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O110 Epidemiology, risk factors for mortality and fluconazole susceptibility in a population-based surveillance for candidaemia in SpainM. Puig*, J. Garnacho, B. Padilla, R. Zaragoza, J.M. Aguado, M. Montejo, P. Muñoz, B. Almirante on behalf of CANDIPOP Project, GEIH-GEMICOMED (SEIMC and REIPI.) - (2012), Symposia and Oral Presentations. Clinical Microbiology and Infection, 18: 1–113. doi: 10.1111/j.1469-0691.2012.03801.x

O110 Epidemiology, risk factors for mortality and fluconazol susceptibility in a population-based surveillance for candidaemia in Spain

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Objectives: To determine the incidence of Candida bloodstream infections (BSI), risk factors for mortality and rates of fluconazole resistance in Spain.

Methods: A prospective multicenter population-based surveillance program on Candida BSI was implemented in 29 hospitals from five areas in Spain (population 7 026 030) from May 2010 to April 2011. Case was defined as the first positive blood culture of Candida in a surveillance area resident. Demographic, clinical and outcome data were collected from each case. We analyzed early (3–7 days) and late mortality (8–30 days).

Results: Of 752 cases in 729 patients with Candida BSI were detected. Foruteen cases had two different species of Candida in the incident culture, resulting in 766 isolates. Annual incidences were: 10.7/10_5 population, 0.78/10_3 admissions, and 1.2/10^4 patient-days. 58.8% cases were men with median age of 63 years (range 0–103 years), with 13.3% less than 1 year old. Inpatients comprised 89% of the cases (39.7% intensive care unit, 31.8% medical wards, 24% surgical wards and 4.3% others). Underlying conditions were: 37.9% malignancies, 5.9% transplant recipients, 5.5% neutropenic and 2.2% HIV infection. Of 51.3% patients underwent surgery 3 months prior to candidemia, and 24.2% had received previous antifungal drugs. Of 76.3% cases had central venous catheter (CVC) (56.9% for parenteral nutrition). Candidemia was primary in 60% cases and secondary in 40% (31.3% catheter-related, 4.5% urologic source, 3.9% abdominal origin, and 0.3% others). Candida albicans was the most common isolate (45.8%), followed by C. parapsilosis (25.1%), C. glabrata (13.6%), C. tropicalis (8%), C. krusei (2.1%) and others (5.4%). Antifungal susceptibility was tested in 650 isolates. Overall rate of fluconazole resistance (MIC >4 mcg/mL) was 14.6%. Crude mortality rate was 37.7% (13% within 7 day, 29.7% within 30 day). On multivariate analysis, CVC removal within the first 48 hours (OR, 0.37; 95%CI, 0.16–0.86) was a protective factor for early mortality, and Pitt score ‡2 (OR, 3.3; 95%CI, 1.3–8.2) and C. krusei candidemia (OR, 3.9; 95%CI, 1.01–15) were associated with early death. Intubation was associated with late mortality (OR, 2.7; 95%CI, 1.6–4.5).

Conclusions: The incidence of Candida BSI in Spain is 10.7/10_5 population. Catheter removal is critical in preventing early mortality in patients with candidemia. Overall susceptibility to fluconazole has increased in relation with previous Spanish reports.