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SUMMARY OF THESIS

VIDAL, Mônica Scarpelli Martinelli - Estudo imunoquímico de antígenos de *Fonsecaea pedrosoi* e padronização de técnicas sorológicas para cromoblastomicose causada por este fungo. São Paulo, 2002. (Dissertação de Mestrado - Faculdade de Medicina da Universidade de São Paulo).

IMMUNOCHEMICAL STUDY OF *Fonsecaea pedrosoi* ANTIGENS AND STANDARDIZATION OF SEROLOGICAL TECHNIQUES FOR CHROMOBLASTOMYCOSIS

Chromoblastomycosis is a cutaneous infection caused by a group of different dematiaceous fungi, the most common of which is *Fonsecaea pedrosoi* (Brumpt, 1922) Negroni, 1936. Dematiaceous fungi are black velvety colonies with septate light-brown hyphae. In tissue fungi present as "sclerotic cells", which are round shaped, dark brown, longitudinally dividing cells. Diagnosis is achieved by identifying these cells in KOH cleared or HE stained lesion specimens. Serologic tests are of little use nowadays because of lack of standardization of serologic techniques, as well as of specific antigens suitable for evaluation of humoral immune response. In the present study the author standardized routine serologic reactions such as double immunodiffusion (ID), counterimmunoelectrophoresis (CIE), immunoelectrophoresis (IEF), IgG-ELISA and immunoblotting for evaluation of chromoblastomycosis patients sera samples caused by *Fonsecaea pedrosoi*. Controls included sera of sporotrichosis and cutaneous leishmaniosis patients, normal individuals (blood donnors) and anti-*Fonsecaea pedrosoi* serum produced in rabbits. Electrophoretic analysis of the antigens (SDS-PAGE) was performed, as well as analysis of sensibility and specificity of the reactions. ID and CIE disclosed sensibility of 53% and 68% respectively, while specificity reached 100% with normal controls sera. There was a decrease of 92% and 98% with sera from other infections patients sera. ELISA disclosed 78% of sensibility and specificity of 94% with normal controls sera and decrease of 72% with other infections sera. Through IEF an anodic migrating arch was observed. It was recognized by 57% of chromoblastomycosis patients sera and showed 100% specificity. This arch was eluted in PBS and electrophoretic analysis (SDS-PAGE) disclosed two fractions with 66 kDa and 54 kDa by molecular weight. The 54 kDa fraction showed 100% specificity for *Fonsecaea pedrosoi* and was not recognized neither by immunoblotting, nor by normal controls sera nor by other infections sera. Sensibility was of 96.6%.

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