INITIAL NIHSS AND TIMELY T-PA PREDICTS 3 MONTH DISABILITY

L. Catalli[1], D. Pickham[1,2], R. Guisado[2]
[1]*Regional Medical Center of San Jose, San Jose, California*
[2]*University of California, San Francisco*
guisado.raul@gmail.com

The long-term outcome of patients treated with IV t-PA, depends on multiple factors that can influence clinical decision making. We explored the effect of initial stroke severity and initial response to treatment on the 90-day outcome of patients with acute ischemic stroke (IS) treated with IV t-PA.

Methods: Thirty-eight consecutive patients were followed prospectively for 3 months. Demographics, initial and post-procedure NIHSS score and post-hospital disposition were abstracted from the ASA Get with the Guidelines Database. A 90-day modified Rankin Scale (mRS) score was obtained by phone interview by a trained stroke coordinator.

Results: Thirty-eight patients received IV t-PA and a mRS at 90 days. Mean age was 72 yrs±15. Mean NIHSS on admission was 10±7 and post-procedure NIHSS was 4±7, for a net treatment effect (NIHSS delta) of -5±7. NIHSS on admission and discharge correlated positively with patients mRS (rho = .741 & rho = .583, p<.0005, respectively). NIHSS delta did not correlate with mRS (p=.286). Timely IV t-PA treatment was associated with greater NIHSS delta (rho = -.349, p=.047), but timely IV t-PA did not show significant association to mRS (p=.378).

Conclusion: The 90-day outcome post IS is predicted by stroke severity, measured by the NIHSS on admission and discharge. Timely administration of IV t-PA was not directly correlated with 90-day outcome, but was associated with improved in-hospital NIHSS score and therefore functioning on discharge, which is correlated with 90-day outcome. These findings support public health initiatives to shorten onset to needle times in patients with acute IS.