COMPARISON OF SERUM BIOCHEMICAL AND HISTOPATHOLOGICAL EFFECTS OF VINCRISTINE AND OLIVE LEAF EXTRACT (TYROSOL) ON DOXORUBICIN-INDUCED CARDIOTOXICITY IN RATS

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- ✓ Doxorubicin
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THESIS ABSTRACT

In our study, it was aimed to investigate the effects of vincristine and olive leaf extract (tyrosol) on doxorubicin-induced cardiotoxicity in rats on serum biochemical and histopathological parameters of rats. 49 rats were used in the study. Rats control (K), doxorubicin (D), vincristine (V), tyrosol (olive leaf extract) (T), doxorubicin+vincristine (D+V), doxorubicin+tyrosol (olive leaf extract) (D+T), doxorubicin +vincristine+tyrosol (olive leaf extract) (D+V+T) (D+V+T) groups, 7 groups were randomly formed, with 7 subjects in each study group. Intraperitoneal drug administration was applied to all rats as 6 doses every other day. When the changes in the mRNA expression level of the TNNT2 gene belonging to the groups were examined, it was observed that doxorubicin suppressed the gene expression compared to the control group, but increased the mRNA expression levels of the T (tyrosol) group. When the results obtained were evaluated, it was determined that olive leaf extract (tyrosol) did not provide a cardioprotective effect in serum biochemically on doxorubicin-induced cardiotoxicity in rats, while it was determined that it provided a cardioprotective effect when the changes in the mRNA expression level of the TNNT2 gene were examined and histopathologically.

APPLICATION AREAS OF THE THESIS RESULTS

Anthracycline group drugs are the most commonly used agents in oncology due to their effective antineoplastic activities. This group of drugs has limited use due to their cardiotoxic effects. Because of the high cardiotoxic risk, patients exposed to these drugs should be followed for life during and after treatment. As the effectiveness of organ protective substances and antioxidants has been observed with the studies, their daily use has increased. It is expected that the positive data to be obtained from this study will contribute to the solution of the cardiotoxic effect of doxorubicin.

ACADEMIC ACTIVITIES

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