

Study of the behavioral effects of bilateral nucleus accumbens lesions on amphetamin and apomorphine in adult cats

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The aim of the present work was to study the effects of three different types of bilateral lesions performed on the nucleus accumbens, upon the behaviors elicited in adult cats by parenteral administration of amphetamine and apomorphine, and to obtain an understanding of the functional role played by the cited structure. To this end, 10 cats received bilateral injections of 6-OHDA, 18 µg in each accumbens; 8 cats received a similar treatment with ibotenic acid (20 µg), and 11 cats were submitted to bilateral electrolytic damage. Before and after performing these lesions, in separate sessions, amphetamine (2.5 mg/kg SC) and apomorphine (2.0 mg/kg SC) were administered and their respective behaviors were compared. Besides, in a group of 10 cats, 6 of them were bilaterally injected with the above cited dose of 6-OHDA into the accumbens to determine dopamine concentration and the other four served as control. In three cats, ibotenic acid (20 µg) was unilaterally injected into the accumbens