TREATMENT WITH LEAD (Pb) DECREASES THE LOCOMOTORY ACTIVITY, THE SURVIVAL AND ALSO INDUCES OXIDATIVE DISORDERS IN Drosophila melanogaster: PRELIMINARY DATA

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Lead (Pb) is a toxic metal relatively abundant in the Earth’s crust, being widely used in industry. Of particular importance, it is known that lead contamination can affect the development of the central nervous system and may cause attention deficit, loss of memory, psychomotor and interpersonal disorders among others. However, in spite of Pb to be recognized as a toxic agent, the mechanisms by which it exerts toxicity remains to be better clarified. So, the goal of this study was to get a better understanding of the mechanism (s) by which the Pb exerts toxicity, by using *Drosophila melanogaster* as a model. *Drosophila melanogaster* with 2 days were used in this study. Accordingly, 20, 30 flies were exposed to Pb (3 mM, 5 mM or 7.5 mM) during by 7 days. During the treatment period the negative geotaxis tests was carried out. Additionally, survival was monitored each 24 hs. At the end of the experimental period, flies were used to evaluate the effect of Pb on the oxidative stress parameters. Data were analyzed by Kruskali- Wallis test followed by the post-test of Dunn, when appropriate. A value of p<0.05 was considered significant. Pb was found to cause a significant increase in the mortality of exposed flies, at the all studied concentrations. Pb also caused a significant locomotor deficit in exposed flies. Finally, Pb was achieved to cause lipid peroxidation in treated flies. Together our data suggest that the Pb could induce oxidative stress changes in exposed flies, which could be associated to locomotors impairment. Additionally, although preliminary, these data supports the use of Drosophila melanogaster as a model to study the neurotoxicity associated to Pb. However, further studies are needed for a better understanding of the mechanism (s) involved in the (neuro) toxicity of Pb.