

Abstract

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Effect of zinc supplementation on antidepressant therapy in unipolar depression: a preliminary placebo-controlled study.

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BACKGROUND: A growing body of evidence implicates a derangement of zinc homeostasis in mood disorders. In general, unipolar depression is connected with low blood zinc levels that are increased by effective antidepressant therapy.

METHODS: A placebo-controlled, double blind pilot study of zinc supplementation in antidepressant therapy was conducted in patients who fulfilled DSM IV criteria for major (unipolar) depression. Patients received zinc supplementation (6 patients; 25 mg of Zn²⁺ once daily) or placebo (8 patients) and were treated with standard antidepressant therapy (tricyclic antidepressants, selective serotonin reuptake inhibitors). Hamilton Depression Rating Scale (HDRS) and Beck Depression Inventory (BDI) were used to assess efficacy of antidepressant therapy, and patients' status was evaluated before the treatment and 2, 6 and 12 weeks after its commencement.

RESULTS: Antidepressant treatment significantly reduced HDRS scores by the 2nd week of treatment in both groups, and lowered BDI scores at the 6th week in zinc-treated group. Zinc supplementation significantly reduced scores in both measures after 6- and 12-week supplementation when compared with placebo treatment.

CONCLUSION: This preliminary study is the first demonstration of the benefit of zinc supplementation in antidepressant therapy. The mechanism(s) may be related to modulation of glutamatergic or immune systems by zinc ion.

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