

Effects of Boldenone Injections and Endurance Exercise on Hepatocyte Morphologic Damages in Male Wistar Rats

Authors : Seyyed Javad Ziaolhagh

Abstract : Background: The purpose of present study was to investigate, the effects of anabolic steroid Boldenone (BOL) with eight weeks of resistance training on structural changes in rat liver. Method: 21 Male adult Wistar rats, 12 weeks old and $228/53 \pm 7/94$ g initial body weight were randomly assigned to three groups: group1: Control+ Placebo (C), group2: training+ Placebo (T), group3: Boldenone intramuscular injections 5mg/kg (B). The endurance training protocol consisted three exercise sessions weekly started by a 30-minute run with the speed of 12 m/min and lasted by 60min run with the speed of 30 m/min in 8 weeks. At the end of the experiment, for light microscopic study Slides were prepared. Results: Sections stained of rat's livers showed no any cell degeneration and cytoplasmic lipid vacuoles in all groups, but few samples were seen. Indeed, congested blood sinusoids, cell infiltration and degeneration were seen in the Boldenone-treated group. Hepatotoxic effects were severe in group treatment received 5 mg/kg and directly depended on the doses. Indeed, training group was no any hepatocyte degeneration, inflammation and congestion. Conclusion: The present results showed that BOL has a marked adverse effect on the liver tissue, even with low- dose and endurance training. As a result, athletes should aware of Boldenone dosage consumption.

Keywords : anabolic androgenic steroids, Boldenone, blood congestion, cellular inflammation, cellular degeneration, lipid vacuolations, endurance training

Conference Title : ICHNFS 2015 : International Conference on Human Nutrition and Food Sciences

Conference Location : Rome, Italy

Conference Dates : September 17-18, 2015