ABSTRACT

Effects of Red Spinach (Amaranthus tricolor Linn) Juice on Seminiferous Tubules and Spermatocytes in Mice (Mus musculus) Induced by Lead Acetate

Kristanti Wanito Wigati

Spermatogenesis is a cyclic and continuous process which starts at puberty and carries in throughout the majority of male's life span. An important part of male infertility of unknown etiology may be attributed to various environmental and occupational exposures to lead. The reproductive effects of lead are complex and appear to involve multiple pathways. This study was aimed to prove the protection effect of red spinach on the male reproductive system, which include thickness of seminiferous tubules, Sertoli cells count, spermatocytes count and type A sperm motility count, in mice induced by lead acetate. Thirty mice were devided into 3 groups, K_0 as the control group was given placebo, K1 as the treatment group was given lead acetate 75 mg/kgBW/day and placebo, K2 as the treatment group was given lead acetate 75 mg/kgBW/day and 382 g/kgBW red spinach juice. The conclusion of this study was that the administration of red spinach juice can preserve the thickness of seminiferous tubules, Sertoli cells count, sperm count and type A sperm motility in mice induced by lead acetate.

Keywords : *Amaranthus tricolor* Linn, *seminiferous tubules, spermatocytes, lead acetate*