ABSTRACT BOOK

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OP-41 THE EFFECT OF PROPOLIS ON LIPID PEROXIDATION AND SOME ANTIOXIDANTS
PARAMETERS IN THE RADIATION EXPOSED RATS

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Living far away from radiation is difficult in the world we live in. People and all other living creatures are always adversely affected by natural and artificial radiation. After the oxidative damage caused by the radiation in the living organism, the adverse effects of free radicals can be reduced by antioxidants taken with different foods. The aim of this study was to determine the changes on radiation exposed rats and the blood in the levels of MDA, GSH, activities SOD, GSH-Px and CAT with the application of propolis.

This research was carried out on 3 groups and 30 rats were used. Group 1 was the control group and no application was made. Group 2 was given 100 mg/kg body weight of 0.9 saline brine intraperitoneal for three days and at the end of the application radiation (6 Gy dose of gamma rays) irradiation was applied. Group 3 was given 100 mg/kg propolis intraperitoneal for three days and at the end of the application the radiation with the same dose was applied. In blood samples taken, plasma MDA, erythrocyte GSH levels, SOD, GSH-Px and CAT activities were measured using spectrophotometric method.

After statistical analyses, when compared to the control group, in radiation group, plasma MDA (p<0.001) and erythrocyte GSH (p<0.001) levels, GSH-Px (p<0.001), CAT (p<0.001) and SOD (p<0.001) activities were found to be significant. When compared to radiation group, in propolis + radiation group; while the levels of plasma MDA (p<0.001) were found to be significant, levels of GSH (p>0.05) in erythrocyte and activities of SOD, GSH-Px and CAT were not found to be significant.

Keywords: Antioxidant, Lipid Peroxidation, Propolis, Radiation, Rat.