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Protective Effect of Phitofert on Testicular Function and Fertility in Rats Exposure to Lead Acetate

Osama Jabbar Hussein and Jawad Kadhim Arrak

Department of Physiology, Biochemistry and Pharmacology
College of Veterinary Medicine, University of Baghdad, Iraq
E-mail: firasrashad@gmail.com

Abstract**:** The present study was carried out to investigate the protective role of phitofert as an antioxidant in ameliorating the deleterious effects of lead acetate on testes function and fertility in adult male rats. Thirty-two adult male and twenty-four female rats were used. Male rats were randomly divided into four equal groups and were treated daily for 56 days as follow: Group 1 received distilled water and was considered as control, the second group (G1) was intubated lead acetate orally 10 mg kg^{-1} body weight the third group (G2) was intubated phitofert 43 mg kg^{-1} body weight and the fourth group (G3) gave lead acetate 10 mg/ body weight plus phitofert 43 mg kg^{-1}. Blood samples were collected for estimation of testosterone hormone, Luteinizing Hormone (LH), malondialdehyde (MDA) and glutathione (GSH) concentrations. The results revealed a significant decrease in testosterone hormone and significant increase in LH in the group G1 as compared with others groups. The phitofert caused a significant decrease in the MDA with increase of GSH levels in group G3 indicating that the antioxidant effect of phitofert. In conclusion, phitofert at dose 43 mg kg^{-1} body weight has shown a dominant effect to decrease the harmful side effects of lead acetate toxicity on reproductive performance in adult male rats.

Keywords**:** Phitofert, Lead acetate, Testosterone, LH, MDA, GSH