

Early blood pressure lowering in patients with intracerebral haemorrhage and prior use of antithrombotic agents: pooled analysis of the INTERACT studies.

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Abstract

Objective Antithrombotic agents increase risks of intracerebral haemorrhage (ICH) and associated adverse outcomes. We determined differential effects of early blood pressure (BP) lowering in patients with/without antithrombotic-associated ICH in the Intensive Blood Pressure Reduction in Acute Cerebral Haemorrhage Trials (INTERACT1 and 2).

Design Post hoc pooled analyses of the INTERACT studies—international, multicentre, prospective, open, blinded end point trials of patients with ICH (<6 h) and elevated systolic BP (SBP 150–180 mm Hg) randomly assigned to intensive (target SBP <140 mm Hg) or guideline-based (SBP <180 mm Hg) BP management. Associations of antithrombotic use and (1) death or dependency (modified Rankin scale scores 3–6) were analysed using logistic regression, and (2) of increased haematoma+intraventricular haemorrhage volume (IVH) with/without intraventricular haemorrhage (IVH) over 24 h were estimated in analyses of covariance.

Results In all, 3184 patients were included in these analyses. Antithrombotic-associated ICH (364 patients, 11%) was not associated with a significantly increased risk of death or dependency (OR 1.38, 95% CI 0.93 to 2.04). There was no heterogeneity in the BP-lowering treatment effect on death or dependency. Among 1309 patients who underwent follow-up CT after 24 h, absolute increase in haematoma±IVH volume was larger (5.2/5.0 mL) in those with compared to those without prior antithrombotics (2.2/0.9 mL; $p=0.022/0.031$). Intensive BP lowering reduced haematoma±IVH growth by 4.7/7.1 mL in patients on antithrombotics versus 1.3/1.4 mL in those without, although these differences did not reach statistical significance (p homogeneity=0.104/0.059).

Conclusions In patients with ICH, prior antithrombotic therapy is associated with greater haematoma growth, which may be reduced by early intensive BP-lowering treatment.