

MOLECULAR IDENTIFICATION OF *PARACOCCIDIOIDES* SPECIES ISOLATED FROM PATIENTS AND ENVIRONMENT OF THE STATES OF SÃO PAULO AND MINAS GERAIS, BRAZIL.

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Paracoccidioidomycosis (PCM) has two etiological agents, *Paracoccidioides brasiliensis* and *P. lutzii*. Based on phylogenetic and geographical differences, *P. brasiliensis* was characterized into four subgroups, S1, PS2, PS3 and PS4. *P. lutzii* was characterized as a new species by phylogenetic and micromorphological differences existing among the etiological agents of PCM. In this study, clinical and environmental isolates of *Paracoccidioides* spp. were genotyped in order to obtain knowledge of the geographic distribution of their species and subgroups in southeastern Brazil. Isolates were obtained from 14 patients (54% with chronic form and 46% with acute/subacute form), 12 from Ribeirão Preto-São Paulo State (1 with AIDS) and 2 from southern of Minas Gerais State, and from soil (n=1) and armadillos (n=2) of the Ibiá - MG city. To confirm the genus of the clinical and environmental isolates of *Paracoccidioides* spp., the genomic DNA was submitted to Polymerase Chain Reaction (PCR) for the amplification of the GP43 coding gene. The identification of *P. brasiliensis* complex the subgroups and *P. lutzii* species were performed by PCR - RFLP (Polymerase Chain Reaction - Restriction Fragment Length Polymorphism) method with the amplification of the α - Tubulin - coding gene with the double digestion with the restriction endonucleases, *BclI* and *MspI*. The DNA fragments were checked on 2% agarose gel electrophoresis. The clinical (14) and environmental (3) isolates were identified into the subgroup S1 of the *P. brasiliensis* complex. The geographical distribution of *P. brasiliensis* (S1) predominates in the south and southeast of the country. Thus, the results confirmed the prevalence of *P. brasiliensis* - S1 subgroup in the southeastern region of Brazil, covering environmental and clinical isolates and independently of the clinical form of paracoccidioidomycosis.

Keywords: *Paracoccidioides* spp., Genotyping, PCR-RFLP

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