TCT@ACC-i2: Invasive and Interventional Cardiology

CLINICAL OUTCOMES FOLLOWING GLYCOPROTEIN 2B/3A INHIBITION IN PCI FOR ACUTE CORONARY SYNDROME: INSIGHTS FROM THE NCDR®

Moderated Poster Contributions
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Authors: _David M. Safley_, Lakshmi Venkitachalam, Kevin kennedy, David Cohen, Mid America Heart Institute - Saint Luke's Hospital, Kansas City, MO, USA, University of Missouri - Kansas City, Kansas City, MO, USA

Background: Glycoprotein 2b/3a Inhibitors (GPI) reduce ischemic complications following percutaneous coronary intervention (PCI). However, there have been significant advances in PCI since their introduction, with sparse data on contemporary safety outcomes.

Methods: We analyzed the CathPCI Registry® to assess GPI use and PCI outcomes in acute coronary syndromes (ACS) from 7/2009 to 9/2011. Our primary outcome was all-cause in-hospital mortality. The secondary outcome was major bleeding. To adjust for potential selection bias, we used multivariable regression, propensity matching, and instrumental variable analyses (in which we compared high use hospitals [>70% GPI use] vs. low use hospitals [<10% GPI use]). Both relative risks and absolute risk differences are included to allow standardization of reporting.

Results: During the study period there were 1,465,498 PCIs recorded. After excluding patients undergoing elective PCI (n=407,942) or PCI at hospitals performing <50 PCI/year (n= 86,691), the study cohort was 970,865 PCI. Of these, GPI were used in 33.6%. Results are presented in the Table.

Conclusion: Among unselected ACS patients undergoing contemporary PCI, GPI use was associated with a reduced risk of in-hospital mortality that was confirmed across multiple risk-adjustment Methods. This benefit comes at a cost of more frequent post-PCI bleeding. These findings suggest that in the modern era of PCI there is still a role for the judicious use of GPI in selected patients.

Outcome	Analytic Method	Absolute Risk Difference (%)*	95% Confidence Interval	Relative Risk	95% Confidence Interval	p-value
Death	Unadjusted	1.02	(0.96,1.08)	1.76	(1.70, 1.81)	<0.001
	Multivariable	-0.25	(-0.49, -0.02)	0.83	(0.79, 0.88)	<0.001
	Propensity Matched	-0.22	(-0.33, -0.11)	0.90	(0.86, 0.95)	<0.001
	Instrumental Variable	-0.39	(-0.70, -0.04)	0.72	(0.50, 0.97)	0.03
Major Bleeding	Unadjusted	2.22	(2.16, 2.30)	2.58	(2.51, 2.65)	<0.001
	Multivariable	1.38	(1.2, 1.6)	1.93	1.93 (1.83, 2.04)	<0.001
	Propensity Matched	1.38	(1.3, 1.5)	1.83	1.83 (1.74, 1.92)	<0.001
	Instrumental Variable	0.80	(0.4, 1.7)	1.53	1.53 (1.27, 2.13)	<0.001