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P147. DIMETHOATE-INDUCED TOXICITY IN RAT BRAIN AND THE AMELIORATIVE EFFECT OF *LAUROCERASUS OFFICINALIS ROEM.* (CHERRY LAUREL) FRUIT EXTRACT

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Dimethoate is one of the most important organophosphate insecticide and causes oxidative stress. Cherry laurel (Laurocerasus officinalis Roem.) fruit contains various bioactive compounds that possess antioxidant activity. The aim of the study was to determine the effect of dimethoate on oxidative stress, DNA fragmentation in rat brain and the ameliorative effects of Laurocerasus officinalis Roem. (cherry laurel) fruit extract. Therefore, superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx), malondialdehyde (MDA), comet assay and TUNEL for DNA damage index, and histologic examination were evaluated in rat brain. Treatment with dimethoate caused an increase in MDA, DNA damage and a decrease in enzyme activities of SOD, CAT, GPx as compared to control group. Administration of L. officinalis to dimethoate-treated groups provided a reduction in oxidative stress status and DNA damage compared to the only dimethoate-treated group. Our results showed that treatment with L. officinalis fruit extract repaired the toxicity of brain induced by dimethoate.

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