## *ABSTRACT*

***The influence of vitamin E supplementation towards the number of endometrial glands of female mice which exposed by cigarette smoke***

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*The exposure Cigarette smoke contains free radicals or reactive oxygen species (ROS) which lead to cells' damage. Antioxidant plays an important role to preventing free radical-mediated damage by directly scavenging them. Vitamin E is one of antioxidant that protect againts lipid peroxidation by breaking antioxidant chain-reaction.*

*Experimental design was post-test only control group design, female mice divided into 4 groups (n=9), control group 1 (non-cigarette smoke but with placebo steril water), control group 2 (non-cigarette smoke but with placebo corn oil),, treatment group I (exposed by cigarette smoke without vitamin E supplementation), treatment group II (exposed by cigarette smoke with vitamin E supplementation). The dependent variable measured in this study was the number of endometrial glands. Uterine removed when oestrous phase then 5-µm sections were prepared and stained with H&E. The data analyzed by using Oneway Anova Test and then using PostHoc Multiple Comparison Tuckey test.*

*On Oneway Anova analysis with significance level of 5%, overall resulted a significant differences between the experimental groups (P=0.000). Furthermore, the PostHoc Tuckey test was done to get the result of a significant difference between the control groups 1 and control groups 2 (P=0.004), between the control groups 2 and treatment groups II (P=0.005), between the treatment group I and control group 1 (P=0,000), between the treatment groupI and treatment group II (P=0.000). Furthermore, in the treatment group I, there was not found a significant differences between the control groups 2 (P=0.119) and insignificant differences between the control groups1 and in the treatment 2 groups (P=1,000).*

*The result show vitamin E increasing number of endometrial glands on mice which exposed by cigarette smoke.*


*Keyword: cigarette smoke, vitamin E, endometrial glands*