TITLE: ASSOCIATED RISK FACTORS TO DEATH IN PATIENTS WITH CANDIDEMIA IN A TERTIARY CARE HOSPITAL IN UBERLÂNDIA-MG :

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ABSTRACT:

Candidemia is a bloodstream infection caused by yeasts of the *Candida* genus, a severe disease with high mortality rates that range from 40% to 60%. The objective of the present study was to evaluate frequencies of *Candida* species and the risk factors associated with death in a tertiary hospital in Uberlandia - MG. This retrospective study reviewed medical records of patients including data obtained in the Microbiology Laboratory of the hospital. The univariate analysis was performed by chi-square test and student's t test. Multivariate statistical analysis was performed by multiple logistic regression. The study included patients admitted between January 2011 and December 2015, with at least one blood culture tested positive for *Candida* sp. after 48 hours of hospitalization. A total of 198 patients presented candidemia, out of which, 92 (46.47%) were discharged, and 106 (53.53%) have died. Considering the latter 106 patients, three comorbidities were more frequently: hypertension – 35 patients (33%), neoplasia – 27 patients (25.5%) and diabetes - 18 patients (17%). The species identified in this study ranked as follows: *C. albicans* - 92 cases (44.2%), *C. tropicalis* - 45 cases (21.6%), *C. parapsilosis* complex - 40 cases (19.3%), *C. glabrata* - 17 cases (8.2%), *C. krusei* - 9 cases (4.3%), and others (2.4%). While patients were hospitalized, they received antimicrobial therapy before the blood culture positivity was obtained (15 days before), the most frequently were: cephalosporin 129 (65.2%), glycopeptides 127 (64.1%) and carbapenems 104 (52.5%). The most frequently-used antifungal treatment by patients in the fatal cases was fluconazole 90 (84.9%). The following death-related risk factors were statistically significant in the univariate analysis: neoplasia (p: 0.0366; OR: 2.22), hemodialysis (p: 0.0000; OR: 10.30) and age > 58 years old (p: 0,0000; OR: 1.04). Regarding the multivariate analysis, age > 58 y. o. (p: 0.0000; OR: 1.03) and hemodialysis (p: 0.0000, OR: 6.39) were considered significant factors for death. We conclude that the most frequently isolated species were *C. albicans, C. tropicalis* and *C. parapsilosis* complex, and the multiple logistic regression analysis revealed that advanced age (> 58 years old) and the need for hemodialysis were independent factors associated with mortality.

Keywords: *Candida*; Candidemia; Risk factors