EFFECTS OF SINGLE DOSE ADMINISTERED NANDROLONE
DECANOATE ON SERUM CYTOKINE LEVELS AND SOME
BIOCHEMICAL PARAMETERS IN MALE AND FEMALE RATS

Abstract:

Purpose: The aim this this study was to determine that administration of single higher dose nandrolonedecanoate (40 mg/kg) on serum IL-1β, TNF-α, IL10 and IL6 levels and some biochemical parameters during 24hours in male and female rats.

Materials and methods: The blood samples were taken from 5 male and female rats to obtain their starting values. Then the blood samples were taken from 6 rats in sampling time at 1st, 2nd, 4th, 8th, 12th ve 24th hours following the nandrolonedecanoate administration.

Results: There were significant increases determined in the serum IL-1β levels, numerical increases in the TNF-α levels whereas decreased IL-6 levels were determined. IL-10 levels did not change during experimental period. While serum GGT and BUN levels increased towards the last hours of the study, increased ALP levels were observed only female rats. There was no any significance changes were determined in the other biochemical (ALT, AST, CK-MB and LDH) values.

Discussion and Conclusion: As a result, increased IL-1β and TNF-α levels, proinflammatory cytokines and some biochemical parameters may be reflect that long term used nandrolonedecanoate causes organ damages and effect immune system function. However, effects of long term used nandrolonedecanoate on the immune system and organ functions should be detailed evaluated.

Keywords:

Nandrolone, Cytokines, Organ Damages