

dures. **Results:** Compared to Non-TRA, TRA was used more commonly in males (70.5% vs. 65.7%; $p<0.0001$), but less often in hypertensives (65.7% vs. 69.2%; $p<0.0001$), patients with a history of renal failure (3.0% vs. 4.3%; $p<0.0001$), patients with prior MI (25.8% vs. 28.6%; $p<0.0001$) or prior coronary artery bypass graft surgery (11.6% vs. 19.1%). TRA patients were significantly younger (61 ± 12 vs. 63 ± 12 years; $p<0.0001$) and more likely to have BMI > 35 (20.1% vs. 16.1%; $p<0.0001$). Mortality risk was significantly lower in TRA patients (0.6% vs. 1.2%; $p<0.0001$) compared to Non-TRA patients. Adjusted mortality (observed/expected X observed) was similar between the groups, as was PCI success. Patients with TRA had a length of hospital stay 0.5 days shorter than Non-TRA patients ($p<0.0001$). Bleeding was less common with TRA (0.7% vs. 1.7%; $p<0.0001$) and both males and females had significantly less bleeding (0.4% vs. 1.1% for males, and 1.4% vs. 2.8% for females; both $p<0.0001$). Multivariate analysis demonstrated that TRA was independently associated with less bleeding complications. **Conclusions** The transradial access is more likely to be used in less severely ill patients, but outcomes are comparable and there does appear to be less bleeding, both for males and females.

1004-52

Impact of Abciximab on Distal Embolization Induced by Primary Angioplasty

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Background. Distal embolization during primary angioplasty (PA) may affect myocardial reperfusion. We evaluated the impact of Abciximab pre-treatment on the entity and qualitative composition of PA-induced distal embolization. **Methods.** Forty-two consecutive patients with acute myocardial infarction underwent PA using the non-occlusive distal protection device FilterWire Ex (Boston Scientific Corp., USA). Abciximab pre-treatment was performed in 22 patients (52%). The embolic fragments retrieved from the filters underwent morphometric and histopathological analysis. Serial histological sections (5 micron intervals) were stained with hematoxylin-eosin. Additional histochemical stains were: Weigert for fibrin, Oil Red-O for lipid droplets, Alcian blue for mucopolysaccharides, anti M-CSF monoclonal antibodies for macrophages, and anti collagen monoclonal antibodies for collagen fibers. The total debris area was calculated for each patient. **Results.** Particles were recovered in 37 out of 42 devices (88%). Abciximab administration did not significantly reduce number and size of the particles with respect to the control group (mean number: 21 ± 17 vs 22 ± 27 , $P=NS$; total debris area: 3.7 ± 4.8 vs 3.6 ± 6.0 mm²mm, $P=NS$). Particles of fresh thrombus containing fibrin, platelets, and red cells were observed in 4 abciximab patients and in 5 control patients (20% vs 29%, $P=NS$); plaque fragments in 5 and 4 patients (25% vs 24%, $P=NS$) and partially organized thrombus particles 11 and 8 patients (55% vs 47%, $P=NS$). Among clinical and angiographic variables, only the angiographic signs of high thrombus burden (a cut-off pattern or a minus image greater than 3 times the reference lumen diameter) were significantly related to the total debris area at multivariate analysis. **Conclusion.** Distal embolization occurs in the vast majority of patients undergoing PA and often incorporates plaque-containing debris and partially organized clots, which are probably unresponsive to anti-platelet drugs. Accordingly, abciximab pre-treatment does not appear to reduce the embolic burden.

1004-53

Adjunctive Pharmacotherapy During Higher Risk Percutaneous Coronary Intervention: Eptifibatid-Based Antiplatelet Therapy Accompanied by Only Limited, Specific Antithrombin Therapy

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Background. Adjunctive pharmacotherapy during higher risk percutaneous coronary intervention (PCI) has historically consisted of a combination of anti-platelet and anti-thrombin drugs. However, anti-platelet drugs such as eptifibatid that block the glycoprotein IIb/IIIa receptor have been shown in-vitro to prevent both platelet aggregation and thrombin generation. We therefore hypothesized that, for higher risk PCI, eptifibatid-based anti-platelet therapy accompanied by only limited, specific anti-thrombin therapy would be efficacious and safe. **Methods.** In this observational study, we retrospectively assessed the outcomes of 786 consecutive inpatients (pts) undergoing urgent, higher risk PCI for treatment of either unstable angina (535 pts), acute pulmonary edema (67 pts), or acute, non-ST segment elevation myocardial infarction (184 pts). PCI techniques included stent deployment, cutting balloon atherectomy, high speed rotational atherectomy, and conventional balloon angioplasty. The 786 pts received adjunctive pharmacotherapy consisting of the anti-platelet drugs aspirin, clopidogrel (at least 300 mg net dose prior to PCI), and eptifibatid (double bolus at time of PCI), and a reduced final dose of the anti-thrombin drug enoxaparin (administered prior to PCI, as part of routine care for initially presenting problem). Pts received no other scheduled, specific anti-thrombin therapy. **Results.** Pts received as their final enoxaparin dose, on average, 0.51 mg/kg subcutaneously, 7.8 hours prior to PCI. The technical success rate for PCI was 99.6%. During the first 24 hours following PCI, there was one major adverse event (0.1%). The incidence of non-Q wave myocardial infarction was 1.8%. The incidences of major and minor bleeding complications were 0.2% and 1.8%, respectively, and the incidence of thrombocytopenia was 1.4%. During the subsequent 30 days following PCI, there were four major adverse clinical events (0.5%). **Conclusions.** For higher risk PCI, eptifibatid-based anti-platelet therapy accompanied by only limited, specific anti-thrombin therapy appears efficacious and safe.

1004-54

A Prospective Study to Evaluate Adequacy of Anticoagulation for Percutaneous Coronary Interventions in Patients With Acute Coronary Syndromes Presenting for Early Angiography on Subcutaneous Enoxaparin

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Background: Current recommendations for PCI in subcutaneous enoxaparin (SQE) treated acute coronary syndrome (ACS) pts are based on studies in which pts received SQE for > 2 days and a steady state may have been reached. Data on adequacy of anticoagulation for PCI in SQE treated pts presenting for early cardiac catheterization (cath) are limited. **Methods:** We prospectively studied 77 ACS pts treated with SQE (1mg/kg bid) who presented for cath < 12 hrs from the last SQ dose. Pts were divided into two groups based on number of doses of SQE received prior to cath, ≤ 2 doses ($n=42$) or > 2 doses ($n=35$). Anti-Xa levels and ENOX clotting time (a novel point of care test for enoxaparin) were measured in all pts during cath. An anti-Xa level of > 0.8 IU/ml was considered as therapeutic anticoagulation for PCI. Additional IV enoxaparin during PCI was given at the discretion of the physician. ENOX clotting time was correlated with anti-Xa levels. **Results:** Baseline characteristics and medications were similar between the 2 groups. The median (IQR) number of doses of SQE prior to cath in the ≤ 2 and > 2 doses group were 2.0 (1.0, 2.0) and 4.0 (3.0, 6.0) respectively. The median elapsed time between last SQE and cath was 4.5 (3.0, 6.0) hrs in ≤ 2 doses group and 4.0 (2.0, 5.0) hrs in > 2 doses group ($p=0.1$). IV GP 2b/3a inhibitors use (45% vs. 43%, $p=0.8$) and PCI rates (41% vs. 51%, $p=0.3$) were not different. Median anti-Xa level was 0.8 (0.6, 1.1) IU/ml in ≤ 2 doses group and 1.0 (0.8, 1.3) IU/ml in > 2 doses group ($p=0.05$). The % of pts with anti-Xa < 0.8 IU/ml was 43% in ≤ 2 doses group compared with 20% in > 2 doses group ($p=0.033$). Overall 29% of pts in both groups received additional anticoagulation in the cath lab. In-hospital death (2.4 vs. 0%), MI (4.8 vs. 2.9%), urgent TVR (2.4% vs. 0%), and major bleeding (2.4 vs. 2.9%) were not significantly different between the groups. The overall correlation between ENOX clotting time and anti-Xa levels was modest ($r=0.5$, $p<0.001$). However, 85% of pts with ENOX clotting time > 250 s had anti-Xa levels ≥ 0.8 IU/ml. **Conclusions:** ACS pts on SQE presenting early for cath have lower median anti-Xa levels and frequently have anti-Xa levels < 0.8 IU/ml. Most pts with ENOX clotting time of > 250 s at cath have anti-Xa levels ≥ 0.8 IU/ml.

POSTER SESSION

1005

Percutaneous Interventions: Femoral, Carotid, and Stroke Prevention

Sunday, March 07, 2004, 9:00 a.m.-11:00 a.m.

Morial Convention Center, Hall G

Presentation Hour: 9:00 a.m.-10:00 a.m.

1005-41

Percutaneous Endovascular Reconstruction for Chronic Occlusions in Peripheral Vascular Disease: A Quality of Life Perspective

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Background: Guidelines for the management of peripheral vascular disease (PVD) recommend surgical revascularization for superficial femoral artery (SFA) chronic total occlusions (CTO) > 5 cm (TASC Type D lesions)[1]. We report our experience on the technical feasibility and impact on quality of life using standard stenting techniques to treat "surgical disease" of the lower extremities.

Methods: We reviewed our database for patients that underwent percutaneous revascularization for SFA CTO. Traditional primary stenting techniques were employed utilizing the self-expanding, nitinol SMART® stent (Cordis, Miami, FL). The Walking Impairment Questionnaire[2] (WIQ range: 0 to 14,080) was used to assess quality of life pre and post procedure. Ankle-brachial index (ABI) was obtained pre and post procedure.

Results: 44 patients (51 legs) underwent attempted percutaneous revascularization for SFA CTO TASC Type D lesions at Genesis Medical Center, Davenport, IA, USA between August 2000 and July 2003. Successful revascularization 90.2%, Ave CTO length (cm) 15.5 ± 9.9 , Ave stent length (cm) 23.2 ± 12.2 , Min stent diam (mm) 7.0 ± 0.6 , Min artery diam (mm) 5.9 ± 0.6 , Stents deployed 2.7 ± 1.7 ; Pre-WIQ 722 ± 1503 , Post-WIQ 8421 ± 5741 ($p<0.0005$), Median delta-WIQ 7405 (95% CI: 6555 to 9245); Pre-ABI 0.61 ± 0.18 , Post-ABI 0.91 ± 0.19 ($p<0.0005$), Median delta-ABI 0.27 (95% CI: 0.21 to 0.33); Median follow-up (days) 374 ± 321 ; Repeat revascularization: PTA 13.7%, surgery 3.9%, Amputation 2.0%; Death (at follow up) 6.8%

Conclusions: Traditional "surgical disease" can be treated with a high degree of success by standard angioplasty and nitinol stenting techniques. Patients have a significant improvement in their quality of life, and objective improvement on serial non-invasive testing. Repeat revascularization rates are reasonably low, and parallel historical surgical data. A minimally invasive percutaneous approach should become the initial preferred method of revascularization for lower extremity PVD regardless of the TASC lesion type.

[1] TransAtlantic Inter-Society Consensus Statement. J of Vasc Surg (suppl). Jan 2000;31(1):S1-S296.

[2] Circulation. 1995;92:614-21.