INTERACT 1

see also INTERACT 2.

Blood pressure (BP) lowering after spontaneous intracerebral hemorrhage (ICH) is intuitively attractive as a means to prevent continued bleeding or perihematomal edema. Concerns about potential reduction of cerebral perfusion pressure with concomitant risk of ischemia, particularly among patients with a recalibrated autoregulatory curve as a consequence of chronic hypertension, were largely mitigated by imaging studies that found no significant reduction of cerebral blood flow in the face of pharmacological BP lowering, [1) 2) 3)] and the Intensive Blood Pressure Reduction in Acute Cerebral Hemorrhage Trial (INTERACT) pilot study.

Pooled analyses of the INTERACT CT substudies-international, multicentre, prospective, open, blinded end point, randomised controlled trials of patients with acute spontaneous ICH and elevated systolic blood pressure (SBP)-randomly assigned to intensive (<140 mm Hg) or guideline-based (<180 mm Hg) SBP management. Participants had blinded central analyses of baseline and 24 h CTs, with dIVH defined as new intraventricular hemorrhage (IVH) on the latter scan. Outcomes of death and major disability were defined by modified Rankin Scale scores at 90 days.

There were 349 (27%) of 1310 patients with baseline IVH, and 107 (11%) of 961 initially IVH-free patients who developed dIVH. Significant associations of dIVH were prior warfarin anticoagulation, high (≥15) baseline National Institutes of Health Stroke Scale score, larger (≥15 mL) ICH volume, greater ICH growth and higher achieved SBP over 24 h. Compared with those who were IVH-free, dIVH had greater odds of 90-day death or major disability versus initial IVH (adjusted ORs 2.84 (95% CI 1.52 to 5.28) and 1.87 (1.36 to 2.56), respectively (p trend <0.0001)).

Although linked to factors determining greater ICH growth including poor SBP control, dIVH is independently associated with poor outcome in acute small to moderate-size ICH [4)].

1)
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