

ANTIOXIDANT, ANTIMICROBIAL, AND SPASMOLYTIC EFFECTS OF THE CLARY SAGE (*SALVIA SCLAREA* L.) HYDROETHANOLIC EXTRACTS PREPARED BY DIGESTION

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In traditional medicine, clary sage (*Salvia sclarea* L.) is known as an aromatic and medicinal plant used in the treatment of respiratory, digestive, and menstrual issues, as well as various inflammatory processes such as gingivitis, stomatitis, canker sores, and arthritis. This study examined the antioxidant, antimicrobial, and spasmolytic effects of the hydroethanolic extracts from the aerial parts of *S. sclarea* collected in Malča, near Niš, Serbia. Two extracts were prepared using the digestion method with 80% and 60% ethanol (HE80D and HE60D, respectively). The extracts were chemically characterized, revealing significant amounts of phenolic compounds, with rosmarinic acid being the most dominant. The tested extracts showed considerable antioxidant potentials in the 2,2-diphenyl-1-picrylhydrazyl and β -carotene/linoleic acid systems. The results indicated that the extracts were particularly effective as antilipoperoxidant agents. The most pronounced antimicrobial effects of the extracts were observed against *Staphylococcus aureus*, with moderate effects against *Bacillus cereus* and *Listeria monocytogenes*. The extracts demonstrated significant inhibition of rat ileum spontaneous smooth muscle contractions. At the maximum concentration of 1.5 mg/ml, the HE80D and HE60D extracts reduced ileum contractions by $40.45 \pm 2.06\%$ and $40.60 \pm 1.22\%$, respectively. Further research on *S. sclarea* extracts should be directed towards more detailed *in vivo* and clinical studies to assess their potential use in rational phytotherapy.

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