TITLE: ANTIFUNGAL POTENTIAL OF SILVER (I) COORDINATION COMPOUNDS AGAINST *Candida* SPECIES.

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ABSTRACT:

The Candida spp. resistance to the antimicrobials available in the clinical practice is a threat to the public health. The search of now compound with anticandidal activity is relevant. In this sense, new molecules such as Aq (I) complexes are a very promising alternative. This study aimed to evaluate the antifungal potential of Ag (I) coordinated compounds with different chemical binders against Candida species. The in vitro antifungal activity was evaluated by determining the minimal inhibitory concentration (MIC) using the microplate dilution technique. The compound [Ag(PCAPhTSC)₂]NO₃ inhibited C. albicans ATCC 10231 and C. glabrata ATCC 2001 with MIC of 3.9 µg/mL, and C. krusei ATCC 6528 and C. parapsilosis ATCC 22019 with MIC of 7.8 µg/mL, followed by C. tropicalis ATCC 750 with the MIC of 15.6 µg/mL. The compound [Ag(PCAHTSC)₂]NO₃ inhibited C. albicans, C. glabrata, C. parapsilosis and C. tropicalis with MIC of 7.8 µg/mL and *C. krusei* with MIC of 3.9 µg/mL. The compound [AgCl(PCAPhTSC)₂] inhibited *C.* albicans, C. glabrata, C. krusei and C. parapsilosis with MIC of 3.9 µg/mL, and C. tropicalis with MIC of 7.8 µg/mL. The compound [AgCl(PCAHTSC)₂] showed MIC of 7.8 µg/mL against all evaluated strains. The results showed relevant antifungal action exerted by the free Ag (I) coordinated compounds and their respective chemical binders against all Candida species. The silver compounds are a promising alternative to control of diseases caused by this microorganism.

Keywords: Silver compound, Candida ssp., Minimal Inhibitory Concentration.

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