

Glycoprotein 2b3a Receptor Inhibitors are Superior to Bivalirudin or Standard Therapy in Re-opening the Culprit Lesion in STEMI Patients During Transfer for Primary PCI

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Background:

The value of adding a 2b3a receptor inhibitor for STEMI patients during transfer for primary PCI (PPCI) is still unclear and use of new-generation anti-platelet therapy with or without an antithrombotic agent such as bivalirudin is now preferred.

Aim:

We hypothesized that given the time delay related to transfer for PPCI the addition of very potent antiplatelet therapy such as 2b3a receptor inhibitors would be superior in achieving early coronary patency in this subset.

Method and Results:

At our center without an onsite cathlab, previous protocol for STEMI patients presenting within 6 hours of chest pain onset and being transferred for PPCI included use of integrilin in addition to standard therapy (aspirin, clopidogrel/prasugrel and heparin). Following the HORIZON trial, we began using bivalirudin instead of 2b3a inhibitors. We analyzed retrospectively in a blinded fashion initial TIMI flow in three groups of STEMI patients; treated 2b3a receptor inhibitor (group a), standard therapy only (group b), bivalirudin therapy (group c).

We included 95 consecutive patients (57, 24, 14 in the three groups respectively). An initially open artery (TIMI 2-3) at the time of catheterization was found in 74% of group a patients; 29% group b and 29% group c; $p < 0.005$ for group a vs. groups b and c). Additional outcome data will be presented.

Conclusion:

These results of our single-center study suggest that the addition of 2b3a antagonist may be superior to other therapy in achieving coronary patency before PPCI in STEMI patients being transferred.

A prospective randomized trial is needed to validate these important findings in this subset of STEMI patients.