

**P1187 Disseminated histoplasmosis in patients from Ceará, Brazil: clinical and molecular aspects of fungal isolates by exoantigen profile and sexual compatibility**

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**Background:** *Histoplasma capsulatum* is a dimorphic fungus that can cause since asymptomatic infection to severe disease, after inhalation of microconidia or hyphae fragment by the host. Several phenotypic characteristics are presented by this fungus, such as exoantigen production, melanization among others. Also, it is a heterothallic ascomycete that has an anamorphic or asexual stage with two types of sexual compatibility, + and -, represented at the mating locus (*MAT1*) by the idiomorphic regions *MAT1-1* and *MAT1-2*, respectively.

**Materials/methods:** The aim of this study was describe the epidemiological and clinical aspects of histoplasmosis, as well identify the exoantigens profiles and mating types of 51 *H. capsulatum* isolates recovered from 40 hospitalized patients with histoplasmosis at the São José Hospital of Infectious Diseases at Ceará/Brazil between 2011 to 2014. Epidemiological and clinical data were obtained by review of medical records. Exoantigen detection was performed by *western blot* and sexual compatibility by PCR of the *MAT1* locus.

**Results:** The median age of patients was 31 years; 12 patients had occupational risk associated to *H. capsulatum* microniches. Co-infection with tuberculosis was identified in 15% of patients. Fever, weight loss, cough, dyspnea, and hepatomegaly were the main signals and symptoms. Just one individual had negative HIV test. CD4+ T lymphocyte level < 150 cells/mm<sup>3</sup> were seen in 85% of patients. Death occurred in 33% of individuals. Both exoantigens H [115 kDa] and M [94 kDa] were identified in 29 (56.8%) isolates; 18 (35.3%) had single M-band, and 4 (7.9%) isolates just presented H-band; among the 51 isolates, 47% were *MAT1-1*, and 53% were *MAT1-2*. Two patients had mixed infection with different mating types in the same hospitalization.

**Conclusions:** *Western blot* test is faster and specific method for identification of fungal isolates. Additionally, *MAT1-2* idiomorph was firstly described in Brazil and had a slight predominance among all fungal isolates from Ceará. This suggests that mating type could be associated with geographic origin of *H. capsulatum* isolates. Moreover, mixed infection with different mating type was observed as an inedited event in individuals with histoplasmosis, and can be associated with histoplasmosis pathogenesis.