PRESENCE AND EVOLUTION OF A NEW PSYCHOACTIVE TRYPTAMINES BRANCH

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INTRODUCTION

New psychoactive substances (NPS) are substances that have recently appeared on the market and that are not under international control (1). NPS use has experienced an unprecedented increase during the last years (2). Psychoactive tryptamines are one of the categories in which NPS are classified (2). DiPT [Figure 1], 4-HO-DiPT [Figure 2] and 4-AcO-DiPT [Figure 3] are new psychoactive tryptamines but despite their group similarities their effects may differ from those of other psychoactive tryptamines (3, 4, 5, 6).

Figure 1

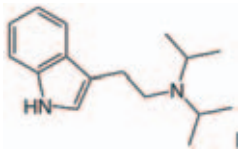


Figure 2

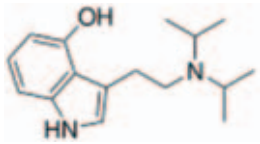
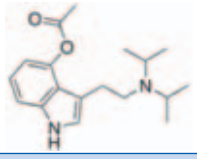


Figure 3



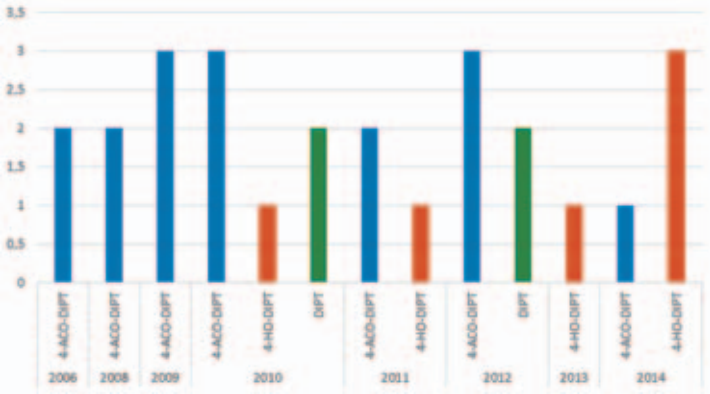
OBJECTIVES

- To explore the presence of DiPT, 4-HO-DiPT and 4-AcO-DiPT from the samples delivered to and analyzed by Spanish harm reduction service Energy Control from 2006 to 2014.
- To study the evolution of the samples delivered during the years of study.

MATERIAL AND METHODS

All samples delivered and analyzed from 2006 to 2014 delivered as DiPT, 4-HO-DiPT and 4-AcO-DPT or containing these substances were studied. Analysis were performed by Gas Chromatography–Mass Spectrometry. A descriptive analysis was then conducted.

Evolution of samples delivered (2006-2014)



RESULTS

From 19,402 samples delivered during the period of study:

- 16 samples were delivered as 4-AcO-DiPT containing one single unadulterated substance (n=8); 4-HO-DiPT + 4-AcO-DiPT (n=7) or 5-MeO-DiPT (n=1).
- 6 were delivered as 4-HO-DiPT containing all one single unadulterated substance (n=6).
- 4 were delivered as DiPT containing one single unadulterated substance (n=2); 4-HO-DiPT + DiPT (n=1) or 5-MeO-DiPT.
- 1 sample delivered as cocaine was found to contain 4-HO-DiPT + 4-AcO-DiPT (n=1).

During the years of study 4-HO-DiPT presence was increasing while 4-AcO-DiPT was decreasing. DiPT was only delivered in 2010 and 2012.

CONCLUSIONS

- Increasing 4-HO-DiPT presence through the years of study could translate a progressive replacement of 4-AcO-DiPT for recreational use.
- As in the case of N, N-dimethyltryptamine and psilocin, 4-substitution might also translate into pharmacokinetic and pharmacodynamics differences (7) but their metabolism and effects in humans has not thoroughly been studied.
- Clinical relevance comes from its growing use and the scant scientific evidence on humans, therefore relying on users' subjective experience to predict the effects. Further studies would be necessary to monitor the evolution of the recreational use as well as to define their differences and clinical effects.

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