

ABSTRACT

Dampak Paparan Asap Rokok Terhadap Perkembangan dan Pertumbuhan Fetus pada Hewan Coba Mencit (*Mus musculus*)

Background : Cigarette smoke contains several toxic components, such as carbon monoxide (CO), nicotine, tar, and lead (Pb) which cause disturbances in fetal growth and fetal development. The aim of this research was to investigate and observe the effect of cigarette smoke exposure in the fetal growth and fetal development of mice (*Mus musculus*).

Method : The research was an experimental research with *post test only control group design*. The sample of the research were 36 pregnant mice which were randomly divided into 2 groups : control group (K) pregnant mice which inhaled ambient air without cigarette smoke exposure, and intervention group (P) pregnant mice which were given cigarette smoke exposure for 14 days with 2 bars cigarettes each day.

Result : Result showed a significant difference in the fetal birth weight between the group exposed to cigarette smoke ($p < 0,05$) compared with the control group. Fetal defect and stillbirth were not found in this research.

Conclusion : The exposure of cigarette smoke gave negative effects of fetal growth and development because of the free radicals generated.

Keywords: Cigarette smoke, mice, fetal defect, stillbirth, fetal birth weight.