

**THE EFFECT OF L-ARGININE TOWARDS THE HISTOLOGIC IMAGE OF
PRIMARY SPERMATOCYTE COUNT IN MICE (*Mus musculus*) AFTER
HIGH TEMPERATURE EXPOSED**

Dirga Januar Surya Utama

ABSTRACT

The purpose of this study was to know the effect of L-arginine on the histology of primary spermatocyte count in mice (*Mus musculus*) after high temperature exposed. The subjects of this study were 20 adult male mice, 8 weeks old with an body weight range from 20-40 grams. This research conducted by using Complete Randomized Design (RAL) with 4 treatments and 5 replications. The treatments consisted of, P0- = treatment with 1ml of aquabidest without high temperature exposed, P0 + = treatment with 1ml of aquabidest after high temperature exposed for 1hour per-day for 35 days, P1 = 1.3mg / day L-arginine dissolved in 1ml aquabidest and given orally after high temperature exposed for 1hour per-day for 35 days and P2 = 2.6mg / day L-arginine dissolved in 1ml aquabidest given orally after high temperature exposed for 1hour per-day for 35 days. Observations done by making histologic preparations of testicular organs and then calculated the total number of primary spermatocyte per treatment. The data of primary spermatocyte calculated and analyzed by using *Analysis of Variance* (ANOVA), followed by Duncan test. The result from data analysis showed that there was a significant difference ($p < 0.05$) between P1 and P2 with control, between P1 and P2 the analysis did not show any significant difference ($p > 0.05$).

Key words : *L-arginine, primary spermatocyte, Mus musculus*