Phytochemical Analysis, Quantitative Estimations of Total Phenols and Free Radical Scavenging Activity of Bupleurum Subovatum

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Abstract

Crude extracts from the entire Bupleurum subovatum plant were used to screen the presence of secondary metabolic phytochemicals and to estimate the total phenols contents and to evaluate free radicals scavenging activity for this plant. Antioxidant activity evaluated by using 2, 2-diphenyl-1-picryl-hydrazyl-hydrate (DPPH) assay, and total phenols determined by using Folin Ciocalteu method. Phytochemical analysis confirmed the presence of a mixture of phenols, proteins, starch, reducing sugars, tannins, volatile oils, cardiac glycosides, steroids, and huge amounts of saponins. The total phenolic content in the methanolic extract was 9.05 mg/g gallic acid. In the same time the B. Subovatum methanolic extract showed a potential oxygen free radical scavenging abilities as well as the IC50 for the plant was 18.60 μ g/ml, which justified its uses in the folkloric medicine, and could be further subjected for the isolation of their therapeutic active compounds. The results of this study confirm the therapeutic usage of this plant in the traditional folkloric system of medicine.