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Poster Presentation

A New Approach for a Rodent Model of Post-Traumatic Stress Disorder (PTSD)

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Abstract

introduction:One of the most important chalenges in studing the anxiety disorders like PTSD is ethical limits in order to make the animal anxious. Sometimes this anxiety should last for a long time such as rodent models of PTSD, and this needs aggressive proceses on rats.We found a new approach for a rodent model of PTSD, wich seems to be more efficient and ethical. Materials and Methouds: 36 adult male Wistar rats weighing 200±20 were divided into two groups of experimental and control. The experimental group were exposed to a male adult cat for 5 minutes, one by one. The cat was kept hungry for 14 hours and the rat`s cage was smeared up with cat`s food. the control group have not been exposed to the cat. After 7 days, the EPM and the Open-field test was performed and the blood samples were sent to laboratory for corticosteroid tests. Results: The results of the EPM test in conjunction of the open-field test showed that the anxiety in the experimental group was significantly higher than the control group. The cortisol level was also significantly higher in the experimental group. Conclusion: In this study we showed that long-lasting manifes tations of PTSD such as increased anxiety and higher cortisol can persist by only a single 5 minuetes cat exposure, which is a significantly shorter time in comparison to the previous methods.

Keywords: Post-Traumatic Stress Disorder, Anxiety, Cortisol level, Rodent Model

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