

LETTER TO THE EDITOR

Analytically confirmed recreational use of Phenibut (β -phenyl- γ -aminobutyric acid) bought over the internet

To the Editor:

The internet can be used for the sale of many drugs substances including anxiolytics and sedatives not regulated by government authorities. We describe a case of analytically confirmed severe phenibut toxicity necessitating intensive care unit (ICU) admission and management. The phenibut was purchased readily over the internet.

A 43-year-old male last seen well 4 h previously, arrived in the Emergency Department (ED) via ambulance with marked episodes of agitation, interspersed with episodes of somnolence. He was administered 10-mg intramuscular midazolam for his agitation with minimal effect. Heart rate was 110 bpm, BP was 160/60 mmHg, respiratory rate was 20/min and oxygen saturation was 100% on room air. Temperature was 36 degree Celsius. He had dilated pupils (5 mm) and was experiencing intermittent episodes of dystonia lasting minutes whilst he was agitated. There was no clonus or hyper-reflexia. Given his ongoing fluctuating agitation and sedative state he was sedated, intubated and monitored in the ICU. Full blood count, electrolytes and urinary drug screen were normal. He was extubated the following day with normal vital signs and admitted to ingesting an increased dose of phenibut of 30 g mixed with water with recreational intent and no coingestants. He was assessed by the psychiatry team, deemed not to be a suicide risk and was discharged with community follow-up. His history included depression and three similar ED presentations following exposure to phenibut. Two of these had resulted in intubation and ICU admission. He purchased the phenibut product over the internet for anxiety and insomnia. He had been taking 2 g every night for one and a half months. A sample of the powder labelled phenibut was supplied by the patient and was analysed using gas chromatography–mass spectrometry. The purity of the powder was 98% 4-phenyl-2-pyrrolidinone, the lactam of phenibut. Nuclear magnetic resonance spectroscopy or NMS also confirmed phenibut. No biological samples were taken from the patient for phenibut.

Phenibut (β -phenyl- γ -aminobutyric acid) is a γ -aminobutyric acid B (GABA_B) agonist similar to baclofen. It acts as a GABA mimetic mainly at GABA_B and also at GABA_A.¹ Its use outside this setting is poorly described, although it is marketed via the Internet as an anxiolytic and nootropic agent (Fig. 1). In our case, his container was sold as 100 g phenibut.

Its central nervous system effects include anxiolytic, sedation, anticonvulsant, muscle relaxation, euphoria, somnolence and development of tolerance. Our patient had fluctuating episodes of sedation and agitation with dystonia eventually requiring intubation to assist with further management.

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Fig. 1. Phenibut product purchased over the internet (colour version of this figure can be found in the online version at www.informahealthcare.com/ctx).

A withdrawal syndrome has been described for people with chronic use. Symptoms include tremor, muscle spasms, panic attacks, rebound anxiety, restlessness and irritability.^{2,3}

Phenibut is used as an anxiolytic and hypnotic in Russia.¹ It is sold as a supplement legally online, in stores selling vitamins and can be purchased without prescription. Recreational reports in the English literature of phenibut use are rare and have not been confirmed by laboratory testing.⁴

Unregulated products sold on the online market put the general public at risk of overdose and these substances need further evaluation and regulation by government authorities worldwide.

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Declarations of interest

The authors report no declarations of interest. The authors alone are responsible for the content and writing of the paper.

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