

Comparison of the antidepressant sertraline on differential depression-like behaviors elicited by restraint stress and repeated corticosterone administration

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Depressive disorder involves emotional, cognitive, autonomic and endocrine alterations and also evidences support the role of stress in the development of this disorder. Because the hypothalamic-pituitary-adrenal axis is involved in the stress response with a concomitant rise in plasma corticoids, the present study compares the antidepressant effects of sertraline (10 mg/kg, i.p.) on behavioral changes elicited by (i) restraint stress (2.5. h/day for 13. days) and (ii) corticosterone injections (30. mg/kg, s.c., for 13. days). Stressed animals, but not corticosterone-treated animals displayed anxiety behavior and a reduction in the acquisition of a conditioned avoidance response to 25% of control levels (8.0 ± 2.2 vs. 31.7 ± 3.2), being this effect partly sensitive to sertraline. Stressed, but not corticosterone-treated, animals displayed an increased escape failure compared with the control group ($24.6\% \pm 3.5$ vs. 1.6 ± 0.7), an effect partly prevented by sertraline treatment ($7.3\% \pm 2$