Abstract: P153

Complete right bundle branch block as a marker of poor prognosis in non-ST elevation acute myocardial infarction

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Introduction: The importance and prognosis of the existence of complete right bundle branch block (RBBB) in the presence of ischemic symptoms is not well established so far.

Objective: To evaluate the clinical, angiographic characteristics, complications and the prognosis impact associated with the presence of RBBB in patients (P) with non-ST elevation myocardial infarction (NSTEMI).

Population and Methods: A total of 7872 P diagnosed with NSTEMI at admission were enrolled in a National Multicenter Registry. We considered 2 groups: P with NSTEMI and RBBB and P with NSTEMI without RBBB. We compared age, personal history, clinical presentation, location and severity of coronary disease and ejection fraction (EF). In-hospital mortality (HM) and the following complications were evaluated: heart failure (HF), cardiogenic shock (CC), mechanical complications (MC), high-grade AV block and need of provisional pacemaker (PPM). Multivariate analysis was performed, adjusting for the variables with a statistically significant difference in the groups' characterization in order to assess the relationship between RBBB and HM and any of the complications considered.

Results: Patients with NSTEMI and RBBB constituted 7.5% (591P) of the study population. These patients were older (74 ± 10 vs 67 ± 13, p <0.001) and had a higher prevalence of arterial hypertension (83.7% vs.73.3%, p <0.001), diabetes mellitus (40.3% vs 34.6%; p=0.003), previous NSTEMI (30.3% vs. 24.7%, p = 0.003), previous heart failure (11.4% vs. 7.3%, p <0.001), peripheral arterial disease (12.3% vs. 6.6%, p <0.001), stroke (12.7% vs. 8.6%, p <0.001) and chronic renal failure (11.5% vs. 7.1%, p <0.001). The P with NSTEMI and RBBB presented more frequently with Killip-Kimbal class = 2 (24.4% vs14.8%, p <0.001) and developed more complications during hospitalization: HF (21.4% vs. 14.3%, p (0.8% vs0.3%, p <0.035), CC (3.9% vs 1.8% p <0.001), high-grade AV block (4.1% vs 1.3%, p <0.001), need for PPM (4.1% vs 0.7%, p <0.001). HM was higher in P with NSTEMI and RBBB (4.6% vs2.2%, p <0.001). After multivariate analysis, the presence of RBBB in P with NSTEMI was associated with a higher probability of HM (OR 0.176; p <0.031), CC (OR 2.02; p = 0.023), high-grade AV block (OR 3.2; P<0,001) and PPM need (OR 4.8; p <0.001).

Conclusion: The presence of RBBB seems to be a predictor of in-hospital mortality and complications in P with NSTEMI.