Letters to the Editor

Possible Sexual Dysfunction Associated With Bupropion for Smoking Cessation: A Case Report

Sir: Sexual dysfunction induced by antidepressant medication is well documented in the literature. To date, there has been no report of possible sexual dysfunction induced by bupropion utilized in smoking cessation. In fact, bupropion has been reported to treat antidepressant-induced sexual dysfunction.[1–3] The author describes a case of possible sexual dysfunction associated with the use of bupropion.

In 1998, the sustained-release form of bupropion, an antidepressant unlike others on the market, was launched for use as a pharmacologic agent in smoking cessation.[4] It is believed that bupropion's unique properties involving inhibition of neuronal reuptake of dopamine (possible reinforcement of the reward system) and norepinephrine (possible withdrawal) may play a role in facilitating smoking cessation.[5] A case is presented in which a patient treated in a smoking cessation program with bupropion sustained release (SR) experienced sexual dysfunction, an effect not previously described.

Case report. Mr. A, a 23-year-old white man, admitted to a 1-pack-per-day smoking habit over the past 5 years prior to participation in a smoking cessation program. He described himself as being in excellent health with no chronic medical problems and no previous psychiatric history. He had tried numerous times to quit smoking on his own, but never in a treatment setting. At the time of enrollment, Mr. A was taking erythromycin for treatment of acne as his only prescription medication and denied the use of any over-the-counter medications. He used alcohol on social occasions, averaging 1 to 2 beers twice a month. He denied the use of illicit substances and was motivated to quit smoking for health reasons.

Bupropion SR was started at 150 mg once a day for 3 days and titrated up to 150 mg b.i.d. on day 4. Mr. A noted no difficulties for the first 3 days and had stopped smoking on the first day of pharmacotherapy. On the day the bupropion was titrated up to 150 mg b.i.d., he initially noted light-headedness requiring him to sit down to gain stability. Mr. A also noted mild irritability, which he attributed to nicotine withdrawal, but most problematic for him was a decrease in his sex drive with associated decreased arousability. He also noted a decreased ability to sustain an erection. He was in a stable relationship and had not previously experienced a decline in sexual performance. Mr. A felt frustrated about his sexual dysfunction, but did not disclose his problem, thinking it would resolve as he got used to the increased dose of bupropion SR. He decided to discontinue the medication after 2 weeks, feeling frustrated with his sexual dysfunction. By then, he had been tobacco-free for 2 weeks and felt he could remain so utilizing the behavioral techniques acquired in the cessation classes. Mr. A reported that within 2 to 3 days of stopping bupropion SR, he regained his previous level of sexual functioning and has reported no problems since. He remains tobacco-free at 3 months.

In a review of the side effects associated with bupropion for smoking cessation, pruritus, urticaria, edema, tremors, dizziness, insomnia, and anxiety were listed as the most common, with no mention of sexual dysfunction.[6] Antidepressant-induced sexual dysfunction is well observed in the literature,[7] and it is estimated that up to 75% of patients treated with antidepressants may experience sexual dysfunction associated with these agents.[8] Bupropion, however, has been reported to have successfully treated sexual dysfunction in at least 2 open-label studies and 1 case report.[1–3]

Possible sexual dysfunction associated with bupropion has not been previously reported, and, as mentioned, bupropion has actually been used to treat antidepressant-induced sexual dysfunction associated with selective serotonin reuptake inhibitors.[1–3] The biology of sexual function is not fully understood and is a complex process involving as many as 20 neurotransmitters and hormones.[9] It is possible that certain individuals, such as the patient described, had an atypical response to bupropion owing to alterations or disturbances in the balance of norepinephrine or dopamine, thus interfering with their sexual function. It could be that, in this case, the effect on sexual function was dose dependent, as the sexual dysfunction occurred shortly after increasing the dose. Mr. A's baseline functioning returned quickly, possibly explained by a half-life of bupropion ranging from 4 to 24 hours.[10] Until sexual function is better understood, clinicians should remain vigilant when prescribing psychotropic medications, being aware that they may possibly contribute to sexual dysfunction despite unusually low reported incidence.[8]

Conclusions and opinions expressed are those of the author and do not necessarily reflect the position or policy of the U.S. Government, the Department of Defense, the Department of the Army, or the U.S. Army Medical Command.

References

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Correction

In the article "Zaleplon, a Novel Nonbenzodiazepine Hypnotic, Effectively Treats Insomnia in Elderly Patients Without Causing Rebound Effects" (August 1999 issue, pp. 114–120) by Sonia Ancoli-Israel, Ph.D., and colleagues, the dosage of the active comparator stated in the last sentence on page 114 should be zolpidem, 5 mg (not 10 mg). The corrected sentence reads: "In this multicenter, double-blind, randomized, placebo-controlled outpatient study, the effectiveness and safety of zaleplon, 5 and 10 mg, were compared with those of placebo, using zolpidem, 5 mg, as active comparator, for a treatment period of 14 days in elderly outpatients with primary insomnia."