

**IN VITRO INHIBITORY EFFECT OF *PUNICA GRANATUM* FRUIT EXTRACT ON GROWTH, CELL PROTEINS AND IN PROTEINASE SECRETION OF *Candida albicans***

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The incidence of infections by opportunistic fungi is increasing, especially in patients whose immune systems are compromised by AIDS, cancer, and other causes. Many antifungal compounds have been identified, but safe and effective antifungal drugs have not yet been developed, due to the high degree of similarity between fungi and mammalian cells. This has resulted in a strong demand for drugs that have much weaker side effects. Medicinal plants that have been used for a long time may be good sources of safe antifungal agents. The fruit aqueous extract of *Punica granatum* has been used in Brazilian folk medicine. In the present work, the anticandidal activity was analyzed by microbiological technique. Nistatin was used as a positive control. Cells were grown in BHI medium at 37 °C containing 100 and 200 µg/ml of aqueous crude extract of *P. granatum*. The whole cell protein extract and secreted proteolytic activities were analyzed by SDS-PAGE and SDS-PAGE containing gelatin as substrate, respectively. The results showed that *P. granatum* aqueous crude extract, in both concentrations arrested cellular growth, and also promoted alterations in the expression of cell proteins and proteinase secretion. Therefore, aqueous extract of *P. granatum* fruit could be considered a promising antifungal agent and could be proposed as a therapeutic agent for oral candidiasis.

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