ACTION OF SUBPRODUCT OF EXTRACT PROPOLIS ON FUNGI FROMDERMATOMYCOSES

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Dermatomycoses are superficial lesions of skin and its annexes (hair and nails) caused by fungi. The fungi are eukaryotes, so it is more difficult to inhibit pathways metabolic only against these microorganisms without affecting human cells. However, the use of natural products such as propolis, is a promising alternative to replace conventional antifungals because it has low cytotoxicity, affordable, easy access and few adverse effects. Thus the aim of this study was evaluated the occurrence of dermatomycosis in senior citizens enrolled at the *Universidade Aberta à terceira idade*" (UNATI) and also tested susceptibility of subproduct of propolis extract (SPES) as a potencial antifungal against fungal isolated from these elderly. UNATI is part of The *Universidade Estadual de Maringá* (UEM) that provides to senior citizens higher education opportunities. The students with suspected dermatomycosis were referred to the Teaching and Research Laboratory of Clinical Analysis (LEPAC), Division of Mycology, UEM. The inclusion of elderly followed the rules of the Research Ethics Committee of UEM, and approved (no.615.643/2014). This year (2015), we collected five samples (nails and skin) from three patients with suspected dermatomycoses, conducting the direct examination and culture. In vitro antifungal susceptibility testing was performed by minimum inhibitory concentration (MIC) and minimum fungicidal concentration (MFC) to define the lowest concentration of SPES, which prevented the growth of fungus. Volunteers were 18 citizens' UNATI/UEM with suspected dermatomycoses, average age 67 years, 11 women and seven men. It was collected a total of 27 biological samples (29.63% from skin and 70.37% from nail). They were obtained 51.85% of positive samples in direct mycological examination and 40.74% in culture. The etiologic agents isolated were *Candida parapsilosis* (18,2%), *Candida tropicalis* (9,1%) and *Trichophyton rubrum* (72,7%). Positive samples for dermatomycosis in this group of elderly indicate a higher occurrence of yeast than dermatophyte fungi. The five isolates of dermatomycosis were inhabited by SPES with MICs ranging from 22.29 to 2853.7 ug/ml. The MFC was 22,29 ug/mL for *T. rubrum*, 178.35 for *C. tropicalis*, 1069.92 for *C. parapsilosis*. The SPES proved effective *in vitro* against the fungi tested, promising to be an alternative to dermatomycosis treatment, especially in this population.

Keywords: dermatomycosis, *Candida*, *Trichophyto*n, subproduct of propolis extract propolis.