SAMURAI

The Stroke Acute Management with Urgent Risk-factor Assessment and Improvement (SAMURAI)-ICH Study was a multicenter, prospective observational study investigating the safety and feasibility of early (within 3 h from onset) reduction of systolic BP (SBP) to < 160 mm Hg with intravenous nicardipine for acute hypertension in cases of spontaneous intracerebral hemorrhage.

A study of Yamaguchi et al. was a post hoc analysis of the SAMURAI-ICH study. They examined relationships between time from onset, imaging, and initiation of treatment to target SBP achievement and hematoma growth (absolute growth ≥6 mL) in ICH patients. Target SBP achievement was defined as the time at which SBP first became < 160 mm Hg.

Among 211 patients, hematoma growth was seen in 31 patients (14.7%). The time from imaging to target SBP and time from treatment to target SBP were significantly shorter in patients without hematoma growth than in those with ($p = 0.043$ and $p = 0.032$ respectively), whereas no significant difference was seen in time from onset to SBP < 160 mm Hg between groups ($p = 0.177$). Patients in the lower quartiles of time from imaging to target SBP and time from treatment to target SBP showed lower incidences of hematoma growth (p trend = 0.023 and 0.037 respectively). The lowest quartile of time from imaging to target SBP (< 38 min) was negatively associated with hematoma growth on multivariable logistic regression (OR 0.182; 95% CI 0.038-0.867; $p = 0.032$).

Early achievement of target SBP < 160 mm Hg is associated with a lower risk of hematoma growth in ICH [1].

1)
Yamaguchi Y, Koga M, Sato S, Yamagami H, Todo K, Okuda S, Okada Y, Kimura K, Shiokawa Y, Kamiyama K, Itabashi R, Hasegawa Y, Kario K, Fujita K, Kumamoto M, Kamimura T, Ando D, Ide T, Yoshimoto T, Shiozawa M, Matsubara S, Yoshimura S, Nagatsuka K, Toyoda K; for the SAMURAI Study Investigators. Early Achievement of Blood Pressure Lowering and Hematoma Growth in Acute Intracerebral Hemorrhage: Stroke Acute Management with Urgent Risk-Factor Assessment and Improvement-Intracerebral Hemorrhage Study. Cerebrovasc Dis. 2018 Sep 10;46(3-4):116-122. doi: 10.1159/000492728. [Epub ahead of print] PubMed PMID: 30199854.