



Recanalization rate and clinical outcome of the large intracranial artery occluded patients, after intravenous tissue plasminogen infusion and additional intraarterial thrombolysis.

Dosung Yoo MD PhD

Introduction

The standard treatment modality in acute stroke patients is intravenous tissue plasminogen activator (IV-tPA) administration, but its therapeutic results on large-artery intracranial occlusive disease (LAICOD) are questionable. Authors analyzed the recanalization rate of IV-tPA therapy in LAICOD patients.

Methods

A total of 202 patients with infused IV-tPA were included in this retrospective analysis. All patients, underwent brain CT-angiography as an initial image study and after IV-tPA administration, MRI was performed. And in 40 patients with failure of recanalization after IV-tPA, additional IA-Tx was attempted if the patient was within 6 hours from the symptom attack. Clinical outcomes were compared by recanalization rate, modified Rankin Scale (mRS), and hemorrhagic complication rate.

Results

119 patients were defined with LAICOD, 79 patients received IV-tPA only and 40 patients were given IV-tPA and additional IA-Tx. The recanalization rate of LAICOD patients after IV-tPA was 13.4% (16 out of 119 patients). Patient outcomes of recanalized patients after IV-tPA, showed a more favorable outcome (mRS=0~2, 73.3%) than non-recanalized patients (favorable outcome = 31.3%). Patients who underwent additional IA-Tx, showed 87.5% recanalization rate and these patients' mortality was significantly low than non-recanalized after IV-tPA administration (31.3% vs. 17.1%, $p < 0.05$).

Conclusions

From this study, the recanalization rate after IV-tPA on LAICOD patients was very low and non-recanalized patients' clinical outcomes were also poor. Authors would like to propose that IA-Tx might be considered as an additional treatment modality for LAICOD patients who didn't recanalized after IV-tPA administration.

Learning Objectives

intravenous tPA administration is ineffective in larger vessel occluded acute stroke patients.

[DEFAULT POSTER]