

state fMRI (3T). All participants were males. Functional connectivity between 32 regions of interest (components of default mode, sensorimotor, visual, salience, dorsal attention, frontoparietal, language, and cerebellar networks; CONN functional network atlas www.nitrc.org/projects/conn) and whole-brain local coherence (LCOR; Deshpande et al. HBM 2009; 30(1) 13-23) were compared between 3 groups of participants (one-way ANCOVA) with *post hoc* analyses.

Results: CHR and HC demonstrated higher functional connectivity between the occipital cortex (visual network) and right rostral prefrontal cortex (salience network) compared to FEP. CHR also showed higher local coherence in the right calcarine and cuneal cortex than FEP (the following differences did not survive the correction for multiple comparisons: CHR>HC and HC>FEP).

Conclusions: Our findings on brain functional connectivity and local coherence may be considered as the markers of resilience mechanisms in patients with CHR as these parameters were different between CHR and FEP and were similar in CHR and HC.

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Disclosure of Interest: None Declared

EPP1003

Effects of intrahippocampal nmda on re-extinction of an aversive emotional memory task in rats

E. P. Ruiz Gonzalez^{1*}, D. M. Gómez Ordoñez¹, L. F. Cárdenas² and M. N. Muñoz Argel¹

¹Universidad Pontificia Bolivariana, Montería and ²Universidad de los Andes, Bogotá, Colombia

*Corresponding author.

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Introduction: N-Methyl-D-aspartate (NMDA) receptors are involved in learning and memory. It is known that ventral hippocampus is a crucial structure involved in emotional memory formation mainly for fear and anxiety situations. The aim of this research is to identify the effect of the stimulation of ventral hippocampal NMDA receptors on the reextinction of an aversive emotional memory task. NMDA (0.2 µg/µl; 0.2 µl) or saline (0.9 %; 0.2 µl) was bilateral and locally administered in the ventral hippocampus of male Wistar rats, before the re-instatement trial.

The experimental group consisted of 10 animals and the control group by 9 subjects. The results suggest that the activation of ventral hippocampal NMDA receptors induces an increase in the time needed to re-extinguish the conditioned fear, suggesting a possible potentiating effect on re-installation.

Objectives: To evaluate the effect of NMDA at the intrahippocampal level, on the reinstatement and re extinction of a conditioned fear response in male Wistar rats.

Methods: This study is experimental, where two groups of adult male Wistar rats were used. The bilateral cannulas was implanted, the animals were injected intraperitoneally with a mixture of ketamine (Rotexmedica) and xylacin (Bayer; 75 mg/Kg and 5 mg/Kg), respectively, then the animals were placed in a stereotaxic apparatus (Narishige) and injected with veterinary antibiotic. The (21G) cali-

ber cannulas were bilaterally implanted in HPv at the following coordinates: AP = -5.2 mm relative to Bregma; ML = ± 5 mm in relation to the midline and DV = 5.1 mm in relation to the skull and according to the atlas (Paxinos & Watson, 1985).

Results: It was observed that in the first phase of extinction there were no statistically significant differences between the two groups, experimental and control, as in the second phase of extinction. The results obtained for the re-extinction phase 1 and 2 showed that there were significant statistical differences between the groups. This difference was only evident in the first three minutes in the two phases of re-extinction.

Image 2:

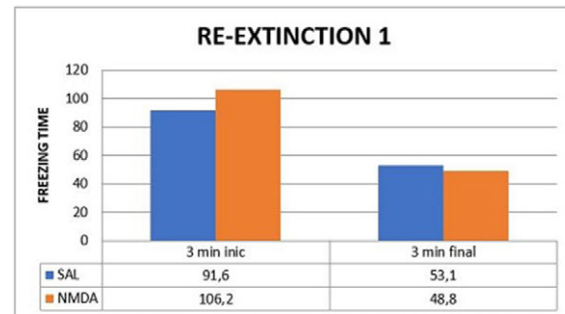


Figure 1: Freezing times achieved by subjects in both the first three minutes (1-4 min) and the final three minutes (23-25 min).

Image 3:

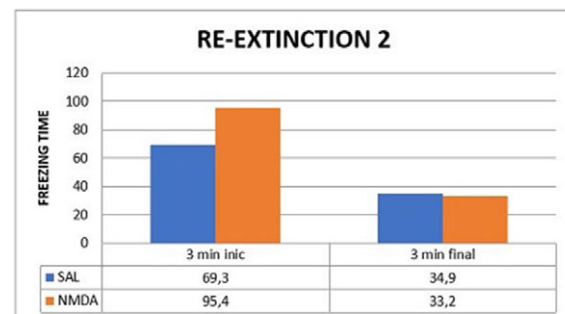


Figure 2: Freezing times achieved by the subjects both in the first three minutes (1-4 min) and in the final three minutes (23 -25 min).

Conclusions: Statistically significant differences were observed between the two groups, in the phases of re-extinction, seeing a longer time of the freezing response in the experimental group, as an effect of the application of NMDA in the ventral hippocampus (HPv), which suggests that this substance has a memory-enhancing effect, and therefore contributes to increasing the permanence of the fear response. It should be noted that this difference was only evident in the first three minutes in the two re-extinction phases. These results may be related to other studies where it has been shown that LTP is dependent on the N-methyl-D-aspartate receptor in the CA1 region *in vivo* (Zhong, Cherry, Bies, Florence, & Gerges, 2009)

Disclosure of Interest: None Declared