

Treatment of Binge Eating Disorder With High-Dose Baclofen A Case Series

To the Editors:

Baclofen is a gamma-aminobutyric acid-B receptor agonist approved for the treatment of spasticity. Recently, studies have shown that baclofen may be effective in the treatment of alcoholism; the use of low doses (30–60 mg/d) provided conflicting results,^{1–3} but further studies showed that many individuals respond only to high doses.^{4–6} Other studies showed that low-dose baclofen (60 mg) is effective in the treatment of binge eating disorder (BED) but only in a limited number of patients.^{7,8} It might, therefore, well be worth studying the effects of high doses in the treatment of BED. High-dose baclofen (up to 300 mg) has received recent authorization in France for the treatment of alcoholism (French Ministerial decree of June 13, 2014). Several Internet sites dedicated to effects of baclofen in alcoholism now exist in France. These widely visited sites provide all information regarding baclofen, including its potential effectiveness in BED. As a result, a number of patients suffering from BED (all women) asked the authors of the present report for treatment. This report is a presentation of a series of patients suffering from BED (Diagnostic and Statistical Manual, fifth edition, criteria) who were successfully treated with high-dose baclofen. Analyses of the medical charts took place in June 2014. The patients had to be followed for at least 6 months after beginning treatment. Titration: patients took 1 tablet the first day and then 1 additional tablet every 3 days (given in the morning, noon, evening) until suppression of binge episodes was reached. Patients were thoroughly informed about baclofen treatment, its adverse effects, and precautions for use.⁹

CASE REPORTS

Patient 1 (Pt1) is a 49-year-old employed and married woman, with no children, who has been suffering from BED for several years (cannot precisely date the beginning of the disorder). She is healthy, sleeps well, takes no medication, and has no history of psychiatric or somatic illness. Besides typical episodes of binge eating, she often snacks between meals. Baclofen was started on April 30, 2012. Up to 50 mg/d,

treatment was given 3 times per day. For 50 mg, treatment was divided into 5 doses per day (making the adverse effects more tolerable). Her weight was 93 kg (height, 168 cm) when baclofen was started. At the dose of 120 mg (taken 5 times a day: 20 mg at 8:00 AM, 30 mg at 11:00 AM, 20 mg at 2:00 PM, 30 mg at 5:00 PM, 20 mg at 8:00 PM), episodes of binge eating and snacks all ceased. She began to eat normally. Her weight was down to 85 kg in August 2012, 79 kg in June 2013, and 63 kg in January 2014. Undesirable adverse effects were nocturnal dyspnea, gastric acid reflux, and decrease in libido. She is still taking a low dose of baclofen (20 mg in the evening). She increases the doses of baclofen in festive times. Her weight is stable. She recently created an Internet site devoted to baclofen and binge eating.

Patient 2 (Pt2) is a 42-year-old unemployed and married woman, mother of 3 children, suffering from BED, depression (with a history of suicide attempts), insomnia, chronic headache and back pain, as well as episodic alcohol overconsumption. She was taking duloxetine, tramadol, and diazepam at the first visit. She was also suffering from sleep apnea (treated with a continuous positive airway pressure machine) and hypertension (treated with a β -blocker). She had recurrent episodes of binge eating in the evening (almost every day), sometimes associated with binge drinking (approximately once a week). Her BED started 5 years before her first visit, after a depressive episode. She often got up during the night to eat. Her weight was 102 kg (height, 170 cm) when baclofen was started on September 19, 2012. Episodes of binge eating decreased at 90 mg of baclofen and completely disappeared at 120 mg (taken 3 times a day: 4 tablets every 5 hours). Alcohol overconsumption disappeared in the same way, and her sleeping improved. Her weight was down to 95 kg in November 2012, 85 kg in March 2013, 79 kg in August 2013, and 75 kg in January 2014. Her weight is now stable between 75 and 77 kg. Adverse effects were minor fatigue, nausea, dizziness, tremor, and tinnitus. All have now disappeared. Depressive symptoms progressively vanished; however, she is still taking duloxetine. She sleeps well. Chronic pain slightly improved but did not disappear. She is still taking baclofen 120 mg (and still duloxetine, tramadol, and diazepam).

Patient 3 (Pt3) is a 60-year-old retired woman, mother of 1 child, divorced, and with a history of BED. At presentation,

she reported almost daily binge episodes in the evening, throughout the preceding 6 months. She also had frequent episodes of compulsive buying. She was in good health, taking no medication. She had a history of depression but was not depressed when baclofen was started. Her weight was 64 kg (height, 160 cm) when baclofen was started on January 15, 2013. Baclofen increase was slow because of uncomfortable adverse effects (diurnal somnolence and nocturnal insomnia, balance disorder with falls, difficulties in verbal expression). Binge-eating episodes vanished at the dose of 120 mg, reached in August 2013 (doses taken 3 times a day: 4 tablets every 5 hours). Compulsive buying behavior also disappeared at that time. The patient decided to progressively decrease the dose of baclofen; she is now taking 20 mg daily (in the evening). The binge eating episodes did not return, nor did the compulsive buying. She now weighs 58 kg.

Patient 4 (Pt4) is a 47-year-old employed and married woman, with no children and a long history of BED. Binge eating always took place in the evening. She also presented nocturnal bulimia, getting up in the middle of the night to eat. She was healthy, slept well, took no medication, and had no history of somatic or psychiatric illness. She had been overweight since adolescence (she tried slimming treatments for years without success) and had recurrent episodes of binge eating since late adolescence. Her weight was 100 kg (height, 171 cm) when baclofen was started on August 3, 2013. Baclofen was administered 3 times a day, with a more important dose in the evening, approximately 1 hour before binge episodes usually set in. Binge episodes disappeared at the dose of 180 mg, (taken 3 times a day: 40 mg at 8:00 AM, 40 mg at 1:00 PM, 100 mg at 6:00 PM). The following adverse effects were many and very difficult to bear: intense fatigue, sleepiness, insomnia, feelings of electric discharge, paresthesias, and restless legs. Adverse effects were much attenuated by a decrease of the evening dose. She is now taking baclofen 120 mg (taken 3 times a day: 4 tablets every 5 hours) and weighs 95 kg. She still has a few adverse effects (thoroughly bearable) and has no more episodes of binge eating.

Patient 5 (Pt5) is a single 53-year-old employed woman, without children and with a long history of eating disorders, including anorexia nervosa in early adulthood, bulimia nervosa in the 1990s (overuse of laxatives), which turned into

BED in the late 1990s. She also fulfilled criteria for a general anxiety disorder at presentation and had nail biting and compulsive buying behavior (once a week, which she called “the Friday rendezvous”). She had a history of depression and alcohol dependence but had none of these disorders when baclofen was started. She was taking no medication at that time. Her weight was 112 kg (height, 172 cm). She had been on weight-reducing diets for years. Baclofen was started on November 7, 2013. Increasing baclofen was easy, although she experienced some adverse effects (tinnitus, fatigue, dizziness, and insomnia but also a self-resolving 2-month period of hypomania). Binge eating episodes stopped at 140 mg/d (taken 3 times a day: morning 50 mg, noon 50 mg, evening 40 mg) in February 2014, along with her anxiety symptoms, nail biting, and compulsive purchases. She stopped dieting and resumed exercise. She is now taking baclofen 110 mg (morning 40 mg, noon 40 mg, evening 30 mg) and weighs 103 kg. She says she feels “baclozen.”

DISCUSSION

Our 5 clinical vignettes report the cases of patients with BED successfully treated with baclofen. All the patients explicitly reported that baclofen suppressed their craving for food. Two studies have shown that baclofen is useful in the treatment of BED at the dose of 60 mg daily^{7,8} but 60 mg was insufficient in our patients, demonstrating that a number of patients may need higher doses.

Many adverse effects have been reported during baclofen treatment, including severe events such as mania¹⁰ and seizures.¹¹ No severe adverse effects were reported by our 5 patients. However, adverse effects were difficult to endure in Pt1, Pt3, and Pt4. In these patients, treatment was made more tolerable in the following different ways: increasing the number of doses up to 5 doses per day in Pt1, slowing the dose increase schedule in Pt3, and decreasing the evening dose in Pt4.

All our patients lost weight. It has been shown that baclofen reduces weight in obese subjects, and it has been suggested that this effect could be related to an action of baclofen on the hypothalamic neuropeptide

Y system.¹² We therefore cannot exclude that baclofen may have acted through mechanisms other than a food craving-suppressing effect in reducing weight in our patients. Besides, high rates of placebo responses have been reported in patients with BED.¹³ We cannot exclude a placebo effect in our patients. However, the consistent weight loss in patients who had been trying to lose weight for many years without success (Pt4, Pt5) and the dramatic weight loss in patient 1 and patient 2, with a sustained effect for several years, do not favor the hypothesis of a placebo effect. Binge eating disorder is a frequent disorder for which effective pharmacological treatments are lacking. The present vignettes show that high-dose baclofen is effective in certain cases of BED. Further research is necessary to establish to what extent baclofen could be useful in the treatment of that illness. Baclofen can produce many side effects, sometimes severe. No severe adverse effects occurred in our patients, although some adverse effects were very uncomfortable. We emphasize the fact that simple but important precautions can be taken to avoid or attenuate baclofen-induced adverse effects.⁹

AUTHOR DISCLOSURE INFORMATION

The authors declare no conflicts of interest.

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