Study the Effect of Proanthocyanidin and Ranitidine on Fertility Efficiency in Adult Female Rabbits with Gastric Ulceration Induced by Indomethacin

Abstract

This study was done to induce gastric ulceration in female rabbits by using indomethacin in dose 75mg/kg for two days, and to study the effect of that on fertility and pregnancy efficacy. In addition, this study was an attempt to investigate the curing effect of proanthocyanidin extracted from grape seeds (Vitis vinifera) on female reproductive dysfunction caused by giving indomethacin. Thirty adult female rabbits weight ranged between (1500-2000.0 mg) were used in this study, divided into five equal groups (6 rabbits/group) as the following: Group1:- called negative control group, drenched 3 ml of normal saline for 10 days; Group 2:- (positive control group) was drenched indomethacin drug (75mg/kg B.W.) to induce gastric ulceration for two days; Group3:- at first drenched indomethacin (75mg/kg B.W.) for two days, followed by giving proanthocyanidin extract (100mg\kg B.W.) for 10 day; Group 4:- initially drenched indomethacin (75mg/ kg)for two days, followed by giving proanthocyanidin extract (200mg/ kg) for 10 days; Group 5:- was given indomethacin (75mg/ kg) for two days, followed by giving ranitidine (50mg/ kg) for 10 days. The obtained results revealed that a significant decrease ($P \leq 0.05$) in serum concentrations of FSH, LH, E2, P4 have been shown in serum positive control group and ranitidine group compared with negative control group and proanthocyanidin at a dose (100mg/kg and 200 mg/kg). In addition to, the rate of fertility was16.66% in female rabbits that treated with indomethacin and 50% in female rabbits that treated with ranitidine and 100%in groupstreated with proanthocyanidin at a dose (100mg/kg and 200 mg/kg) compared with negative control group, in which fertility rate 83.33%. There is reduction in number and weight of newborns with occurrence of several mortality and malformation during pregnancy in positive control group. Our conclusion of this study is that GSE may be promising as a natural therapeutic agent, can be used as get rid of indomethacin side effect on female reproductive functions.