

EFFECTS OF EXPOSURE CARBOFURAN INSECTISIDE ON WEIGHT AND LENGTH OF FETAL MICES (*Mus Musculus*)

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ABSTRACT

This study aims to know the reduction of fetus weight and length of the mice parent which is exposed by the carbofuran during embryonal period. Treatment started between the 6th to 15th days of gestation which was started when it seems the vagina plug. There are three treatment groups that composed of 21 pregnant mices which were obtained from the mating of 21 nulliparous female mices of 10 weeks old, with 21 male mices of 12 weeks old, which were previously performed the estrous cycle synchronization using PMSG and HCG hormone in nulliparous female mice. It has been treated of carbofuran gavagely with control doses, 0,0417, and 0,0208 mg/kg body weight of mices. Pregnant mices were anaesthetized and carried the weight and length measurements of fetus mices at day 17th. The analysis was done through the Analysis of Variances (ANOVA) which was followed by multiple comparison tests (Duncan's test). The results showed that the dose group which was treated with carbofuran 0,0417 mg/kg (P1) and 0,0208 mg/kg (P2) provides a real significant difference to the control treatment (P0) ($p < 0.05$), however, between the group which was treated with doses of carbofuran 0,0417 mg/kg (P1) with 0,0208 mg/kg (P2) provides no real significant difference. In conclusion, it was caused by increase of the reactive oxygen species (ROS) and decreased levels of kholinesterase (ChE).

Keywords: Carbofuran, embryonal, weight and length, fetal of mices, ROS, ChE.