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Ziprasidone security in overdose: one case report

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Ziprasidone is a neuroleptic drug, a benzisotiazolipiperazine, categorised as an atypical antipsychotic drug due to its mechanisms of action (blocking serotonin and dopamine receptors). It is commercialized in Spain since January 2003¹.

Some of the most common side effects of ziprasidone are: mild to moderate prolongation of the QTc interval².

Nausea and vomiting, tremor, sweating, cephalgia, bradycardia, haemodynamic instability, insomnia, confusional picture, anticholinergic effects, parkinsonism and arterial hypertension^{1,3-5}.

There are very few case reports of acute overdose with ziprasidone described in the medical literature. We report the case of a 49 year-old woman diagnosed with bipolar disorder grade 1. She had no history of drug allergy and her past medical history was unremarkable.

She smoked moderately and did not consume any other substance. During the last years, the patient had remained psychologically stable taking ziprasidone 40 mg daily and topiramate 200 mg daily. Since last month, without any obvious cause, the patient presents a depressive picture. In this condition, the patient took a voluntary overdose of 235 tablets (4,700 mg) of ziprasidone 20 mg and 11 tablets (55 mg) of dipotasic lorazepam. Eight hours after the overdose, the patient was admitted to hospital with somnolence, opening of the eyes after stimulation and no verbal responses to verbal stimuli. Physical examination showed a normal body temperature, arterial blood pressure 89/64, arterial oxygen saturation (SaO₂) 97%, heart rate 68 and

miotic, normoreactive pupils. No pathological findings were seen on clinical neurological examination: limbs motility, osteotendinous reflexes and tactile sensibility were normal. There were no signs of cranial nerves focality.

Cardiorespiratory auscultation was normal. The rest of the physical examination was normal.

The ECG showed sinus rhythm 75, mean electrical axis +60°, normal QTc interval and no repolarization alterations. Admission laboratory results were within normal limits.

The clinical management of the patient included: basic life support, continuous ECG monitoring and hydration. The level of consciousness improved after administration of intravenous flumazenil 2 mg. Ten hours after the overdose, the patient being physically stable with a normal level of consciousness, was transferred to a psychiatric department. Neither prolongation of the QTc interval nor arrhythmias have been described in the literature in cases of ziprasidone overdose alone. Cardiac alterations have been described in cases of ziprasidone overdose in conjunction with some cardiotoxic drugs. No significant neurological or other organs alteration have been described after ziprasidone overdose alone.

We suggest that ziprasidone, when taken alone, can be considered a relatively safe drug even in overdose, except in cases with a prolonged QTc interval or in patients taking drugs that prolong the QTc interval.

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