

Poster presentation

The effects of cannabinergic agents in the central amygdala of rats in the elevated plus-maze test of anxiety

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Background

Reports indicate that cannabinergic agents can change anxiety-related behaviours in both animals and humans. The amygdala is an important brain site in the modulation of fear or anxiety.

Materials and methods

In the present study, we investigated the effects of intracental amygdala microinjection of cannabinergic agents on anxiety-related behaviours in rats, using the elevated plus-maze test of anxiety. Intracental amygdala administration of ACPA a cannabinergic potent agonist (0.125, 1.25, 5 ng/0.5 µl bilateral) increased %open arm time and % open arm entries, but not locomotor activity, showing an anxiolytic response. Intracental amygdala microinjection of AM251 a potent CB1 antagonist (2.5, 25, 100 ng/0.5 µl bilateral) did not change anxiety-related parameters in our experiments.

Results

The results suggest that cannabinergic agonists may reduce anxiety via CB1 receptors in the rat central amygdala.

Conclusions

Because that CB1 antagonist didn't show any effect on anxiety we think that CB1 isn't the main receptor in central amygdala.