

## عنوان مقاله:

Possible protective effects of crocin on destructive side effects of cyclo-phosphamide in mice ovarian tissue:  
Evaluation of histomorphometrical and biochemical changes

## محل انتشار:

گفتمان پژوهش دامپزشکی، دوره 12، شماره 2 (سال: 1400)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

One of the side effects of cyclophosphamide (CP) is low fertility. In this study, we investigated the protective role of crocin (Cr) against CP chemotherapy-induced changes in ovarian tissue. In the current study, we treated 15 female mice aged 6-8 weeks old for 21 days. The mice were distributed into three groups including control received normal saline (0.10 mL; IP), CP or sham-control group (CP once a week, 15.00 mg kg<sup>-1</sup>; IP) and experimental (CP + Cr) group received CP along with Cr (200 mg kg<sup>-1</sup> daily; IP). After completing the procedure, levels of total anti-oxidant capacity (TAC), superoxide dismutase (SOD) and sex hormones in serum as well as malondialdehyde (MDA) in the left ovarian tissue were measured. The right ovaries were used for histological and morphological tests. The obtained data were statistically analyzed by SPSS software using ANOVA and Tukey follow-up studies. Results showed that in the CP group a significant decrease was observed in ovarian follicles, the number of corpus luteum, levels of TAC, SOD and sex hormones; while, there was a significant increase in the number of atretic follicles and mast cells and level of MDA compared to control group. Administration of Cr along with CP caused a significant ameliorative effect on the studied parameters. In conclusion, the Cr could significantly decrease the side effects caused by CP chemotherapy in mice ovarian tissue.

## کلمات کلیدی:

Crocin, Cyclophosphamide, Mice, Ovary

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1820641>



