

PP57. CYTOTOXIC STUDIES ON TWO SCABIOSA SPECIES IN TÜRKİYE

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The Caprifoliaceae family, which includes the genus *Scabiosa*, is primarily found in the Mediterranean and the Near East. Essential oils, fatty acids, triterpene glycosides, triterpene saponins, iridoids, monoterpeneoid glucoindole alkaloids, and flavonoids were the products of previous phytochemical studies on *Scabiosa* species. Because of the rich composition of this species, the cytotoxic properties of *Scabiosa pseudograminifolia* Hub.-Mor. and *Scabiosa hololeuca* Bornm. were the main focus of our study. The Brine Shrimp Assay has been commonly utilized for over thirty years in order to evaluate the cytotoxic levels of a wide variety of plants. This study aimed to evaluate the effects of hexane, methanol, and water extracts derived from *Scabiosa pseudograminifolia* and *Scabiosa hololeuca* on *Artemia salina* shrimps. The extracts were evaluated at concentrations of 0.632, 1.25, 2.5, 5, and 10 mg/mL. The determination of the median lethal concentration (LC₅₀) of the test samples was conducted by assessing the percentage of deceased shrimps in relation to the logarithm of the extract concentration following a 24-hour exposure period. Based on the results, it was observed that the methanol extracts derived from *Scabiosa pseudograminifolia* and *Scabiosa hololeuca* demonstrated strong toxic activity, as indicated by their low LC₅₀ values of 0.478 and 0.205 mg/mL, respectively. Besides these results, other extracts exhibited nontoxic activity with high LC₅₀ values. The initial cytotoxicity data obtained using the Brine Shrimp Lethality Assay yields LC₅₀ values, which serve as a practical basis for conducting further studies on toxicity.

Keywords: *Scabiosa pseudograminifolia*, *Scabiosa hololeuca*, cytotoxicity.

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