ABSTRACT BOOK

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OP-99 ANTIOXIDANT EFFECT OF NIGELLA SATIVA SEED ON LIPID PEROXIDATION IN LEAD ADMINISTERED RATS

Osman QILER	extsuperscript{1}, Halil SIMSEK	extsuperscript{2}, Mehtap OZCELIK	extsuperscript{3}, Fulya BENZER	extsuperscript{4}, Izzet KARAHAN	extsuperscript{5}, Sezaiy KAPLAN	extsuperscript{6}

	extsuperscript{1} Munzur University, Sakine Genc Vocational School, TUNCELI
	extsuperscript{2} Bingol University, Vocational School of Health Services, BINGOL
	extsuperscript{3} First University Faculty of Veterinary Medicine Department of Physiology, ELAZIG
	extsuperscript{4} Munzur University Engineering Faculty Food Engineering, TUNCELI
	extsuperscript{5} Balikesir University Faculty of Veterinary Medicine Pharmacology-Toxicology Department, BALIKESIR
	extsuperscript{6} Veterinary Control and Research Institute, ELAZIG

Lead is a metal of high toxicity to the living organism. Since widely used in the industry, it brings about a significant part of the heavy metal pollution that threatens the environment we live in. Lead causes oxidative damage in the living organism. The adverse effects of free radicals based on the resulted damage can be reduced by antioxidants taken with different foods. The aim of this study is to determine the effects of orally administered Nigella Sativa seed on MDA, GSH, GSH-Px, CAT, vitamin A, vitamin E and β-carotene in lead exposed rats. In this study forty adult rats were used.

The rats were randomly divided into four groups and treated as follows: Group 1: Control; Group 2: Pb administered; Group 3: Pb + 2% Nigella sativa seed; Group 4: Lead + 5% Nigella sativa seed. The study was lasted for 6 weeks. At the end of the study, blood samples collected and determined levels of MDA, GSH, vitamin A, vitamin E and β-carotene and activities of GSH-Px, CAT.

MDA levels were found to be higher and GSH, CAT and vitamin E levels were found to be lower in Pb treated group than control group. MDA levels were found to be significantly lower Pb + 2% Nigella sativa seeds group compared with Pb treated group. MDA levels were found to be lower and GSH, CAT and vitamin E levels were found to be higher in Pb + 5% Nigella sativa seeds group when compared to Pb treated group GSH-Px activity and vitamin A and β-carotene levels were found no significant difference in among all groups.

Keywords: Antioxidation, Nigella sativa seed, Lead, Lipid Peroxidation, Rat.