



Binge Eating Disorder Treatment with Topiramate in a Patient with Bipolar Disorder

Walter Milano, Francesco Blasi, Luca Milano, Giovanni Nolfè, Anna Capasso*

Mental Health Unit-District 44 - ASL Napoli 1 and

**Department of Pharmacy, University of Salerno, Italy*

annacap@unisa.it

Abstract

Bipolar disorder (BD) frequently occurs in comorbidity with eating disorders (ED), particularly with binge eating disorder (BED). Also, the drugs used for the treatment of BD, as mood stabilizers and some antipsychotics may increase appetite and weight. In this work, we studied a young patient affected by BD with frequent phenomena of binge eating and weight gain. The magnitude of changes in eating behavior were assessed by the Barcelona Bipolar Eating Scale, anthropometric data and blood chemistry. The BD young patient, treated with topiramate 100 mg/day, as mood stabilizer, showed an improvement of dietary changes, weight gain and an optimization in chemistry values thus indicating how important it is, even in patients with severe psychiatric disorders such as BD, monitoring feeding behavior and some important metabolic parameters. Our study showed that a drug mood stabilizer as topiramate may be very useful in the treatment of the altered behavioral and metabolic parameters in BD patients.

Keywords: Bipolar disorder, Eating Disorder, Mood Stabilizers

Introduction

Bipolar disorder (BD) patients often have in comorbidities, over in addition to experience of substance abuse or anxiety spectrum disorders, also abnormal eating behavior (ED), with ideational polarization on fitness, on body weight and altered food relationship (1,2). The epidemiological evidence in the literature that quantifies comorbidity between BD and ED are modest. According to some authors the life-time prevalence of anorexia nervosa (AN) or bulimia nervosa (BN) with BD, especially type II, is between 4 and 6% (3).

Another alteration of feeding behavior frequently associated with the DB, is the BED. The clinical features, in these patients, are frequent episodes of binge eating with a subjective feeling of loss of control on the food ingestion with intake of large amounts of food in a short time without a clear sense of fullness with a consequent sense of guilt, worthlessness and malaise (4,5)

Generally, in BD patients the phenomena of binge occurs more frequently during the depression phase but it can often persist during eutimic phase in a good percentage of cases.

Several recent studies have shown that BD patients have a rate of overweight and obesity significantly higher than the general population (6,7), which is accentuated by the use of drugs commonly used to treat BD.

For example, many antipsychotics, used in preventing maniacal phases, such as clozapine, the olanzapine and, in a slightly lesser extent, the risperidone and the quetiapine, may induce a negative influence on weight increase (8). Also, several mood stabilizers, used in the clinic, such as valproate or lithium, lead, either directly or indirectly, increased appetite, promoting weight gain (8,9). Only one drug among the mood stabilizers, the topiramate, has demonstrated the ability to reduce appetite and therefore the weight gain (10,11).

Given the above evidences, it would be useful to use in BD patients, an instrument to measure the

frequency and intensity in weathering of feeding behavior such as binge eating, which obviously favour weight gain and all the internistic and psychological complications related to it.

The Barcelona Bipolar Eating Scale (BEDS), presented by the Group of Vieta in 2004 (12), has proved a useful, simple, fast, reliable and low cost instrument for the monitoring of feeding behavior in BD patients. It is a self-administered scale of ten items, which investigates not only on the mode of food ingestion (binge's phenomena) but also on dietary habits of the patient as the craving for carbohydrates and the sensation of satiety.

The present paper shows the observation of feeding behavior for three months in a BD young patient in treatment with topiramate, a mood stabilizer, through the use not only of common metabolic and anthropometric parameters but also of BEDS.

Patient, Methods and Results

We followed at the Unit of District 24 of the Mental Health Center ASL Napoli 1, a 28 years patient named A.S., affected by type II BD according to DSM IV (13), over 3 years. Our BD patient was treated for three years with a mood stabilizer drug as lithium (300 mg for three/day) and, although not always continuously, with a second generation antipsychotic, risperidone (3 mg twice/day) to prevent the maniacal phase. During the three years of treatment, bipolar symptoms had substantially stabilized over long periods of eutimia with occasional small maniacal peaks and rare events of drop mood. However, the BD patient reported frequent binge eating crisis, even over 10 in a week, in various periods of several months with weight gain of over 8 kg (Table 1).

In view of these changes in behaviour eating and weight, it was decided to replace lithium therapy with another mood stabilizer having a lower metabolic effect, topiramate at 100 mg/day. Before switching with the new drug, she was given the BEDS. After a three months therapy with topira-

mate, bipolar symptoms continued to remain acceptable, with variations in mood, but the phenomena of binge eating had substantially reduced, with a frequency of approximately one for week, with a weight reducing of 5 kg and a marked improvement in quality of life and self-image.

BEDS score has significantly reduced from 21 before switching by lithium to topiramate, to 12 later (the scores BEDS 1 to 13: normal, 14 to 30: pathological). Even the anthropometric and metabolic parameters monitored (body mass index (BMI), waist circumference (WC), fasting glucose and lipids scale) have been optimized by sex and age (Table 1).

Discussion

Our study showed that a drug mood stabilizer as topiramate may be very useful in the treatment of the altered behavioral and metabolic parameters in BD patients.

The above case report has shown how important it is, even in patients with severe psychiatric disorders such as BD, monitoring feeding behavior and some important metabolic parameters. In many cases, also relating to the evolution of BD, some conditions such as sleep, social behavior and eating habits in particular, are extremely difficult to monitor and control. Moreover, many drugs useful for the treatment of BD may worsen the food component leading to an increase in appetite and weight. The use of BEDS allowed us to monitor the fluctuations of the magnitude not only in eating habits but also the crisis of binge. It also showed that the use of a drug mood stabilizer as topiramate, with a less impact on food component, has improved the

behavioral and metabolic aspects (reduction phenomena binge, body weight, with optimization of blood parameters) but also the emotional aspects related to the weight and image, which will greatly improve the pharmacological compliance over a long term, so important in the treatment of bipolar disorder.

References

- 1 - Mauri M., Camilleri V., Giovanni B. Cassano "Spettro dell'umore e isturbi della condotta alimentare" in Cassano G, Tundo A. "Lo spettro dell'umore" Masson Milano 2008
- 2 - Merikangas KR, Akiskal HS, Angst J, Greenberg PE, Hirschfeld RM, Petukhova M, Kessler RC. "Lifetime and 12-month prevalence of bipolar spectrum disorder in the National Comorbidity Survey replication" *Arch Gen Psychiatry* 2007 64:543-552
- 3 - Hudson JI, PopenHG et al "Phenomenologic relationship of eating disorder to major affective disorders" *psychiatric Res* 1983 9: 435-54
- 4 - Lewison PM, Striegel-Moore RH, Seeley JR "Epidemiology and natural course of eating disorders in young women from adolescence to young adulthood" *J Am Acad Child Adolesc Psych* 2000 39:1284-1292
- 5 - Kruger S, Shugar G, Cooke RG "Comorbidity of binge eating disorder and partial binge eating syndrome with bipolar disorder" *Int J Eat Disord* 1996 19:45-53
- 6 - Correl CU "Balancing efficacy and safety in treatment with antipsychotics" *CNS Spectr* 2007 12(suppl 17) 12-20
- 7 - McElroy SL et al "Correlates of overweight and obesity in 644 patients with bipolar disorder" *J Clin Psychiatry* 2002 63:207-13
- 8 - Fagiolini A, Frank E et al "Prevalence of obesity and weight change during the treatment in patients with bipolar I disorder" *J Clin Psychiatry* 2002 63:528-33
- 9 - Keck PE, McElroy SL "Bipolar disorder, obesity and pharmacotherapy-associated weight gain" *J Clin Psychiatry* 2003 64:1426-1435
- 10 - McElroy SL et al "Role of antiepileptic drugs in the management of eating disorders" *CNS drugs* 2009 23(2):139-156
- 11 - White HS, Smith MD, Wilcox KS "Mechanism of action of antiepileptic drugs" *Int Rev Neurobiol* 2007 5:553-64
- 12 - Torrent C, Vieta E, et al "Barcelona Bipolar Eating Disorder Scale (BEDS): a self-administered scale for eating disturbances in bipolar patients" *Acta Esp Psiquiatr* 2004 32(3):127-131
- 13 - American Psychiatric Association "Diagnostic and Statistical Manual of Mental Disorders" (4th ed.) 1994

	Before the switch	After three months
Height	161 cm	=
Weight	72 kg	64 kg
BMI	27	24
WC	92	86
Total Cholesterol	272	224
HDL Cholesterol	54	58
Triglyceride	162	140
Glucose	101	89
BEDS	21	12

Table 1: Anthropometric and blood chemistry evaluations