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Effects of Ivermectin and Doramectin Drugs in Concurrent with Vitamin E on the Fertility in Male Rats

Thesis Presented

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ABSTRACT

The protective effect of ivermectin (IVM) and doramectin (DOM) concomitantly with vitamin E (Vit. E) against testicular toxicity induced by sodium valproate (SVP) in rats was investigated. Seventy mature male rats were randomized into 2 main groups; the 1st for IVM and the 2nd for DOM. Each group was subdivided into 7 subgroups which given orally either IVM or DOM alone and concurrently with vitamin E to rats with testicular toxicity. Blood samples were withdrawn for determination of testosterone, FSH and LH serum levels. Semen samples were collected from for analysis. Sex organs weight, semen analysis, serum biochemical analysis, blood criteria and histopathology of testes, liver and kidneys were the parameters used in this study. The results denoted that oral pretreatment with IVM or DOM concomitantly with Vit. E increased the relative weight of testes and sperm motility, count and viability in SVP-intoxicated rats. There were also significant increases in serum testosterone and FSH levels and testicular antioxidant enzymes activity associated with amelioration of degenerative changes in the testis. The previous treatments increased biochemical markers of liver and kidney function, but have no adverse effects on blood pictured in the treated rats. In conclusion, oral pretreatment with IVM and DOM concomitantly with Vit. E exerts protective and antioxidant effects against testicular toxicity in rats; produces no effect of blood picture, but induces hepatorenal toxicity.

Key words: Ivermectin- Doramectin- Vitamin E- Male fertility- Sperms- Testosterone.

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