

Bulimia Nervosa and Misuse of Orlistat: Two Case Reports

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Abstract: Objective: *Orlistat* (tetrahydrolipstatin) is an intestinal lipase inhibitor that was approved recently for the management and treatment of obesity. This is the first report of the misuse of orlistat in two normal-weight purging bulimia nervosa (BN) patients. **Method and Results:** We report two diagnosed cases of BN in two Spanish women who used orlistat as a purging mechanism after binge episodes. In both cases, the onset of the eating disorder was in adolescence. From the beginning, a restrictive diet, bingeing, and purging behavior (vomiting and using laxatives) were present. Both patients misused this substance as their only purging mechanism after every binge episode. **Conclusion:** BN patients have used many substances and bizarre behaviors as purging mechanisms. Nevertheless, to the authors' knowledge, these are the first reported cases of orlistat misuse as the only purging mechanism in two BN patients. © 2001 by John Wiley & Sons, Inc. *Int J Eat Disord* 30: 458–461, 2001.

Key words: bulimia nervosa; orlistat; purging behavior; case report; drug therapy; binge eating disorder; obesity

INTRODUCTION

Bulimia nervosa (BN) is a widely reported and researched eating disorder in the literature (Brownell & Fairburn, 1995). It is characterized by frequent binge episodes, feelings of guilt, and compensatory purging behaviors to avoid weight gain (American Psychiatric Association [APA], 1994). Self-induced vomiting and abuse of laxatives or diuretics are the purging mechanisms described most frequently in BN patients. However, the misuse of many other substances and drugs also has been reported, ranging from consumption of aspirin (Gordon, Ramsay, & Treasure, 1997), thyroid hormones (Crow, Mitchell, & Kendall, 1997; Komhuber, Fness, Weinacker, Hocke, & Schmidtke, 1996), and

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dextromethorphan (Marsh, Key & Spratt, 1997) to alcohol antagonists (Fernández-Aranda et al., 2000).

Orlistat (*tetrahydrolipstatin*) is a nonsystemic inhibitor of gastrointestinal lipases. It may reduce the intestinal absorption of dietary fat (Ransac, Gargouri, Moreau, & Verger, 1991; Drent, & Van der Veen, 1993), promote weight loss, and prevent regain after the initial loss in obese patients (Sjöström, Rissanen, Andersen, Boldrin, et al., 1998). In spite of being a novel pharmacological approach, its moderate efficacy, in combination with a low-calorie diet, for management of obesity has been demonstrated to be superior to placebo (Sjöström et al., 1998) even after a follow-up (Davidson, Hauptman, DiGirolano et al., 1999). Nevertheless, its global therapeutic effects remain unclear. Its market release in Spain in 1998, after being approved by the European Community, was questioned.

To our knowledge, this is the first description of the misuse of orlistat as the only purging mechanism in two adult women with BN.

CASE REPORTS

Case 1

A 26-year-old woman was diagnosed with BN (purging subtype) according to criteria outlined in the 4th ed. of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994). She said that she has had an eating disorder since she was 13 years old. At the beginning, she was described as having anorexia nervosa. Her diet was restrictive and she had a fear of becoming fat. When she was 17 years old, she had one to two episodes per day of binge eating and she vomited and misused laxatives.

At the age of 25, associated with its market launch in Spain, the patient began to misuse orlistat. She used it after bingeing, about once or twice daily (120–240 mg per day), as the only purging behavior. As adverse effect of the drug was soft stools. Due to the fact that the patient worked as a nurse in a hospital, she had access to this drug and was informed about its availability. Since then, no other purging substances or behaviors were reported by the patient. The patient's body weight was 57 kg (1.61 meter, body mass index [BMI] 22). She wished to be thinner and was constantly overconcerned with her body and shape.

The patient was the youngest of five children (three girls and two boys). For the last 2 years, all the children lived together away from their parents due to work circumstances. She reported no relationship problems in her family. No other psychiatric illnesses were described by the patient or her relatives.

Case 2

A 34-year-old married woman developed BN (purging subtype) according to DSM-IV criteria (APA, 1994). The patient referred to an eating disorder that started when she was 18 years old. It was characterized by frequent bingeing episodes and compensatory behavior by vomiting and daily misuse of laxatives and diuretics.

At the first interview, the patient had a body weight of 65 kg (1.65 m, BMI 23.8). She had an overconcern with her body and wished to be thinner. She described having three to four daily binge and vomiting episodes, restricting food intake, and abusing laxatives and diuretics. When she was 33 years old, she began to misuse orlistat. She used the drug two to three times daily (240–360 mg per day) as the only purging mechanism after binge episodes. No adverse effects were reported.

According to DSM-IV criteria, this patient presented the following Axis I diagnoses: impulse control disorder not otherwise specified (e.g., compulsive buying since she was 24 years old) and primary dysthymic disorder-early onset (since she was 15 years old). Other psychiatric disorders were not described in the patient or in her relatives. The patient is finishing the last year of her nursing studies.

She was the eldest of three children (two girls and one boy). She got married at age 22 and had two children with her partner. She referred to frequent problems in her partnership.

In both patients, the psychometrical assessment (Eating Attitudes Test, Eating Disorder Inventory, Body Shape Questionnaire, and Beck Depression Inventory) revealed a typical profile described frequently by BN patients. Regarding the personality structure, both patients presented the Minnesota Multiphasic Personality Inventory (MMPI) traits of dependence, immaturity, hypersensitivity, and a low tolerance to frustration. They also presented with several depressive and anxiety traits and impulsivity. The latter was extremely high in the second case. Further comorbidity was assessed through the Structured Clinical Interview (SCID) for DSM-IV, Axis I and II.

DISCUSSION

Orlistat was misused in two normal-weight BN patients, due to its supposed intestinal lipase inhibitor absorption and purging effects. The mechanisms that led to the association between BN patients and the consumption of this drug are easy to understand. However, it is unknown what type of BN patients present a higher susceptibility to misuse nontraditional substances or drugs as purging mechanisms. There are various hypotheses that may account for this phenomenon. The sociopsychological explanation is that impulsive personality and psychopathological traits, which were observed in both cases, may be risk factors (Fernández-Aranda et al., 2000; Davis, Claridge & Cerullo, 1997). The biological-psychological explanation is that an addiction model could be used to understand and formulate the acquisition and maintenance of impulsive purging behaviors, as has been suggested in other BN atypical substance abusers (Komhuber et al., 1996; Huebner, 1993). A combination of both explanations has also been suggested (Verkes, Pijl, Meinders, & Van Kempen, 1996).

The literature contains several reports that described the use of unusual drugs and substances (Gordon et al., 1997; Marsh et al., 1997) and bizarre behaviors (Fernández-Aranda et al., 2000; Ghandirian, 1997) in purging BN patients. Even in those cases, the underlying mechanism (e.g., related risk and vulnerability factors) that may explain this phenomenon remains unclear. Employment in the health care profession may have an impact on more frequent misuse of atypical purging substances. In spite of reports in the literature (Maugars, Berthelot, Lalande, Charlier, & Prost, 1996; White, 1992), this topic needs to be explored more.

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