

## Combination of Lamotrigine and Duloxetine: A Potential Approach for the Treatment of Acute Bipolar Depression

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**Abstract :** Lamotrigine is approved for maintenance treatment of bipolar I disorder. However, its role in the treatment of acute bipolar depression is not well clear. Its efficacy in the treatment of major depressive disorders including refractory unipolar depression suggested the use of lamotrigine as an augmentation drug for acute bipolar depression. The present study aims to evaluate and perform a comparative analysis of the therapeutic effects of lamotrigine, an epileptic mood stabilizer, when used alone and in combination with duloxetine in treating acute bipolar depression at different doses of lamotrigine. Male swiss albino mice were used. For evaluation of efficacy of combination, immobility period was analyzed 30 min after the treatment from forced swim and tail suspension tests. Further amount of sucrose consumed in sucrose preference test was estimated. The combination of duloxetine and lamotrigine showed potentiation of antidepressant activity in acute models. Decrease in immobility time and increase in the amount of sucrose consumption in stressed mice were higher in combined group compared to lamotrigine monotherapy group. Brain monoamine levels were also attenuated more with combination compared to monotherapy. Results of the present study suggest potential role of lamotrigine and duloxetine combination in the treatment of acute bipolar depression.

**Keywords :** lamotrigine, duloxetine, acute bipolar depression, augmentation

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