

**P2257 Cryptococcosis: changing epidemiology and antifungal susceptibility in the era of combination antiretroviral therapy**

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**Background:** Cryptococcosis is a classical opportunistic mycosis occurring either in immunocompromised or immunocompetent hosts. Besides HIV infection, other risk factors for cryptococcosis include: solid organ transplantation; corticosteroid/immunosuppressive therapy; cirrhosis; rheumatic diseases; treatment with monoclonal antibodies and others. However, about one fifth of patients with cryptococcosis have no apparent risk factors. Our aim was to evaluate the epidemiology and the antifungal susceptibility of cryptococcosis in our hospital during 12-year period.

**Materials/methods:** Clinical reports of patients with cryptococcosis attended at our institution from 2007 to 2018 were included in the study. In vitro activities of amphotericin B (AB), fluconazole (FZ), itraconazole (IZ), voriconazole (VZ), posaconazole (PZ), flucytosine (FC) were determined by the broth microdilution method following CLSI's criteria.

**Results:** During the study period, thirty isolates of *Cryptococcus neoformans* belonging to 17 patients were evaluated. Nine of them (52.9%) were HIV patients with an average age of 40.9 years (range 17- 59), and 7 were men (77.8%). Eight of them (47.1%) were non-HIV patients with an average age of 59.1 years (range 51 - 83), and 6 were men (75%). These non-HIV patients had the following underlying conditions: 2 (11.8%) kidney transplants recipients; 1 (5.9%) with rheumatic diseases had treatment with monoclonal antibodies (rituximab); 1 (5.9%) diabetes and liver cirrhosis; 1 (5.9%) multiple myeloma; and 3 (17.6%) have no apparent risk factors. All HIV patients had disseminated cryptococcosis.

Globally, the antifungal susceptibility (geometric mean (mg/L)/% of resistance) were as follows: AB (0.2/0%), FZ (3.8/30.4%), IZ (0.07/0%), VZ (0.06/0%), PZ (0.06/0%), FC (5.77/35%). Specifically, the geometric mean and the % of resistance of *C. neoformans* isolates against FZ and FC in HIV patients were: FZ (6.9/26%) and 5-FC (7.6/30%); whereas, in non-HIV patients were: FZ (1.54/4.3%) and 5-FC (4/10%).

**Conclusions:** Our data show that patients with cryptococcosis had different underlying conditions and antifungal susceptibility in the era of combination antiretroviral therapy (cART). HIV patients have a higher proportion of CNS disease, cryptococemia and extrapulmonary diseases than non-HIV patients. *C. neoformans* isolates from HIV patients showed higher resistance to fluconazole and flucytosine than isolates from non-HIV patients.