

## Abstrak

Effect of Intermediate Exercise on Blood Clotting Time  
in Rats (*Rattus Norvegicus*) with Smoke Exposure

Lalu Win Isvandiari

Based on many epidemiological studies conducted, determined that smoking is one of an important risk factor in atherosclerosis. Smoking can cause elevated levels of plasma homocysteine. This study aimed to determine the effect of moderate intensity exercise on blood clotting time in mice with cigarette smoke exposure. The design of this study control group posttest only design, the sample in this study were white rats (*Rattus norvegicus*) at sample number 30 individuals were divided into 3 groups at random, were treated for 2 weeks with details of group 0: as a control, group 1: given a treatment of smoke exposure cigarettes as much as 2 cigarettes / day for 2 weeks, group 2: secondhand smoke exposure of treated 2 cigarettes / day every day for 2 weeks and intermediate intensity exercise pool with a distance given daily for 2 weeks. Research results showed that the average clotting time of the longest animal is the treatment of cigarette smoke exposure and exercise (group 2) with a time of  $(4.87 \pm 0.48)$ , while mean blood clotting time is the shortest animal with cigarette smoke exposure treatment (group 1) with a time of  $(3.76 \pm 0.38)$ . analytical results of the post hoc analysis with one-way Anova between group 0 and group 1 showed significant results ( $p = 0.00$ ) where  $p < 0.05$ , there is a significant difference between the control (group 0) and the group with exposure to cigarette smoke (group 1). results of anova one way post hoc between group 1 and group 2 showed a significant ( $p = 0.00$ ), there were significant differences between group 1 and group 2, whereas between group 0 and group 2 showed results were not significant ( $p = 1.00$ ), there was no significant difference between group 0 and group 2. this suggests that exposure to cigarette smoke shortens blood clotting time, whereas the moderate-intensity exercise prevents shortening of The clotting time in mice.

*Keywords: exposure to secondhand smoke, intermediate-intensity exercise, blood clotting time*