In Vitro Antimicrobial And Antioxidant Activities Of Various Extracts Of Salvia Microstegia (Boiss.) Et. Bal. From Antakya-Turkey

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The present study was performed to evaluate the in vitro antimicrobial and antioxidant properties of various extracts from Salvia microstegia (Boiss.) Et. Bal. which is belong to Lamiaceae family. The extracts obtained from Salvia microstegia by increased polarity and direct methanol extraction were tested by agar well method against various gram positive and gram negative bacteria, and one fungus. Direct methanol extracts exhibited more effective antibacterial activities on the gram negative and gram positive bacteria comparing to the other extracts. None of the extracts exhibited antifungal activities on the Candida albicans ATCC 10231. The possible antioxidant activities of the methanolic extract of Salvia microstegia was searched by employing two complementary test systems: 2,2-diphenyl-1-picyrlylhydrazyl (DPPH) and β-carotene-linoleic acid assays. The 50% (IC50) inhibition activity of the methanolic extract of Salvia microstegia on the free radical DPPH was determined as 7,63 mg/mL. In the case of the linoleic acid system, oxidation of linoleic acid was inhibited by methanolic extract of Salvia microstegia, which showed 79,92% inhibition, that is close to synthetic antioxidant reagent BHT. The content of total phenolics in the extracts was determined spectrophotometrically according to the Folin-ciocalteus method. The phenolic compound amount was 102 µg mg⁻¹ gallic acid equivalents in the extract. This data has indicated that the antioxidative activity of the extracts was related to their phenolic constituents.