

Evaluation of the effects of pregnyl on pituitary-ovarian hormones and biochemical markers of tissue injury in female Swiss albino mice.

[Al-Shebaily MM.](#)

Department of Obstetrics and Gynecology, King Khalid University Hospital and College of Medicine, King Saud University, Riyadh, Saudi Arabia.

Pregnyl (hCG), a preparation of human chorionic gonadotropin, was evaluated for its effects on the endocrinological, biochemical and genotoxic changes in female Swiss albino mice. hCG treatment at different doses (25, 50 and 100 I.U./Kg/day) for 5 days was found to significantly increase the plasma levels of hCG, estradiol and progesterone in a dose-dependent manner, while the concentrations of LH and FSH remained below the detection levels. The plasma levels of ALT, CK-MB, creatinine and urea were significantly decreased, whereas the concentrations of AST were significantly increased. The treatment was found to significantly increase and decrease the hepatic concentrations of MDA and NP-SH respectively. The hepatic levels of proteins and DNA were not affected, but there was a significant increase in the concentrations of RNA. In addition, hCG treatment did not show any effect on the frequency of occurrence of micronuclei, whereas the ratio of PCE/NCE was found to be significantly increased. These results demonstrate that the hCG treatment in mice affected the pituitary-ovarian hormones in a similar pattern to that of humans. The treatment increased oxidative stress in hepatic cells without disturbing the functions of the liver as well as other organs. This finding may be of value concerning the safe use of hCG and may contribute to the overall antioxidant balance in the body.