Urticaria and Angioedema Associated With Bupropion: Three Cases

To the Editor: Bupropion is a norepinephrine and dopamine reuptake inhibitor that is used to treat depression and to alleviate withdrawal symptoms of smoking cessation. The most common side effects are loss of appetite, dry mouth, insomnia, headache, and constipation. In addition, although rare, severe side effects include decreased threshold of seizure, urticaria, and angioedema, which require attention.[1,2] Here, 3 cases are presented of patients who developed urticaria and angioedema secondary to use of bupropion.

Case report 1. Mr A, a 33-year-old man, was admitted to the emergency room due to facial swelling and generalized erupted hyperemic plaques on his body for 3 days. During the physical examination, edema was noted on both eyelids and lips, while generalized urticarial plaques were observed on his body. His personal and familial histories were unremarkable. It was noted that Mr A had been taking bupropion at a dose of 300 mg/d for 15 days to quit smoking. He was taking no other medications. Results of laboratory tests were within normal limits, and no infection was found. Bupropion was discontinued, and Mr A was started on prednisolone and pheniramine parenterally. Regression of the lesions was noted during the follow-up period, and no new lesion developed.

Case report 2. Mr B, a 32-year-old man, was admitted to the emergency room due to facial swelling and generalized erupted and hyperemic plaques, which had been present for 3 days. It was noted that the patient had been admitted to the emergency medicine department due to the same complaints 3 days before, and the lesions had not improved, although he had been started on prednisolone and pheniramine. His personal history was unremarkable, excluding hemorrhoidectomy. Mr B had been taking bupropion at a dose of 150 mg/d for 10 days due to a preliminary diagnosis of major depressive disorder (*DSM-IV* criteria). Bupropion was discontinued, and current treatment with prednisolone and pheniramine was maintained for urticaria and angioedema. At a follow-up appointment, the lesions had regressed and the angioedema had improved.

Case report 3. Ms C, a 31-year-old woman, was admitted to the emergency department due to complaints of generalized erupted plaques and periocular swelling for 4 days. Laboratory tests showed that her total immunoglobulin E level was high; no infection was noted. The patient's personal history was unremarkable, excluding endometrial polyp excision. The medical history showed that Ms C had been taking bupropion at a dose of 300 mg/d for 3 weeks due to a preliminary diagnosis of major depressive disorder (*DSM-IV* criteria). Bupropion was discontinued, and Ms C was started on pheniramine and prednisolone. The lesions started to regress, and complete recovery was observed at day 5 of treatment.

Etiology of urticaria and angioedema often involves infections and use of medications.[3] Dermatologic side effects often occur since psychotropic drugs are more commonly used.[4] Bupropion rarely leads to urticaria with angioedema, which are severe reactions.[5,6] Respiratory edema and severe anaphylactic reactions may be life-threatening. Psychotropic drug use within the last 1 to 2 weeks is an important finding in the medical history. Treatment may require discontinuation of the questionable agent and initiation of steroids and antihistamines.[3,4] Clinicians should assess skin reactions in detail and switch patients to another drug if necessary, and patients should be informed about dermatologic side effects of medications.

References

1. Ascher JA, Cole JO, Colin JN, et al. Bupropion: a review of its mechanism of antidepressant activity. *J Clin Psychiatry*. 1995;56(9):395–401.
2. Beyens MN, Guy C, Mounier G, et al. Serious adverse reactions of bupropion for smoking cessation: analysis of the French Pharmacovigilance Database from 2001 to 2004. *Drug Saf*. 2008;31(11):1017–1026.
3. Cooper KD. Urticaria and angioedema: diagnosis and evaluation. *J Am Acad Dermatol*. 1991;25(1 pt 2):166–174, discussion 174–176.
4. Mitkov MV, Trowbridge RM, Lockshin BN, et al. Dermatologic side effects of psychotropic medications. *Psychosomatics*. 2014;55(1):1–20.
5. Tackett AE, Smith KM. Bupropion-induced angioedema. *Am J Health Syst Pharm*. 2008;65(17):1627–1630.
6. Bhella R, Southgate J. Angioedema caused by bupropion treatment. *Acute Med*. 2010;9(2):70–72.

Taha Can Tuman, MD[a]
tahacantuman@hotmail.com
Bengü Altunay Tuman, MD[b]
Nadir Göksügür, MD[b]
Nefise Kayka, MD[a]
Osman Yıldırım, MD[b]

[a]Department of Psychiatry and [b]Department of Dermatology, Abant İzzet Baysal University, Bolu, Turkey

Potential conflicts of interest: None.

Funding/support: None.

Previous presentation: This report was presented as a poster presentation at the 5th International Congress on Psychopharmacology; October 30–November 3, 2013; Antalya, Turkey.

Published online: August 4, 2016.

Prim Care Companion CNS Disord 2016;18(4):doi:10.4088/PCC.15l01916