

EDITORIAL

Registry of hospital emergency department visits for drug use: exploring the tip of the iceberg

Registro de atenciones generadas por el consumo de drogas en los servicios de urgencias hospitalarios: explorando la punta del iceberg

Emilio José Salgado García

The study by Ibrahim-Achi et al.¹ published in this issue of EMERGENCIAS marks a milestone in the study of the prevalence of the use of illegal substances of abuse in our setting, not only because of its prospective nature and clinical profile, but above all because of its ability to group data from several health institutions, each with its different sociodemographic and population characteristics. Knowing the prevalence of drug use in the general population is of great epidemiological importance for the planning of rational strategies aimed at prevention and the distribution of resources to contain the damage caused by drug use. Furthermore, geographical and temporal variations are an essential part of the study of intoxication as a nosological phenomenon. In the case of drugs of abuse, this would be even more important, due to their close relationship with the socioeconomic situation and the influence of certain fashions, not to mention the dizzying effect that the Internet and social networks are having on the popularization and distribution of new non-controlled substances, whose toxicological risks are unknown to us.

This is an exceptionally complex task, since it involves inferring from a small sample the consumption patterns of an entire population. Research aimed at understanding it will reveal a small part of the whole, similar to mapping an iceberg with access only to the visible part of it. Thus, the different strategies for approaching the problem range from drug seizures by the State Security Forces and Corps², surveys on the consumption of substances of abuse³ and the prevalence of psychiatric consultations specializing in addictions⁴, to acute intoxication care for drugs of abuse in hospital emergency departments (ED)⁵, among others.

Taking into consideration that between 0.1% and 3.5%⁵ of patients attended in the ED are treated for acute intoxications, and that around 60% of these are for intoxications caused by substances of abuse (mainly ethanol), the overall number of cases is low when compared with other diseases, such as ischemic heart disease or cerebrovascular disease. Even so, the analysis of this information will allow us to approximate the profile of the patient attended in our geographical area and

the substances of abuse that most frequently cause the consumer to end up being attended in an ED.

However, the use of these data to infer the consumption of illicit substances of abuse in the general population must be taken with caution. Firstly, because of selection bias due to the type of patient and the place where the study is carried out. Secondly, finding a high prevalence of intoxication by a given substance of abuse in the ED does not always coincide with the prevalence of its use in the general population. For example, if we look at the prevalence of gamma-hydroxybutyrate (GHB) use in the last EDADES³ survey, we can see that less than 1% of the population surveyed acknowledged having used this substance at some time in their lives. However, in the study by Ibrahim-Achi et al.¹, GHB was implicated in 4.7% of the cases studied. Another example is the so-called "major" opioids (heroin, morphine): in the latest report of the Euro-DEN Plus network², heroin topped the ranking of substances of abuse implicated in acute poisonings in 31 European EDs between 2014 and 2017. However, it is estimated that 0.4% of the European Union population in 2018 used this group of substances on a regular basis⁶. Thus, it follows that the illicit substance of abuse with the highest risk of causing acute intoxication is heroin, and that GHB users are at high risk for intoxications requiring ED care.

Another relevant aspect is the involvement of the substance of abuse referred to or found in the immunoassay in the clinical picture of the intoxicated person attended in the ED. Thus, in the study by Ibrahim-Achi et al.¹, it was observed that cannabis and its derivatives were involved in 44.4% of the poisonings attended. If we take into account that the estimated prevalence of cannabis use in the Spanish population aged between 15 and 64 years is 8% in the last month and 37.5% at some time in their lives³, it is difficult to infer which part of the percentage found corresponds to the high prevalence of general use, and which to its role as a toxic agent in the poisonings observed in the ED. In spite of this, and as pointed out in the study, the increase in cases of poisoning by cannabis and its deriva-

Author affiliation: Clinical Toxicology Unit, Emergency Department, Hospital Clínic Barcelona, Spain.

Contribution of the authors: The author has confirmed his authorship in the document of author responsibilities, publication agreement and assignment of rights to EMERGENCIAS.

Corresponding author: Emilio José Salgado García. Clinical Toxicology Service. Hospital Clínic. C/ Villarroel, 170. 08036 Barcelona, Spain.

E-mail: esalgado@clinic.cat

Information about the article: Received: 29-6-2021. Accepted: 30-6-2021. Online: 6-7-2021.

Editor in charge: Óscar Miró.

tives in the ED cannot be explained solely by the increase in the frequency of its use, but there must be purely toxicological reasons involved.

Furthermore, the impact of substance abuse on ED care should not only be limited to care derived from the intoxication itself and its direct complications. The role of the use of these substances as facilitators of polytrauma and sexual aggression, or as causes of acute cardiac or cerebral vascular events, is often underestimated, without mentioning the serious repercussions on the mental health of the user, the main health problem related to the chronic use of these substances.

Lastly, I would like to emphasize the importance of toxicological analysis in the determination of the causes that lead to a user of illegal substances of abuse being seen in the emergency department. Several studies have demonstrated the limited value of urine toxic screening tests using immunoassay techniques in the clinical management of the acutely intoxicated patient. Moreover, poor interpretation of the results of these tests may even be an added confounding factor, due to the prevalence of false positives and negatives inherent to these techniques⁷. However, more specific analysis of substances of abuse by techniques such as gas chromatography-mass spectrometry (GC/MS) would allow not only to confirm the clinical diagnostic suspicion, but also to identify drugs not suspected by the clinical presentation, adulterants and rare substances of abuse, such as the so-called new psychoactive substances (NPS). Thus, failure to perform toxicological analytical confirmation of intoxications represents a loss of information of great epidemiological relevance.

From all of the above, the need to form sentinel networks in the ED for the observation, detection and early warning of consumption patterns, new substances of abuse and new toxic syndromes, similar to the aforementioned European Euro-DEN network⁴, will be better

understood. Therefore, the initiative of Ibrahim-Achi et al.¹ is to be welcomed as a first step in the creation of a more extensive Spanish network that will allow us to explore and share data from our small iceberg.

Conflicting interests: The author declares no conflicts of interest in relation to this article.

Financing: The author declares the non-existence of funding in relation to the present article.

Ethical responsibilities: The author has confirmed the maintenance of confidentiality and respect for patients' rights in the author's responsibilities document, publication agreement and assignment of rights to EMERGENCIAS.

Article commissioned and internally reviewed by the Editorial Committee.

References

- Ibrahim-Achi D, Miró O, Galicia M, Supervía A, Puiguriquer Ferrando J, Ortega Pérez, J, et al. Red de Estudio de Drogas en Urgencias Hospitalarias en España (Registro REDUrHE): análisis general y comparación según asistencia en día laborable o festivo. *Emergencias*. 2021;33:335-44.
- Secretaría General Técnica. Anuario Estadístico del Ministerio del Interior 2019. Bilbao: Ministerio del Interior. Gobierno de España; 2020.
- Observatorio Español de las Drogas y las Adicciones. Encuesta sobre alcohol y otras drogas en España, EDADES 2019/20. Madrid: Ministerio de Sanidad. Delegación del Gobierno para el Plan Nacional sobre Drogas; 2021.
- Observatorio Español de las Drogas y las Adicciones. Informe 2020. Alcohol, tabaco y drogas ilegales en España. Madrid: Ministerio de Sanidad. Delegación del Gobierno para el Plan Nacional sobre Drogas; 2021.
- European Monitoring Centre for Drugs and Drug Addiction. Technical report. Drug-related hospital emergency presentations in Europe: update from the Euro-DEN Plus expert network. Luxembourg: Publications Office of the European Union; 2020.
- European Monitoring Centre for Drugs and Drug Addiction. European Drug Report 2020: Trends and Developments. Luxembourg: Publications Office of the European Union; 2020.
- Córdoba F, Iglesias Lepine ML, García Gibert L, Gispert MA, Moreno A, Supervía A. Grado de conocimiento de la detección de drogas en orina entre médicos que atienden a pacientes intoxicados. *Emergencias*. 2020;32:451-2.