



Are there differences on prognosis among patients with previous ischemic heart disease vs cerebrovascular disease admitted with acute coronary syndrome?

Glória Abreu, Carlos Braga, Carina Arantes, Juliana Martins, Catarina Quina-Rodrigues, Catarina Vieira, Pedro Azevedo, Miguel Álvares Pereira, Jorge Marques

Serviço de Cardiologia, Hospital de Braga, Braga, Portugal





BACKGROUND

- It is known that patients with previous vascular disease (PVD) have a poorer outcome than those without these previous conditions, and prognosis worsens as the number of affected vascular beds increases.¹
- The importance of polyvascular disease resides in reported evidence that atherosclerotic involvement of ≥ 1 vascular territories leads to underuse of medications with proven benefits and fewer coronary revascularization treatments, which has an adverse impact on the clinical course during hospitalization and at follow-up.²⁻³

AIM

To evaluate if there are differences in **in-hospital** and **6-month** mortality among patients admitted with acute coronary syndromes with previous ischemic heart disease (IHD) versus cerebrovascular disease (CVD).

1- Yakubov S. Polyvascular atherosclerotic disease: recognizing the risks and managing the syndrome. *Curr Med Res Opin.* 2009;25:2631–41.

2 - Lee TC, Goodman SG, Yan RT, Grondin FR, Welsh RC, Rose B, et al. Disparities in management patterns and outcomes of patients with non-ST-elevation acute coronary syndrome with and without a history of cerebrovascular disease. *Am J Cardiol.* 2010;105:1083–9.

3- Consuegra-Sánchez L1, Melgarejo-Moreno A2, Galcerá-Tomás J, Alonso-Fernández N, Díaz-Pastor A, Escudero-García G2, Jaulent-Huertas L4, Vicente-Gilabert M3. Impact of previous vascular burden on in-hospital and long-term mortality in patients with ST-segment elevation myocardial infarction. *Rev Esp Cardiol (Engl Ed).* 2014 Jun;67(6):471-8.



METHODS

4871 patients (pts) admitted consecutively in our coronary care unit with a diagnosis of acute coronary syndrome from January 2002 to October 2013

Pts **with previous IHD plus CVD** (n=71, 1.5%) were excluded.

GROUP 1

Pts without previous vascular disease
(n=3718, 76,3%)

GROUP 2

Pts with previous Ischemic heart disease
(n=825, 16.9%)

GROUP 3

Pts with previous cerebrovascular disease
(n=257, 5.3%)

For each group we compared clinical and laboratory features and adverse events

Primary endpoint was **6-month mortality**. Follow-up was completed in **98%** of patients.



Are there differences on prognosis among patients with previous ischemic heart disease vs cerebrovascular disease admitted with acute coronary syndrome?

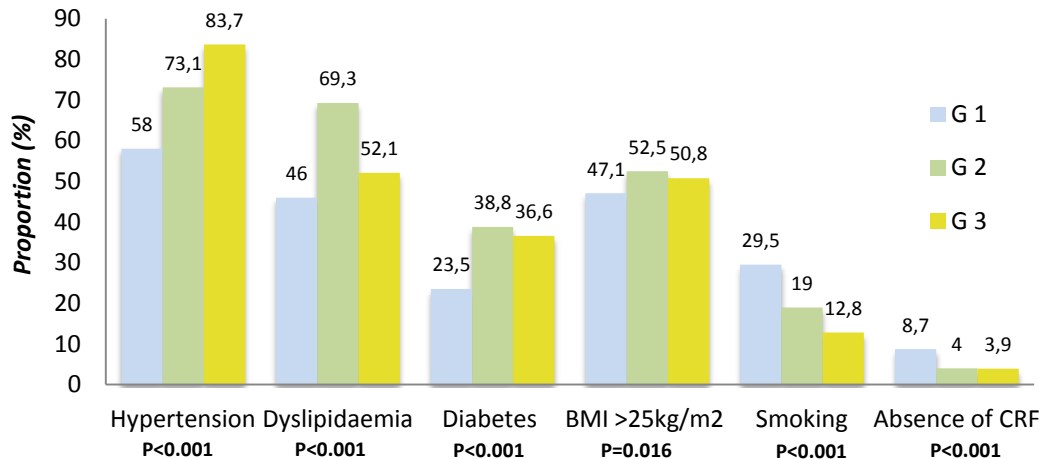


RESULTS

Baseline patients' characteristics on admission

	G1	G2	G3	p
Age (years)	63±13	67±12	71±11	<0.001
Women (%)	25	21.9	32.3	<0.001

• Cardiovascular Risk factors



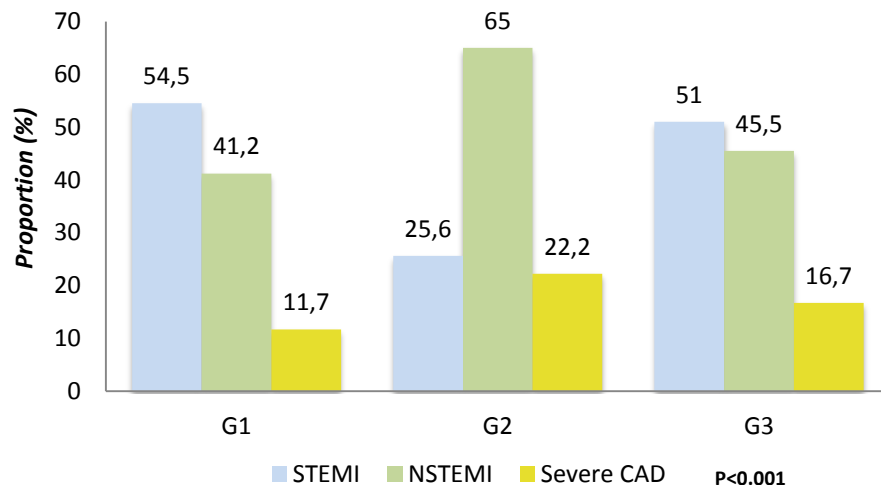
• Clinical Presentation

	G1	G2	G3	p
Killip >1 (%)	19.6	29.6	34.2	<0.001
Killip = 4 (%)	2.0	1.0	4.3	0.009
Anaemia (%)	19.8	28.6	33.9	<0.001
Renal failure (%) eGFR <60 ml/min	19.2	31	40.9	<0.001
LVSD (%)	56.2	61.8	58.4	0.03



Are there differences on prognosis among patients with previous ischemic heart disease vs cerebrovascular disease admitted with acute coronary syndrome?

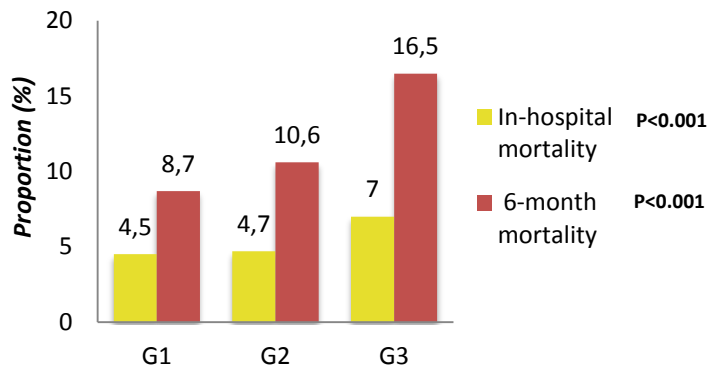
• Clinical Presentation



• In hospital medical treatment and procedures

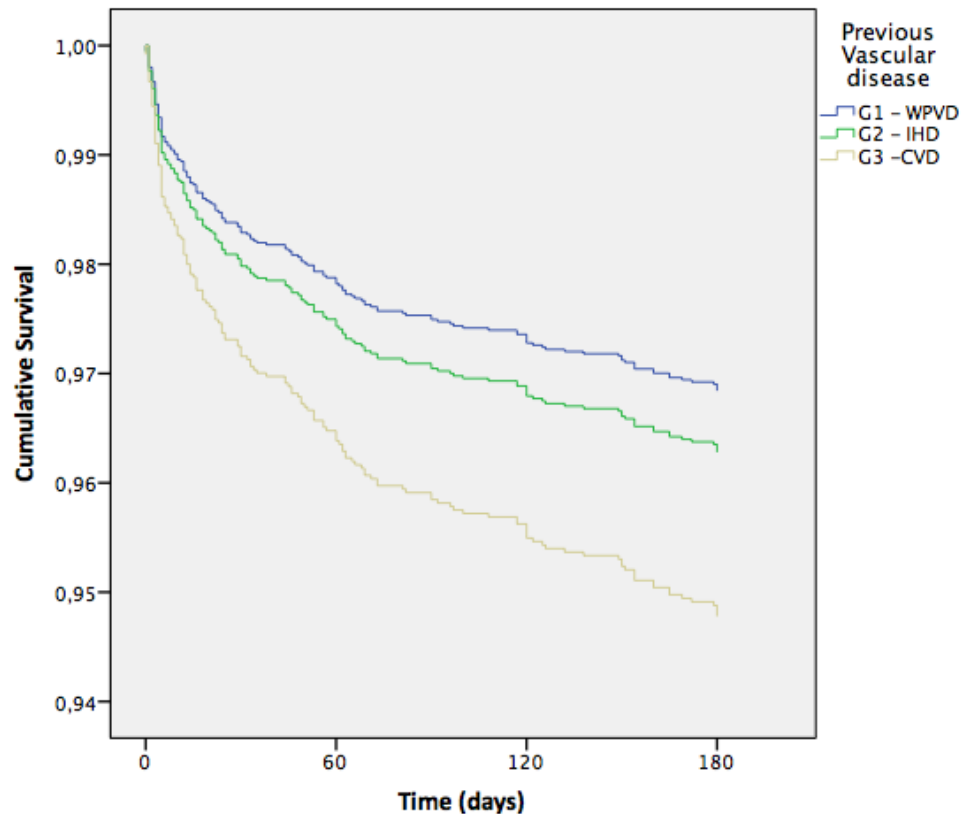
	G1	G2	G3	p
Aspirin	99.4%	99.1%	100%	NS
Clopidogrel	98.3%	97.3%	96%	NS
Beta-blockers	86.1%	86.1%	74.7%	<0.001
ACE-Inhibitors	87%	91.7%	86.4%	0.001
Statins	94 %	94.5%	91.4%	NS
Inotropics	7.1%	6.3%	12.6%	0.003
LMWH	76.5%	89%	82.9%	<0.001
UFH	32.3%	17.7%	23.7%	<0.001
PCI	51.2%	32.2%	38.2%	<0.001
Thrombolysis	19.9%	14.3%	18.3%	0.001
CABG	10.3%	14.4%	8.9%	0.001

RESULTS



Predictors of 6-month Mortality, by cox regression

VARIABLE	OR	95% IC	P
Age	1.07	(1.05-1.09)	<0.001
Renal insufficiency	1.43	(1.25-1.64)	<0.001
KK > 1	2.50	(1.80-3.47)	<0.001
IHD vs WPVD	1.19	(0.81-1.73)	NS
CVD vs WPVD	1.67	(1.06-2.63)	0.026





CONCLUSION

- Patients with previous vascular disease had higher prevalence of risk factors.
- Presence of previous vascular disease was associated to higher in-hospital and 6-month mortality.
- History of IHD was associated with higher mortality during hospitalization and at follow-up, although it was not an independent predictive factor in the adjusted analysis.
- Patients with previous cerebrovascular disease were older, more women, had more comorbidities and were less prescribed beta-blockers and ACE-Inhibitors.
- Previous cerebrovascular disease remained as a strong predictor of 6-month mortality in patients admitted with acute coronary syndrome.

LIMITATIONS OF STUDY

- Single Centre study.
- Drawbacks inherent to retrospective and observational studies, such as unadjusted bias.
- Based on a vast period of time, where many changes on treatment of ACS were observed.

