ANTI-HEMOLYTIC PROTECTION AND ACTIVITY IN LIPID PEROXIDATION OF 
Erythrina crista-galli L.

Victol, N.S.¹; Costa, H.M.G¹; Takegava, V.F.¹; Catelan, T.B.S¹; Gebara, K.S¹; Silva, C. A. H.²; Formagio, A.S³; Tirloni, C.A.S.³

¹Faculdade de Farmácia, Centro Universitário da Grande Dourados, MS, Brazil, 
²Faculdade de Veterinária, Centro Universitário da Grande Dourados, MS, Brazil 
³Faculdade de Ciências da Saúde, Universidade Federal da Grande Dourados, 
MS, Brazil.

Introduction and objectives: Oxidative stress is an altered metabolic condition involved in numerous diseases that affect millions of people worldwide, which need alternative therapies for prevention and treatment. The prospect of bioactive plant is one of the current alternatives for the design of new drugs and medicaments for this purpose. In this context, the aim of this study was to evaluate the antioxidant potential of Erythrina crista-galli L. (corticeira) in protecting drug-induced hemolysis and check their activity on lipid peroxidation. Materials and methods: We obtained the methanol crude extract from the leaves of E. crista galli (EEcg) by maceration. The anti-hemolytic activity (150-750 µg/ml) was evaluated by the method of hemolysis induced by chemical agent 2,2'-azobis (2-amidinopropane) (AAPH), the most effective dose in the anti-hemolytic activity (400 µg/ml) was evaluated in the lipid peroxidation. Results and conclusions: All assessed extract concentrations except the 150 µg/mL (at 240 min) and 750 µg/mL, were able to protect the hemolysis at all times of the test, when compared to the group that received only the AAPH. The extract was able to prevent lipid peroxidation in the evaluate dose. These data demonstrate the anti-hemolytic capacity of this species through inhibition of lipid peroxidation of the erythrocytes, therefore, these results suggest that this natural product can be used for the treatment and / or prevention of various diseases linked with oxidative stress. This result opens up prospects for other functional studies in which free radicals are involved.

Acknowledgments: The authors thank Fundect for financial support.

Keywords: AAPH, oxidative stress, corticeira.