MORTALITY PREDICTORS AND SURVIVAL ANALYSIS IN ANCA-ASSOCIATED VASCULITIS: EXPERIENCE OF A BRAZILIAN MONOCENTRIC COHORT OF A RHEUMATOLOGY CENTER

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BACKGROUND

Mortality of patients with ANCA-associated vasculitis (AAV) is higher than the general population. There are few papers in the literature regarding the factors associated with this unfavorable outcome, most of them in the eastern population or from nephrology centers. To date, there is no study with this approach in Latin-American patients, a miscegenated population. Our objective was to identify clinical and laboratory features associated with mortality in Latin-American patients with AAV.

MATERIALS AND METHODS

All the patients fulfilling the Chapel Hill Criteria (2012) and ACR criteria (1990) for AAV followed between 2000 and 2018 in our Vasculitis Outpatient Clinics were selected. Data were obtained from an ongoing electronic database protocol. Patients were divided in two groups - dead or alive in 2018. Information about the death was obtained from medical records, family members and death certificates. Variables analyzed were age at the onset of the vasculitis, ANCA frequency, Birmingham Vasculitis Activity Score (BVAS), Vasculitis Damage Index (VDI) and laboratory parameters in the most recent attendance or in the last attendance before death. Comparisons were made by non-paired t-tests or Mann-Whitney tests for continuous variables and Fisher's exact test for categorical variables. Logistic regression was used to analyze association between death (dependent variable) and variables with significance in the univariate analyses. A log-Rank survival analysis was performed. Statistical significance was set at $p<0.05$.

RESULTS

128 patients were included; 101 had GPA, 21 had EGPA and 6 had MPA. In 2018, 78 were alive, 25 had died and 25 had lost contact. The main cause of death was infection (64%). Patients who died were older at diagnosis (40.9 vs. 51.2years, p=0.007) and had higher activity and damage index (BVAS 3 vs. 8, p=0.001; VDI 3.5 vs. 6.9, p<0.001). Laboratorial features related with mortality were creatinine (1.24 vs. 3.5mg/dL, p<0.001), hemoglobin (13.3 vs. 10.7g/dL, p<0.001), ESR (19.7 vs. 38.6mm/1sthour, p=0.038) and CRP (5.4 vs. 68.9mg/L, p<0.001). The daily dose of prednisone was higher in the dead-group (9.8 vs. 18.9mg, p=0.018). No difference was observed regarding the presence of ANCA or the immunosuppressive treatment. Logistic regression showed that VDI (OR 1.35, p=0.03), creatinine (OR 1.31, p=0.01) and CRP (OR 1.04, p=0.04) were independent factors related to mortality. Survival was importantly decreased among patients with GFR<50% (p<0.001) (figure).

CONCLUSION

This is the first study analyzing outcomes of Latin-Americans patients with AAV. Damage index, renal impairment and high CRP were independent factors associated with mortality.