PROTECTIVE EFFECTS OF *Moringa oleifera* Lam LEAVES EXTRACT ON THE NUMBERS OF LEYDIG AND SERTOLI CELLS IN HIGH TEMPERATURE INDUCED MALE RAT (*Rattus novergicus*) TESTES

Azhar Hanafi

ABSTRACT

The aim of this study was to investigate the protective effect of *Moringa oleifera* Lam leaves ethanol extract on the number of Leydig and Sertoli cells in rat (*Rattus novergicus*) testes due to induced high temperature. Twenty five male rat were divided into five groups, five rat for each group and administered through intragastric gavage with differents treatments for 21 days. The treatment groups were C– (NaCMC 1% 1 ml), C+ (NaCMC 1% 1 ml + high temperature induction), T1, T2, and T3 (100, 200, and 400 mg/kg bw *Moringa oleifera* Lam leaves ethanol extract respectively + high temperature induction). The high temperature induction was 40^0C for one hour. The observation was done by examined the histopathological changes on the numbers of Leydig and Sertoli cells. The data was analyzed by ANOVA test and Duncan Test. The research showed significant differents (p^{-} 0.05) among the treatment groups. The conclusion of this research is *Moringa oleifera* Lam leaves ethanol extract could protect the Leydig and Sertoli cells in rat testes from destructive effect high temperature induction, and the best dose was 400 mg/kg bw.

Keywords: *Moringa oleifera* Lam, High Temperature, *Rattus novergicus*, Leydig cells, Sertoli cells