Dear Editor,

Muscle contracture is a common symptom of valproate. However, there is no report in the literature of lockjaw (trismus) associated with this drug. We therefore present a case of lockjaw during valproate treatment in a patient with bipolar disorder and hypoparathyroidism.

A 62-year-old Caucasian female was admitted on November, 2015 at a psychiatric unit during a manic episode. Patient was previously diagnosed with bipolar disorder and had manic and depressive episodes in the past. She underwent a total thyroidectomy three months prior to her admission, for suspicion of malignancy (not confirmed by biopsy) and has been since then in treatment for hypothyroidism and iatrogenic hypoparathyroidism with levothyroxine, calcitriol and calcium carbonate. She had no cognitive impairment and no relevant findings in laboratory exams. A cerebral perfusion scintigraphy was performed showing slight hypoperfusion in the frontal lobe and posterior cerebellar areas. It is noteworthy that the patient did not tolerate lithium carbonate due to severe extremity tremors. Therefore, valproate was initiated and gradually increased up to 1000 mg/day. She developed lockjaw three days after.

Trismus is defined as a tonic contraction of the muscles of mastication with mouth opening of ≤ 35 mm. It can result in difficulty in activities such as biting, chewing, swallowing and speaking and may further lead to poor oral hygiene, pain and weight loss. Some of the causal factors implicated in this condition are tumors, infections, surgery and radiotherapy complications, and drugs side effect. There are case reports of trismus induced by succinylcholine and duloxetine, but none regarding this side effect with valproate. A recent systematic review of the untoward effects of valproate showed that drug-induced parkinsonism is a relatively common side effect in elderly women. It’s known that valproate can safely be used in patients with thyroid and parathyroid dysfunction, once it does not interfere on these hormone levels. The mechanism of how valproate can induce trismus is unclear. A preclinical study found that low concentrations of valproate can induce muscle contractions, which were abolished by indomethacin. Therefore, prostanoids may be implicated in the contractile effect of valproate.

In summary, the present study was the first to show a valproate-induced trismus. This case report demonstrates that clinicians need to be vigilant for potential side effects after the beginning of a treatment with a psychoactive drug even when they are not reported in the scientific literature.

References

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