

## Advanced interatrial block is associated with worst prognosis in patients with previous coronary acute syndrome

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**Background:** The interatrial block (IAB) has been directly related to the appearance of several atrial tachyarrhythmias. The objective of this study is to establish whether the duration of p wave could predict the appearance of atrial fibrillation (AF), death or stroke in patients with a previous acute coronary syndrome (ACS).

**Methods:** We have reviewed all ECG of patients with an ACS admitted to our hospital from July 2006 to June 2014 looking for advanced IAB defined as (P-wave duration was  $\geq 120$  ms and presented biphasic morphology), excluding those patients with previous AF and who received anticoagulant therapy. These patients were part of the population of the BACS & BAMl (Biomarkers in Acute Coronary Syndrome & Biomarkers in Acute Myocardial Infarction) studies. For all patients we have determined their cardiovascular risk factors. The primary outcome was a combined endpoint that included death, stroke and development of AF. Cox regression was used for the analysis.

**Results:** A total of 423 patients were included, the mean age was 67.8 years ( $\pm 14$ ), and 72.3% were male. Only 12 patients (2.8%) presented advanced IAB. After a median follow-up of 54.7 months, there were 51 events (21 deaths (41.2%) were observed, 17 patients (33.3%) had experienced stroke, and 13 patients (25.5%) had developed AF). Patients with development of primary endpoint were older with higher rates of cardiovascular risk factors, advance IAB and diuretic treatment at discharge.

After a multivariate Cox regression analysis, advanced IAB [HR=2.65 (1.03–6.86);  $p=0.044$ ], age [HR=1.06 (1.03–1.09) per year;  $p<0.001$ ] and diuretic treatment at discharge of ACS [HR=1.87 (1.03–3.39);  $p=0.039$ ] were independent predictors of worse prognosis.

**Conclusion:** Advanced IAB in ECG at admission with ACS could be a predictor of stroke, development of AF or death in follow up.

Multivariate analysis

Variables	Multivariate analysis		
	HR	95% CI	P
Age	1.06	1.03–1.09	<0.001
Advanced IAB	2.65	1.03–6.86	0.044
Diuretic at discharge	1.87	1.03–3.39	0.039

CI: confidence interval; IAB: interatrial block.