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&6th International Conference on **Vascular Dementia** February 27-March 01, 2017**Effect of chronic administration of cadmium on affective disorders****M Lamtai, J Chaibat, A Mesfioui, A El Hessni and A Ouichou**
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Cadmium is a toxic transition metal central to many environmental concerns. The poisoning Cd damages various human and animal tissues. The main objective of this work was to study the effect of chronic administration of different doses of cadmium by intraperitoneal injection on the level of depression and anxiety in male and female rats after two months. To perform this study, 20 Wistar rats of each sex formed four groups. Group 1: control receives the saline solution NaCl (0.9%); group 2: dose 1 receives 0.25 mg/kg Cd; group 3: dose 2 receives 0.5 mg/kg Cd and; group 4: dose3 receives 1 mg/kg Cd. For measuring the depression level, the duration of immobility (TIM) and travel time (TDT) of the rats in the test forced swim (FST) were measured after two month injection. The measurement of anxiety level is based on the exposure of animals to test Openfield (OFT) and the test in an elevated plus maze (EPM). The effects of different doses of Cd were compared in both sexes. The results of this study revealed that: In males, the chronic administration of three doses of Cd increased significantly the period of immobility and reduced the travel time compared to the control group, whereas in females just dose 3 (1 mg/Kg) could induce depression. In both tests of anxiety (OFT and EPM) a significant effect between groups was observed, compared to the control group; the CdCl₂ at 0.25 mg/kg, 0.5 mg/kg and 1 mg/kg induce a significant effect anxiety both in males than in females. These data showed that Cd increases the level of depression and anxiety in both sexes. Although preliminary, these results open up an interesting research to study the mechanisms of action of this metal.

Biography

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