

Clinical score of candidaemia in non-ICU, non-neutropenic patients

D. Vinuesa, V. Portillo, M. Ruiz-Ruigómez, C. Dueñas, A. Peña, C. Tomás-Jiménez, M. Mantecón, L. Muñoz, R. Cabo, M. Cuesta, J. Hernández-Quero, J. Parra-Ruiz* (Granada, Burgos, Murcia, ES)

Background: *Candida* spp is the leading cause of invasive fungal infections in hospitalized patients and the fourth most common isolates recovered from patients with bloodstream infection. Few data exist on risk factors for candidemia in non-ICU patients, so we performed a population based case-control study of patients with candidemia to evaluate main predictors for candidemia in non-ICU patients. **Methods:** This retrospective, multicenter study included all non-neutropenic, non-surgical and non-ICU adult patients with candidemia between January 2006 and January 2011. Cases and controls were identified using laboratory records. Patient with positive, non-candidal blood culture obtained at the same day were selected as controls. Patients were matched according to hospital ward, age and clinical characteristics. A multiple regression analysis was performed to identify risk factors **Results:** We identified 60 patients with candidemia. Median age was 67 years (25-90). Most patients were male (35; 58%). *Candida albicans* was the most frequent specie (29 cases; 48%) followed by *C. parapsilosis* (13 cases; 22%). Time to positivity was significantly shorter in patients with bacteraemia than in those with candidemia (10,2±14 days vs 17,6±14,1 days; p=0,043). Mortality rate was significantly higher for patients with candidemia than that for patients with bacteraemia [22/60, (37%) vs. 12/60 (18%); p=0,04. OR 2,57 (95%CI 1,11-5,96)]. Univariate analysis identified prior use of antibiotics (p<0,001; OR 9,34 95%CI 3,6-23,8), total parenteral nutrition (p=0,014; OR 3,37 95%CI, 1,29-8,77), central venous catheter (p=0,033; OR 2,4 95%CI 1,09-5,29) and subcutaneous implantable devices, (p=0,025; OR 4,58 95%CI 1,22-17,2). In multivariate analysis factors independently associated with candidemia included were prior use of antibiotics [p<0,001; Exp(B): 9,26; (95%CI 3,52-24,39)], central venous catheter [p=0,032; Exp(B): 2,36; (95%CI 1,22-16,83)] and presence of subcutaneous implantable devices [p=0,045; Exp(B): 4,52; (95%CI 1,12-19,6)]. Predicted probability of having various combinations of the aforementioned factors ranged from 12% to 45%. **Conclusion:** Crude mortality was 37% highlighting the need for prompt identification and initiation of therapy in these patients. We identify a set of easily determinable independent predictors of the occurrence of candidemia in non-ICU patients. Our results provide a rationale for initiating early antifungal treatment in high-risk non-ICU patients.