

LETTER TO THE EDITOR

Inositol supplementation in patients taking lithium or valproic acid: strengthening the multidisciplinary approach

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Dear Editor,

I've read with great interest the review recently published by Kamenov et al¹ about the importance of inositol supplementation in recovering side effects induced by mood stabilizers and anticonvulsant drugs. The authors gathered scientific publications, demonstrating the efficacy of inositol supplementation in counteracting the side effects of lithium or valproic acid, focusing on the importance of a multidisciplinary approach.

Although pharmacological therapies, such as lithium and valproic acid, succeed to stabilize mood in patients with bipolar disorder (BD), they may induce severe side effects, worsening quality of life and compliance². Patients feel like hanging in a critical balance between the positive effects of the pharmacological therapies and the difficulties of the adverse effects, including weight gain, polyuria/polydipsia, cardiac and thyroid alterations, psoriatic plaques, and polycystic ovary syndrome^{3,4}. Recent works pointed out that all these adverse conditions share the depletion of inositol in the related peripheral tissue⁴. Indeed, both lithium and valproic acid include the depletion of inositol in the central nervous system (CNS) among their mechanisms of action, but they also influence inositol levels in peripheral tissues. This latter – inositol – represents a family of molecules, among which myo-inositol and D-chiro-inositol are the two main ones, with positive effects on metabolic, endocrine and reproductive aspects⁵.

In their clinical practice psychiatrists are starting to consider the complexity of patients with BD under lithium or valproic acid, considering side effects and the related low compliance and poorer prognosis⁶. In this

perspective, the review by Kamenov et al¹ brings the attention to scientific evidence clearly demonstrating that inositol supplementation may improve such side effects without reducing the therapeutic activity on mood^{7,8}. However, using a controlled dosage of inositol in patients under lithium or valproic acid without interfering with the mechanism of the drugs, is a crucial aspect to bear in mind^{7,8}. In this regard, a subsequently published clinical study by Cantelmi et al⁹, bridged this missing piece strengthening the evidence reported by Kamenov and colleagues. In such a pilot study, they demonstrated the safety and the beneficial effects of 4 grams per day of inositol in patients with BD, using myo- and D-chiro-inositol in the combined 80:1 ratio, respectively. All patients with borderline blood values of thyroid and metabolic markers, exhibited improved levels after 6 months of the inositol supplementation, without interfering with mood and drugs' effectiveness. The novelty of this approach is that for the first time psychiatrists dispose of a useful and safe tool for counteracting side effects in patients taking lithium or valproic acid without the risk of dampening the central therapeutic action. So far, they only considered side effects as a consequence of the therapy, testing new dosages and drug combinations without any significant results. To this end, the review by Kamenov et al¹, along with the following study by Cantelmi and colleagues⁹, stimulates a new perspective in psychiatric clinical practice aiming to focus on the importance of a multidisciplinary approach in such patients.

Conflicts of Interest. The author declare that she has no conflicts of interest or competing financial interests.

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