

Evaluation of Cytotoxic Compounds from *Calligonum comosum* L. Growing in Egypt

Farid A. Badria*, Madiha Ameen, and Mohamed R. Akl

Department of Pharmacognosy, Faculty of Pharmacy, Mansoura University, Mansoura 35516, Egypt. E-mail: faridbadria@yahoo.com

* Author for correspondence and reprint requests

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Calligonum comosum (Polygonaceae), an Egyptian desert plant, was extracted and fractionated using petroleum ether, methylene chloride, and ethyl acetate. The total methanolic extract and other fractions were tested for their anticancer activity using Ehrlich ascites, brine shrimp and antioxidant assays. Ethyl acetate fraction proved to be the most active in all assays. Eight compounds were isolated, purified, and identified from this fraction as (+)-catechin (**1**), dehydrodicatechin A (**2**), kaempferol-3-*O*-rhamnopyranoside (**3**), quercitrin (quercetin-3-*O*-rhamnopyranoside) (**4**), β -sitosterol-3-*O*-glucoside (**5**), isoquercitrin (quercetin-3-*O*-glucopyranoside) (**6**), kaempferol-3-*O*-glucuronide (**7**), and mequianin (quercetin-3-*O*-glucuronide) (**8**). All isolated compounds were tested for their cytotoxicity and antioxidant activity. Compound **2** showed the best cytotoxic and antioxidant activity.

Key words: *Calligonum*, Anticancer, Ehrlich Ascites, Dehydrodicatechin