

***Wulfenia carinthiaca* Jacq., Antioxidant and Pharmacological Activities**

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Relative antioxidant activities of a methanolic extract of three phenylpropanoid glycosides and three iridoid glycosides from *Wulfenia carinthiaca* were evaluated using the Briggs-Rauscher (BR) reaction method. This method is based on the inhibitory effects by antioxidants on oscillations of the BR reaction. The total extract showed a certain antioxidant activity with respect to resorcinol chosen as standard. The three phenylpropanoid glycosides showed a very high relative antioxidant activity while iridoid glycosides had practically no activity. These experimental results were confirmed by empirical calculations based on the BDE (Bond Dissociation Enthalpy) theory. The total phenolic content was also measured for the phenylpropanoid glycosides using the Folin-Ciocalteu reagent. The obtained values as gallic acid equivalents were in perfect agreement with the relative antioxidant activities. From a pharmacological point of view the results obtained demonstrate that the methanolic extract of *W. carinthiaca* have antinociceptive and antiedematogenic effects in the different models adopted. The plant extract produced a significant inhibition, dose related, of the rat paw edema induced by carrageenin. The anti-inflammatory activity is probably due to the phenylpropanoid compounds present in the plant. The histological sections of paw tissue in animals treated with *Wulfenia carinthiaca* extract confirmed the anti-inflammatory effects. The results of the antinociceptive assay indicated a significant reduction on the number of abdominal writhes of mice, induced by acetic acid.

Key words: *Wulfenia carinthiaca*, Phenylpropanoid Glycosides, Antioxidant Activity