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Health and life hazards related to aggressive behaviour of patients diagnosed with alcohol abstinence syndrome

Zagrożenia zdrowia i życia powiązane z agresywnym zachowaniem pacjentów ze zdiagnozowanym alkoholowym zespołem abstynencyjnym

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Abstract

Alcohol withdrawal syndrome is one of the most serious disorders resulting from alcohol addiction. Moreover, this disorder may cause complications such as hallucinations including delirium. Doctors and paramedics dealing with patients very often face aggressive behaviour. **The aim of the study** was to investigate the scale of that phenomenon and characterize it. The study included the analysis of patients' medical documentation with diagnosed alcohol abstinence syndrome at the time of admission. Research confirmed that the aggressive behaviour occurred in 25% of cases. It occurred most frequently in case of delirium, and was directed to the patient's environment. **Conclusions:** 1) Aggressive behaviour is quite a serious problem that affected every fourth patient being tested. The reasons can be different, but the crew of ambulances and doctors from hospital wards must be attentive and prepared for all kinds of violent behaviour, not only towards them, but to the patient himself also. 2) Aggressive behaviour was observed more frequently in the event of alcoholic delirium. 3) Aggression demonstrated by the patients with alcohol abstinence syndrome is addressed in almost ⅔ of the cases to the environment of the patient.

Key words: alcohol, aggression, alcohol withdrawal syndrome, delirium

Streszczenie

Alkoholowy zespół abstynencyjny jest jednym z najpoważniejszych zaburzeń wynikających z uzależnienia od alkoholu. Dodatkowo w trakcie jego przebiegu może dojść do powikłań z wystąpieniem halucynacji oraz pełnoobjawowym majaczeniem alkoholowym włącznie. Lekarze i ratownicy medyczni w kontaktach z takimi pacjentami często spotykają się z agresywnym zachowaniem. **Celem pracy** było zbadanie skali wspomnianego zjawiska oraz próba jego scharakteryzowania. Badania polegały na analizie kart chorobowych pacjentów z rozpoznanym, w chwili przyjęcia, alkoholowym zespołem abstynencyjnym. Z badań tych wynikało, że zachowania agresywne występowały w 25% przypadków. Najczęściej agresja była skierowana na otoczenie pacjenta i dotyczyła majaczenia alkoholowego. **Wnioski:** 1) Agresywne zachowanie jest dość poważnym problemem, występującym u co czwartego badanego pacjenta. Przyczyny tego stanu bywają różne, a członkowie załóg karetek pogotowia i lekarze oddziałów szpitalnych muszą być uważni i przygotowani na różnego rodzaju gwałtowne zachowania, skierowane nie tylko na personel, ale także na samego pacjenta. 2) Agresywne zachowanie było obserwowane zdecydowanie częściej w przypadku majaczenia alkoholowego. 3) Agresja pacjentów z alkoholowym zespołem abstynencyjnym skierowana jest w blisko ⅔ przypadków na otoczenie pacjenta.

Słowa kluczowe: alkohol, agresja, alkoholowy zespół abstynencyjny, delirium

INTRODUCTION

Alcohol has virtually been a part of human history since the beginning of our existence, and the first mention of it appears already in cuneiform inhabitants of Mesopotamia (5000 B.C.). This substance has very strong relaxing and addictive properties (which is the reason behind its consumption), but unfortunately its consumption has a very bad effect on human health. Given the desire to use alcohol and its accessibility together with high no harm for mental health causes that alcoholism is one of the most important social problems that humanity must struggle with (Cierpiałkowska and Ziarko, 2010). One of the worst complications caused by alcoholism is alcohol withdrawal syndrome. It can occur with varying degrees of severity and in different forms. The first type is the alcohol withdrawal syndrome without complications. Another delirium tremens relates mainly to poor perception, disorientation, impaired memory and speech, strong psychomotor agitation and hallucinations. Unfortunately, they often have a very unpleasant form for patients with symptoms of delusions of persecution, these disorders are mainly visual, tactile and auditory. Usually accompanied by severe disorders including anxiety. According to the authors, these condition occur in at least 5% of addicts, and can be fatal, if untreated. It is consequence of existing somatic disorders associated with excessive activation of the parasympathetic system. These types of disorders are manifested mainly by presence of tachycardia, hypertension, increase of temperature, and hyperventilation (Chlebowska and Szewczuk-Bogusławska, 2012; Samochowiec, 2011).

Tonic-clonic seizures and severe alcohol hallucination should be added to the above classification. The last one is typically characterised by unpleasant auditory hallucinations which have character of accusation addressing a patient. These disorders usually run without somatic symptoms. They can unfortunately go to chronic form (Szajewski and Klimaszyk, 2015).

DSM-IV guidelines are helpful during diagnosis of alcohol withdrawal syndrome. For a diagnosis of alcohol withdrawal syndrome the following criteria must be fulfilled:

1. Stopping or reducing alcohol consumption after a long period of heavy drinking.
2. The occurrence of at least 2 of the following symptoms during the period of several hours to few days, even after cessation of drinking:
   a. insomnia;
   b. nausea and vomiting;
   c. increased trembling hands;
   d. the symptoms of the vegetative system excitation;
   e. grand mal seizures;
   f. strong psychomotor agitation.
3. The symptoms are not caused by other somatic disorders (Cierpiałkowska, 2007).

According to the presented data we may suspect that patients who experience similar disorders (delusions, hallucinations, anxiety and severe excitation) may be potentially aggressive and dangerous for themselves as well as for the medical staff of ambulance or units of residential treatment – emergency response unit (ERU) and admissions unit.

AIM AND RESEARCH METHODOLOGY

The aim of the study was to characterize the state of life and health hazards during acute alcoholic psychoses with particular focus on the occurrence of aggressive behaviour both in relation to patient himself as well as in relation to hospital staff and ambulance service.

In order to answer these questions analysis covered clinical and other medical records of patients undergoing treatment at admission as well as in the first hours of stay at the Babinski hospital psychiatric wards in Lodz in the first quarter of 2010 who were diagnosed with F.10.3 and F.10.4. Analysis of documents was based on the original questionnaire divided into section related to socio-demographic data and section on the medical data during admission and treatment as well as patients aggression. The study involved a group of 73 people.

RESULTS

The results obtained during study indicated a significant over-representation of men in the study group. Their proportion to women was almost 3:1 (27% women and 73% men). As to the age of patients hospitalised due to alcohol-induced disorders (Fig. 1), a rapid increase of morbidity was evident during third and fourth decade of life.

As reported by numerous authors this was probably triggered by a long period of alcoholism prior to the onset for alcohol withdrawal. The youngest of the patients examined was 26 years old (M) and the oldest one was 76 years old (F).

Results of study clearly showed that the vast majority of both men and women were single (widower/widow, divorcee/divorcee) or not remaining in any formal relationship. Those remaining in stable relationships made for a substantial minority. That group consisted of 13 men and 3 women only.

The vast majority of respondents hospitalised during study included the people who were not economically active. Unemployment rate among the respondents was 57.8%, and 14.1% were on a pension or retired. However, only 28.1% of respondents were actively working.

During research one of the most important variables was diagnosis that was filed in the patient's medical record. Alcohol withdrawal syndrome can take different forms and cause different complications. There were three options among the respondents: alcohol withdrawal syndrome without complications, alcoholic hallucinosis and delirium tremens. Percentage distribution of these disorders was presented in Fig. 2.

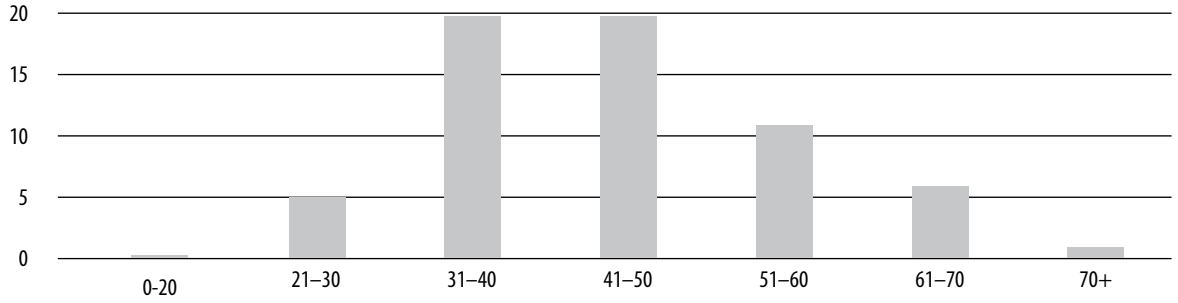

Fig. 1. Distribution of respondents by age

The study demonstrated that in more than half of the respondents alcohol withdrawal syndrome without complications was diagnosed (56.25%). However, in 43.75% of patients various types of complications were diagnosed, where in 40.65% of the total study population, medical personnel recognised delirium tremens. The result of such a large proportion of complicated withdrawal syndromes may be caused by the fact that many patients suffering from withdrawal symptoms did not take professional treatment, trying homemade methods of self-treatment. For this reason, doctors of ERU must deal with the most severe cases.

The prevalence of disorders by age of the patients studied are shown in Fig. 3.

As can be seen, the number of complicated cases in regards to binge increased with age. The test group of patients who are in their third decade of life complicated cases were not observed, however, they begin to appear during the fourth decade. In the fifth decade of life they made vast majority. In the further age groups of the respondents, apart from the sixth decade, they suffered from dominant disorder. It may be associated with the development of alcohol dependency and disorders induced by it.

An important feature of the complicated withdrawal syndromes is the presence of hallucinations and delusions. The results of the study show that around 44% of disorders are hallucinations and about 36% were delusions. These symptoms were diagnosed in approximately 20% of patients with complications.

Disorders which dominated among patients related to visual disorders (52.6%). Hallucinations and delusion with auditory character occurred in case of 42.1% of patients complicated. Mixed complications (visual – auditory) accounted for 5.3% of complications.

Such complications induce aggressive behaviour towards medical personnel or patient himself. However, note that even extremely aggressive behaviour occurred not only in case of complicated withdrawal syndromes, but also for those without complications. Result of research established that aggressive behaviour has occurred in 25% of patients. Fig. 4 shows links between aggressive behaviour and the specified types of occurring disturbances.

According to the Fig. 4 among the study population, which manifested aggressive behaviour, the largest share related to the patients with diagnosed alcoholic delirium, who accounted for 62.5% of the respondents. This should be explained by strong psychomotor excitation which occurs in the case of that particular disorder. Note that 31.25% of aggressive patients included those who showed no signs of complications of alcohol withdrawal syndrome. According to the above data the staff dealing with patients with alcohol withdrawal syndrome must always be in full alert. Especially when considering the data concerning the targets of violence flowing from the patients.

According to estimates based on these results more than ⅔ of such patients demonstrated aggressive behaviour towards their environment, i.e. the staff and other patients. A detailed breakdown of all respondents is presented on Fig. 5. Taking into consideration all the data of the studies, the medicinal staff should approach the patients with alcohol withdrawal syndrome with extreme caution and deference, because their behaviour can be unpredictable, and they may pose a significant threat to both themselves and their environment.

DISCUSSION

The research showed that alcohol addiction is one of the factors that significantly increase risk of suicidal behaviour or other behaviour related to body mutilation (Charan

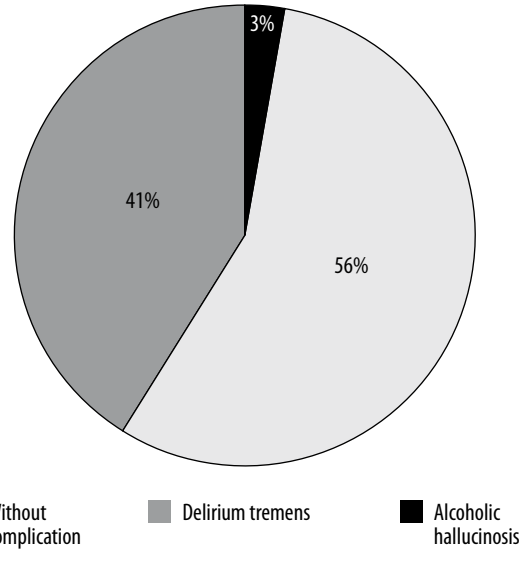

Fig. 2. Distribution of respondents with diagnosed alcohol withdrawal syndrome

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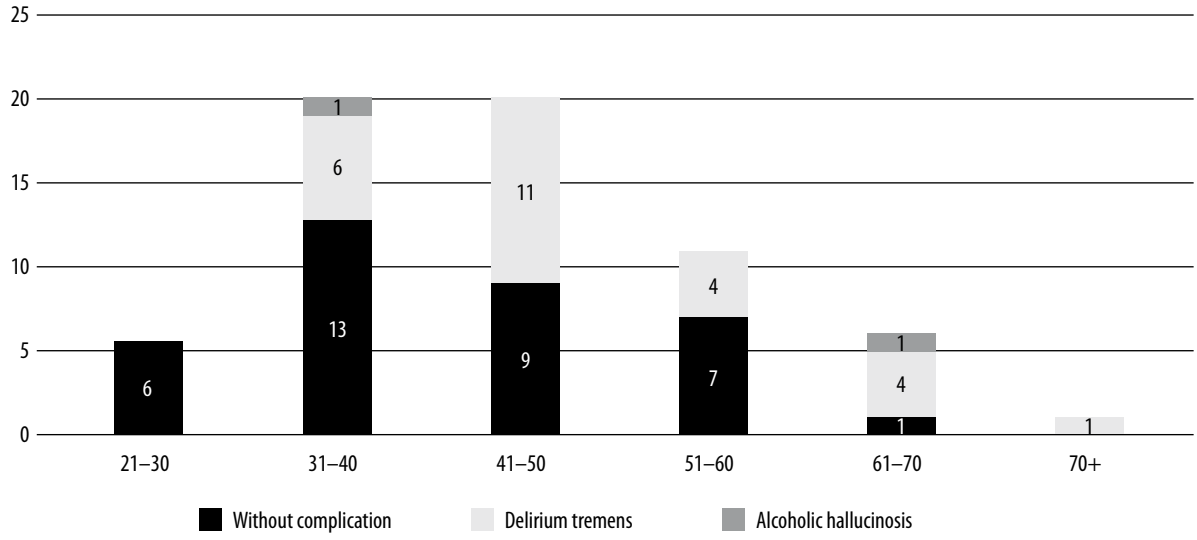

Fig. 3. Age of respondents according to diagnosis

and Reddy, 2011; Khemiri *et al.*, 2016; Pompili *et al.*, 2010). However, attention should be paid to the fact that in the vast majority of cases, aggression was demonstrated towards the environment and not the patient himself. During studies conducted in the country, ERU employees admitted that aggressive behaviour was demonstrated by people under the influence of alcohol, towards both themselves and other patients (Rudnicka-Drożak *et al.*, 2013). Although the medical personnel is entitled to legal protection against aggressive behaviour, yet in contact with mentally ill patients, and usually ones suffering from alcohol withdrawal syndrome, this kind of protection not sufficient and is difficult to provide (Augustynowicz *et al.*, 2015). Such large severity of aggressive behaviour clearly indicates the need for special caution when dealing with stimulated patients.

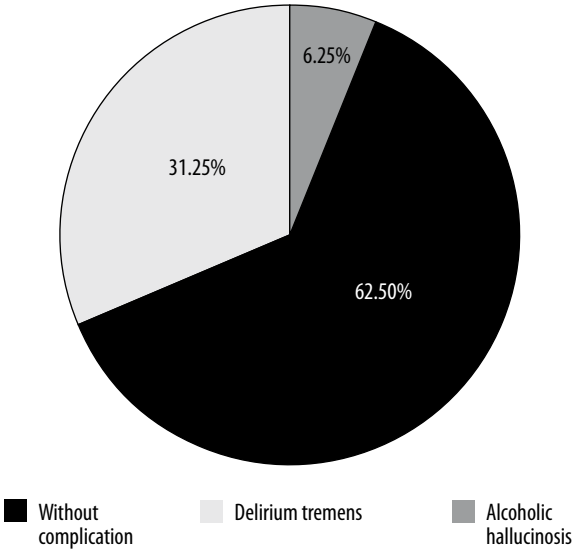

Fig. 4. The incidence of aggression in particular disorders

Note that similar conclusions from the research carried out by other authors where, e.g. in the province of Western-Pomeranian district, the largest percentage of medical personnel who faces aggressive patients was the staff of hospitals and psychiatric wards. The most aggressive were obviously patients suffering from psychotic disorders (Kupś *et al.*, 2007). It is especially important in case of abusers, as alcohol itself triggers aggression and according to the latest research it impairs patient's control over anger permanently (Miczek *et al.*, 2015; Strac *et al.*, 2015; Tikkanen *et al.*, 2015). These patients are twice as dangerous risk group as a result of disorders. This is particularly important in light of the fact that medical personnel often performs procedures that are uncomfortable or even painful for patients, such as e.g. intravenous punctures or blood sugar

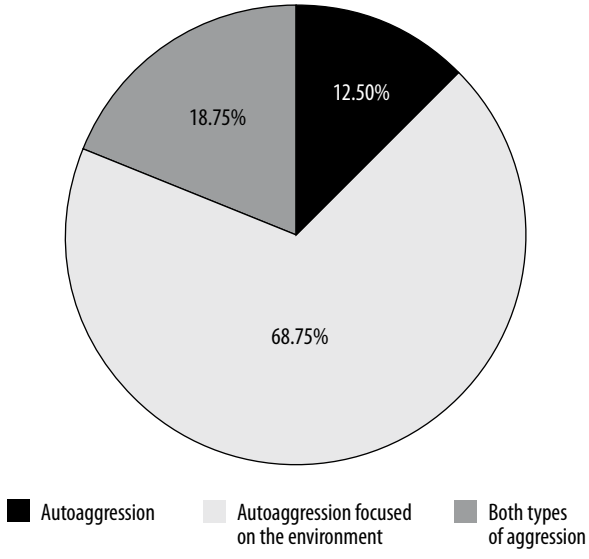

Fig. 5. Types of occurring aggression

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measurement. That is exactly why employees of ERU and psychiatric facilities in hospitals are exposed mostly to the aggressive behaviour of patients. The disproportion between hospital departments and ERU results from the fact that patients admitted to the wards come to hospital without given medication. These data are also confirmed by foreign sources where the largest number of violent incidents related to alcohol, had to be dealt with during patient's first contact with hospital environment (Gilchrist *et al.*, 2011; Morphet *et al.*, 2014). The above-mentioned article made it clear that the vast majority of medical staff often faced aggressive alcohol-dependent patients during their admission to hospital. Therefore focus on education should be given in the field of prevention against patients' attacks of aggression and proper handling them (Powley, 2013).

CONCLUSIONS

1. Aggressive behaviour is quite serious problem occurring in every fourth patient being tested. The reasons for this can be different, but the crew of ambulances and doctors from hospital wards must be attentive and prepared for all kinds of violent behaviour towards them, but also patient himself.
2. Aggressive behaviour was observed more frequently in case of delirium tremens.
3. Aggression of patients with alcohol abstinence syndrome is addressed to the environment of the patient in almost ⅔ of cases.

Conflict of interest

The authors do not report any financial or personal affiliations to persons or organisations that could adversely affect the content of this publication or claim rights thereto.

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