Antioxidant properties of the aqueous extract of *Ilex paraguaniensis: in vitro* studies

Portela, J.L.¹; Almeida, W.¹; Puntel, R.L.¹, Soares, F.A.A.²

¹Federal University of Pampa – Campus Uruguaiana, RS, Brazil; ²Federal University of Santa Maria – Department of Chemistry, RS, Brazil

Introduction: *Ilex paraguaniensis* (know as “yerba mate”) is a plant widely used in beverages typical in southern of the South America. It has been postulated that the antioxidant potential of this plant is due to some of its secondary metabolites, specially flavonoids and polyphenols. However little is known about *Ilex paraguaniensis* aqueous extract antioxidant properties under *in vitro* conditions.

Objective: Thus, the mains of this study were to quantify the polyphenols and flavonoids contents and to evaluate the *in vitro* antioxidant potential of aqueous extract of the *Ilex paraguaniensis* by using DPPH method and Fe²⁺-induced TBARS in yolk phospholipids extracted from chicken eggs.

Methods: The aqueous extract of *Ilex paraguaniensis* was prepared just before use by infusion of the plant during 10min at 94°C.

Results: *Ilex paraguaniensis* significantly (p<0.05) inhibits the DPPH oxidation at concentrations ranging from 10ug/g to 1000ug/g. Moreover, it significantly (p<0.05) prevents Fe²⁺-induced TBARS production in yolk phospholipids (10–1000ug/g), without effect on basal conditions. Finally, the polyphenols content was found to be 104.86ug/g, whereas the flavonoids content was 212.26ug/g.

Conclusion: *Ilex paraguaniensis* antioxidant activity under our *in vitro* assay conditions could be attributed to the polyphenols and flavonoids present in the plant extract.

Word Keys: Antioxidant, *Ilex Paraguaniensis* e In Vitro

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