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Abstracts
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Phytonutrients and bioactive compounds in the leaves of Solenostemon monostachyus

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Further Information

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- Congress Abstract
- Full Text

Plants can either be consumed [1, 2] or used for medicinal purposes. Solenostemon monostachyus is a very nutritious and health beneficial plant, and its leaves have been traditionally used for treating diabetes, malaria, sickle cell anemia, hypertension, among other disorders. The methanolic extract of S. monostachyus leaves was used to reverse from 26.85% sickled blood of sickle cell patients to 1.90% [3]. This effect can be attributed to its bioactive compounds. The quantification of vitamins A, C, D and E, and twenty secondary metabolites in the plant leaves methanolic extract was performed by HPLC-(UV detector): vitamin A (0.824 ± 0.486 ng/g dry weight), vitamin E (1.355 ± 1.549 ng/g dry weight), ascorbic acid (57.229 ± 18.543 µg/g dry weight), hesperidin (13.67 ± 1.62 mg/g), rosmarinic acid (10.58 ± 0.52 mg/g), myricetin (10.22 ± 0.50 mg/g), chicoric acid (9.81 ± 0.00 mg/g), chlorogenic acid (6.02 ± 0.04 mg/g), genistein (4.90 ± 0.26 mg/g), caffeic acid (3.65 ± 0.20 mg/g), quercetin (1.19 ± 0.00 mg/g), p-coumaric acid (1.16 ± 0.01 mg/g), cinnamic acid (0.72 ± 0.04 mg/g), kaempferol (0.72 ± 0.25 mg/g), daidzein (0.71 ± 0.02 mg/g), apigenin (0.35 ± 0.00 mg/g), lutein (0.26 ± 0.00 mg/g) and luteolin (0.17 ± 0.02 mg/g) were detected and quantified. Hesperidin, myricetin, quercetin and apigenin were the major bioactive compound detected in this plant. This is the first study to identify the bioactive compounds in S. monostachyus.

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Keywords: Bioactive, Solenostemon monostachyus, health, HPLC, nutraceutical, vitamins.

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