

البحث الأول

Effect of Nandrolone Decanoate (Anabolic Steroid) on the Liver and Kidney of Male Albino Rats and the Role of Antioxidant (Antox-Silymarin) as Adjuvant Therapy

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Abstract

Background and objective: The present study is determining the effect of Nandrolone Decanoate (ND) administration on the liver and kidney of white male albino rats. In addition, study the possible protective effect of administration of Antox and Silymarin on ND.

Methods: The sample consisted of 110 male albino rats that divided into eleven groups treated by Nandrolone Decanoate at a dose of 7.93 mg/kg and 11.9 mg/kg then treated by Silymarin or Antox or both for 8 weeks. The variations in the body weight and weight of liver & kidney organs of rats are determined in all different groups in addition to the variation in liver enzymes (ALT-AST), bilirubin level, kidney function tests: Creatinine and blood urea level among different study groups are measured. The present study represents the hepatic and renal histological changes observed among the different groups.

Results: The highest increase in liver weight the group was treated by ND low dose while the least value of liver weight noted at group is treated by ND high dose. The combination of Silymarin and Antox with ND at high and low dose showed the best results of liver weight. The highest increase in kidney weight showed at ND high dose group while the best result in reduce the kidney weight showed in rats treated by ND low dose with Antox. The highest increase of liver enzymes showed among ND high dose group while the more decrease in liver enzymes showed in groups treated with the combination of Silymarin and Antox with ND at low and high dose. The highest value showed in the group treated by ND high dose while the more decrease in kidney function tests showed in groups treated by the combination of Silymarin and Antox with ND at low and high dose.

Conclusion: The combination of Silymarin and Antox with ND showed the best improvement in liver and renal tissue changes, these means synergistic action to protect the hepato-renal cells against harmful effect of ND by their antioxidant and free radical scavenging activities.