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P2225 Molecular identification and antifungal susceptibility of yeast from fungaemia: results from a population-based surveillance in Spain (2016-2018)

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Background: We aimed to describe the molecular identification and antifungal susceptibilities of isolates causing fungemia in a prospective population-based surveillance study in Spain.

Materials/methods: Prospective national multicenter study of candidaemia in adult patients from September 2016 to February 2018 at 11 university hospitals in Spain. All the strains were then forwarded to the mycology reference laboratory at the Spanish National Center for Microbiology (Majadahonda, Madrid) for species confirmation and susceptibility testing.

Results: A total of 295 isolates were collected. *Candida albicans* was the most common species isolated (34.2%), followed by *C. glabrata* (21.4%), *C. parapsilosis* (17.6%), *C. tropicalis* (8.8%), *C. krusei* (2%) and *C. lusitaniae* (2%). Other Candida and non-Candida species accounted for approximately 3% and 0.9% of the isolates, respectively. There was an outbreak of *C. auris* in one hospital, causing 29 candidaemias (9.8%) in the study period. Antifungal susceptibility testing was performed with EUCAST reference procedures. The rate of fluconazol-susceptible isolates was 67.12%. There was no fluconazole-resistant or intermediate *C. albicans* strain. Most *C. glabrata* strains (95.2%) were fluconazole-intermediate (MIC 0.015-32) and a few (4.8%) fluconazole-resistant (MIC ≥64). Among *C. parapsilosis* and *C. tropicalis* isolates, 3.8% and 4% were fluconazole-intermediate, respectively, and no isolate was found to be fluconazole-resistant. Trailing effect to azoles in *C. tropicalis* was not prominent. Echinocandin-resistance was very rare (0.7%), and was detected only in one case of candidaemia due to *C. glabrata* and in another due to *C. krusei* of all isolates. Resistance to amphotericin B was not documented. Compared with a prior Spanish survaillence study, *C. glabrata* has risen and *C. auris* has irrupted in our ecology.

Conclusions: Our study showed the current epidemiology of yeast fungemia in Spain. *C. albicans* remains the most common specie isolated. The rate of candidaemia caused by *C. glabrata* has risen, being the second most frequently isolated species. *C. auris* has rooted itself in one hospital, causing a nosocomial outbreak. Finally, there is a low rate of echinocandin-resistant strains in *Candida* species.