

Ganaxolone is a new potential antiepileptic drug, synthetic analog of allopregnanolone which is a metabolite of progesterone. Preclinical and clinical studies point out its anticonvulsive effect in the treatment of both partial and generalized seizures including refractory epilepsy. The aim of our research was to investigate changes in the motor performance of the immature rats after administration of ganaxolone. We also focused on the relation between motoric impairment and the age of the rats which correlates with the age of children. 90 immature rats of age 12, 18 and 25 days were tested. Rats were divided in three groups injected with doses of 20 mgGNX/kg or 40 mgGNX/kg and the control group. The tests for assessing motor performance were chosen with respect to the maturation of sensorimotor reflexes from the following battery of tests: righting test, bar holding test, wire mesh test, negative geotaxis test and open field test. There were no significant differences before and after injection of the drug and in comparison with the control group not even in comparison of classes of age. We have demonstrated that the dose of ganaxolone effective against epileptic seizures does not markedly affect the motoric performance of the immature rats.