

Clinical Profiles of Patients Intoxicated with Synthetic Cathinones and Methamphetamines: A Matched Case-control Study in a Psychiatric Emergency Department

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Background

Synthetic cathinones (SCs) are the most prevalent novel psychoactive substances (NPS) in Taiwan among the past few years, often disguised in the form of “instant coffee sachets,” mimicking methamphetamine (METH), which has been one of the most predominant illicit substances and brings about severe mental health problems and criminal problems among the past decades in Taiwan.

Aims & Objectives

Only a few clinical studies compare the severity and consequences after consumptions of SCs or METH, which are both related with acute psychotic states during acute intoxication. We compared the clinical profiles, psychiatric manifestations and the physical complications between SCs and METH users.

Methods

This cross-sectional retrospective study identified twenty-four SCs users and forty-eight METH users upon psychiatric emergency department (ED) visits at Taoyuan Psychiatric Center in Taiwan via retrospective chart review methods. The socio-demographic data, medical profiles, laboratory findings, treatments and dispositions were collected and analyzed. Chi-square test, Fisher's exact test, independent T test, Wilcoxon sign rank test were adopted for univariate analysis. Multivariable logistic regression was used to identify the relationship between clinical variables and concurrent physical complications.

Results

Both SCs and METH users are mostly male, young, unmarried, unemployed, and over half of them smoked with habits of alcohol drinking. The SCs users used more kinds of substance before yet less criminal histories recorded than METH users, who had obviously higher familial prevalence rates of substance use. Most of them are sent to the psychiatric ED with either violence or self-harm attempts with similar clinical severity in rating scales. The average ED stay lasted for over 24 hours for symptom relief and nearly one third of both groups were hospitalized due to prolonged symptoms and risks. Those with physical complication consisted of significantly more SCs users than METH users, and have more kinds of SCs detected in urine specimens, in correspondence with clinical severity.

Discussion & Conclusion

This study implicates the complicated risks and danger from SCs to mental health and the public in the everchanging, growing markets of NPS in Taiwan. It is imperative for clinicians and law enforcement agencies to understand the complex patterns after SCs use. The long-term effects after intoxication are worth further investigation.