MOST: Multi-arm Optimization of Stroke Thrombolysis

RESULTS: In participants with acute ischemic stroke (AIS), the use of argatroban or eptifibatide and thrombolysis did not improve functional outcomes at 90 days but did not significantly increase symptomatic intracerebral hemorrhage compared to participants who received placebo and thrombolysis within three hours of symptom onset.

PURPOSE: To determine the safety and efficacy of argatroban (100µg/kg bolus followed by 3µg/kg/min infusion for 12 hrs) or eptifibatide (135µg/kg bolus followed by 0.75µg/kg/min infusion for 2 hrs) as compared with placebo in participants with AIS treated with standard of care IV thrombolysis within three hours of symptom onset.

TRIAL DESIGN: Phase 3 randomized controlled clinical trial, singled-blind three arm design at 57 sites in the U.S.; trial closed with n=514 following recommendations from the Data Safety and Monitoring Board.

	Argatroban		Eptifibatide		Placebo
Primary Endpoint	Mean (95% CI)	Posterior Mean Difference (SD)	Mean (95% CI)	Posterior Mean Difference (SD)	Mean (95% CI)
90-day uw-mRS	5.2 (4.2, 6.2)	-1.5 (0.5)	6.3 (5.9, 6.8)	-0.5 (0.3)	6.8 (6.4, 7.2)
Secondary Endpoint	N=54 N (%)	P value	N=212 N (%)	P value	N=217 N (%)
Symptomatic ICH within 36 hours	2 (3.7%)	0.343	7 (3.3%)	0.377	4 (1.8%)

Key Takeaways: The addition of argatroban or eptifibatide to thrombolysis in participants with AIS was determined to be safe but did not improve clinical outcomes compared to participants who received placebo and thrombolysis.

Presented by: Opeolu Adeoye, MD, MS, Washington University, USA. International Stroke Conference 2024.