CRT-100.12 Risk of Bleeding Among Cangrelor-Treated Patients Administered Upstream P2Y12 Inhibitor Therapy

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**ANTIPATELET THERAPY**

**CRT-100.12**

Risk of Bleeding Among Cangrelor-Treated Patients Administered Upstream P2Y12 Inhibitor Therapy

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**INTRODUCTION**

Little is known about the use of cangrelor in patients with MI who are treated with an oral P2Y12 inhibitor upstream prior to cardiac catheterization.

**METHODS**

CAMEO (Cangrelor in Acute MI: Effectiveness and Outcomes) is a 12-hospital observational registry studying platelet inhibition for MI patients undergoing cardiac cath. Upstream oral P2Y12 inhibition was defined as receipt of an oral P2Y12 inhibitor within 24 hours prior to hospitalization or in-hospital prior to cath. Among cangrelor-treated patients, we compared bleeding after cangrelor use through 7 days post-discharge among patients with and without upstream oral P2Y12 inhibitor exposure using logistic regression. We examined rates of bleeding among patients with a shorter (<1 hour) vs. longer (1-3 hours or >3 hours) duration between the last oral dose and cangrelor start.

**RESULTS**

Among 1,775 cangrelor-treated MI patients, 433 (24.4%) had upstream oral P2Y12 inhibitor treatment prior to cath. Of these, 165 patients (38%) started cangrelor within 1 hour, 109 (25%) between 1-3 hours, and 134 (31%) >3 hours after the in-hospital oral P2Y12 inhibitor dose. Cangrelor-treated patients who received upstream treatment were more likely to have a history of prior PCI, MI, PAD, and diabetes and to be clopidogrel-treated (all p<0.01) compared with those treated without upstream oral P2Y12 inhibitor exposure (Table). While bleeding events were higher in patients with longer delays to cangrelor initiation, bleeding risk was not significant after adjustment (Table).

**CONCLUSIONS**

Bleeding risk was not observed to be higher in cangrelor-treated patients after upstream oral P2Y12 inhibitor exposure compared with patients treated with cangrelor w/o upstream oral P2Y12 inhibitor exposure.

<table>
<thead>
<tr>
<th>Comparator</th>
<th>Observed Bleeding Rate</th>
<th>Adjusted OR 95% CI</th>
<th>Adjusted p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream (N=143) vs. no upstream (N=1,632)</td>
<td>10.0% vs. 7.9%</td>
<td>0.77 (0.46-1.34)</td>
<td>0.32</td>
</tr>
</tbody>
</table>

*Indicates for age, sex, race, diabetes, MI type, prior percutaneous coronary intervention (PCI), prior PCI, prior GABR, prior peripheral arterial disease (PAD), left ventricular ejection fraction <40%, and mechanical (drill/stirrup) support use.

Among 1,775 hospital upstream, when cangrelor was started after oral P2Y12 inhibitor dose (adjusting for age, sex, race, and CRITEAD bleeding risk)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Upstream (N=134) vs. no upstream (N=1,641)</td>
<td>10.4% vs. 6.9%</td>
<td>2.63 (1.85-3.72)</td>
<td>0.10</td>
</tr>
</tbody>
</table>

**S14**

**CRT-100.25**

MicroRNAs as Novel Biomarkers to Guide DAPT After PCI – Preliminary Assessment

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**BACKGROUND**

Although both genetic testing and platelet reactivity measurements are implemented, there is an unmet need for newer biomarkers developed for a simple, quick, reliable and comprehensive prediction of insufficient response to clopidogrel. MicroRNAs are described in the literature as such potential biomarkers. These microRNAs are small non-coding sequences of nucleotides which bind to mRNA sites and block transcription. This causes a decrease in the production of protein. The microRNAs may regulate ADME genes and affect the effective drug concentration in blood. MicroRNAs can be used for clopidogrel resistance testing. ADME genes that demonstrated sufficient connection with miRNA expression levels showed connection to the following ADME genes: P2Y12R (A-G, rs3732759) and miR-29 (p=0.017), miR-124 (p=0.02); miR-23 (p=0.032) and miR-29 (p=0.008) have the potential to be used as biomarkers and may substitute platelet reactivity testing. ADME genes that demonstrated statistically significant connection with miRNA expression levels showed connection to the following ADME genes: P2Y12R (A-G, rs3732759) and miR-29 (p=0.017), miR-34 (p=0.003); CYP2C19 (C-8067T, rs1224856) and miR-142 (p=0.012); PTN (rs9528293, rs6626) and miR-29 (p=0.004), ABCG2 (G>T, rs2231412) and miR-34 (p=0.007).

**CONCLUSION**

This study has revealed new biomarkers for P2Y12-inhibitors resistance testing: miR-29, miR-34, miR-124, miR-232.

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**CRT-100.33**

A 30-Day Pooled Analysis of Acetyl Salicylic Elimination Trials (ASET) in Brazil and Japan: Synergy Stent with Prasugrel Monotherapy Without Aspirin

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