



EVALUATION OF THE CYTOTOXICITY OF ANREDERA CORDIFOLIA, UNCONVENTIONAL FOOD PLANT, IN HUMAN FIBROBLASTS

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ABSTRACT (upto 300 words)

Anredera cordifolia, popularly known as Bertalha, is a species of fleshy climbing plant of the Basellaceae family, native to Brazil, but not endemic, naturalized almost all over the world, it has become popular as UFP (unconventional food plants), used in food. human because it is a prolific species, with high biomass production and high nutritional value. However, in some regions of Brazil, the plant is used by folk medicine for the treatment of wounds, fungi and infections. Its pharmacological properties have been widely investigated and confirmed, with emphasis on its antibacterial action, improving the healing of wounds infected by Staphylococcus aureus, and antifungal action against Candida albicans. However, studies on the cytotoxic effects of the plant on skin cells have not yet been performed. Thus, the objective of this work was to analyze in vitro the cytoprotective and cytotoxic effects of a hydroalcoholic extract at concentrations of 0.1- 0.3- 0.5- 1- 3- 5 and 10µg/mL in human fibroblasts. For this, cells of the HFF-1 lineage, acquired commercially, were cultivated under standardized conditions. Upon reaching 80% confluence, they were plated and treated with extract concentrations. After 24 hours, assays were performed to assess cell viability: MTT assay that assesses cell viability

via incorporation of the tetrazolium salt, by the activity of the enzyme succinate dehydrogenase, and by the Quant-iT™ PicoGreen™ dsDNA Reagent (Invitrogen®) test where it is possible to quantify double-stranded DNA (dsDNA) in the supernatant. The results showed that the lowest concentrations tested, 0.1; 0.3; 0.5; 1; 3 µg/mL there was no induction of toxicity, that is, the cells maintained cell viability at levels similar to the untreated control, at concentrations of 5 and 10 µg/mL there was a tendency to toxicity. Thus, the results show that Anredera cordifolia can induce toxicity at higher concentrations. Although these results are preliminary, and have limitations because it is an in vitro study, they are important, as they point to the need for more studies on safe pharmacological concentrations to be used.

International Conference on
Nutraceuticals and Food science

November 17-18, 2022 | Paris, France

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