EFFECT OF *HEMATOPOIETIC STEM CELLS* INTO CHANGES OF PREGNANT MICE (*Mus musculus*) FETUS SIZE AND WEIGHT THAT INTOXICATED WITH HEAVY METAL LEAD (PB)

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ABSTRACT

The aim of this research was to found the effect of hematopoietic stem cells into changes of fetus body size and weight that intoxicated with lead (Pb) and the correlation between the treatment of transplantation hematopoietic stem cells, intoxication with lead (Pb) and changes of mice (*Mus musculus*) fetus size and weight as parameters. Twenty mice divided into 5 groups of 4 mice each served as subject for this study. Mice group 1(P0) as a control was given 1 ml aquades/day, and group 2 (P1) were exposed to lead at a dose of 54,425 mg/kg BW, mice group 3 (P2) were exposed to lead at a dose of 40,818 mg/kg BW, other group were exposed to lead with hematopoietic stem cells group 4 (P3) at a dose of 54,425 mg/kg BW + $1x10^5$cells/mL and group 5 (P4) at a dose 40,818 mg/kg BB. All pregnant female were dosed between gestation day 6th-till 15th. Twenty mice were sacrificed at gestation day 17th. Their fetus was taken to measuring crown to rump length and body weight of fetus. The data were analyzed by *ANOVA* method based on *Completely Randomized Design,* and further analyzed by *Duncan's Multiple Range Test*. The result from statistical analysis showed that treatment with hematopoietic stem cells increased fetus size and weight of pregnant mice ($p<0.05$). Other group showed a significant decrease in body size and weight in fetus exposed to lead acetate compared to control. Group that exposed to lead with hematopoietic stem cells showed increased fetus size and weight of pregnant mice at lower dose of lead acetate 40,818 mg/kg BB.

Keyword: Hematopoietic stem cells, lead, size, weight, fetus