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CHANGES OF GLUCOCORTICOID RECEPTORS IN NUCLEUS RAPHES MAGNUS NEURONS OF PTSD-LIKE RATS

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Objective: To observe the changes of glucocorticoid receptors (GR) in the nucleus raphes magnus (NRM) neurons of PTSD-like rats.

Methods: 25 male Wistar rats were randomly divided into PTSD model 1d, 4d, 7d, 14d groups and a normal group with 5 rats in each group. Rats in model groups were treated with SPS procedure to reproduce PTSD model. The changes of expression of GR in NRM of rats were detected by immunohistochemistry and PCR in each group, and image analysis and statistical analysis were performed in each group.

Results: GR was distributed in the nucleus of neurons. The expression of GR was sharply decreased on 1d, but gradually increased on 4d and 7d, then decreased on 14d. All of 4d, 7d, 14d are higher than the normal ($P < 0.05$).

Conclusion: The lasting dysfunction of GR in the nucleus raphes magnus (NRM) may play an important role in post-traumatic stress disorder rats.