

Abstract

Ameliorative Effects of Carvacrol on Cyclophosphamide-Induced Testis Damage and Oxidative Stress [†]

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Abstract: Cyclophosphamide (CP) is an effective drug widely used for treating clinical cancer and non-malignant diseases. However, using CP causes cytotoxicity in one or more tissues. The present study aims to investigate possible protective effects of Carvacrol (Cr), which is an essential component of thyme and also known for its antioxidant properties, upon testis toxicity. For this study, 35 male rats were categorized into 5 groups, each of them including 7 members. Blood samples and testis tissues were obtained from each animal for the evaluation of biochemical markers and histopathological examination. Assessment of serum and testis sampled revealed that Cr has a significant role in protecting against CP-caused testis damage. Our data also show that Cr is a very effective antioxidant with cell-protecting properties. For this reason, we conclude that Cr could help reduce the side-effects of anticancer drugs as far as chemotherapy protocols are concerned.

Keywords: Cyclophosphamide; Carvacrol; Testes Damage; Antioxidant; Oxidative Stress



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