

THREE MONTHS OUTCOMES OF IV VS IA THROMBOLYSIS IN A COMMUNITY SETTING

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Introduction: We studied 175 consecutive stroke patients eligible for thrombolysis and compared the early and long term outcome of IV and IA modalities.

Methods: All patients with IS presenting within 8 hours of onset were included. Eligible patients presenting within 3 hours, were treated with IV t-PA. Patients presenting after 3 hours underwent CT-Perfusion and CT-Angiography to determine infarct size and the presence of viable at-risk tissue. Patients with measurable penumbral tissue and/or major vessel occlusion were treated with IA thrombolysis with IV t-PA (if in the 4.5 hours window) or without. We obtained admission and discharge NIHSS scores during hospital admission. mRS scores at 90 days were obtained by phone interview.

Findings: The IV only group included 106 patients; 27 patients received combined IV alteplase and IA thrombolysis (IV/IA group) and 42 patients received IA thrombolysis alone (IA group)

The initial benefit of treatment was similar in all three groups. Mortality and hemorrhagic complications were lower in the IV group but similar in the IV/IA and IA groups. In all three groups, sixty percent of patients had a good early outcome and the average mRS at 3 months was <3 in all groups.

Conclusions: All three treatment modalities resulted in similar early and long term benefits. IA thrombolysis provides significant improvement at three months with a modest penalty in terms of hemorrhage and mortality. A 'stroke CT protocol' (CT/CTP/CTA) can be used to select patients that can safely receive IA therapy beyond the time window for IV alteplase.