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Ischemic Heart Disease

LONG-TERM OUTCOME IN PATIENTS AFTER PRIMARY PERCUTANEOUS CORONARY INTERVENTION - CAN WE RISK-STRATIFY?

Poster Contributions
For exact presentation time, refer to the online ACC.22 Program Planner at https://www.abstractsonline.com/pp8/#!/10461

Session Title: Ischemic Heart Disease Flatboard Poster Selections: Population Science
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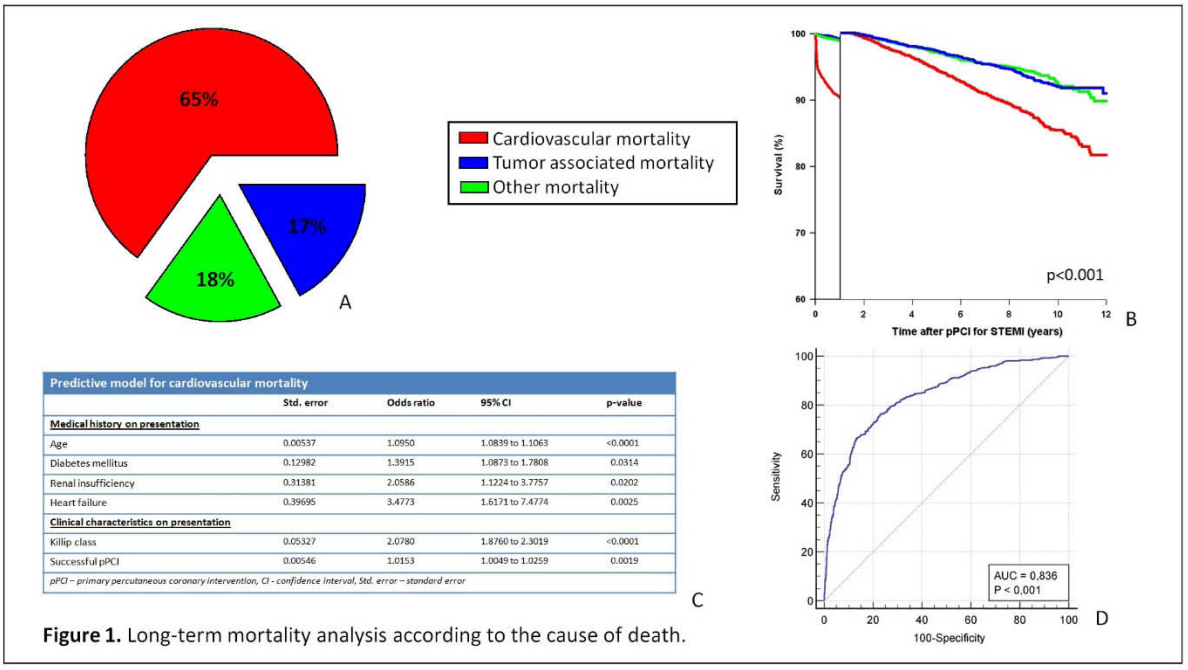
Background: Long-term follow-up after primary percutaneous coronary intervention (pPCI) for ST elevation myocardial infarction (STEMI) beyond 5 years is poorly described. No routine risk-stratification system is established.

Methods: This is a retrospective, academic, two-centre analysis of all consecutive patients presenting with acute STEMI during the period from March of 2008 to December of 2019. Baseline characteristics were gathered from prospective local registries and based on initial hospitalization. Mortality data was acquired from a national registry.

Results: The study enrolled 5263 patients treated by pPCI and found cardiovascular mortality as the most frequent cause of death (65.0%) in the long-term follow-up to 12-years. Cardiovascular mortality dominated even in landmark analysis beyond 1 year. Significant predictors for long-term cardiovascular mortality identified by multivariate analysis were age; history of diabetes mellitus, renal insufficiency, or heart failure; Killip class and successful pPCI. The predictive model was built to evaluate the risk for cardiovascular death with a high discrimination value (C-statistic = 0.84).

Conclusion: Cardiovascular diseases remain the leading cause of long-term mortality after pPCI in the Central European population. The novel predictive model provides risk stratification and thus might help us identify patients who might most benefit from aggressive secondary prevention measures.



Predictive model for cardiovascular mortality				
	Std. error	Odds ratio	95% CI	p-value
Medical history on presentation				
Age	0.00537	1.0950	1.0839 to 1.1063	<0.0001
Diabetes mellitus	0.12982	1.3915	1.0873 to 1.7808	0.0014
Renal insufficiency	0.31381	2.0586	1.1224 to 3.7757	0.0202
Heart failure	0.39695	3.4773	1.6171 to 7.4774	0.0025
Clinical characteristics on presentation				
Killip class	0.05327	2.0780	1.8760 to 2.3019	<0.0001
Successful pPCI	0.00546	1.0153	1.0049 to 1.0259	0.0019

pPCI – primary percutaneous coronary intervention, CI - confidence interval, Std. error – standard error

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Figure 1. Long-term mortality analysis according to the cause of death.