

GALANIN N-TERMINAL FRAGMENT (1-15) INDUCES AN ANXIETY- AND DEPRESSIVE-LIKE BEHAVIOURS IN THE LIGHT/DARK AND TAIL SUSPENSION TESTS.

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Galanin N-terminal fragment (1-15) [Gal(1-15)] is involved in mood regulation. We have shown that intracerebroventricular (icv) administration of Gal(1-15) produces a depressive-like behaviour in the forced swim test (FST) and an anxiety-like behaviour in the open field test (OF) in rats. In this work we analyze the effect of Gal(1-15) in two more behavioural tests, the tail suspension test (TLT) and the light/dark test.

In light/dark test we studied during 5 min the latency time for entering the dark box, time spent in the light compartment, and the latency time for re-entering the light box as parameters indicators of anxiety-like behaviour. In TLT total immobility time was analyzed during 6 min test as parameter indicator of depressive-like behaviour.

Groups of rats (n=5-8) were injected icv with Gal(1-15) 3nmol, a dose effective in FST and OF, or artificial cerebrospinal fluid 15 minutes before the test. Behavioural assessment were conducted with at least one week between tests. Student's *t*-test was used for comparison between experimental groups.

In the light/dark test Gal(1-15) 3nmol significantly reduced the time spent in the light compartment by 52% ($p<0.05$) and the latency time for entering the dark box by 65% ($p<0.05$). An increased in the latency time for re-entering the light box was also observed ($p<0.05$). This pattern of results reflects an anxiogenic-like effects of Gal(1-15) in this test.

In the TST, the administration of Gal(1-15) 3nmol significantly increased rat immobility by 16% ($p<0.05$) indicating a depressive-like effect.

These results confirm the depressive- and anxiety-like effects of Gal(1-15) in rats. Future therapeutic strategies based on these results could be developed for depression and anxiety disorders.

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