# **BUPROPIONA BAĞLI JENERALİZE AKUT ÜRTİKER**

# **Bupropion – Induced Generalized Acute Urticaria**

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#### ÖZET

Bupropion depresyon ve sigara bırakma tedavisinde kullanılan, norepinefrin ve dopamin geri alım inhibitörüdür. 1997 yılında ABD Gıda ve İlaç İdaresi (FDA) tarafından sigara bırakma tedavisinde onaylanmıştır. Bupropion, bu endikasyonda Zyban ticari ismiyle sürekli salınımlı bir ürün olarak formüle edilmiştir. En sık görülen yan etkiler iştahsızlık, ağız kuruluğu, uykusuzluk, baş ağrısı ve kabızlıktır. Bupropion ayrıca jeneralize akut ürtiker ve anjioödemi indükleyebilir. Bupropiyon kaynaklı ürtikere bazen anjioödem, artralji, serum benzeri reaksiyon veya anafilaksi belirtileri eşlik eder. Burada, sigara bırakmak için bupropiyon kullanımının neden olduğu bir jeneralize akut ürtiker olgusunu sunuyoruz.

Anahtar Sözcükler: Bupropion; Ürtiker; Kutanöz ilaç reaksiyonu

# **ABSTRACT**

Bupropion is a norepinephrine and dopamine reuptake inhibitor used to treat depression and for smoking cessation. It was approved by the U.S. Food and Drug Administration (FDA) for use as a smoking cessation in 1997. Bupropion was formulated for this indication as a sustained-release product marketed under the brand name Zyban. The most common side effects are loss of appetite, dry mouth, insomnia, headache and constipation. Bupropion may also induce generalized acute urticaria and angioedema. Bupropion-induced urticaria is sometimes accompanied by angioedema, arthralgia, serum-like reaction or symptoms of anaphylaxis. We report a case of generalized acute urticaria caused by bupropion used for smoking cessation.

Keywords: Bupropion; Urticaria; Cutaneous drug reaction

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# **INTRODUCTION**

Bupropion is a psychotropic drug that inhibits norepinephrine and dopamine reuptake, which is less effective on serotonin (1). It was approved by the U.S. Food and Drug Administration (FDA) for use as a smoking cessation in 1997 (2). Bupropion was formulated for this indication as a sustained-release product marketed under the brand name Zyban (3). 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 (4). We present a case of generalized acute urticaria caused by bupropion used for smoking cessation.

# **CASE REPORT**

A 35-year-old-man was admitted to our clinic due to generalized erupted and hyperemic plaques, which had been present for the previous 2 days. It was noted that he had been taking bupropion at a dose of 300 mg/day for 10 days in order to quit smoking. He was taking no other medications. His personal and familial histories were unremarkable. Dermatological examination revealed widespread urticarial plaques on the face, trunk and limbs (Figure 1,2).





**Figures 1 and 2.** Annular erythematous plaques on the trunk and extremities.

Laboratory test results were within normal limits, and no infection was found. Bupropion was discontinued and his symptoms regressed within 5 days with systemic corticosteroids and antihistamines. Regression of the lesions was noted during the follow-up period, and no new lesion developed.

# **DISCUSSION**

The etiology of urticaria and angioedema often involves infections and the use of medications (5). Bupropion is an antidepressant drug, structurally related to phenylethylamines (amphetamines) which have been used for several years. Side effects such as dry mouth, insomnia, headache in the form of sustained release of bupropion are less visible (6). Bupropion-induced urticaria is sometimes accompanied by angioedema, arthralgia, serum-like reaction or symptoms of anaphylaxis (1).

The mechanism involved in bupropion-induced urticaria is currently unknown. Li-Yu (1) et al., hypothesized that the adverse drug reaction may be linked to the structure of bupropion, which is chemically similar to amfepramone. This is considered a selective norepinephrine releasing agent, and norepinephrine may play an important role in adrenergic urticaria.

Antidepressant drug use within the previous 1 to 2 weeks is an important finding in a subject's history (7). Our patient had been taking no other

medications. Treatment may require discontinuation of the suspected agent and initiation of steroids and antihistamines (5,8).

In conclusion, bupropion may induce generalized acute urticaria. Patients should be informed about the dermatological side effects of medications before beginning treatment.

# **REFERENCES**

- **1.** Hu LY, Liu CJ, Lu T, Hu TM, Tsai CF, Hu YW, et al. Delayed onset urticaria in depressive patients with bupropion prescription: a nationwide population-based study. 2013;8:e80064.
- **2.** Crain D, Bhat A. Current treatment options in smoking cessation. Hosp Pract(1995). 2010;38:53-61.
- **3.** Tackett AE, Smith KM. Bupropion-induced angioedema. Am J Health Syst Pharm. 2008;65:1627-1630.
- **4.** Beyens MN, Guy C, Mounier G, Laporte S, Ollagnier M. Serious adverse reactions of bupropion for smoking cessation: analysis of the French Pharmacovigilance Database from 2001 to 2004. Drug Saf. 2008;31:1017-1026.
- Cooper KD. Urticaria and angioedema: diagnosis and evaluation.
   J Am Acad Dermatol. 1991;25:166-174; discussion 174-176. Review.
   Fays S, Tréchot P, Schmutz JL, Cuny JF, Truchetet F, Barbaud A. Bupropion and generalized acute urticaria: eight cases. Br J Dermatol. 2003;148:177-178.
- 7. Tuman TC, Tuman BA, Göksügür N, Kayka N, Yıldırım O. Urticaria and Angioedema Associated With Bupropion: Three Cases. Prim Care Companion CNS Disord. 2016;18(4).
- **8.** Mitkov MV, Trowbridge RM, Lockshin BN, Caplan JP. Dermatologic side effects of psychotropic medications. Psychosomatics. 2014;55:1-20.