Addition of Bupropion SR to Varenicline Alleviated Depression and Suicidal Ideation: A Case Report

To the Editor: Varenicline, bupropion sustained release (SR), and nicotine replacement therapy are established and US Food and Drug Administration (FDA)–approved treatments for smoking cessation.[1–3] Recently, there has been a surge of postmarketing reports to the FDA associating varenicline with depressive symptoms, fatigue, suicidal ideation, or in some cases death.[4]

Case report. Ms A, a 49-year-old white woman with non–small cell lung cancer, had been smoking since she was 14 years old an average of 20 cigarettes/d. Her Fagerström Test for Nicotine Dependence[5] score was 7 (maximum = 10), indicating high nicotine dependence. She also had experienced past episodes of depression with anxiety that had been treated with paroxetine 30 mg/d for the last 9 years. The patient had previously taken varenicline for 2 weeks but was unable to quit smoking; however, she had felt more depressed and began having thoughts of suicide (driving her car off a bridge).

At our program in June 2008, varenicline treatment (1 mg bid) was restarted, at the patient's request. After 3 weeks, Ms A's smoking decreased to 2 cigarettes/d, but her depression worsened again and she started having thoughts of suicide. We recommended that she discontinue varenicline immediately, continue taking paroxetine 30 mg/d, and start taking bupropion SR 150 mg in the morning for 7 days and then twice per day, along with 5 or 6 sessions of supportive therapy.

Afraid of returning to regular smoking without varenicline, Ms A did not stop taking it but rather added bupropion. Four weeks later, the patient reported no side effects, complete abstinence from tobacco, and few cravings for nicotine. Moreover, she had not experienced disturbing dreams or suicidal ideation. Her Center for Epidemiologic Studies Depression Scale (CES-D)[6] score was 2 (normal range, 0–7), which was an improvement relative to her first visit (CES-D score = 25) and her fourth visit before starting bupropion treatment.

To our knowledge, this is the first case report of combined pharmacologic treatment for smoking cessation involving bupropion SR and varenicline. The patient's depressive symptoms improved significantly with the addition of bupropion SR, *and* the patient remained abstinent from smoking. The combination of these 2 agents merits further investigation in a rigorous and well-controlled clinical trial.

REFERENCES

1. Gonzales D, Rennard SI, Nides M, et al. Varenicline Phase 3 Study Group: Varenicline, an α4β2 nicotinic acetylcholine receptor partial agonist, vs sustained-release bupropion and placebo for smoking cessation: a randomized controlled trial. *JAMA*. 2006;296:47–55.
2. Jorenby DE, Hays JT, Rigotti NA, et al. Varenicline Phase 3 Study Group: efficacy of varenicline, an α4β2 nicotinic acetylcholine receptor partial agonist, vs placebo or sustained-release bupropion for smoking cessation: a randomized controlled trial. *JAMA*. 2006;296:56–63.
3. Stapleton JA, Watson L, Spirling LI, et al. Varenicline in the routine treatment of tobacco dependence: a pre-post comparison with nicotine replacement therapy and an evaluation in those with mental illness. *Addiction*. 2008;103:146–154.
4. Kuehn BM. FDA warns of adverse events linked to smoking cessation drug and antiepileptics. *JAMA*. 2008;299:1121–1122.
5. Heatherton TF, Kozlowski LT, Frecker RC, et al. The Fagerström Test for Nicotine Dependence: a revision of the Fagerström Tolerance Questionnaire. *Br J Addict*. 1991;86(9):1119–1127.
6. Radloff LS. The CES-D scale: a self-report depression scale for research in the general population. *Appl Psychol Meas*. 1977;1(3):385–401.

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Potential conflicts of interest: **Dr Karam-Hage** has served on the speakers' bureau for and received honoraria from Pfizer (manufacturers of Chantix [varenicline]). **Dr Cinciripini** has been a consultant and served on the speakers' bureau for and received grant/research support and honoraria from Pfizer and has served on the speakers' bureau for GlaxoSmithKline. **Mr Shah** reports no potential conflict of interest.
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