-20]. In our study, 60% of substance addicts admitted to the psychiatry service had a psychiatric illness. Our study results were consistent with the literature, and substance addiction was more common in patients with psychiatric diseases.

5. CONCLUSION

As in all over the world, unfortunately, illegal drug abuse is increasing and the age of use is decreasing in our country. Especially low socioeconomic level increases susceptibility to illicit drug abuse. In addition, individuals with psychiatric problems also tend to illicit drug abuse. Especially synthetic drugs, which we can consider as new generation illegal drugs, are spreading rapidly and threaten the physical and mental health of young people and therefore the public health and safety. Emergency services are sometimes the first and only areas that such patients apply. These cases, who are brought to the hospital by ambulance, sometimes voluntarily and sometimes as a compulsion, must be directed and followed up in illicit drug addiction treatment units for long-term treatment and detailed evaluation after emergency treatment. In addition, legal precautions, protective measures and keeping young people away from these substances are very important against the damages that may occur socially.

6. LIMITATIONS

Patients tended to hide their addiction. Additionally some patients tended to name the substances they used differently.

Disclosure

Approval of the research protocol: N/A.

Informed consent: N/A.

Registry and the registration no. of the study/trial: N/A.

Animal studies: N/A.

Conflict of interest: None declared.

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