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COMPARISON OF BIVALIRUDIN VERSUS HEPARIN PLUS GLYCOPROTEIN IIB/IIIA INHIBITORS IN PATIENTS UNDERGOING AN INVASIVE STRATEGY: A META-ANALYSIS OF RANDOMIZED CLINICAL TRIALS

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## COMPARISON OF BIVALIRUDIN VERSUS HEPARIN PLUS GLYCOPROTEIN IIB/IIIA INHIBITORS IN PATIENTS UNDERGOING AN INVASIVE STRATEGY: A META-ANALYSIS OF RANDOMIZED CLINICAL TRIALS

i2 Poster Contributions

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**Background:** Pharmacotherapy for patients undergoing percutaneous coronary intervention (PCI) includes bivalirudin, heparin, and glycoprotein (GP) IIb/IIIa inhibitors. We sought to compare ischemic and bleeding outcomes with bivalirudin versus heparin plus GP IIb/IIIa inhibitors in patients undergoing PCI.

**Methods:** A literature search was conducted to identify fully published randomized trials that compared bivalirudin with heparin plus GP IIb/IIIa inhibitors in patients undergoing PCI.

**Results:** A total of 19,772 patients in 5 clinical trials were included in the analysis (9785 patients received bivalirudin and 9987 patients received heparin plus GP IIb/IIIa inhibitors during PCI). Anticoagulation with bivalirudin, as compared with heparin plus glycoprotein IIb/IIIa inhibitors, results in no difference in major adverse cardiovascular events (odds ratio [OR] 1.07, 95% confidence interval [CI] 0.96 to 1.19), death (OR 0.93, 95% CI 0.72 to 1.21), or urgent revascularization (OR 1.06, 95% CI 0.86 to 1.30). There is a nonsignificant trend towards a higher risk of myocardial infarction (OR 1.12, 95% CI 0.99-1.28) but a lower risk of TIMI major bleeding with bivalirudin (OR 0.55, 95% CI 0.44 to 0.69).

**Conclusion:** In patients who undergo PCI, anticoagulation with bivalirudin as compared with heparin plus GP IIb/IIIa inhibitors results in similar ischemic adverse events but a reduction in major bleeding.