

0.70; 95% CI 0.54 - 0.92,  $p < 0.001$ ). Thus, abciximab prevented 44 events (x1000).  
**Conclusions.** Optimal mechanical reperfusion in acute MI is provided by stent placement and GP IIb/IIIa use, with a 30% odd reduction in the composite end point.

9:15 a.m.

8:45 a.m.

883-2

**Effect of Stent Implantation and Glycoprotein IIb/IIIa Receptor Blockade on Target Vessel Revascularization in Diabetics After Primary PCI in Acute Myocardial Infarction: The CADILLAC TRIAL**

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**Background:** Rates of TVR are increased in pts with diabetes mellitus (DM) following PCI. In a large randomized trial of elective PCI (EPISTENT), the addition of abciximab (Abcx) to stenting resulted in TVR rates in DM similar to that of non-DM, and lower than that in DM without Abcx. We sought to verify this relationship in a large study of pts undergoing stenting in AMI.

**Method:** In the CADILLAC trial, 2,082 pts of any age with AMI <12 hours in duration without cardiogenic shock were randomized to primary PTCA, PTCA + Abcx, stent implantation, or stenting + Abcx. DM was present in 346 pts (16.6%).

**Results:** Compared to non DM pts, ischemic TVR tended to occur more often in DM (12.0% vs. 9.2%,  $p=0.10$ ). Pooling all diabetic pts assigned to Abcx vs. no Abcx, the 6 month rate of subacute thrombosis was 1.86% vs. 0% respectively ( $p=0.10$ ), and ischemic TVR occurred in 10.1% vs. 12.2% ( $p=0.58$ ). 6 month TVR rates in DM stratified by the 4 randomization arms appear in the table.

Compared to pts randomized to PTCA, 6 month ischemic TVR in diabetics randomized to routine stenting was reduced (7.2% vs. 17.7%,  $p=0.004$ ). Furthermore, the 6 month rate of ischemic TVR in stented diabetics was similar to that in non diabetics (7.2% vs. 5.9%,  $p=NS$ ).

**Conclusions:** Whereas Abcx may reduce the rate of subacute thrombosis in diabetic pts undergoing primary PCI in AMI, Abcx had no significant effect on clinical restenosis (ischemic TVR) or any TVR. In contrast, a strategy of routine stent implantation significantly reduced TVR rates in DM independent of Abcx use.

	PTCA (n=79)	PTCA/ Abcx (n=82)	Stent (n=83)	Stent/ Abcx (n=101)	p Value
SAT	2.5%	0%	1.2%	0%	0.24
Ischemic TVR	19.2%	16.2%	7.4%	7.0%	0.03
I-PCI	15.3%	11.2%	4.9%	4.0%	0.02
I-CABG	3.8%	5.0%	2.5%	3.0%	0.83
Any TVR	25.6%	28.4%	14.8%	18.8%	0.12

9:00 a.m.

883-3

**Angiographic Determinants of Infarct Size After Successful Percutaneous Intervention for Acute ST-T Elevation Myocardial Infarction: The Impact of Distal Embolization**

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**Background:** Angiographic variables may predict infarct size and prognosis in patients (pts) with acute myocardial infarction (MI). Previously, we demonstrated that distal embolization resulted in more extensive myocardial damage and impaired clinical outcome. In this study we investigated the value of distal embolization and other angiographic determinants, to predict the extent of myocardial damage after successful primary angioplasty. **Methods:** Angiographic data were assessed on the coronary angiogram made immediately after successful coronary angioplasty in 631 consecutive pts with acute MI. Infarct artery, TIMI flow, myocardial blush grade have previously been described. Embolization was defined as a distal filling defect with an abrupt 'cutoff' in 1 of the peripheral coronary artery branches of the infarct-related vessel, distal to the site of angioplasty. Endpoints were left ventricular ejection fraction (LVEF) and enzymatic infarct size as measured by cumulative lactate dehydrogenase enzyme release during 48 h (LDHQ48).

**Results:** LAD related MI, impaired myocardial blush and presence of distal embolization were independent predictors of more extensive myocardial damage. Distal embolization was present in 102 pts (16%) and was associated with a large enzymatic infarct size (LDHQ48 2250 vs. 1532,  $p = 0.001$ ) and a lower LVEF (41% vs. 44%,  $p = 0.041$ ). Intracoronary stents were used in 60% of the pts. The frequency of distal embolization was not different between pts treated with or without stents.

**Conclusion:** In pts with successful primary angioplasty, LAD related MI, impaired myocardial blush and presence of distal embolization are independent predictors of more extensive myocardial damage. Intracoronary stenting is not associated with more distal embolization during primary angioplasty. Distal embolization can be visualized in 16% of pts and is associated with a larger enzymatic infarct size and lower LVEF.

883-4

**Does Optimal or Stent-Like PTCA Provide Equivalent Outcomes Compared to Primary Stenting in Acute Myocardial Infarction? Early and Late Results From the CADILLAC Trial**

**David A. Cox,** Cindy Grines, Eulogio Garcia, Thomas Stuckey, James Tchong, Giulio Guagliumi, Adeyemi Johnson, Alexandra Lansky, John Griffin, Gregg W. Stone, *Mid Carolina Cardiology, Charlotte, NC, The Cardiovascular Research Foundation, New York City, New York.*

**Background:** In Stent PAMI, optimal PTCA results did not produce equivalent long-term outcomes compared to stenting. However, abciximab was administered to only 5% of PTCA pts in this trial. Whether optimal PTCA with abciximab would provide equivalent outcomes to stenting is unknown.

**Methods:** In the CADILLAC trial, 2082 AMI pts of any age presenting w/in 12 hours of symptom onset (excl. cardiogenic shock) were randomized at 76 sites to primary PTCA, PTCA with abciximab, stent alone, or stent with abcx. Optimal PTCA was defined as QCA diameter stenosis <30% w/out significant dissection in patients who did not receive a bail-out stent.

**Results:** By core lab analysis, 51.2% (509/994) of PTCA pts had an optimal result, including 61.8% vs 59.2% of those assigned to abciximab vs. no abcx, respectively ( $p=NS$ ). At 30 days no significant differences were apparent between pts achieving optimal PTCA results and those randomized to stenting with respect to death, reinfarction, ischemic TVR, SAT, and MACE. 1-year clinical outcomes appear in the Table.

**Conclusion:** An optimal balloon angioplasty result may be obtained in a significant percentage of patients undergoing AMI intervention. However, compared to a routine stent strategy, pts achieving an optimal PTCA result have greater 1-year rates of ischemic TVR and MACE. Abcximab did not significantly improve short or long-term outcomes in pts achieving optimal PTCA. Thus, in AMI, primary stenting provides better long-term outcomes even when an optimal PTCA result is obtained.

	Opt PTCA w/out abcx	Opt PTCA w/ abcx	All Optimal PTCA	All Stent
N	239	270	509	1014
Death	4.2%	2.6%	3.3%	4.3%
Reinfarction	0.8%	2.2%	1.6%	2.0
Ischemic TVR	13.4%	19.3%	16.5%	7.9%*
MACE	17.2%	21.9%	19.7%	13.0%*

\* $p < .001$  All opt PTCA vs stent

9:30 a.m.

883-5

**The Salutary Effect of Prior Beta Blocker Therapy on Clinical Outcomes Following Primary Angioplasty for Acute Myocardial Infarction: A Pooled Analysis From the Primary Angioplasty in Myocardial Infarction (PAMI:1), PAMI:2, and Stent:PAMI Trials**

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**Background:** Beta-blockers (BB) have anti-adrenergic, anti-ischemic, and anti-arrhythmic properties. We hypothesized that pre-treatment with BB would have a beneficial effect on clinical outcomes in patients undergoing primary angioplasty for acute myocardial infarction.

**Methods:** We pooled clinical, angiographic, and outcomes data on 2537 patients enrolled in the Primary Angioplasty in Myocardial Infarction (PAMI-1), PAMI-2, and Stent PAMI trials. We classified patients into BB group (n=1132) if they received BB before undergoing percutaneous coronary intervention (PCI), or No-BB group (n=1405) if not. We studied the incidence of procedural complications, in-hospital and 1-year outcomes [death and composite end-point of death, re-infarction, target vessel revascularization, or stroke] between the 2 groups.

**Results:** BB patients were younger, had higher systolic blood pressure and heart rate, and were more likely to have Killip Class I at admission than no-BB patients. Further, they had lower ejection fraction, higher door-to balloon time, and were more likely to have the left anterior descending artery as the infarct-related artery. Although BB patients had more spontaneous patency (baseline TIMI 2-3 flow 30 Vs 21%,  $p < 0.0001$ ), they had similar incidence of TIMI-3 flow following PCI (92.6 vs 92.7%). Pre-treatment with BB was associated with lower incidence of procedural complications (23 vs. 34%,  $p < 0.0001$ ), primarily due to less ventricular arrhythmias (4 Vs 7%,  $p = 0.004$ ) and bradyarrhythmias (8 Vs 17%,  $p < 0.0001$ ). BB patients had lower incidence of death (1.8 Vs 3.7%,  $p = 0.0035$ ) and the composite end-point (5.3 vs. 7.6%,  $p = 0.022$ ) during hospitalization. At 1-year, the incidence of death remained lower in BB patients (4.8 vs. 6.7%,  $p = 0.042$ ). After adjustment for baseline clinical and angiographic differences, BB patients had a lower probability of death during hospitalization (odds ratio, OR=0.41; 95% CI=0.20-0.84;  $p < 0.0148$ ) and at 1-year (OR=0.67; CI=0.43-1.03;  $p = 0.059$ ).

**Conclusion:** Pre-treatment with BB has an independent salutary effect on short-term and intermediate-term clinical outcomes in patients undergoing primary angioplasty for acute myocardial infarction.