Chemical Constituents and Biological Activities of *Galinsoga parviflora* Cav. (Asteraceae) from Egypt

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Z. Naturforsch. **68 c**, 285–292 (2013); received July 8, 2012/June 1, 2013

The phytochemical investigation of an aqueous ethanolic extract of *Galinsoga parviflora* Cav. (Asteraceae) resulted in the isolation and identification of eleven compounds namely: triacontanol, phytol, *b*-sitosterol, stigmasterol, 7-hydroxy-*b*-sitosterol, 7-hydroxystigmasterol, *b*-sitosterol-3-*O*-*b*-D-glucoside, 3,4-dimethoxycinnamic acid, protocatechuic acid, fumaric acid, and uracil. Furthermore, 48 volatile constituents were identified in the hydrodistilled oil of the aerial parts. The ethanolic extract at a content of 400 mg/kg body weight (BW) exerted 87% reduction in the alanine aminotransferase enzyme level in cirrhotic rats compared with the standard silymarin (150 mg/kg BW) and also exerted a reduction in the blood glucose level equivalent to that of glibenclamide (5 mg/kg BW) in diabetic rats. The ethanolic extract, light petroleum and ethyl acetate fractions exhibited substantial antimicrobial activity against *Bacillus subtilis*, *Pseudomonas aeruginosa*, *Escherichia coli*, *Aspergillus niger*, and *Candida albicans*. The ethyl acetate fraction showed strong antioxidant activity at a concentration of 150 mg/mL as compared with 0.1 M ascorbic acid. The cytotoxic effect against the MCF-7 cell line was found to be weak.

Key words: Galinsoga parviflora, Terpenes, Biological Activity