Effects of Extracts Obtained from Nepeta italic L. and Nepeta ciliar Boiss. Apud Bentham on Antioxidant Enzymes

Abstract: In the study, the effects of methanol and hexane extracts obtained from Nepeta italic L. and Nepeta ciliar Boiss. apud Bentham on antioxidant enzymes in healthy rat erythrocyte were studied. The ethanol extract of N. ciliarca caused a decrease in glucose-6-phosphate dehydrogenase (G6PD) activity and an increase in catalase (CAT) activity. There wasn’t significant enzyme value in the group treated with the hexane extract of N. ciliar. However, the ethanol extract of N. italic caused a decrease in superoxide dismutase (SOD) and CAT activities. In group treated with hexane extract of N. italic, a significant decrease in SOD and CAT activities was observed, whereas a significant increase in G6PD activity was observed. Also, a statistically significant difference in MDA wasn’t found in all groups. In conclusion, it may suggest that the extracts are devoid of pro-oxidant properties, because lipid peroxidation hasn’t been observed, although the extracts have caused some changes in antioxidant enzymes.

Key Words: Nepeta species, Antioxidant enzymes, Lipid peroxidation