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Nadużycie alkoholu jako przyczyna interwencji zespołów ratownictwa medycznego

Alcohol abuse being the cause of medical emergency teams intervention

Streszczenie

Wstęp. Alkoholizm i nadużywanie alkoholu są problemami ogólnoswiatowymi. Według danych WHO ponad 100 mln ludzi na świecie cierpi na alkoholizm, jako chorobę kliniczną. Nietrzeźwość zaś jest ważną przyczyną wypadków i urazów, także tych związanych z przemocą.

Cel. Celem pracy było przedstawienie problemu nadużywania alkoholu jako przyczyny interwencji zespołów ratownictwa medycznego.

Materiał i metoda. Analizie poddano dokumentację medyczną „Kart zlecenia wyjazdu Pogotowia Ratunkowego”. Przeanalizowano łącznie 1626 kart z podstacji Śródmieście i Garbów, podlegających Wojewódzkiemu Pogotowiu Ratunkowemu w Lublinie, z których 173 karty dokumentowały działania ratunkowe wobec pacjentów znajdujących się pod wpływem alkoholu.

Wyniki. Wyniki wskazują, że 10,5% pacjentów, którym udzielano pomocy było pod wpływem alkoholu. Interwencje dotyczyły najczęściej mężczyzn w wieku 21 do 30 lat. Zwykle do tych pacjentów wysyłane były zespoły ratownictwa medycznego w trybie pilnym lub zwykłym. Większość pacjentów wymagała hospitalizacji w Szpitalnych Oddziałach Ratunkowych.

Abstract

Introduction. Alcoholism and alcohol abuse are global problems. According to WHO data, over 100 million of people in the world suffer alcoholism being the clinical disease. However intoxication is a major cause of accidents and injuries, and also those related to violence.

Aim. The paper aimed to present the problem of alcohol abuse being the cause of ambulance teams' interventions.

Material and methods. There were analysed medical documents of Emergency Medical Service teams: "Departure Order Cards of Ambulance Service". Altogether 1626 cards from Śródmieście and Garbów stations subordinated to Provincial Ambulance Service in Lublin, were analysed. Out of them 173 cards documented emergency departures to patients being under the influence of alcohol.

Results. The findings indicate that 10.5% of patients benefitting from EMS aid, were intoxicated. Those interventions mostly concerned men aged 21-30 years. Usually EMS teams were dispatched to such patients as urgent or ordinary responses; rarely as emergency. Majority of patients required hospitalisation at the Hospital Casualty Unit.

Słowa kluczowe: alkohol, alkoholizm, zespół ratownictwa medycznego.

Key words: alcohol, alcoholism, Emergency Medical Service teams.

INTRODUCTION

Alcohol, and in the first place its main metabolite, acetaldehyde, is a psychoactive agent which reduces the level of anxiety and improves the mood, but simultaneously it has the addictive properties [1].

Intoxication is however an important cause of incidents and injuries and also those related to violence. Additionally, alcohol consumption is related to the increased incidence of about 60 different types of diseases. These include among others: mental disorders, gastrointestinal diseases, neoplasms, cardiovascular diseases, immunological disorders. Alcohol also increases the risk of low birth weight and infants' death. It is estimated that alcohol is responsible for 7.4% of all disability and premature deaths in the EU [2].

The presence of alcohol in our lives is common [3].

Most adult Poles drink alcohol (76%), with two-thirds (65%) reporting drinking sometimes, and one out of nine (11%) – frequently. Over one-fifth of the respondents (22%) declare abstinence. Alcohol consumption as well as the type and frequency of drinking depend mainly on two factors – age and gender. It is true that a small percentage of people consuming alcohol admit to drinking too much, but in one of ten there are signs of addiction [4]. The highest average alcohol consumption appears to be among the unemployed men with average annual alcohol consumption estimated at 16 to 18 litres per person [5].

Diagnosis and pre-hospital aid offered to intoxicated patients is difficult, tedious and stressful for medical personnel. Ambulance staff in particular emphasize the objective difficulties in taking the history and the extended time of examination and intervention [6].

Implementation of medical procedures in intoxicated patients is also associated with serious financial costs; especially because a significant proportion of these people do not have insurance. Physical and sanitary threat often associated with frequent aggression and poor hygiene standards in this group of patients is also an unquestionable problem [7].

But alongside undoubtedly high cost of treatment of alcoholism and injuries and illnesses associated with it, we cannot fail to mention huge social losses. These include premature deaths, children born with Foetal Alcohol Syndrome (FAS), social welfare costs and costs associated with the functioning of justice systems. Estimating the economic aspect of Polish alcohol problems or the amount of damage associated with alcohol abuse, is an extremely difficult task. However, it is estimated that these costs may fall up to 6% of gross domestic product [8,9].

AIM

The paper aimed to present the abuse of alcohol creating many problems (medical, social and financial) and being the frequent cause of intervention of medical emergency teams.

MATERIAL AND METHODS

There were analysed medical records of Ambulance Departure Orders from the Central Lublin and Grabów area being the subordinate of Provincial Ambulance Services in Lublin. The responses of each first week of the quarter of 2009 (1-7 January, 1-7 April, 1-7 July, 1-7 October) were analysed. Out of total 1626 interventions, 173 were related to interventions to patients under influence of alcohol. Documentation of these interventions was analysed in detail.

RESULTS

Interventions of ambulance teams to patients being under the influence of alcohol during the period account for 10.5% of the total number of emergency interventions. The average daily number of responses to patients being under the influence of alcohol was higher on Saturdays, Sundays and public holidays (7.8), lower – on weekdays (5.4). The time of the year influenced the average number of interventions per day. The highest average number of responses per day to patients being under the influence of alcohol was observed in April and July (7.7), lower – in October (5.4) and in January (4.4).

TABLE 1. Gender of ambulance patients being under the influence of alcohol.

Gender	n	%
Woman	35	20
Man	132	76
Deficiency	6	3
Total	173	100

Among emergency intoxicated patients by far the majority were men, who accounted for 76% of patients (Table 1). However, among the juvenile patients of ambulance service being under the influence of alcohol, there were 4 women (14, 15-year old and two 17-year olds) and one 16-year-old man.

TABLE 2. Gender of ambulance patients being under the influence of alcohol.

Age	n	%
≤20	10	6
21-30	39	23
31-40	24	14
41-50	27	16
51-60	27	16
61-70	19	11
≥71	3	2
Deficiency	24	14
Total	173	100

The interventions to patients being under the influence of alcohol most often involved young adults aged 21 to 30 years (Table 2). Among the intoxicated patients by far prevailed those of working age, which accounted for 74% (women) and for 90% (men), assuming that working age is 18-59 years for women and 18-64 years for men. The age span of ambulance patients being under the influence of alcohol, was quite high: the youngest was just 14, the oldest – 97 years old.

TABLE 3. The responses of emergency and non-emergency ambulances to patients being under the influence of alcohol.

Team type	n	%
Emergency	35	20
Non-emergency	138	80
Total	173	100

In most cases (80%) the ambulances sent to patients being under the influence of alcohol were non-emergency teams, including nurses and paramedics. Relatively rarely there was a real likelihood the victim needed medical intervention – in such cases (20%), a decision was taken to send to the scene a specialist ambulance team managed by a doctor.

TABLE 4. The types of ambulance interventions dispatched to patients being under the influence of alcohol.

Type of intervention	n	%
1 - emergency	14	8
2 - urgent	103	60
3 - non-urgent	54	31
Deficiency	2	1
Total	173	100

Emergency interventions – 1 of ambulance teams were rare (8%); urgent interventions – 2 to patients being under the influence of alcohol were more frequent (60%) as well as non-urgent interventions – 3 (31%).

TABLE 5. The type of ambulance teams' actions performed to patients being under the influence of alcohol.

Action	n	%
At the scene	55	32
At the scene and transport	45	26
Transport	62	36
Abandoned	11	6
Total	173	100

Every third patient being under the influence of alcohol (32%) received only qualified assistance at the scene and was left under the care of relatives or transferred to the police. Assistance at the scene and transport to the hospital was required by every fourth patient (26%). Most frequently, however, the patients being under the influence of alcohol were transported to the hospital (36%). Sometimes ambulance teams took decision on not providing qualified care (6%). This was mostly due to the lack of consent from the patient or his family to perform necessary examinations, proposed treatment and/or hospitalisation. In such cases the description of the situation was given in the Ambulance Record Cards. In extreme cases, patient's behaviour was described in the following way: "The patient is clearly under the influence of alcohol and categorically refuses to be examined, assisted or refused to give personal information".

TABLE 6. Types of diagnoses in patients being under the influence of alcohol.

Diagnosis	n	%
1 - Intoxication with alcohol*	70	40
2 - Post-alcohol injuries	71	41
3 - Behaviour influenced by alcohol	27	16
4 - Alcohol and withdrawal syndromes	5	3
Total	173	100

Category 1* – intoxication with alcohol was also used for patients with indications of alcohol consumption, to whom intended intoxication was confirmed.

Ambulance teams most frequently diagnosed in patients either intoxication with alcohol (40%), or post-alcohol injuries (41%). Least frequently the cause of ambulance team intervention was post-alcohol syndrome and withdrawal syndrome (3%).

DISCUSSION

Alcoholism is a worldwide problem. Currently, according to the WHO over 100 million people suffer from alcoholism as a clinical disease. All East European countries register a surge in alcohol consumption. In Poland the number of alcohol addicts and those abusing alcohol ranges from 4-5 million, and those who require treatment range from 1 million to 1200 thousand. Out of this huge number only 15% undergo treatment, and the number of people living close to the socially negative effects of alcoholism, having problems of personal and family character, amounts to 12 million, which equates to nearly one third of the population of Poland [10,11].

This study confirms that responses of ambulance teams to patients being under the influence of alcohol during the study period account for 10.5% of the total number of emergency interventions. Slightly higher percentage of patients being under the influence of alcohol was noted by Januszewski in the city of Łódź (15%) [9], and significantly lower in Błonie (3.86%) [6]. Both in the presented study and in the literature, men more often than women benefited from the assistance of ambulance teams due to alcohol consumption [6].

In our research the responses most often concerned young adults aged 21 to 30 years. Different results were obtained by Szymański and Ziólek in 2002 in Błonie where far older people dominated, aged 41-50 years [6].

The differences in the obtained results may be due to the change in the model of drinking alcohol, which is drunk by younger Poles, with the increasing participation of young women [10].

According to our research 8% of ambulance interventions were emergency interventions, and 60% - as urgent ones. For comparison, in studies of Szymanski and Ziólek, as much as 50% of interventions to people being under the influence of alcohol were qualified as emergency interventions, and 35% - as urgent interventions. Emergency and urgent interventions increase the risk of communication accident, risking the health and life of ambulance team and bystanders. Additionally, disposals of ambulance teams for emergency response and urgent response to patients being under the influence of alcohol obviously prolong the time of response to patients at life threatening situations [6].

In the discussed group of patients the final diagnosis confirmed alcohol intoxication in 35%, and in 24% – alcohol disease. In 20% of the victims the post-alcohol and withdrawal syndromes were confirmed, and in 17% – post-alcohol injuries [6].

The effects resulting from alcoholism are particularly harmful and visible in many areas of everyday life. Alcohol abuse may cause conflict with the law and the need for legal sanctions. Alcohol may be the cause of many disorders, including mental disorders. The personal costs due to alcoholism are dramatic. Cases of alcohol-related death account

for a high percentage of deaths. Life expectancy of alcohol abusers is much shorter as compared to the non-alcoholics. Equally significant is the role of alcohol in terms of injuries, accidents and suicides. Alcohol consumption is a factor favouring murders and violence in family.

Currently, there is increasing public awareness of bad effects of alcoholism and alcohol abuse in society and the private sector, there is a widening acceptance of the view according to which alcoholism is a disease that can be treated [11].

CONCLUSIONS

1. More than 10.5% of ambulance teams' patients receiving quality assistance are under the influence of alcohol. Mean number of ambulance interventions to patients being under the influence of alcohol per day depends on the day of the week and time of the year.
2. Ambulance interventions to patients being under the influence of alcohol most frequently concern young adults aged 21-30, with males prevailing.
3. Four in five ambulance interventions to patients being under the influence of alcohol there are paramedics' teams sent as urgent and ordinary interventions.
4. Majority of patients being under the influence of alcohol requires transporting to Hospital Emergency Unit.

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