ABSTRACT

Background: *An increase of cigarette consumption impacts on the higher burden of disease and death in active smokers and passive smokers. Nicotine exposure in cigarette smoke can decrease levels of estrogen which cause a decrease in the number of endometrial glands. Vitamin C as a coenzyme and in certain circumstances is a reductor of antioxidants.* ***Method:*** *This research is true experimental towards 27 female mice (Mus musculus) aged 3-4 months with weight 21-30 grams and divided into 3 groups. The samples were selected by using probability sampling with simple random sampling type. Variables measured were giving vitamin C supplement and cigarette smoke exposure as independent variables and the number of endometrial glands of female mice (Mus musculus) as dependent variable. The difference test results used One Way Anova followed by Post Hoc Multiple Comparison analysis by using Tuckey test with significance level* $p < 0.005$. ***Result:*** *This research showed that the result of Tuckey test between the number of endometrial glands of female mice (Mus musculus) exposed to cigarette smoke without vitamin C and with vitamin C was not significantly different* ($p = 0.188$) *although it has an average difference of* $N = 13.4$ *without vitamin C and* $N = 16.3$ *with vitamin C.* ***Conclusion:*** *Vitamin C didn't show significant effect for increasing the amount of endometrial glands in female mice (Mus musculus) exposed to cigarette smoke, even though the tendency to rise was visible.*

Keywords: *Endometrial Glands, Vitamin C, Cigarette Smoke*