

5. De Hert M, Correll CU, Bobes J, Cetkovich-Bakmas M, Cohen D, Asai I, Detraux J, Gautam S, Möller HJ, Ndeti DM, Newcomer JW, Uwakwe R, Leucht S: Physical illness in patients with severe mental disorders, I: prevalence, impact of medications and disparities in health care. *World Psychiatry* 2011; 10:52–77

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Involuntary Movements Associated with Cetirizine Use

TO THE EDITOR: Cetirizine is approved by the U.S. Food and Drug Administration (FDA) for allergic rhinitis in all age groups (1). Published reports have described cetirizine-induced dystonic reactions in the pediatric patient population and in one adult (2–4). We present the case of an adult who developed involuntary movements associated with cetirizine use and discontinuation.

Case Report

A 24-year-old Caucasian woman presented to the local hospital emergency department with a nose laceration she sustained from walking into a glass window after acute alcohol intoxication (her blood alcohol level was 140 mg/dL). She reported taking 10 mg/day of cetirizine for 3 months, daily valacyclovir (for herpes simplex virus 1), and depot medroxyprogesterone. She denied a history of medication side effects, denied taking more than the recommended dosage, and was not taking over-the-counter or herbal products. She denied a history of head injuries, seizures, or loss of consciousness, and she also denied treatment with psychotropic medications. Initially, results from her physical examination were unremarkable with the exception of a superficial laceration on her nose. The results of laboratory testing, including thyroid-stimulating hormone and urine toxicology, were all within normal limits or negative.

While in the emergency department, the patient developed acute involuntary “bizarre grimacing” and dysarthria. There was no evidence of oculogyric crisis, torticollis, tongue protrusions, opisthotonos, gait disturbances, or weakness in her extremities. She did not lose consciousness, and results of her neurological examination were negative. She was given intravenous diphenhydramine (50 mg), benzotropine (2 mg), and lorazepam (2 mg). Neuroimaging results of her head and spine were negative, and her dystonia had resolved by the time a neurologist arrived at her bedside.

A follow-up call 1 month later revealed that the patient had stopped taking cetirizine after she was discharged from the emergency department. She reported facial twitching on the day after discharge. Over the course of the month, she experienced two episodes of difficulty walking, hand “discoordination,” and “muscle jerks of her throat.” These episodes lasted approximately 20 minutes. An outpatient neurology consultation was arranged at the

time of the call, but it is not known whether she kept that appointment.

Discussion

Cetirizine is a carboxylated metabolite of hydroxyzine (a piperazine histamine H₁ receptor antagonist) (1). Piperazines have central dopamine D₂ receptor blockade (5). Cetirizine's large size, lipophobic nature, and greater affinity for peripheral H₁ receptors are believed to reduce CNS penetration and central side effects (2). However, one positron emission tomography study of cetirizine revealed approximately 30% H₁ receptor binding in the cerebral cortex (1, 2). Cetirizine has negligible anticholinergic activity (6). We speculate that as a piperazine derivative, cetirizine blocked the striatal D₂ receptors and resulted in an acute dystonic reaction in our patient. In addition, we also speculate that our patient's 3-month cetirizine use resulted in D₂ receptor hypersensitivity similar to that observed in long-term antipsychotic use, with subsequent involuntary movements after its discontinuation. It is also possible that her cetirizine use and the subsequent development of involuntary movements are independent events. More research is needed to clarify cetirizine's effect on central D₂ receptors.

References

1. Curran MP, Scott LJ, Perry CM: Cetirizine: a review of its use in allergic disorders. *Drugs* 2004; 64:523–561
2. Rajput A, Baerg K: Cetirizine-induced dystonic movements. *Neurology* 2006; 66:143–144
3. Esen I, Demirpence S, Yis U, Kurul S: Cetirizine-induced dystonic reaction in a 6-year-old boy. *Pediatr Emerg Care* 2008; 24:627–628
4. Fraunfelder FW, Fraunfelder FT: Oculogyric crisis in patients taking cetirizine. *Am J Ophthalmol* 2004; 134:355–357
5. Sadock BJ, Sadock VA: Kaplan and Sadock's Synopsis of Psychiatry, 10th ed. Edited by Grebb JA, Pataki CS, Sussman N. Philadelphia, Lippincott Williams & Wilkins, 2007, pp 1043–1056
6. Zyrtec (cetirizine hydrochloride) package insert. <http://daily-med.nlm.nih.gov/dailymed/drugInfo.cfm?id=2115>

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Internet Searches for a Specific Suicide Method Follow Its High-Profile Media Coverage

TO THE EDITOR: Widespread media coverage of specific methods of suicide may lead to copycat deaths and could initiate changes in the popularity of particular methods. At-risk individuals may use the Internet to research particular methods of suicide (1, 2), and a person's choice of method can influence case fatality (3). However, there is little research into the impact of news reports of suicide on subsequent Internet search activity.

We investigated the effect of media coverage of suicides by hydrogen sulfide gassing on trends in Internet searches in two