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UNIVERSITI SAINS MALAYSIA GERAN PENYELIDIKAN UNIVERSITI PENYELIDIKAN LAPORAN AKHIR

THE ROLE OF OXIDATIVE STRESS AND N-METHYL-D-ASPARTATE RECEPTORS IN THE MECHANISM OF PAIN MADULATION IN THE OFFSPRING EXPOSED TO PRENATAL STRESS

PENYELIDIK

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PROFIL PENYELIDIKAN



Placement of rats in the corresponding cage according to the groups



A pregnant dam in the restrainer



A rat was given formalin injection

TITLE OF RESEARCH:

The role of oxidative stress and N-methyl-D-aspartate receptors in the mechanism of pain modulation in the offspring exposed to prenatal stress

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ABSTRACT (120 words)

An experimental study using thirty-nine pregnant rats was conducted and they were randomized into three different groups; control, stress group and stress group treated with antioxidant. The two stress groups were given restraint stress. Antioxidant or distilled water was given to each of the pregnant dams. The adult off spring were sacrificed following tonic pain stimulation and their brain and spinal cord were removed for investigation. The results from the present study have shown that the increased nociceptive behavior in the prenatally stressed rat offspring was associated with abnormality in the morphology, level of NMDA receptors and oxidative stress parameters in the thalamus and spinal cord and the changes were reduced with administration of antioxidant to the pregnant dams.