

LEGAL AND FORENSIC ISSUES FOR CHRONIC ALCOHOLISM

MIHAI ONCIU¹, ANASTASIA-CRISTINA IORDACHE², BOGDAN PĂCALĂ³¹“Ovidius” University Constanța, ²Psychiatry and Neurology Hospital Brașov, ³“Dr. Gheorghe Preda” Psychiatry Hospital Sibiu**Keywords:** chronic alcoholism, blood alcohol level, violence**Abstract:** Through its great availability, through its lower price compared to other drugs and through its effects, alcohol has easily overrun other similar substances. Consequently, the number of alcohol users is continually increasing, and we also observe a decrease in the age of the consumers. However, it is determined (genetically, environmental or both) that alcoholism is a disease that profoundly affects the physical, emotional, mental and spiritual status of alcohol addicts and their families not only through its bio-psycho-social implications, but also through its forensic ones.**Cuvinte cheie:** alcoolism cronic, alcoolemie, violență**Rezumat:** Prin marea sa accesibilitate, prin prețul de cost scăzut comparativ cu alte droguri și prin efectele sale, alcoolul s-a impus cu ușurință față de alte substanțe de acest tip. Ca urmare a acestui fapt, numărul persoanelor care abuzează de alcool este în continuă creștere, constatându-se în același timp scăderea vârstei de debut a consumului. Oricare ar fi determinarea sa (predispoziția genetică, ambientală sau ambele), alcoolismul este o boală care afectează profund condiția fizică, emoțională, mentală și spirituală a alcoolodependenților și a familiilor lor, nu numai prin implicațiile sale bio-psyho-sociale, ci și medico-legale.

Alcoholism is currently the most widespread addiction, a veritable social plague in the world, so that it could be considered a “real pandemic”.(1) Occasional consumption of alcohol is involved in many different offense generating circumstances, as aggravating factor in other psychopathological conditions or diseases with high delinquent risk (primarily personality disorders).

All forms of violence, from physical injuries to homicide, state characteristic interrelations between alcoholism and antisocial behaviour.(2) A large percentage of the forensic cases are represented by abusive consumers of alcohol or alcohol dependents. A murder out of two, a suicide out of four, 15% of work accidents, one third of the road accidents are caused by alcohol. The number of workplace accidents is 4-5 times higher in alcoholics than in the general population and 20% of offenses can be attributed to alcohol, but the data are difficult to interpret due to the increased frequency of antisocial personality disorder among alcoholics.(3)

People with alcohol dependency compared to non alcoholics are more frequently involved in scandals and fights. The reason for an aggressive behaviour in alcoholics may be the effects of alcohol on the gamma-aminobutyric acid receptors (GABA-A), which reduce the aggressive behaviour by determining anxiety towards an inappropriate social behaviour. Secondly, the effect of alcohol on the dopaminergic system that controls the psychomotor stimulation may increase the level and the intensity of aggression.(4) Therefore, alcoholics tend to overreact to bad situations by using aggression. In addition, due to excessive consumption, alcoholics lose their ability to exercise self-control over their emotions and feelings, alcohol becoming for them the way to release concealed emotions. In contrast to other alcoholics, the alcohol is a way to bury negative feelings of anger, guilt and depression. So, their general hostility is increasing the risk of aggressive behaviour

caused by the smallest provocations. Also, alcohol decreases the ability of individuals to function effectively in the cognitive sphere. Alcohol addicts that are in the stage of acute intoxication do not perceive subtle social cues. They may have inadequate social reactions before even acknowledging their own actions. Lacking the ability to think clearly and deeply, the alcoholics under the influence of alcohol do not realize that they could react differently.

More dangerous is that people with acute alcohol intoxication may have feelings of grandeur, deliberately or unwilling provoking others, or interpreting others' behaviour as a challenge to their supremacy.(4) Even though “not all alcohol addicts are criminals”, the alcoholic potential to offenses is obvious. The complex relationship between alcoholism and crime highlights the need for research in multiple ways of the causes of many social issues, many alcohol addicts committing theft in order to buy alcohol. Crime statistics concerning driving drunk or under the influence of alcohol are influenced by how legal regulations are applied by police. Factors beyond the control of the driver are overall responsible for fewer accidents while those related to driver, including drunk-driving, are becoming increasingly important.

However, although there is no doubt from the epidemiological point of view that alcohol plays an important role in traffic accidents, contributing to overall mortality by this cause, it is difficult to quantify, because some personality attributes, such as aggression or impetuosity also contribute to accidents. Combining them with alcohol abuse, which often occurs especially in young subjects, can be disastrous.

The consequences of vehicle driving drunk or under influence of alcohol depend on several factors. The incidence of crimes in most countries reveals the existence of an effect of “shock” highlighted whenever it is announced a stricter legislation, or when there is the threat of a more rigorous

¹Corresponding author: Păcală Bogdan, Str. Galeș, Nr. 9, Sibiu, România, E-mail: bogd_pacala@yahoo.com, Tel: +40745 151868
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application of the existing regulations. It is noticed an immediate decrease in the number of offenses. Meanwhile, after a short period of time and as drivers calculate the risk of being caught based on their own experience or on that of others, they feel inclined to revert to the previous behaviour, and the consequences (sentences) tend also to return to previous levels.

Many persons, especially those with a low educational level tend to behave while drunk in a disruptive manner and commit minor offenses for which the law prescribes fines (scandal in public places, travelling without a ticket on public transportation etc.). Moreover, as they generally consume alcohol in public places and then must return home, their behaviour is more likely to attract police attention. Apart from the differences in behaviour at the same amount of consumed alcohol, international comparisons of the number of fines for offenses committed while intoxicated may be inexact due to the differences in law enforcement by the police, which can be explained by a lack of personnel or by the need to concentrate police actions on other forms of delinquency.

It was noticed that in Finland, penalties for crimes committed while intoxicated increased from 146,998 in 1950 to 276,206 in 1976, and their number per 10,000 people over 15 years of age increased from 5210 to 7485.(5) It is interesting to note that throughout this period the ratio of fines for offenses committed after drinking and total alcohol consumption in Finland decreased. If the attitude of the police about alcohol consumption has not changed during this period, it means that Finns, whether behave better in society under the influence of alcohol, or they consume alcohol at home where they are less visible to others and the likelihood to commit offenses requiring police intervention is less (unless they abuse their family or disturb the neighbours).

All studies have found a link between alcohol and especially alcohol abuse and violence. But if we expect accurate data on a specific behaviour or to formulate predictions on aggressive behaviour in certain situations, studies provide limited information. However, the evidences were in favour of the hypothesis that reduced central serotonin system functionality is associated with increased risk for aggressive behaviour.(6) It has also been brought into question the hypothesis of the role of 5 hydroxyindoleacetic acid concentration in impulsive and violent behaviour under the influence of alcohol.(7) The turnover of brain serotonin as an indicator of 5 hydroxyindoleacetic acid concentration should not be correlated with free testosterone levels. The latter is associated more strongly with aggressiveness and lower socialization than with impulsivity.

Later, in 1994 following clinical observations on two types of alcoholics, and considering their delinquent history, by performing biochemical measurements, it was found that low concentrations of 5 hydroxyindoleacetic acid in cerebrospinal fluid of alcoholic subjects and an increased level of free testosterone in the same fluid is associated with an increased aggressiveness, suspicious behavior and low socialization.(8) This issue was completed by the observation that, in addition to low 5 hydroxyindoleacetic acid concentration and increased levels of free testosterone concentration in cerebrospinal fluid, an important role in determining the aggressiveness have the low levels of adrenocorticotrophic hormone.(9) In addition, these authors confirmed that low 5 hydroxyindoleacetic acid is primarily associated with impulsivity and high levels of testosterone with aggressiveness.

Although the precise pharmacological mechanism by which alcohol influences behaviour, especially the offensive one, is still partially understood, some general principles have

been established regarding the important effects of alcohol in terms of behaviour. First, we must note that alcohol affects behaviour in different ways, depending on its level. Thus, it was found that high alcohol level is more often linked to violence than low levels. In contrast, very high alcohol level due to the stupor, decrease the occurrence of aggressive attacks. The research conducted by the Emergency Services of the Medical Centre California highlighted the link between alcohol and injuries produced by violence. Thus, injuries due to aggression were more frequently related to alcohol consumption before the event, positive alcohol level or a history of alcohol abuse, in general to alcohol problems, than injuries due to other causes.(10)

This fact certifies that alcohol greatly decreases the perception of risk. The same authors have noted that aggression is more severe when alcohol level is rising than when it is stationary or decreases. It is also known that each individual responds differently to the same dose of alcohol. On the other hand, in alcohol addicts, higher alcohol level does not cause no significant changes in behaviour due to the development of tolerance. The pharmacological effects of alcohol are dependent of the duration of the action, which depends on the rate of absorption and metabolism. The conclusion reached by studying the statistics of the University Hospital Emergency Department of Missouri, was the fact that alcohol used 6 hours before the act of violence is associated with an increased risk of aggression that, characterized by its destructive purpose, differs in duration and intensity.(11)

Limited in time, the use of physical force is a specific form of violence so-called acute aggression, different from chronic aggressive behaviours that are using various means in order to achieve the moral destruction of the victim. Thus, aggression is a particular state of the individual, characterized by acute or chronic tension, which reaches satisfaction in a violent reaction towards the victim. It must be distinguished from occasional aggressive behaviour without pre-existing morbid background that does not necessarily reflect in committing offenses. In an attempt to find a correlation between alcohol and aggressive behaviour several studies were conducted on subjects not used with alcohol and on some alcoholics.

In essence, studies on aggressive behaviour of chronic alcoholics must be based on the correlation with blood alcohol level at the time of committing the act.(11) Researches have suggested that the speed of increasing of the alcohol level and the curve phase may play a role in violent behaviour. Other variables are: type of drink, social situations, and a number of independent variables. When studying the association between alcohol and violence, the complexity of the relationship between aggressive behaviour and the possible influence of alcohol consumption on this behaviour is important. A first remark is that violent discharges and, in particular, extreme violence, such as murder, do not represent a common manifestation of aggression, sometimes people prone to aggressive behaviour may be calm in interpersonal relations, even under the influence of alcohol.

Secondly, the fact that violence often occurs among close acquaintances makes difficult to analyze the relationship between alcohol and violence, even more because alcohol abuse often occurs together with these acquaintances. Thirdly, the aggressive behaviour consecutively to alcohol consumption is also determined by psychosocial factors. Knowing that aggression and loss of control increase when drunk, hence an increase in violence appears because the subject believes that he is partially absolved from liability, responsibility for the violent outburst being blamed on alcohol.

But when violence occurs, it is usually the final act of a series of interpersonal reactions, numerous factors operate independently to influence these reactions, a change in one factor determines the required changes and other factors, so we cannot state that violence is only the result of alcohol.

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