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Prevalence of alcohol consumption related disorders in a prison population convicted of crimes against road safety

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Introduction. Alcohol consumption is a major cause of traffic accidents, so that stricter laws have been enacted to avoid it. Despite this, there are still persons who break the law and go to prison because of driving under the effects of alcohol. We have investigated if these persons are occasionally alcohol drinkers or if they are alcoholics with difficult to modify alcohol patterns.

Material and methods. A cross-sectional study including 50 inmates from two prisons who had committed traffic crimes were interviewed about their alcohol consumption habits and their criminal and psychopathological backgrounds.

Results. 88% had indicators of alcoholism and most consumed other drugs. Previous psychopathology signs were only detected in 10% of the sample. A total of 72% had previous criminal records, half because of violent offences. They were socially adapted, with mean age 39 years, Spanish (86%), had a stable job and family (76%).

Conclusions. Most of the inmates due to traffic crimes are alcoholic, but very few are detected. Their alcohol consumption generates other criminal conduct, treatment being necessary in order to avoid relapse and social exclusion.

Key Words:
Alcoholism, automobile driving, prisons, traffic accidents, substance-related disorders.

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Prevalencia de trastornos relacionados con el consumo del alcohol en población penitenciaria condenada por delitos contra la seguridad vial

Introducción. El consumo de alcohol es la causa de un elevado número de accidentes de tráfico, por lo que

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se han endurecido las leyes para evitarlo. A pesar de ello hay personas que las infringen e ingresan en prisión por conducir bajo los efectos del alcohol. Se investiga si estas personas son bebedores ocasionales o bien son enfermos alcohólicos.

Material y Método. Estudio transversal de 50 internos penitenciarios por delitos contra la seguridad vial, entrevistados acerca de su consumo alcohólico, antecedentes psicopatológicos y delictivos.

Resultados. El 88% presenta indicadores de alcoholismo y la mayoría consume otras drogas. Sólo en el 10% se ha detectado psicopatología previa. El 72% tiene antecedentes penitenciarios, la mitad por delitos con violencia. Socialmente están adaptados, 39 años de edad media, son españoles (86%), tienen familia y trabajo regular (76%).

Conclusiones. La mayoría de internos por delitos contra la seguridad vial son alcohólicos, pero pocos son detectados. Su enfermedad genera otras conductas delictivas, siendo necesario su tratamiento para evitar la reincidencia y un proceso de exclusión social.

Palabras clave:
Alcoholismo, conducción de automóviles, prisión, accidentes de tráfico, trastornos relacionados con uso de sustancias.

INTRODUCTION

Alcohol consumption is directly related with traffic accidents and above all with mortality. A total of 15% of persons with traffic injuries attended in the emergency service of large hospitals had alcohol in blood, this being more frequent in men, in the younger population and in nighttime and weekend admissions.^{1,2}

Traffic accidents in Spain are the first cause of death in those under 39 years.³ In the accidents in the year 2005, the

Spanish Civil Guard detected 5.5% of positive alcoholemias and alcoholemia in deaths per traffic accident in 2004 was 36.1% of the drivers and 33.7% of the pedestrians in 2004.⁴

One of the strategies to minimize the problem is to reduce the blood alcohol permitted-limits. Reduction from 0.1 to 0.08 g/l of the alcohol limit to drive in the USA avoided 360 deaths per year and it is calculated that reducing it to 0.05 could avoid 538 more deaths.⁵ In any event, when driving, no amount of blood in the body is safe.⁶

Therefore, in recent years, society has been acquiring awareness of this danger and, among other measures, the Organic Law 10/1995 of the Penal Code has been modified in material of road safety, through the Organic Law 15/2007, to punish reckless driving or driving under the effects of alcohol more strictly in order to prevent and decrease this type of behavior.

After this reform, almost 75% of the 26,820 convictions in material of road safety corresponded to driving under the effects of alcohol.⁷

Although most of the persons charged with crimes of driving under the effects of alcohol can use the resource of doing community service work, with a suspension or substitution of the sentence, persons who are re-offenders in the committing of crimes and therefore must serve their sentence in the prison have begun to reach the prison centers.

Therefore, we are faced with a new profile of the inmate. In the beginning, these are persons who are integrated socially, familiarly and work-wise but who have criminal offenses linked to driving as the only offense or principal offense. There is abundant literature on the relationship between alcohol and accident rate⁸ and on the possible steps to minimize it, such as reduction of the permitted alcohol limits in blood,⁵ fines,⁹ withdrawal of drivers license¹⁰ and in general limitation of the availability of alcohol (increasing minimum age to drink alcohol, taxes on alcohol, etc.).

However, there is a discussion about whether imprisonments are effective to decrease the alcohol-related accident rate. For many, imprisonments are useful,¹¹ however these have been eliminated in some countries and the accident rate has not increased,¹² although some other limiting measures have been incorporated. Several factors surely participate in the efficacy of such a drastic step: in the first place, admission to prison should be accompanied by specialized treatment during the imprisonment.¹³ Also, incorporation the idea of alcohol consumption as a risk behavior and not as a social custom into the culture of a country has been the result of years of mentalization and of passing restrictive legalization. It is also very important to know the characteristics of the offender in order to

individualize the corrective measures. For example, it is known that the existence of a background of previous accidents has a relationship with the impact that the severity of the sentences may have on the offense.¹⁴

In addition, there is scarce literature on the clinical characteristics of these persons and they also have more risk of consuming other drugs.¹⁵ The key question is if those who enter into prison for these offenses are simply offenders who should learn and correct their behavior with courses and psychoeducation or if they are persons who are suffering from mental health disorders who need to receive health care treatment for their psychopathology.

The present study has the advantage of complementing the view of work of the prison worker professionals with that of a member of a specialized treatment team in a hospital.

- The main objective of the present study is to know if those persons who are imprisoned for an offense against road safety have an alcoholic dependence or simply have been detected by chance at a time and place in which they had consumed alcoholic beverages.
- It is also aimed to know the relationship between possible alcoholism and the committing of other crimes.

MATERIAL AND METHODS

The prisoners within the Prison Site (PS) of Brians-2 and the Open Section (OS) for men of the OS of Wad-Ras from October 2008 to September 2009 were studied.

Those prisoners who were serving their sentence for offenses corresponding to Chapter IV of the Penal Code of offenses against road safety, included in article 379 to 384, were included in the study. Inmates imprisoned due to reckless homicide (article 142) in the OS Wad-Ras and those cases of offenses of civil disobedience (article 556) of the PS Brians-2 in which the following 2 variables coincided, that is, driving a vehicle and committing an offense under the effects of alcohol, were also analyzed.

With all of these criteria, 119 possible cases in all were located (90 in the PS. Brians-2 and 29 in the OS Wad-Ras) out of a total of 2110 and 433, respectively (between 4% and 6.6% of the inmates).

Thirteen cases were excluded because there was no evidence of alcohol consumption (although the subject could have consumed other substances) or because the alcohol consumption had not been confirmed in spite of indirect evidence (surely false positives). Twelve inmates

rejected the interview, 32 were not assessable (because the PS Brians-2 acts as a place of transit towards other prisons), 6 cases could not be located (because in the OS of the Wad Ras, they did not sleep there or they were on parole) and finally 6 duplicated cases (that had switched from the PS Brians-2 to the OS Wad Ras).

Finally, 50 inmates (35 from the PS Brians-2 and 15 from Wad-Ras) were studied.

The evaluation was performed during the individual psychological interview on arriving to the Department or when the subject was already within the prison during the period studied.

The convergence of defensiveness per se of the alcoholic patients and distrust of the inmates in prisons made it necessary for us to evaluate the possible alcoholism from complementary points of views, always by the reference therapist of the inmate.

One of these pathways has been the use of the CAGE,¹⁶ a short questionnaire (4 items) for the detection of possible alcoholism, that generates little psychological defensiveness and with a detection cutoff for possible alcoholism of 2 or more points (CAGE+).

RESULTS

All of the inmates studied were men, 86% Spanish, aged 39.2 ± 8 years (range 25 to 56 years) with no significant differences based on nationality. A total of 54% were classified as second-degree regime and the remaining inmates, third-degree.

By types of offenses, most of the inmates studied were serving a sentence due to reckless driving (35). Seven more were serving a sentence due to driving under the influence of alcoholic beverages (DIAB), 3 due to offenses against road safety, 2 due to disobedience, 2 more due to involuntary manslaughter and one inmate due to breach of the terms of the sentence.

These are scores on the CAGE+ were indicative of alcoholism in 36 (72%) of the inmates studied.

Table 1 shows the different criteria used to diagnose existence of alcoholic dependence. The combination of all of them shows that 88% of the inmates had one or more criteria for alcoholism. It also shows the profile of the sample studied. An elevated frequency of abuse of all types of drugs, other than alcohol, low percentage of detection of psychopathology and elevated percent of family background of alcoholism and personal backgrounds of other offenses,

Table 1	Indicators of alcoholism and psychopathological characteristics of the sample
Previous diagnosis of alcoholism	22%
Referred from penitentiary center for treatment	48%
Subject has had previous treatments (as alternative to penal measure)	18%
Subject has had previous treatment (spontaneous)	32%
Subject has had previous treatment of any type	38%
CAGE positive (≥ 2)	72%
Any of the previous signs (except sent from penitentiary center).	82%
Any of the previous signs	88%
Previous psychopathology diagnosed	10%
Probable alcoholism	88%
Abuse of benzodiazepines (BZD)	40%
Abuse of cannabis	66%
Abuse of other drugs	54%
Regular work	76%
Background of other imprisonment	72%
Background of other alcohol consumption offenses	32%
Background of alcohol abuse in parents or relatives	40%

that contrast with the abundance of inmates with regular work and relatively young mean age (39.2 ± 8 years) was also shown.

There is a significant relationship between the existence of alcoholism found with the CAGE+ and the existence of other backgrounds of offenses with alcohol consumption (about 41.7% in the case of the CAGE+ and 7.1% with CAGE-; $\chi^2 = 5.5$; $p = 0.01$).

A total of 72% of the inmates had a background of previous imprisonment. Of these, 44% were due to offenses related with alcohol consumption. Table 2 shows the offenses committed, it standing out that 36% of them contain some type of violence.

There is also a relationship between alcohol consumption associated to a criminal offense and greater frequency of other backgrounds: 93.8% of the inmates who had backgrounds of offenses with alcohol consumption also had other penal causes while those who had no background of offenses with alcohol consumption only had other causes and 55.9% of the cases ($\chi^2 = 7.1$; $p = 0.007$).

Table 2		Backgrounds of other offenses with imprisonment
Attacks	1	(2%)
DIAB	1	(2%)
Against public health	2	(4%)
Lack of respect of authority	1	(2%)
Attempted homicide	1	(2%)
Arson	1	(2%)
Injuries	5	(10%)
Resistance to authority	3	(6%)
Robbery	12	(24%)
Robbery with force	2	(4%)
Breach of the terms of the sentence	1	(2%)
Car robbery	1	(2%)
Domestic violence	5	(10%)
No other offenses	14	(28%)
Total	50	(100%)

DIAB: driving under influence of alcohol of beverages

DISCUSSION

One conclusion is that most of the inmates serving a sentence for offenses against road safety are really persons with an alcohol dependence disease.

Although it was necessary to measure this dependence by different pathways because of the lack of disease awareness of the inmates, these characteristics are precisely the same as those had by alcohols treated as outpatients in specialized centers. In addition, the significant under-detection of alcoholism in the prisons is similar to that which occurs in other healthcare settings.¹⁷ In this case, it is worsened by the also low detection of psychiatric conditions.

Thus, the belief is discredited that those who are admitted to prison because of offenses against road safety are persons who have had "bad luck" or have been "irresponsible." In fact, they are patients who have significant difficulties to learn from their experience. They have patterns of rigid and maladaptive behavior, it is very difficult for them to modify these behaviors because of their alcoholism, and they have high risk of repeating their behaviors.

The fact that the inmates who met the CAGE+ criteria for alcoholism had more backgrounds of offenses with alcohol consumption indicates a logical association of

alcohol was some types of criminal offenses. However, these inmates also have more backgrounds for other causes, many of them without any relationship with driving, and especially within the setting of violence (domestic, injuries, homicides). This shows the criminogenic effect of acute alcohol abuse on all levels. In these cases, alcoholism is shown as a previous and necessary factor for the existence of the offense.

This, in turn, suggests that there are many undetected alcoholic patients in the Spanish prisons, in whom the criminal offense may have been related with behavioral disorders produced by their alcoholic dependence. This aspect, in addition to its healthcare aspects, deserves by itself to have an extensive study and observation by legal and penitentiary authorities.

The socio-laboral characteristics of these inmates, with work, middle-aged, advanced penitentiary grade and elevated percentage of Spaniards (86%), (50% in the Spanish prisons in general), indicate that they are socially integrated and relatively normal persons.

This social integration is at risk, since 72% of the inmates had been previously imprisoned. Alcoholism generates a progressive loss of values of social contacts and standardized values. "Standardized" social drinkers may end up in a spiral of penitentiary recidivism.

The reeducation programs carried out in the prisons for different types of criminal offenses may be ineffective if no action is taken beforehand on the cause, which is frequently alcoholism. Therefore, it is both necessary and urgent to detect and attend to these patients, not only to treat their disease, but also to avoid progression of the legal complications and socio-familial suffering entailed.

Expecting imprisonment, by itself or with reeducation courses, to solve alcoholic dependence is a mistake similar to that which occurs in hospitals when an organic condition produced by alcohol leads the attending physician to suppose that it is all the patients needs to do is to continue without drinking¹⁷ once discharged. The fact of having suffered a traffic accident also does not decrease alcohol consumption if no type of therapeutic help is received.¹⁸

However, even though the Health Ministry per se¹⁹ recommends "promoting the implementation of **healing or rehabilitating measures** for the usual re-offenders and/or those injured while driving under the effect of alcohol, by means of early identification strategies and brief counseling to the at risk drinker," it is difficult to know the efficacy of these rehabilitation measures in a population whose consumption is not already considered to be at risk, but rather one who clearly has a dependence with much resistance to accept its existence.

If this excess in alcoholics who come to outpatient treatment voluntarily is difficult, in those who are imprisoned, the defense mechanisms, lack of sincerity and forced collaboration are much greater, favoring limited awareness of alcoholic disease and lack of predisposition to receive therapeutic help.

Therefore, a more proactive attitude is necessary in the detection and trading of alcoholic persons and those suffering psychiatric disorders in general who enter into the prisons. Possibly, this attitude should begin in the courts, to be able to indicate alternative measures.

These measures, which would also avoid admission to prison, should not only consist in doing community work but also should include specialized treatments for their alcoholism with supervision by the judge of their true compliance. Even though they are obligatory, this approach has more possibility of success than non-existence of treatments.

It will be possible to observe the demonstration of the efficacy and utility of these measures by verifying the decrease in recidivism of these inmates, not only for offenses against road safety, but also in all those related with lack of impulse control, as may be those of domestic violence.

In these times when there is an increase in this type of offenses, as well as social awareness about them and knowledge regarding their effect in increasingly greater and more standardized levels of the society, the health care and legal agents should stimulate preventive and health care interventions, as suggested by the data of this present study.

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