Chemical composition by flavonoids and scavenger activity of hydro-ethanolic extracts obtained from *Bauhinia forficata* subsp. *pruinosa*

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**Introduction** - Bauhinia species are known to have hypoglycemicant and antioxidant activities. Here, we studied hydro-ethanolic extracts obtained from *Bauhinia forficata* subsp. *pruinosa* (“cow’s hoof”), traditionally consumed in a region of South America that comprises Argentine, Brazil and Uruguay. **Aims** - The phytochemical profile and antioxidant activity of extracts obtained from *B. forficata* subsp. *pruinosa* were investigated. **Methodology** - The extracts were obtained from dried and fresh leaves. The phenolic content was assessed by colorimetric assay. LC-MS analyses were performed using a reverse-phase system, following the established conditions: C₁₈ column (250 x 4.6 mm); 0.8 mL/min flow rate; gradient elution using acetonitrile and phosphoric acid 0.05%; ESI-MS in positive ion mode. Chemical profile in phenolics was established through fragmentation pattern observed and comparing to standards reference. The antioxidant activity was evaluated by monitoring their ability for quenching stable free radicals using DPPH assay. **Results and Discussion** - The concentration of extractives and total flavonoids content were 1.88 % (w/w) and 0.9447 g/100g of dried material, respectively. Results from LC-ESI-MS indicated a chemical composition based on quercetin and kaempferol glycosydes, since it was observed the quasi-molecular ions at *m/z* 286.9 and 302.8. The chromatographic elution was performed in a rapid time, allowing detecting compounds at retention time of 13-22.0 min. In DPPH assay, the concentrations tested significantly prevented DPPH oxidation, reflecting a strong antioxidant potential. We suggest that this pronounced antioxidant effect from hydro-ethanolic extracts could be associated to the highest content of antioxidant compounds. **Conclusions** - A phytochemical profile based on flavonoids was verified for *B. forficata* subsp. *pruinosa*. The in vitro antioxidant effect is in accordance to the chemical composition in phenolic compounds and allows establish a comprehension about this plant and their folkloric use by local population.

**Keywords**: *Bauhinia forficata* subsp. *pruinosa*, phenolic compounds, flavonoids, LC-MS, DPPH assay.

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