Impact of blood pressure on clinical outcome after thrombolysis in acute ischemic stroke

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We investigated the relationship between mean blood pressure (BP) at 24−72 h and clinical outcomes after acute ischemic stroke (AIS) in patients treated with thrombolysis. The primary outcome was measured using the modified Rankin Scale (mRS) 3 months after AIS and was based on mean systolic BP (SBP) at 24−72 h post-AIS. Favorable outcome was defined as mRS scores of 0−2. A total of 1,540 patients treated with thrombolysis were enrolled in the study. Favorable outcomes occurred more frequently in patients with BP ≤ 130/80 mmHg, and the risk of symptomatic intracranial hemorrhage and early neurological deterioration was lower in this optimal BP group. Multivariable analysis showed a significant association between mean BP ≤ 130/80 mmHg at 24−72 h and favorable outcomes 3 months after AIS (odds ratio = 2.95, 95% confidence interval [2.32−3.77], p 0.001). Prespecified subgroup analyses showed that BP ≤ 130/80 mmHg has a more significant impact on clinical outcome in patients with recanalization than in those without recanalization. These data indicate that mean BP ≤ 130/80 mmHg at 24−72 h post-AIS is independently associated with favorable outcomes in patients treated with thrombolysis, particularly in those with recanalization.