Evaluation of Antioxidant Effect Present in Pequi (Caryocar brasiliense Camb.)

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INTRODUCTION: The pequi (Caryocar brasiliense Camb.) is a typical fruit of occurrence in the Brazilian Cerrado, it is very used by native populations due to its values: alimentary, nutritional, ornamental, medicinal and mainly socioeconomic, and it being considered the "king of the Cerrado" and among its many applications, stands out the use the feeding because of its peculiar properties of color, aroma and flavor. The reactive oxygen species (ROS), formed in a biological environment, promote oxidation processes of biomolecules and can cause damage to cells and tissues. These oxidation reactions can occur in food causing nutrient losses and, through the products of this reaction with other biomolecules, it can form other species that cause damages to human and animal organism. The antioxidants substances may prevent, reduce or inhibit such oxidation process via ROS. Thus, the objective of this study was to investigate the antioxidant potential of pequi with reactive oxygen species.

MATERIALS AND METHODS: The evaluation of antioxidant capacity was observed through the kidnapping of hypochlorous acid (HOCl) in the aqueous extracts and ethanolic of pulp of pequi fresh and pickled.

RESULTS AND DISCUSSION: The results obtained, expressed through calculation of IC50 (index that describes the amount of antioxidant necessary to inhibit 50% of HOCl) were 0,30 mg.mL^-1 and 1,21 mg.mL^-1 for fresh pulp and preserved in aqueous extract, respectively. The ethanol extracts of fresh pulp and pickled showed values of 0,007 mg.mL^-1 and 0,022 mg.mL^-1, respectively. Both pulps studied (fresh and pickled) presented potential antioxidant, the which may be related to the presence of compounds with capacity reduction, as phenols, vitamin C and carotenoids present in the fruit pulp.

CONCLUSION: The aqueous extracts studied showed smaller indices IC50 and, consequently, more antioxidant activity than the ethanolic extracts.

Keyword: antioxidant activity, pequi, reactive oxygen species.