P03-221

SOMATOSENSORY CORTICES ARE REQUIRED FOR THE ACQUISITION BUT NOT RETENTION OF MORPHINE-INDUCED CONDITIONED PLACE PREFERENCE

Z. Meng, C. Liu, X. Hu, Y. Ma

Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, China

Background: Sensory system information is thought to play an important role in drug addiction related responses. However, how somatic sensory information participates in the drug related behaviors is still unclear. Many studies demonstrated that drug addiction represents a pathological usurpation of neural mechanisms of learning and memory that normally relate to the pursuit of rewards. Thus, elucidate the role of somatic sensory in drug related learning and memory is of particular importance to understand the neurobiological mechanisms of drug addiction.

Principle findings: In the present study, we investigated the role of somatosensory system in reward-related associative learning using the conditioned place preference model. Lesions were made in somatosensory cortices either before or after conditioning training. We found that lesion of somatosensory cortices before, rather than after morphine conditioning impaired the acquisition of place preference.

Conclusion: These results demonstrate that somatosensory cortices are necessary for the acquisition but not retention of morphine induced place preference.

https://doi.org/10.1016/S0924-9338(10)71275-X Published online by Cambridge University Press