**Tyrosinase inhibitory capacity of extracts obtained from different branches of endemic Centaurea (C. paphlagonica and C. cankiriense) plants from the same region**

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|  **Abstract**In recent years, a lot of resources have been devoted to research for the treatment of disorders caused by this enzyme, especially on the discovery and use of herbal products. This study aims to demonstrate the antithyrosinase effects of the extracts of two endemic plant species from the Centaurea family from the same region by targeting the inhibition of the tyrosinase enzyme, which also causes skin cancer by increasing melanin synthesis. Inhibitory activity values of methanol:chloroform extracts of *Centaurea paphlagonica* and *Centaurea cankiriense* plant samples against tyrosinase enzyme were investigated. The samples examined were found to have IC50 values in the concentration range of 180.51-1359.13 μg/ml. In the light of the findings obtained, it was observed that *C. paphlagonica* extracts had the highest activity and had more inhibitory effect, and that changing the extraction method affected the activity very much. The high activity of some extracts of our plant samples against tyrosinase enzyme, albeit selectively, is a promising factor for future research. |
| Keywords: Centaurea paphlagonica, Centaurea cankiriense, Tyrosinase, Enzyme activity, Endemic  |