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i2 SUMMIT

IMPACT OF INTRAVENOUS HEPARIN ADMINISTERED PRIOR TO PRIMARY PERCUTANEOUS CORONARY INTERVENTION: ANALYSIS FROM THE HORIZONS-AMI TRIAL

i2 Poster Contributions
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Background There is no consensus whether early administration of unfractionated heparin (UFH) is beneficial in pts prior to mechanical reperfusion for STEMI. We assessed outcomes of pts in HORIZONS-AMI trial in relation to UFH administration prior to randomization to bivalirudin (Biv) or UFH+a glycoprotein IIb/IIIa inhibitor (GPI).

Methods and Results In HORIZONS-AMI, randomization was stratified by the administration of UFH in the ER pre enrollment. Among a total of 3595 pts, 2357 pts received UFH pre randomization to Biv (n=1178) or to UFH+GPI (n=1179). A total of 1238 pts were not administered UFH pre randomization (619 pts in each arm). Administration of UFH pre randomization was associated with older age, > frequent use of clopidogrel loading dose of 600 mg, and > treated lesions. Pts who were administered UFH pre randomization had higher incidence of TIMI flow grade 2/3 on baseline both in Biv arm (37% vs 26%, p<0.0001) and UFH+GPI arm (39% vs 29%, p<0.0001). There was a significant interaction (Table) between UFH administration pre randomization and pharmacologic assignment; 30-day rates of MACE and NACE were significantly improved in Biv pts (but not UFH+GPI pts) who received UFH in the ER, without increase in major bleeding.

Conclusion In the HORIZONS-AMI trial, administration of UFH pre randomization to Biv or UFH+GPI was associated with reduced ischemic complications without an increase in bleeding events, benefits that were especially evident in pts treated with a bivalirudin monotherapy strategy.

30-day outcomes, %	Patients with STEMI n=3595						
	Bivalirudin monotherapy n=1797		HR [95%CI]	UFH + GPI n=1798		HR [95%CI]	P interaction
	Pre-randomization UFH (+) n=1178	Pre-randomization UFH (-) n=619		Pre-randomization UFH (+) N=1179	Pre-randomization UFH (-) N=619		
Death	2.0%	2.3%	-0.31 [-1.72,1.11]	3.2%	2.9%	0.32 [-1.35,1.99]	0.57
Reinfarction	1.5%	2.6%	-1.07 [-2.52,0.38]	2.0%	1.5%	0.51 [-0.74,1.76]	0.09
Ischemic TVR	1.8%	3.9%	-2.11 [-3.82,-0.40]	2.0%	2.0%	0.01 [-1.34,1.37]	0.09
Major bleeding	5.1%	5.2%	-0.08 [-2.25,2.09]	9.2%	8.2%	0.94 [-1.79,3.68]	0.62
Definite/probable stent thrombosis*	2.5%	5.7%	-3.22 [-5.39,-1.04]	2.1%	2.2%	-0.08 [-1.60,1.44]	0.12
MACE†	4.5%	7.3%	-2.78 [-5.14,-0.41]	5.8%	5.2%	0.60 [-1.60,2.80]	0.03
Net adverse clinical events‡	8.6%	10.8%	-2.25 [-5.18,0.68]	13.6%	11.0%	2.59 [-0.56,5.74]	0.03

*By ARC definition; †Death, reinfarction, ischemic TVR or stroke; ‡MACE or major bleeding