Background: Several randomized trials have shown that intravenous antagonists of the platelet glycoprotein IIb/IIIa receptor reduce the incidence of myocardial infarction (MI), and composite cardiac outcomes (death, MI or revascularization) in patients undergoing percutaneous coronary intervention (PCI). However, individual studies have not had adequate power to examine differences in mortality.

Methods: We performed a meta-analysis of 19 randomized placebo-controlled trials (20 comparisons, n=20,137) of intravenous glycoprotein IIb/IIIa receptor antagonists in patients undergoing PCI. Death was the primary outcome.

Results: Mortality was significantly reduced at 30 days (risk ratio [RR] 0.69 [95% CI, 0.53-0.90]), 6 months (RR 0.79 [95% CI, 0.64-0.97], and including longer follow-up (RR 0.79 [95% CI, 0.66-0.94]) with no significant between-study heterogeneity. The relative risk reduction was largely similar in trials on patients with or without acute MI, in trials continuing or discontinuing heparin after the procedure; and in trials using stents or other PCI as the intended primary procedure. At 30 days and 6 months, MI and composite outcomes were significantly reduced (<0.001 for all). Major bleeding was significantly increased (RR 1.70 [95% CI, 1.36-2.14]), while there was no excess bleeding when heparin was discontinued (HR 1.02 [95% CI, 0.85-1.24]).

Conclusion: In patients undergoing PCI, glycoprotein IIb/IIIa receptor antagonists confer a benefit, and sustained decrease in the risk of death.

Biomarker Rise in Patients Undergoing Percutaneous Coronary Intervention


Background: Inflammation is thought to play an important role in the pathogenesis of complications after percutaneous coronary intervention (PCI). Pretreatment with the platelet ADP receptor antagonist clopidogrel reduces ischemic complications after PCI. We examined the effect of clopidogrel pretreatment (>24 hours) on platelet inflammatory marker expression post-PCI.

Methods: We reviewed 1498 patients from the Mayo Clinic Intergroup Registry who underwent PCI during the years 2000 and 2001. Patients with recent myocardial infarction, shock, chronic renal disease or pre-procedural cardiac biomarker elevation were excluded. Patients were separated into two groups, Group 1 (n=752) consisted of patients on statins and Group 2 (n=746) of patients not on statins prior to PCI.

Results: Prior to adjustment for baseline differences, Group 1 patients had a significantly lower rate of cardiac biomarker elevation post-PCI compared to Group 2 patients (n=203 placebo and 233 clopidogrel) and 2066 received at least one stent (1092 placebo and 1046 clopidogrel). Clopidogrel was beneficial both in those not receiving a stent (RRR 44%, P=0.026) and in those receiving a stent (RRR 27%, P=0.020) (Table). Conclusions: In patients with ACS undergoing PCI, clopidogrel is beneficial in those treated with a stent, and in those receiving balloon angioplasty alone.

CV death or MI from randomization to end (up to 1 year)

<table>
<thead>
<tr>
<th>Group</th>
<th>Placebo</th>
<th>Clopidogrel</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
<td>105/1294 (8.2%)</td>
<td>71/1347 (5.3%)</td>
<td>0.69</td>
<td>0.54-0.87</td>
<td>0.002</td>
</tr>
<tr>
<td>No Stent</td>
<td>41/253 (16.2%)</td>
<td>22/223 (9.4%)</td>
<td>0.56</td>
<td>0.34-0.95</td>
<td>0.028</td>
</tr>
<tr>
<td>Stent</td>
<td>64/1092 (11.7%)</td>
<td>49/1080 (8.7%)</td>
<td>0.73</td>
<td>0.56-0.95</td>
<td>0.020</td>
</tr>
</tbody>
</table>

Clopidogrel Pretreatment Reduces Platelet Inflammatory Marker Expression in Patients Undergoing Percutaneous Coronary Intervention

Franç J. Zidar, Martin J. Quinn, Deepak L. Bhatt, Deepak P. Vivekananthan, Herbert D. Marcus, The Cleveland Clinic Foundation, Cleveland, OH

Background: Inflammation is thought to play an important role in the pathogenesis of complications after percutaneous coronary intervention (PCI). Pretreatment with the platelet ADP receptor antagonist clopidogrel reduces ischemic complications after PCI. We examined the effect of clopidogrel pretreatment (>24 hours) on platelet inflammatory marker expression post-PCI.

Methods: Patients undergoing elective PCI at the Cleveland Clinic were recruited into the study. Platelet and serum expression of the inflammatory markers CD40L, CD62P and soluble CD40 were measured by ELISA.

Results: Complete data was available on 71 patients. 30 (42%) were pretreated with clopidogrel for a median of 5 days. Mean age was 68±11 years, 75% were male.

Poster Session

1127 Percutaneous Coronary Intervention and Outcomes

Monday, March 31, 2003, 3:00 p.m.-5:00 p.m.

McCormick Place, Hall A

Presentation Hour: 3:00 p.m.-4:00 p.m.

1127-187 The French Registry of Left Main Coronary Artery Treatment: Preliminary Results

Marc Silvestri, Thierry Lefèvre, Pierre Labrunie, Khalfi Kéfait, G. Bayet, Marc-Clauude Morice, M. Bedossa, A. Chmais, On behalf of the FLM Registry Investigators, UCV, Marseille, France

Background: CABG is the established treatment for unprotected left main coronary artery lesions (LMCA). However, PCI is now proposed as an alternative.

Methods: A prospective registry was set up in 11 high volume French centers during 12 months to evaluate the outcome of pts with LMCA.