Poster Presentation P7

EFFECTS OF ALLOPREGNANOLONE ON OBJECT AND SPATIAL LEARNING

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Allopregnanolone (Allo) is a neurosteroid metabolite of progesterone. Allo modulates cognition, specifically learning and memory, but these effects are frequently confounded by its anxiolytic properties. We attempted to dissociate the anxiolytic effects of Allo from its mnemonic effects using a subthreshold pharmacological challenge with the stimulant d-amphetamine. We assessed both spatial and nonspatial memory. Spatial memory was tested in a Morris Water Maze, and nonspatial object memory was tested on a novel discrimination task. Allo, alone or in combination with d-amphetamine did not have any significant effects on spatial memory. Both Allo and amphetamine impaired novel object performance, but the combination of the two enhanced performance. The results suggest that, depending on the cognitive domain being tested, the sedative effects of Allo can be dissociated from mnemonic effects.