BIOACCESSIBILITY OF THE ANTIOXIDANTS OF JUSSARA PULP (*Euterpe edulis*) COMMERCIALY AVAILABLE IN VITRO SIMULATED GASTRO-INTESTINAL DIGESTION


Jussara pulp is known to be rich in a variety of antioxidants. The objective of the present study was to analyse the total antioxidant capacity jussara pulp (*Euterpe edulis*) commercially available via ferric-ion reducing antioxidant power (FRAP) and 1,1-diphenyl-2-picrylhydrazyl (DPPH), the content phenolic (Folin Ciocalteau) and through polyphenols identification by system ultra performance liquid chromatographic (UPLC-DAD). The bioaccessibility available was carried out using an in vitro model simulating gastro-intestinal procedure with simulated gastric and duodenal phases. In vitro studies are needed to unravel factors affecting the release of antioxidants during digestion. Polyphenolic profiles in the gastric medium were similar to intestinal medium, with considerable increase amount of bioaccessible total polyphenols than those in the jussara pulp. In addition, of bioaccessible the phenolic acids increased in the digestion gastric, however all polyphenols found present at lower concentrations. The transition in the intestinal environment causes a decrease in all the analyzed classes of polyphenols. The total antioxidant capacity was significantly ($p < 0.05$) enhanced after an in vitro gastric digestion, not difference between the gastric and intestinal phases. The stability under gastro-intestinal conditions of pure phenolic acids and flavonoids has been analysed. Our results suggest that the gastro-intestinal tract may act as an extractor where polyphenols are progressively released from solid matrix and made available for the absorption or to exert their biological effects in the gastro-intestinal tract.