Abstract

Humoral response of paracoccidioidomycosis sera in hamsters with different Venezuelan isolates. Paracoccidioidomycosis (PCM) is a progressive systemic mycosis caused by the fungus Paracoccidioides brasiliensis (Pb), endemic to Venezuela and Latin America. In this study, eight different Venezuelan isolates obtained from patients with PCM, were inoculated intraperitoneally in Syrian hamsters (Cricetus auratus) and studied by immune-serum. Each strain was collected by gently scraping the surface of the culture medium (Sabouraud Dextrose Agar) and suspended in 3ml of 0.15 M phosphate-buffered saline. The antigen obtained was called Paracoccidioides brasiliensis Crude Antigen (CAP). Immunoblotting results showed that the immune-sera from hamsters recognized at least 3 bands: one over 200 kDa, and two of 80 and 15-20 kDa. This study suggests that IgG anti-CAP can reveal a significant variability in the eight Venezuelan isolates. Sera from 88 infected hamsters were evaluated by ELISA with eight different CAPs and Western blot with CAP 37383. ELISA results showed that, the antigen of the virulent isolate 37383 had the highest percentage (38%) of positivity, while the nonvirulent isolate 1458 had the lowest one (13.6%). Furthermore, scanning densitometry revealed that the isolate 37383 had less bands than the non-virulent isolates. These results suggest that the ELISA test with CAP 37383 can detect circulating antibodies, and that this virulent isolate may be useful for the diagnosis of PCM, and to monitor disease responses to treatments.

Keywords

Humoral response, Paracoccidioides brasiliensis, paracoccidioidomycosis, Syrian hamsters, Venezuelan isolates, ELISA, Immunoblotting.