MORTALITY ATTRIBUTED TO BACTEREMIA IN AN ANDALUSIAN SECONDARY HOSPITAL. STUDY OF PROGNOSTIC FACTORS

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OBJECTIVES

Bacteremia can produce significant morbidity and mortality. The aim of the study is to describe the results of an early intervention program for patients with bacteremia and its impact on attributable mortality in the first week, assessment of results by stratification indices forecast (McCabe, Charlson and Pitt) and if there is an independent prognostic factor.

METHOD

Prospective cohort study was realized during 2 years. The results of an early intervention program for patients with bacteremia were recorded. Results are analyzed in terms of the change in treatment, microbiological results, risk stratification (McCabe index, Charlson and Pitt), focus, age and sex. Taking as variable of comparison the presence of premature mortality, a bivariate analysis (chi-square for qualitative independent variables and the Student t test for quantitative independent variables) and a multivariate logistic regression were performed. The level of statistical significance was set as $p < 0.05$.

RESULTS

We evaluated 773 episodes of bacteremia although 21 patients were excluded for transfer to other centers. Thirty-four patients (4.5%) had died when they were located. In the first week, 62 died (8.2%) attributed to bacteremia. After the first week, 49 died (6.5%) because of other causes. In the bivariate analysis were significant differences ($p < 0.001$) among the mortality attributable to bacteremia and age (> in the elderly), McCabe with ultimately fatal disease (UF) and rapidly fatal (RF), Charlson (≥3), Pitt (≥ 3), the lack of focus and not empirical treatment modification. No significant differences in gender distribution, organism isolated and place of acquisition of infection although the nosocomial bacteremia had a higher percentage, 18 % (30 patients), versus community infection with 13, 2 ??% (41 patients) and related to healthcare with 14.6 % (40 patients). The multivariate logistic regression analysis revealed a greater likelihood of death by age (RR 1.028 , $p < 0.001$), nosocomial acquisition (RR 1.88 , $p = 0.029$) , lack of focus (RR 2.76, $p < 0.004$), McCabe (LF) (RR 5.30 $p < 0.001$) or (RF) (RR 7.616, $p < 0.001$) , Charlson (≥ 3: RR 2.68, $p < 0.001$) and Pitt (≥ 3: RR 7.014, $p < 0.001$) and no modification of empirical treatment (RR 2.44, $p < 0.001$). There were no differences in the sex and microorganism.

CONCLUSIONS

1 - Premature mortality was low (8.2%) and 4.5% of patients had died when they were located.

. 2 - Predictors factors of mortality attributable to bacteremia were: age, McCabe (UF and RF), Charlson and Pitt (≥ 3), unknown focus, nosocomial acquisition and no modification of the initial empirical treatment.

. 3 - Early intervention and stratifying the risk of mortality allow optimization of antimicrobial therapy and can reduce mortality.