

Title: EPIDEMIOLOGICAL PROFILE OF PARACOCCIDIOIDES BRASILIENSIS IN SAMPLES EXAMINED AT THE INSTITUTE HERMES PARDINI IN VESPASIANO, BRAZIL

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Summary:

Paracoccidioidomycosis (PCM) is a substantial systemic mycosis in Latin America, where up to 10 million people are infected. About 80% of the cases occur in Brazil, followed by Colombia and Venezuela, bringing about serious public health issues. The disease is caused by dimorphic fungi *Paracoccidioides brasiliensis*, most frequently affects grown men over 30 years. In the wild, *p. brasiliensis* has filamentous structures containing conidia (infective propagules). Once inhaled, the propagules give rise to yeast fungus forms, which consists the parasitic form in the host tissues. Recently, notable changes were observed in the frequency, demographic characteristics and geographical distribution of the PCM. This research had the aim to draw up a profile related to Paracoccidioidomycosis occurrences of cases identified from respiratory secretion samples, bodily fluids, lymph and puncture abscesses. This study was conducted in the field of Mycology, Microbiology department of the Hermes Pardini Institute, in Vespasiano, Brazil, during the period of December 2013 to November 2014. A survey was carried out to search in our data basis for the results for fungi, detected by direct microscopic examination (DME), additionally, fungal culture of respiratory secretions, body fluids, cerebrospinal fluid, lymph and puncture abscesses data were collected. We evaluated the results of patients from different regions of Brazil, totalling 2004 tests. From these, 1444 were related to culture for fungus and 560 were direct microscopic examination for fungal research. As for the material analysed, 774 accounted for-if sputum samples, 876 of bronchoalveolar lavage, 341 of CSF, 12 mini bal and one tracheal secretion. 1998 were negative and 6 samples were identified as positive for presence of *P. brasiliensis*. All the positive cases for *Paracoccidioides brasiliensis* were observed in sputum samples for fungi research in male patients with age range between 33 to 63 years. The highest incidence was in samples from the Southeast, known as endemic region to the etiologic agent. The low occurrence of Paracoccidioidomycosis observed in our epidemiological survey is consistent with other accounts available in literature. These findings provide relevant data that can enhance the epidemiological data basis in order to support the clinical diagnostic of Paracoccidioidomycosis, a disease that is extremely important mainly in Latin America.

Keywords: *Paracoccidioides brasiliensis*, occurrence, epidemiology.