11:00

802-3 Safety of Readministration of Abciximab; Interim Results of the ReoPro Readministration Registry (R^3)

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Background: Abciximab (abx) [ReoPro®], a monoclonal antibody to the platelet glycoprotein IIb/IIIa receptor, reduces ischemic complications of coronary intervention (PTCI) after first administration. Because of the potential need for abx readministration, we prospectively evaluated the safety and efficacy of abx retreatment during PTCI.

Methods: Clinical and human antichimeric antibody (HACA) titer data were collected prospectively in all patients retreated with abx at 16 centers beginning in March, 1997. A simultaneous log of all PTCI pts at these 16 centers was also kept.

Results: In the PTCI log (4,522 pts), 42.5% of all pts were treated with abx, with 2.2% of all pts being retreated with abx. Clinical data from the first 92 abx retreated pts are presented.

Abx retreatment group:

number of prior PTCI procedures: 1–62.2% 2–18.9% ≥3–18.9%
number of prior abx treatments: 1–88.0% 2–9.8% ≥3–2.2%
PTCI outcome: success 93.5%, partial success 3.3%, failure 3.3%
thrombocytopenia: < 100K 6.5% < 50K 2.2% < 20K 0%
change in plt count (pre-infusion to nadir): −28.0K ± 30.7K
access site bleed needing therapy: 5.4%; retropentoneal bleed: 0%
death, intracranial bleeding, allergic reaction, anaphylaxis: 0%

Conclusion: Readministration of abx is safe and effective with a profile comparable to first time use. The same indications for first time use should apply to subsequent readministration.

11:15

802-4 Is Early Loss of Minimal Luminal Diameter After Successful PTCA Prevented by c7E3 IIb/IIIa Antiplatelet Antibody?

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Deterioration of minimal luminal diameter (MLD) >0.3 mm occurring within the first 24 hours after successful PTCA (early loss) is predictive of late restenosis. To test the hypothesis that platelets may play role in early loss, pre-PTCA, post-PTCA and 24 hour post-PTCA angiography was performed in 15 patients with acute coronary syndromes (11 MI and 4 unstable angina) undergoing PTCA and receiving a bolus followed by an infusion of c7E3 IIb/IIIa antiplatelet antibody (ReoPro). Quantitative coronary arteriography results follow:

Reference Diameter	2.7 ± 0.2 mm
MLD post-PTCA	1.8 ± 0.2 mm
MLD 24 hs post-PTCA	1.5 ± 0.1 mm*
Stenosis post-PTCA	27 ± 5%
Stenosis 24 hs post-PTCA	44 ± 4%*

*p < 0.05 (24 hs vs. post-PTCA)

Early deterioration in MLD 24 hours after successful PTCA occurred in 10/15 (66.6%) of these lesions despite treatment with Reopro.

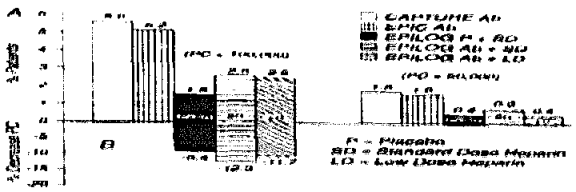
Conclusions: 1) Early loss of MLD after successful PTCA is frequent in patients with MI and is not prevented by ReoPro. 2) These findings suggest that the pathophysiology of early loss is not platelet mediated.

11:30

802-5 Abciximab Associated Thrombocytopenia: Evidence for a Complex Interaction With Heparin

D.J. Kereiakes, S.D. Berkowitz, K. Anderson, M. Simoons, A. Vahanian, A.M. Lincoff, J.E. Tcheng, H. Weisman, R.M. Califf, E.J. Topol. *The Lindner Center, Cincinnati, Ohio, USA*

Thrombocytopenia (TP) associated with abciximab (Ab) therapy contributes to hemorrhagic risk. The mechanism of TP and contribution of concomitant heparin (H) therapy to TP are not understood. To evaluate the role of H in Ab-associated TP, we analyzed platelet counts (PC) obtained following study drug initiation from three placebo controlled, randomized trials of Ab therapy (A). Comparing trials, weight-adjusted H dosing appeared to reduce severe TP. Absolute % decrease in PC from baseline within 12 hrs of study drug initiation by treatment is shown (B). PC % decrease from baseline was greater for Ab + SD (54%; p < 0.001) or LD (39%; P < 0.001) compared to P + SD. Total H administered (U/kg) was 103, 70 and 128 for these groups respectively.



Conclusion: TP occurs following both Ab and H with Ab effect appearing to be more potent. A complex interaction of Ab and H exists to produce TP.

11:45

802-6 Improved Long-term Clinical Outcomes in Unstable Angina-Patients Undergoing Coronary Angioplasty Following Therapy With Tirofiban and Heparin

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Background: Patients presenting with unstable angina/non-Q-wave myocardial infarction (UAP) who undergo PTCA soon after presentation have a high risk of adverse cardiac events. We hypothesized that potent platelet inhibition before and during PTCA would reduce these adverse cardiac events.

Methods: The PRISM-PLUS trial randomized 1,570 patients within 12 hours of presentation with UAP to tirofiban + heparin or heparin alone. Patients were treated with study drug for 48–108 hours and underwent PTCA at the discretion of the investigator between hours 48–96. Study drug was infused for 12–24 hours following the procedure. The post-PTCA incidence of death (D), MI, or refractory cardiac ischemia (RI) was analyzed at 30 and 180 days.

Results: 30.5% of patients enrolled in PRISM-PLUS underwent PTCA. Clinical outcomes as defined above were as follows:

Day	Endpoint	Heparin	Tirofiban/Heparin	Relative Risk	Confidence Interval
30	D/MI	10.2%	5.9%	0.57	0.29–1.10
30	D/MI/RI	14.4%	8.4%	0.55	0.32–0.96
180	D/MI	11.4%	7.5%	0.64	0.35–1.16
180	D/MI/RI	15.7%	10.0%	0.60	0.36–1.00

Conclusion: In patients presenting with UAP who then undergo PTCA, tirofiban with standard therapy may result in a substantial and durable reduction in the incidence of adverse cardiovascular events.

803 New Applications of Echocardiography

Monday, March 30, 1998, 10:30 a.m.–Noon
Georgia World Congress Center, Room 367W

10:30

803-1 Decreased Elasticity of Proximal Ascending Aorta in Heterozygous Familial Hypercholesterolemia: Echocardiographic Analysis

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Background: It is well known that homozygous familial hypercholesterolemia (FH) pts have a higher incidence of coronary heart disease as well as atheromas within aortic cusps and root. The aim of the study was to characterize by echocardiography the elastic property of proximal ascending aorta (PAA) in heterozygous FH pts.

Methods: Fifty two pts; 23 M and 29 F (mean age 33 ± 20 yr.'s, range 2–70) heterozygous FH pts. were evaluated by transthoracic Doppler-echocardiography. Aortic sinotubular junction was measured at the end of diastole and systole. Aortic distensibility was estimated using Peterson's "pressure-strain" elastic modulus (EP) and aortic root diameter percentage change (strain). Forty two normal age and sex matched pts served as control.

Results: FH pts were divided to a pediatric group (15 pts, age 2–15 yr.'s, mean 9 ± 1) and an adult group (37 pts, age 19–70, mean 43 ± 2). Both groups had normal function and dimension of left ventricle and PAA. FH pts had higher EP score than control pts ($1.1 \pm 0.9\ 10^6$ dyne/cm^2 vs. $0.6 \pm 0.5\ 10^6$ p = 0.01). The diversity persisted in the pediatric (p = 0.009) and the adult group (p = 0.0004). FH pts had lower aortic strain compared to control (2 ± 2% vs. 9 ± 4% p = 0.0001). Significant lower strain was also found in the pediatric subgroup (P = 0.0001).

Conclusion: The elasticity of PAA is decreased in heterozygous FH pts. This phenomenon already exists from early age. Echocardiography may detect premature atherosclerotic changes in PAA.

MONDAY ORAL