Phytochemical Profile and Antioxidant Activity of Caja (Spondias mombin L.) Frozen Pulp

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Caja (Spondias mombin L.) is a small tropical fruit cultivated in the North and Northeast of Brazil which is mainly commercialized as frozen pulp. The caja frozen pulp is one of the most prized in Brazilian markets due not only to its exotic flavor but mainly due its excellent nutritional quality. Studies have reported that consumption of diets rich in fruits and derivatives is associated with prevention or delay of chronic degenerative diseases. The aim of this work was to quantify the antioxidants compounds and determine the total antioxidant activity of caja frozen pulp. The caja frozen pulp was purchased at the local market of Fortaleza - Ceará and utilized to measure the concentration of total polyphenols by the Folin-Ciocalteau method (Obanda; Owuor, 1997), total carotenoids (Higby, 1962), anthocyanins and yellow flavonoids (Francis, 1982) and total antioxidant activity by the ABTS method (Rufino et al., 2007). The values were, respectively, 135 ± 2.29 mg GAE/100g of pulp, 2.2 ± 0.33 g/g of pulp, 0.56 ± 0.03 mg/100g of pulp, 6.92 ± 0.08 mg/100g of pulp and 14.19 ± 1.53 mM trolox/g of pulp. The caja frozen pulp phytochemical profile revealed a significant presence of antioxidant compounds as well as a good total antioxidant activity. Therefore, its composition confers high nutritional and functional value, which may play an important role reducing the risk of disease and a healthier life.

Key Words: caja, Spondias mombin L., antioxidant activity.
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