

Cardiovascular Toxicity Associated with Recreational Use of Diphenylprolinol (diphenyl-2-pyrrolidinemethanol [D2PM])

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ABSTRACT

Introduction: Many countries have specific legislation, such as the Controlled Substances Act (1970) in the United States and the Misuse of Drugs Act (1971) in the United Kingdom to control recreational drugs. There is a growing market and supply of "novel" recreational drugs that are not covered under appropriate legislation, despite having similar chemical structures and/or clinical effects. In addition, these novel drugs are often sold legally on the street or through the Internet, with limited details of the exact contents, making application of the appropriate legislation difficult.

Case Report: A male patient with no risk factors for ischemic heart disease, presented to our emergency department with agitation and chest pain characteristic of ischemia following the ingestion of two units of "Head Candy." He improved with oral diazepam over a period of 12 hours and there was no biochemical evidence of myocardial damage. Serum analysis demonstrated the presence of diphenylprolinol (diphenyl-2-pyrrolidinemethanol [D2PM]) and glaucine at concentrations of 0.17 mg/L and 0.10 mg/L, respectively. No other recreational drugs were detected in an extensive toxicological screen of blood and urine samples.

Discussion: This is the first reported case of confirmed toxicity associated with recreational use of diphenylprolinol in combination with glaucine. In our view, this case provides further support for the need for a systematic approach to toxicological screening of patients with recreational drug toxicity to identify emerging drugs and provide evidence for legislative authorities to assist in revising the legal status of recreational drugs.

Keywords: diphenylprolinol, diphenyl-2-pyrrolidinemethanol (D2PM), recreational drugs, toxicological screening

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Notes: This case was been presented (but not published) as part of a larger series of "novel" recreational drugs at the 6th Asia Pacific Association of Medical Toxicology (APAMT) meeting in Bangkok, Thailand.

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