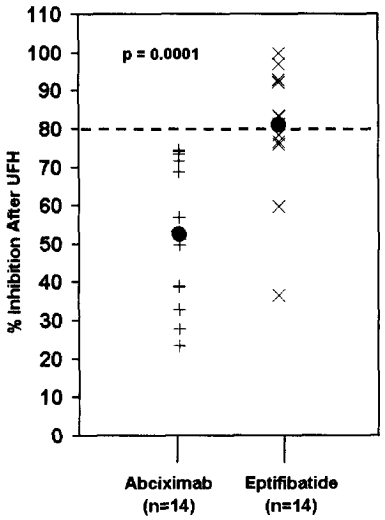
achieved superior platelet inhibition before but especially after UFH compared with AB. The significant reduction in platelet inhibition in AB pts with the addition of UFH may provide insight to the lack of clinical benefit observed with the combination of AB and UFH in GUSTO IV ACS.



1079-7 Renal Insufficiency and Its Relation to Ischemic and Bleeding Outcomes With Tirofiban Versus Abciximab in the TARGET Trial

Peter B. Berger, David J. Moliterno, Jennifer White, Patricia J. Best, Albert W. Chan, Steen D. Kristensen, David R. Holmes, Jr., Peter M. DiBattiste, Howard C. Herrmann, Eric J. Topol, for the TARGET Investigators, *Mayo Clinic, Rochester, Minnesota, Cleveland Clinic, Cleveland, Ohio.*

Background: Chronic renal insufficiency (CRI) is associated with an increased risk of both ischemic and bleeding complications in patients (pts) undergoing percutaneous coronary intervention (PCI). Platelet glycoprotein (GP) IIb/IIIa inhibitors decrease ischemic complications but increase the risk of bleeding in PCI pts; the risk:benefit ratio of these agents, and whether it differs between agents that are renally excreted (tirofiban) or not (abciximab) is unknown. **Methods:** We analyzed the outcome of 4623 pts undergoing PCI in TARGET randomized to tirofiban or abciximab to determine the efficacy and risk of bleeding with varying degrees of CRI. Pts were grouped in quartiles based on estimated creatinine clearance (CrCl) (<70, 70-90, 90-114, >114 ml/min) using the Cockroft-Gault formula. **Results:** Increasing age, female gender, hypertension, prior CABG and stroke were associated with lower CrCl (p<0.001 all comparisons). Using unadjusted logistic regression tests for trend, the primary endpoint of 30-day death/MI/urgent TVR was significantly greater in pts with lower CrCl (7.3, 8.5, 5.1 and 5.8%, p=0.02), as were both major and minor bleeding complications (major: 1.6, 1.0, 0.4, 0.3%; minor: 5.3, 4.3, 2.4, 2.0%, p<0.001 for both comparisons). However, ischemic and bleeding complications were more common in both the tirofiban and abciximab pts with lower CrCl. There was no evidence of interaction between GP IIb/IIIa inhibitor used and CrCl levels with respect to ischemic outcome, major bleeding, or minor bleeding (p=0.48, p=0.99, and p=0.13, respectively). **Conclusions:** CRI is associated with increasing age, female gender, and hypertension, and an increased risk of both ischemic and bleeding complications in pts undergoing PCI, despite treatment with GP IIb/IIIa inhibitors. Although tirofiban is renally cleared and abciximab is not, there is no evidence of interaction between drug and CrCl with respect to ischemic or bleeding events.

1079-8 Influence of Prolonged Intracoronary Heparin Infusion on Early and Long-Term Clinical and Angiopgraphic Outcome in Patients Undergoing Primary Angioplasty for Acute Myocardial Infarction

Imad Sheiban, Claudio Moertti, Massimo Pistono, Kumar Prathap, Alessandro Decio, Roberto Grimaldi, Giacomo Bocuzzi, Gianpaolo Trevi, *Division of Cardiology - University of Torino - San Giovanni Hospital, Torino, Italy.*

Aim of the present study was to evaluate whether primary PTCA for acute myocardial infarction (AMI) associated with prolonged intracoronary heparin infusion reduce the incidence of "no flow" phenomenon and improve clinical outcome in patients -pts- with acute myocardial infarction Methods: 106 consecutive pts (77 males, 29 females, aging 32 to 78 years) admitted with the diagnosis of AMI who underwent primary coronary angioplasty (PTCA). In 64 pts (Group A) primary PTCA was performed using an autoperfusion balloon catheter and prolonged inflations (mean inflation time = 3.7 hours) associated with intracoronary perfusion of heparin (1000 UI/hour) while 42 pts (Group B) underwent primary PTCA with conventional PTCA catheters and inflation duration (mean total infaltions time = 12 minutes) without adjunctive pharmacological therapy. Angigraphic control was performed in all pts at 24 hours and 6 months following the procedure. Results: immediate success was obtained in all pts of group A and in 41 pts of group B. One pts of the latter group died early after the procedure because of cardiogenic shock. Mean residual stenosis was similar iun both groups. "No flow" phenomenon was observed in 12 pts, despite an optimal angiographic patency on the infarct-realted artery; only 1 patient was of group A and the other 11 were from group B (1,6% vs 19%, p<0.01) Early reocclusion or reccurrent angina (within 24hours) occured in 4 pts ; 1 was of group A and 3 of group B (1.5 vs 6.2% p= 0.06). After a mean follow up of 24.7 months) 73 pts (49 from group A and 24 from group B, p<0.01) were symptoms- and event free. There were 4 cardiac deaths (2 in each group). Reccurent silent and symptomatic ischemia was present in 26 pts, 12 from group A and 14 from group B (18.7% vs 34.1%, p<0.05). At 6 months, angiographic restenosis was present in 38 pts (18 from group A and 18 from group B; 28 vs 43.9%, p<0.001). Conclusions: primary PTCA associated with prolonged heparin intracoronary infusion reduces "no flow" phenomenon after successful reperfusion improving immediate and long-term outcomes of the procedure These findings give an indirect evidence that microvascular function could play a crucial role on the outcome of reperfusion therapy in pts with AMI.

1079-9 Relationship of the Degree of Procedural Anticoagulation to Outcomes After Stent Implantation

Dale T. Ashby, G. Dangas, R. Mehran, T. Limpijankit, G. Weisz, G. W. Stone, C. Constantini, A. J. Lansky, M. B. Leon, G. New, S. Iyer, E. Kreps, G. Roubin, M. Collins, J. Moses, *Cardiovascular Research Foundation, New York, New York, Lenox Hill Heart and Vascular Institute, New York, New York.*

Background: The level of procedural anticoagulation (activated clotting time (ACT)) during *balloon angioplasty* is inversely related to short-term ischemic events. Whether such a relationship exists in pts undergoing stent implantation is unknown.
Methods: We studied the procedural and in-hospital outcomes of 1,020 consecutive pts receiving stents (from 1997 to 1999). Pts within 72 hours of acute MI, with thrombolytics or GPIIb/IIIa inhibitor therapy were excluded. Based on the maximal procedural ACT, patients were separated into tertiles (n=340 in each): (i) Lower, with ACT = 236 ± 31 (range 149-274); Middle, with ACT = 295 ± 11 (range 275-312) and Upper, with ACT = 353 ± 40 (range 313-538).
Results: Other than age (Table), baseline clinical characteristics and lesion morphology were similar among the groups.

Tertiles of ACT values:	Lower	Middle	Upper	P
Age (yrs)	64.1 ± 11.3	64.8 ± 11.4	66.6 ± 11.6	0.01
Procedural Heparin Dose (U)	10,595 ± 5,104	13,808 ± 5,440	13,330 ± 4,679	<0.0001
Angiographic Success (%)	99.7	99.7	100	0.55
Abrupt Closure (%)	0.0	0.3	0.6	0.66
No Reflow (%)	0.6	0.2	0.0	0.07
In-Hospital Events				
Death or Q-Wave MI (%)	0.6	0.3	0.9	0.88
Non Q-Wave MI (%)	9.9	14.1	18.9	0.01
TLR (%)	0.0	0.9	0.3	0.18
Vascular complications (%)	5.2	4.1	4.0	0.68
Blood transfusions (%)	7.4	4.5	6.4	0.27

Conclusions: In patients receiving stents without GP IIb/IIIa inhibitors, there is no evidence that a high level of procedural anticoagulation results in significantly improved angiographic or clinical outcomes. These data support an empiric strategy of reduced heparinization during stent implantation to minimize hemorrhagic risks.

1079-10 Tirofiban Decreases the Intensity of Creatine Kinase and Troponin I Release After Rotational Ablation

Paul H. Gibson, M. L. Pappas, K. L. Fisher, C. J. Mechem, *The Department of Cardiology, St. Anthony's Medical Center, St. Louis, Missouri.*

The Rotational Atherectomy (PTCRA) procedure has been associated with post-procedure release of creatine kinase (CK). Abciximab (Reopro) has been shown to decrease the intensity of this release. We prospectively randomized 126 patients to receive Tirofiban {Aggrastat} (N=61) or placebo (N=65) during and after the PTCRA procedure. A sub group of 20 patients had a determination of platelet aggregation using the Array Medical platelet aggregometer, before and during the PTCRA procedure. There were no significant differences in the patient populations in regard to age, gender, indications for the procedure or lesion complexity. Sixteen patients were excluded from statistical anlaysis, (9 placebo, 7 Tirofiban) because of absence of pre-procedure data (N=3), or pre-procedure CK elevation (N=13). The frequency of complications was low for both groups (Tirofiban vs. control), CABG: 0% vs 0%, Q-wave MI: 0% vs 0%, death: 0% vs 0%, bleeding: 0% vs 1.5%. Results of platelet aggregometry, CK release and Troponin I release are as follows:

	% Plt. Act	CKMB			Troponin I		
	(Ave.)	CKMBRelease <2x	CKMBRelease 2x-5x	CKMBRelease >5x	TropRelease <2x	TropRelease 2-5x	TropReleas e >5
Tirofiban	14.9	48(98.0%)	1(2.0%)	0(0.0%)	37(86.0%)	5(11.6%)	1(2.3%)
Placebo	86.6	46(83.6%)	6(10.9%)	3(5.4%)	33(70.2%)	8(17.0%)	6(12.8%)
P value	0.001		0.036			0.062	

Conclusion: In this group of patients, Tirofiban reduces the intensity of CK and Troponin I release after the PTCRA procedure. The magnitude of this reduction is similar to that reported for Abciximab. In addition, the rotational ablation procedure appears to be an excellent test vehicle, in which to measure drug efficacy for ameliorating cardiac enzyme rise after coronary intervention. Tirofiban causes a significant reduction in platelet activity.