Lack of the antianxiety-like effect of (S)-3,4-DCPG, an mGlu8 receptor agonist, after central administration in rats

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Abstract:
Substances acting as agonists of group III mGlu receptors were shown to induce an antianxiety-like effect after intrahippocampal administration to rats. The purpose of the present study was to establish whether the selective mGlu8 receptor agonist (S)-3,4-dicarboxyphenylglycine ((S)-3,4-DCPG) induced an anxiolytic-like effect after injection into the basolateral amygdala nuclei or the CA1 region of the hippocampus in the conflict drinking Vogel test in rats. The obtained results indicate that (S)-3,4-DCPG (10, 50 and 100 nmol/rat) produces no anticonflict effect in rats. We conclude that selective stimulation of mGlu8 receptors (a subtype of group III mGluRs) does not evoke anxiolytic-like activity, and that the mGlu8 receptors are of no significance for anxiolytic-like effects of group III mGluR agonists.

Key words:
anxiety, conflict drinking test, mGlu8 receptor, (S)-3,4-DCPG, hippocampus, amygdala