SHORT COMMUNICATION

EFFECT OF MPEP, A SELECTIVE mGluR5 ANTAGONIST, ON THE ANTIELECTROSHOCK ACTIVITY OF CONVENTIONAL ANTIEPILEPTIC DRUGS

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MPEP, a selective non-competitive antagonist of group I metabotropic glutamate receptor subtype 5 (mGluR5), administered at doses ranging from 0.75 to 1 mg/kg, failed to influence the electroconvulsive threshold in mice. However, when administered at higher doses (1.25 and 1.5 mg/kg), it significantly increased the threshold. Moreover, MPEP (applied at its highest sub-protective dose of 1 mg/kg) did not affect the protective action of valproate, carbamazepine, diphenylhydantoin and phenobarbital against maximal electroshock-induced seizures in mice. The presented results indicate that mGluR5 antagonists should not be considered as good candidates for add-on therapy of generalized seizures.

Key words: MPEP, metabotropic glutamate receptors, conventional antiepileptic drugs, maximal electroshock

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