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Stilbene glycosides and flavonoids from the roots of *Euphorbia armena*

L N Gvazava
TSMU Iovel Kutateladze Institute Pharmacochemistry, Georgia

Plants of the genus Euphorbia are widely distributed around the whole world. About 45 of the more than 800 known species are indigenous to Georgia. The chemical composition of many plants of this genus has been well studied. We have previously studied the chemical compositions of *E. armena* Prokh., and *E. glareosa* Pall. ex- Bieb., plants of the Georgian flora. We isolated and characterized the new hydrolyzed tannins glareins A, B and C. In continuation of the study of the chemical composition of *E. armena*, we isolated total phenolic compounds, which contained stilbenes from the plant roots. Raw material was extracted three times by refluxing in MeOH (80%) for 1 hour, and then solvent was removed. The remaining aqueous phase was treated with hexane to remove lipophilic substances and then extracted with EtOAc. The EtOAc fraction was chromatographed over a column of Sephadex LH-20 with gradient elution by H_2O:MeOH with an increasing alcohol concentration to produce six fractions. Fractions 5 and 6 contained stilbenes and were combined and re-chromato¬graphed over an analogous column with elution by EtOH to isolate three pure compounds. Compound 1 was identified as 2-O-β -D-glucopyranosyl-2, 3, 5, 4'-tetrahydroxystilbene. Compound 2 was identified as 2-O-[β -D-glucopyranosyl-(2"-O-galloyl)]-2,3,5,4'-tetrahydroxystilbene. Compound 3 was identified as 2-O-[β -D-glucopyranosyl-(3"-O-galloyl)]-2,3,5,4'-tetra¬hydroxystilbene. All studied stilbene glycosides were isolated and described for the first time from plants of the genus Euphorbia. From the EtOAc fraction were isolated three derivatives of kaempferol-kaempferol-(3,5,7,4'-tetrahydroxyflavone), kaempferol-3-O-β-D-glucopyranoside (astragalin) and kaempferol-3-O-α-D-arabinopyranoside. All studied flavonoids were isolated for the first time from the title plants.

Biography

Lili Gvazava is the Professor of Pharmacy at the Tbilisi State Medical Universitu's Iovel Kutateladze Institute of Pharmacochemistry, Tbilisi, Georgia. She has various publications in national and International Journals.

liligvazava@yahoo.com

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