Effects of Extracts Obtained from *Nepeta italica* L. and *Nepeta cilicia* Boiss. Apud Bentham on Antioxidant Enzymes

**Abstract:** In the study, the effects of methanol and hexane extracts obtained from *Nepeta italica* L. and *Nepeta cilicia* Boiss. apud Bentham on antioxidant enzymes in healthy rat erythrocyte were studied. The ethanol extract of *N. ciliaria* 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. ciliaria*. However, the ethanol extract of *N. italica* caused a decrease in superoxide dismutase (SOD) and CAT activities. In group treated with hexane extract of *N. italica*, 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