

ABSTRACT

THE INFLUENCE OF MICROWAVE OVEN RADIATION TO BODY WEIGHT AND BODY LENGHT OF FETAL MICE (*Mus musculus* L.)

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The use of microwave ovens has increased from year to year not only in developed countries also developing countries. Microwave oven is an oven that use the help of microwave to cook food. Microwave exposure may cause teratogen effects on fetal mice itself. This research was purposed to determine the microwave oven radiation effects on body weight and body length of fetal mice (*Mus musculus* L.)

This research is a experiment design research which used 20 pregnant mice with that were not given the exposure and 2450 MHz microwave oven exposure treatment per day of 15 minutes, 30 minutes, as well as 45 minutes for 18 days gestation.

From the study was obtained data for body weight were control 0.73 ± 0.12 ; 15 minutes 0.71 ± 0.11 ; 30 minutes 0.62 ± 0.13 , as well as 45 minutes 0.56 ± 0.13 , while for body length was 29.13 ± 3.79 control; 15 minutes 28.90 ± 4.19 ; 30 minutes 27.33 ± 1.55 , as well as 45 minutes 26.63 ± 2.90 . Kruskal-Wallis test results obtained $p < 0.05$ that is $p = 0.000$. This means that there is a significant difference in at least two treatment groups. It can be concluded that there is a microwave oven radiation effects on body weight and body length of fetal mice (*Mus musculus* L.) in the form of weight loss as much as 0.17 grams and a body length of 2.5 mm when compared with controls.

Key words: body weight, body length, fetal, *microwave oven*, radiation