

**EFFECTS OF ETHANOLIC EXTRACT OF BITTER MELON
(*Momordica charantia L.*) ON THE QUANTITY OF SPERMATOGENIC
CELLS IN MALE MICE (*Mus musculus*)**

Roselina Dwi Ariyanti Putri

ABSTRACT

This study was aimed at evaluating the effect of ethanolic extract of bitter melon (*Momordica charantia L.*) on the quantity of spermatogenic cells in male mice (*Mus musculus*). The method used to make the extract of bitter melon (*Momordica charantia L.*) in this study was maceration with ethanol. Twenty male mice (*Mus musculus*) were adapted for one week and divided into four groups using simple random sample system; P0 (negative control) was given solvent of CMC Na 0,5%, P1 was given 23 mg/kg body weight of ethanolic extract of bitter melon (*Momordica charantia L.*), P2 was given 35 mg/kg body weight of ethanolic extract of bitter melon (*Momordica charantia L.*), P3 was given 45,5 mg/kg body weight of ethanolic extract of bitter melon (*Momordica charantia L.*). The treatments were administered by oral gavage for forty consecutive days. The 41st day, mice (*Mus musculus*) terminated by euthanasia using chloroform. The quantity of spermatogenic cells were observed microscopically at 400x magnification. The data were analyzed by Analysis of Variance Test and continued by Duncan's Multiple Range Test. This research showed that the spermatogonia, primary spermatocyte, and spermatid had a statistically significant differences ($p < 0.05$) between groups that given ethanolic extract of bitter melon (*Momordica charantia L.*). The conclusion showed that ethanolic extract of bitter melon (*Momordica charantia L.*) could decrease the quantity of spermatogenic cells significantly.

Keyword: *Momordica charantia L.*, Ethanolic extract, Spermatogenic cells.