



Stress and period neonatal and use of Valproic Acid in Animal model

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ABSTRACT

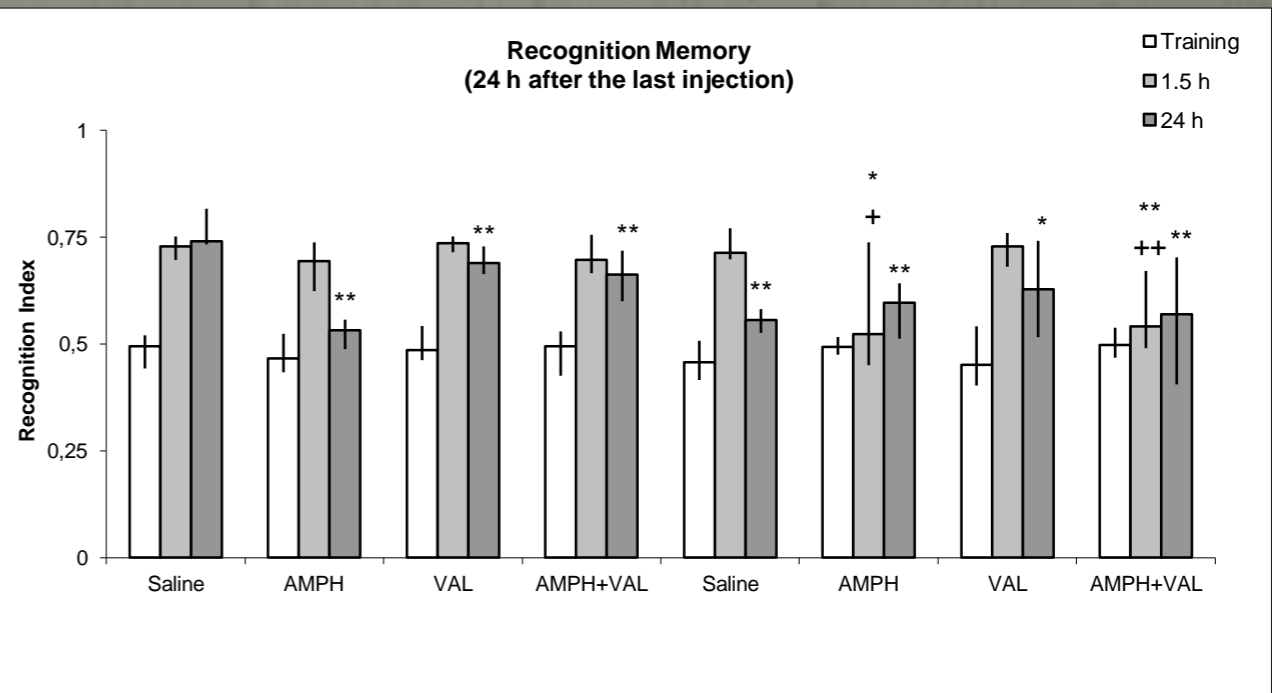
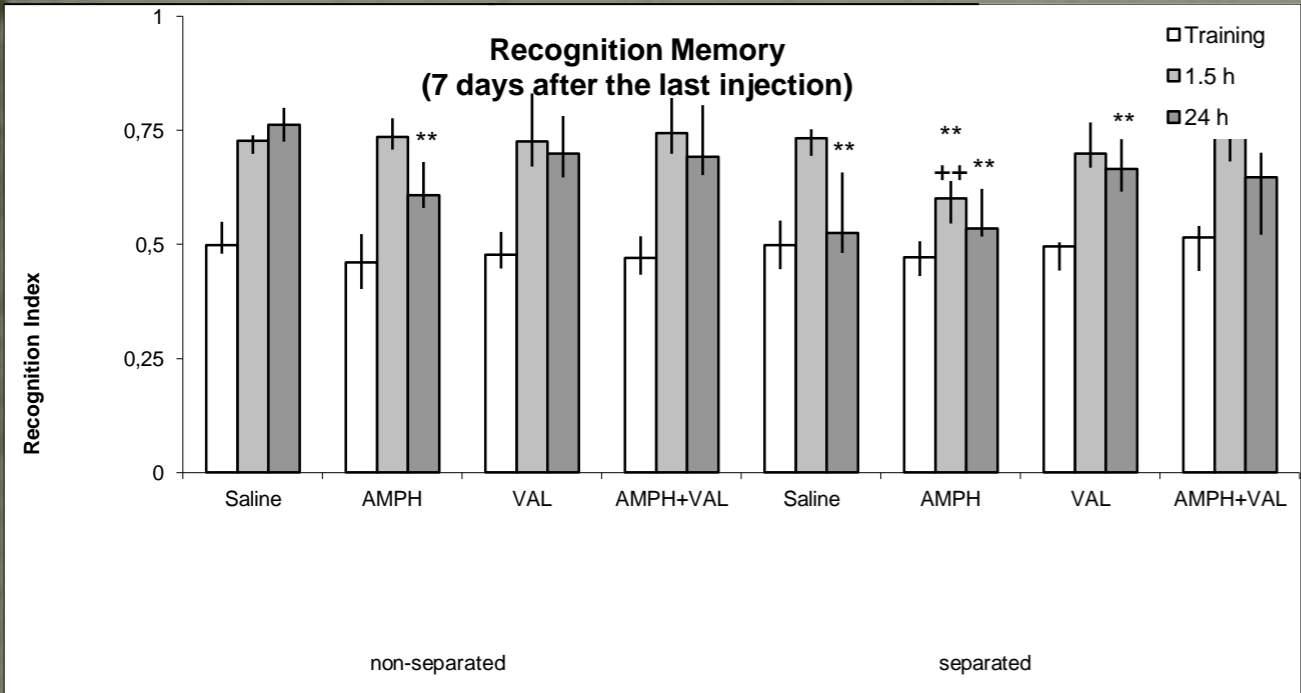
Background: Along the history man tries to understand the mechanisms involved on development of mental disorders. We studied the role of Valproic Acid (VA) in prevention of cognitive impairments in Wistar rats submitted to neonatal stress and treatment with amphetamine (Amph) in adult life.

Methods: Only male animals were choosed to prevent bias with hormonal alterations in females. In the adulthood, were treated with Amph (2mg/kg/day) and VA (400mg/kg/day). The groups were sub-divided in 8 sub-groups each one with 10-13 animals. The groups received: saline (control), Amph + saline, Amph + VA and VA + saline, for 7 days. After 2h was performed the novel object recognition test (NORT), after 24h was performed the open field test and NORT was re-applied after 7 days.

Results: The data were positive for neuronal protection effect of VA. It had been an improvement in animals Amph+ VA when compared with Amph only. VA also showed protection effect in stressed animals when compared with non-stressed.

Conclusions: Ours results supports previous studies strenghthening the role of mood stabilizers such as VA in the neuroprotection mechanism of mood disorders like bipolar disorder.

Keywords: Valproic Acid, D-amphetamine, brain-derived neurotrophic factor, bipolar disorder, recognition memory, animal model of mania.



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