

P404 CAN THE BASELINE NT-PROBNP LEVEL BE USED AS A PROGNOSTIC MARKER IN PATIENTS HOSPITALIZED FOR COVID-19? A SINGLE CENTRE EXPERIENCE

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Background: NT-proBNP is commonly used a reliable prognostic biomarker in heart failure. Although SARS-CoV-2 is primarily a respiratory virus, it can also cause a myocardial injury. Previous observations indicate that COVID-19 patients can show a pathological rise of NT-proBNP during the disease course.

Aim: To assess the in-hospital prognostic significance of baseline NT-proBNP levels in COVID-19 patients.

Methods: We retrospectively analysed the data of one-hundred and ninety-two consecutive patients (mean age 70 ± 15 , 54.6 % males), hospitalized in our institution for COVID-19 disease. Demographic parameters, clinical history, pharmacological treatments and laboratory data at the admission were analysed. According to the baseline NT-proBNP levels, the whole population was divided into normal (Group A) and elevated (Group B) NT-proBNP, considering ≥ 125 pg/mL level as the pathological cut off. The length-of-stay, the orotracheal intubation rate, non-invasive ventilation and in-hospital mortality were taken into account as prognostic parameters.

Results: Forty-seven patients and one-hundred and forty-five patients belonged to Group A and Group B, respectively. Group A patients were significantly younger (57 ± 13 vs 74 ± 13 yrs, $p < 0.001$), with a lower rate of previous cardiac disease (6.4% vs 39.3%, $p < 0.001$) and atrial fibrillation (4.3% vs 16.7%, $p < 0.033$) and a better eGFR (94 ± 20 vs 71 ± 29 ml/m', $p < 0.001$). No differences were noted between the two groups in the prevalence of diabetes, hypertension, ACE/ARBs treatment. The length-of-stay was similar (20 ± 13 days in Group A vs 22 ± 19 days in Group B, respectively, $p = ns$). Although patients of Group B showed a higher rate for orotracheal intubation (4.3% vs 13.8%) and non-invasive ventilation (13.8% vs 32.4%), these differences were not significantly different. The in-hospital mortality was considerably lower in patients with normal baseline NT-proBNP level, as compared to Group B patients (2.1% vs 23.4% $p < 0.001$). When stratified by quartiles of NT-proBNP, the subgroups showed a prognosis clearly related to the expression of the biomarker.

Conclusion: In patients hospitalized for COVID-19, normal baseline NT-proBNP level identifies a population with a short-term better outcome. This widely diffuse biomarker could be used in the initial phase of admission as a prognostic tool to characterize the in-hospital prognosis.