Topic: Candidemia in adult patients at the Hospital de Clínicas de Asunción-Paraguay. Epidemiology of 8 years

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Introduction: Candida yeasts cause serious infections, including candidemia. Candida is part of: skin microbiota, mucous membranes, respiratory and digestive tracts. Its incidence has experienced a progressive increase in recent years, especially in immunocompromised individuals and patients admitted to Intensive Care Units. C. albicans is the predominant species in the world. Although 5 species are isolated more frequently in candidemias (Candida albicans, Candida glabrata, Candida tropicalis, Candida parapsilosis and Candida krusei), there are differences in their distribution according to geographical areas. Worldwide, the isolation frequency of C. albicans is decreasing and new species appear, some with intrinsic or acquired resistance to antifungals.

Objectives: To determinate which are the causative species of Candidemias in adult patients of the Hospital de Clínicas, in the period 2009-2017 and antifungals sensitivity of the different Candida species.

Material and methods: Candidemia was denominated as the isolation of Candida species in blood cultures bottles. Isolation was made in blood agar and chromogenic media. Automated methods used were: BACTEC (Becton Dickinson), for isolation, Vitek 2C, for identification and sensitivity tests. Quality control with ATCC strains of C krusei 6258 and C parapsilosis 22019. Using CLSI standards (Clinical and Laboratory Standards Institute).

Results: 326 samples. Sum of non-albicans species> 60%. Less frequent species P. kudriavsevii, W. anomalus and C. lusitaniae. In increase M. guillermondii and D. hansanii. C. albicans 30% (97), C. parapsilosis 27% (90), C. tropicalis 25% (81).

Conclusion: Candidemia is a growing problem in hospitals around the world. There was a high prevalence of species other than C. albicans (70%). Candida albicans was the most frequently isolated species, as in other Latin American studies. Among the non-albicans species, the predominance of C. tropicalis and C. parapsilosis is highlighted, followed by the occurrence of C. glabrata. C. glabrata was the fourth most frequently isolated species, followed by C. famata and C. guilliermondii, constituting 94% of all isolates recovered. Scarce isolation of C krusei. High prevalence in Intensive Care Units and Surgery rooms. In general, the detection of patterns of R or SDD was unusual. It is important to research the Candida species and monitor their resistances to know the epidemiology of each hospital. The epidemiology of our hospital has undergone changes, mainly in the relative frequency of species, with a predominance of non-albicans species.