

## عنوان مقاله:

Genistein administration increases the level of superoxide dismutase and glutathione peroxidase in the endometriosis mice model: An experimental study

## محل انتشار:

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## خلاصه مقاله:

Background: Endometriosis and infertility are caused by reactive oxygen species or free radicals, which promote endometrial cell growth and adhesion in the peritoneal cavity. Genistein has been proven to protect cells against reactive oxygen species by scavenging free radicals and decreasing the expression of genes-associated stress responses. Objective: This study was conducted to determine whether genistein also acts as an antioxidant by elevating superoxide dismutase (SOD) and glutathione peroxidase (GPx) in the peritoneal fluid of the endometriosis mice model. Materials and Methods: This experimental study involved ۳۲ healthy female mice (*Mus musculus*), aged between ۲-۳ months and weighing ۲۰-۳۰ gr. They were divided into negative control group (healthy mice without genistein), endometriosis group (endometriosis mice without genistein), treatment group that was given different doses of genistein, that is, ۰.۱۳; ۰.۲۶; ۰.۵۲; ۰.۷۸; ۱.۰۴; and ۱.۳ mg/day (n = ۴/each). SOD level in the peritoneal fluid was measured using the quantitative colorimetric determination method, and a colorimetric assay measured the GPx levels. Results: Results showed that the endometriosis model has lower SOD and GPx levels than the control group. The administration of genistein significantly normalized these changes. Genistein significantly increased SOD levels in the ۰.۱۳ mg and ۰.۲۶ mg treatment groups. Genistein also increased GPx levels significantly in all treatment groups. Conclusion: Genistein increases SOD and GPx levels in the peritoneal fluid of an endometriosis mice model, and the change is dose-dependent.

## کلمات کلیدی:

## لینک ثابت مقاله در پایگاه سیویلیکا:

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