
CHARACTERIZATION OF EXOANTIGENS OF HISTOPLASMA CAPSULATUM FROM SUBMERGED CULTURES.

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Histoplasma capsulatum is a cosmopolitan, dimorphous fungus which is the etiological agent causing histoplasmosis, a mycosis which affects principally the lungs and other organs of the reticuloendothelial system. The disease is diagnosed by mycological, histopathological and immunological criteria. Analysis of the growth kinetics of this microorganism can be carried out by measuring biomass during time; comparison with the antigenic compartment of metabolic extracts would permit definition of optimal conditions for the production of compounds of medical, industrial and other interests. In this study, we evaluated the growth kinetics of *H. capsulatum* in mycelial form in Sabouraud thiamine asparagine (STA) and Smith media in a bioreactor. Antigenic characterization was carried out as a function of the growth kinetics, using immunodiffusion, SDS PAGE and immunotransfer. Fungal growth was more favorable in STA medium and less so in Smith, perhaps because the latter had a very acidic initial pH (pH4). Antigenically, the metabolic extracts obtained in STA medium gave a band with a relative molecular weight of 97 kDa, comparable with antigen M. This band was observed from the fourth day of culture, with an increasing intensity of reaction with sera from patients with histoplasmosis during the last days of growth. In Smith medium in flasks, pH 4 and pH 6, growth was more favorable at pH 6. Antigenically the metabolic extracts were similar in reactivity to those observed in STA medium from the bioreactor. The metabolic extracts reacted with a pool of sera from patients with paracoccidioidomycosis and coccidioidomycosis, but not with sporotrichosis sera. Cross reactions with rabbit antisera were not observed.

Key words: *Histoplasma capsulatum*, growth kinetics, antigen.