



LETTER TO THE EDITOR

Pheniramine dependence: a case report

Sengul Kocamer Sahin^{1*}, Aslihan Gumuslu¹, Derya Kaya¹, Gulcin Elboga¹, Abdurrahman Altindag¹

¹Gaziantep University, Faculty of Medicine, Department of Psychiatry, Gaziantep - Turkey

Dear Editor,

Abuse of drugs that are acting on the central nervous system is an important community problem (1). Among these drugs are benzodiazepines or rarely an antidepressant or an antipsychotic (2). In our case, pheniramine dependence will be discussed.

A 35-year-old female health professional, single, was admitted to the psychiatry outpatient clinic due to intravenous (IV) pheniramine use. The patient reported that she had started using pheniramine for insomnia 9 months ago. She had begun using 45.5mg pheniramine once a day, increasing to 136.5mg over a few months, reaching 227.5mg at the end of the sixth month. Although the patient has recently used 227.5mg of the substance, it did not lead to initial comfort, while it produced disturbing effects such as dizziness, weakness, nausea, and vomiting. She tried to stop pheniramine by her own efforts but was only able to persevere for 2 months, after which she resumed using 227.5mg per day. At the time of her presentation, the use of pheniramine was causing a deterioration of her social and occupational functioning.

The patient, who had a history of two suicidal attempts and had been receiving venlafaxine 150mg per day for major depression for one year, presented with anhedonia, hopelessness, social withdrawal, and insomnia. She was hospitalized with a diagnosis of pheniramine-use disorder and major depressive disorder.

The patient's biochemical parameters were in the normal range. A cranial MRI was normal. Mirtazapine 30mg per day was added to venlafaxine 150mg per day

and electroconvulsive therapy (ECT) was planned. Diazepam 20mg per day IV and diazepam 20mg per day orally were added for withdrawal and quetiapine 300mg per day for insomnia.

The patient benefited significantly from the medical treatment for withdrawal and showed marked improvement in her depressive symptoms after the 3rd ECT session. She was treated with 7 ECT sessions in combination with pharmacotherapy in our clinic.

The patient is a healthcare professional. In this context, it is worth noting that the rate of drug abuse in health workers is high, due to their pharmacological knowledge and easy access to drugs (3).

As in our case, drug use may begin with patients self-medicating psychiatric problems (4). As tolerance develops, the patient increases the dose, withdrawal symptoms occur, occupational, social, and health functions worsen, triggering a vicious cycle in the patient. Pheniramine is an H1 histamine antagonist (5). Addictive drugs are closely associated with the ventral striatum with reward effects (6). Although studies focused on dopamine, histamine has been shown to play an inhibitory role in the reward process through H1 receptors in contrast to the mechanism of dopamine, which would facilitate rewarding (5,6). In this case, the H1 antagonist would pose a risk to develop drug dependence.

In conclusion, pheniramine can be an addictive drug. The risks that may predispose patients to addiction should be reviewed; physicians should consider the possible risks that facilitate dependence before prescribing non-psychotropic drugs like pheniramine.

How to cite this article: Kocamer Sahin S, Gumuslu A, Kaya D, Elboga G, Altindag A. Pheniramine dependence, a case report. *Dusunen Adam The Journal of Psychiatry and Neurological Sciences* 2019;32:281-282.

Correspondence: Sengul Kocamer Sahin, Gaziantep University, Faculty of Medicine, Department of Psychiatry, Gaziantep - Turkey

Phone: +90 342 360 60 60 **E-mail:** snglkcmmr@hotmail.com

Received: May 05, 2019; **Revised:** May 13, 2018; **Accepted:** July 05, 2019

REFERENCES

1. Johanson CE, Balster RL, Henningfield JE, Schuster CR, Anthony JC, Barthwell AG, Coleman JJ, Dart RC, Gorodetzky CW, O'Keeffe C, Sellers EM, Vocci F, Walsh SL. Risk management and post-marketing surveillance for the abuse of medications acting on the central nervous system: expert panel report. *Drug Alcohol Depend* 2009; 105 (Suppl.1):S65-S71.
2. Evren C, Karatepe HT, Aydin A, Dalbudak E, Cakmak D. The effect of quetiapine on alcohol/drug dependents and its abuse: a case series and literature review. *Bulletin of Clinical Psychopharmacology* 2009; 19:148-154. (Turkish)
3. Wallot H, Lambert J. Drug addiction among Quebec physicians. *Can Med Assoc J* 1982; 126:927-930.
4. Cadman M, Bell J. Doctors detected self-administering opioids in New South Wales, 1985-1994: characteristics and outcomes. *Med J Aust* 1998; 169:419-421.
5. Buckley NA, Whyte IM, Dawson AH, Cruickshank DA. Pheniramine-a much abused drug. *Med J Aust* 1994; 160:188-192.
6. Compton WM, Volkow ND. Abuse of prescription drugs and the risk of addiction. *Drug Alcohol Depend* 2006; 83(Suppl.1):S4-S7.