

# ACC-i2 with TCT

## REFERENCE CORONARY FLOW VELOCITY RESERVE DETERMINED AFTER PRIMARY PERCUTANEOUS CORONARY INTERVENTION FOR A FIRST ACUTE ANTERIOR MYOCARDIAL INFARCTION IS AN INDEPENDENT PREDICTOR OF CARDIAC MORTALITY AT LONG TERM FOLLOW UP

i2 Oral Contributions

McCormick Place South, S102c

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Session Title: Acute Myocardial Infarction

Abstract Category: 6. PCI - Acute MI

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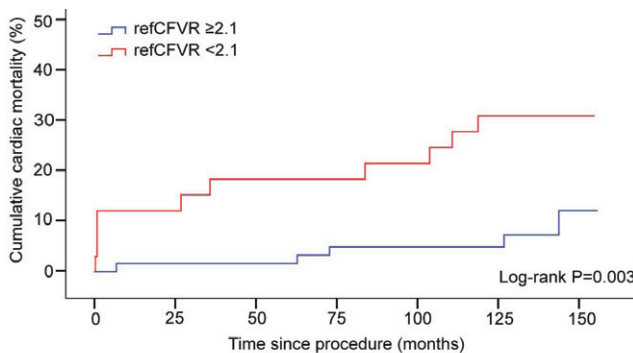
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**Background:** There are limited data regarding the prognostic value of coronary flow velocity reserve (CFVR) and reference CFVR (refCFVR) for clinical outcome at long term follow up after acute myocardial infarction (AMI). We evaluated the long term prognostic value for cardiac death of CFVR in the infarct-related artery (IRA) and a normal reference coronary artery after reperfusion by primary percutaneous coronary intervention (PCI) for AMI.

**Methods:** Between April 1997 and August 2000, 99 consecutive patients (mean age: 56 years) with a first anterior MI were included. Primary PCI was performed in all patients. Intracoronary Doppler flow velocity was assessed in the IRA as well as in a normal reference coronary artery. Long term follow up was performed to assess the occurrence of cardiac death.

**Results:** In a total of 94 out of 99 patients (95%) complete follow up could be obtained. During a median of 11 years follow up (interquartile range 10-12 years) 17 patients died (18%) of which 15 (16%) of cardiac cause. Cumulative cardiac death rates differed between high and low refCFVR only (Figure). Multivariable analysis showed that refCFVR less than 2.1, as well as N-terminal pro-brain natriuretic peptide at admission higher than 127.4 pg/L were the only independent predictors for cardiac death at long term follow up (HR 4.52, 95% CI: 1.34 - 15.22; P=0.02 and HR 4.66; 95% CI 1.25 - 17.42; P=0.02 resp.).

**Conclusion:** A low refCFVR is an independent predictor of cardiac mortality at long term follow up after primary PCI for a first AMI.



No. at risk		0	25	50	75	100	125	150
refCFVR ≥2.1	61	60	60	58	57	41	10	
refCFVR <2.1	33	28	26	26	25	18	4	