Antidiabetic and Antioxidant Activities of Major Flavonoids of *Cynanchum acutum* L. (Asclepiadaceae) Growing in Egypt

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Seven flavonoids were isolated from the butanol fraction of the methanolic extract of the aerial parts of *Cynanchum acutum* L. (Asclepiadaceae). All of which have been isolated for the first time from the genus *Cynanchum*. Their structures were established as quercetin 3-\(\beta\)-galacturonopyranoside (1), quercetin 7-\(\beta\)-glucopyranoside (2), tamarixin 3-\(\beta\)-galacturonopyranoside (3), kaempferol 3-\(\beta\)-galacturonopyranoside (4), 8-hydroxyquercetin 3-\(\beta\)-galactopyranoside (5), tamarixin 3-\(\alpha\)-rhamnopyranoside (6), and tamarixin 7-\(\alpha\)-arabinopyranoside (7) on the basis of their chromatographic properties, chemical and spectroscopic data. The major isolated flavonoids 1, 2 and 3 were found to exhibit significant antioxidant and antidiabetic activities (by measuring blood glucose and insulin levels). This is the first report about the antioxidant and antidiabetic activities of compounds 1–3.

*Key words: Cynanchum acutum, Antioxidant, Antidiabetic*