SHORT COMMUNICATION

EFFECT OF IMIPRAMINE TREATMENT ON PLASMA DOPAMINE BETA-HYDROXYLASE ACTIVITY IN CHRONIC MILD STRESS IN RATS

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Dopamine β-hydroxylase (DBH) which catalyzes conversion of dopamine into noradrenaline, may be a good blood marker of unipolar depression. Therefore, we studied the effect of classic antidepressant drug imipramine (10 mg/kg ip) on activity of this enzyme in plasma of rats subjected to chronic mild stress (CMS), the model of anhedonia. CMS induced reductions in DBH activity by the second day and 5th week of stress duration. Imipramine treatment minimized these CMS-induced reductions. The data indicate that, similarly to human depression, CMS also affects DBH activity, and, moreover, the CMS-induced alterations are normalized by imipramine treatment.

Key words: DBH, plasma, CMS, imipramine

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