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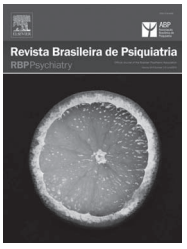

Letter to the editors

Patients with eating disorders (ED) treated with Zonisamide

Pacientes com transtornos alimentares (TA) tratados com Zonisamida

Dear Editor,

We would like to communicate our experience in patients with eating disorders (ED) treated with Zonisamide, a novel antiepileptic drug of the methane-sulfonamide group. This drug is rapidly absorbed in the gastrointestinal tract and it binds proteins moderately. Zonisamide is thought to act over voltage sensitive sodium channels and on T-type calcium channels. Moreover, Zonisamide alters the metabolism of glutamate, GABA, dopamine, serotonin, acetylcholine and carbonic anhydrase. The use of anticonvulsants in patients with ED is a common practice, due to their efficacy on weight and impulsive behaviour.[1,2] The way they work is unknown: probably they act directly via general effect on pathological impulsivity thanks to their action on neurotransmitter systems. For this reason we think that Zonisamide, due to its properties, may be effective not only on binging behaviour but also in reducing self-injury in patients with Bulimia Nervosa (BN) and Binge Eating Disorder.[3] Zonisamide was added to other medications up to the maximum dose of 300 mg and a longitudinal analysis was performed at 3 months and after a year. The 80% of the patients was under treatment with fluoxetine and there was not modification of the pharmacological treatment during the follow-up. The sample consisted of seventeen females patients: see description in Table 1. Primary outcome measure was binging frequency. Secondary outcomes were Body Mass Index (BMI), Clinical Global Impressions-Severity of Illness Scale (CGI-SI) and self-injury. Ten of the seventeen patients concluded the 12 month follow-up; the other seven patients discontinued for the following reasons: increase of ocular pressure (n = 1), increase of serum creatinine levels (n = 1); paranoid symptoms (n = 1) and withdrawal of the follow-up (n = 4). Due to the little sample size only BMI and CGI-SI were analysed at endpoint visit. The statistical analysis evaluated treatment-by-time interaction effect on BMI, binging behaviour, self-harming and the CGI-SI. A 5.72% reduction of BMI ($p = 0.02$), a decrease in binges ($p = 0.01$) and self-harming episodes ($p = 0.03$) and a significant improvement in CGI-SI ($p < 0.00001$) were observed after 12 weeks of treatment. Improvement in CGI-SI was prolonged a year after ($p < 0.00001$), not the improvement of BMI (0.19). According to our review this is the first study that evaluates the efficacy of Zonisamide

Table 1 Characteristic of the sample

Outcome******		Frequency	Percentage
Diagnose Axis I	Bulimia Nervosa	3	17.6
	Binge eating Disorder	14	82.4
Drug abuse	No	15	88.2
	Yes	2	11.8
Diagnose Axis II	None	8	47.1
	Border-line personality	9	52.9
Binging behavior: less than 3 binges per week	Baseline*	2	11.8
	3 months follow-up**	6	35.3
Binging behavior: between 3-6 binges per week	Baseline*	7	41.2
	3 months follow-up**	3	17.6
Binging behavior: more than 6 binges per week	Baseline*	8	47.1
	3 months follow-up**	2	11.8
Self-harming	Baseline*	9	52.9
	3 months follow-up**	2	11.8
Outcome******		**Mean**	**Range/SD**
Age		32.7	20-43/7.2
Ilness duration		13.8	2-20/6.7
CGI-SI****	Baseline*	4.2	3-6/0.75
	3 months follow-up**	2.7	2-4/0.64
	12 months follow-up***	3	2-4/0.89
BMI*****	Baseline	33	20-56.6/ 10.7
	3 months follow-up**	33	19-55/11.6
	12 months follow-up***	32	19-44/10.4
Zonisamide dosage	Baseline	167.64	50-300/72.7
	3 months follow-up	195	50-300/72.2

*Total sample: 17; **Total sample: 11; ***Total sample: 10; ****Clinical Global Impression Severity Illness; *****Body Mass Index. ******Linear mixed models were used to analyze the evolution of outcome measures at different time points during treatment.

in subjects with BN: the most interesting observation was that Zonisamide was clinically effective to control self-injury. In addition, we found a significant correlation between axis II diagnose and self-harm indicating that Zonisamide is more efficacious on patients with border-line co-morbidity. It is reported that Zonisamide is effective for the long term treatment.[4] In our study the improvement of BMI found at endpoint visit was not significant: this fact might be attributable to the high attrition (35,3%) that we reported, comparable to the attrition rate reported in McElroy`s study.[5] As far as we know the increase of ocular pressure (most serious adverse event reported) has not been described in studies concerning Zonisamide's tolerability. To conclude we think that Zonisamide is useful for treating overweight in BED and BN patients and may be an option for controlling other impulsive behaviours in patients with ED.

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Disclosures

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* Modest
** Significant
*** Significant: Amounts given to the author's institution or to a colleague for research in which the author has participation, not directly to the author.

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