

Prophylactic heparin in acute intracerebral hemorrhage: a propensity score-matched analysis of the INTERACT2 study

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Resumen

Background: Indication and timing of pharmacological venous thromboembolism prophylaxis in intracerebral hemorrhage patients is controversial.

Aims: To determine whether use of subcutaneous heparin during the first 7 days after spontaneous intracerebral hemorrhage increases risks of death and disability.

Methods: Data are from the Intensive Blood Pressure Reduction in Acute Cerebral Hemorrhage Trial (INTERACT2) study. Patients with acute intracerebral hemorrhage (<6 hours) and elevated systolic blood pressure were included; patients received subcutaneous heparin following local best practice standards of care. Multivariable logistic regression and propensity score matched analysis were used to determine associations of heparin use on death and disability (modified Rankin scale) at 90 days.

Results: In 2525 patients with available data, there were 465 (22.5%) who received subcutaneous heparin. They had higher death or major disability at 90 days in crude (odds ratio 2.29, 95% confidence interval 1.85-2.84; $p < 0.001$), adjusted (odds ratio 1.62, 95% confidence interval 1.26-2.09; $p < 0.001$) and propensity score matched (odds ratio 2.06, 95% confidence interval 1.53-2.77; $p < 0.001$) analyses. In propensity score matched analysis, heparin-treated patients had significant lower mortality (odds ratio 0.55, 95% CI 0.35-0.87; $p = 0.01$) but greater major disability (odds ratio 1.68, 95% confidence interval 1.25-2.28; $p < 0.001$) at 90 days. However, no mortality difference was found in analysis restricted to 48-hour survivors.

Conclusions: Use of subcutaneous heparin is associated with poor outcome in acute intracerebral hemorrhage, driven by increased residual disability. Despite the limitations of this study, and no clear relation of heparin with bleeding risk, we recommend careful consideration of the need for venous thromboembolism prophylaxis with heparin in intracerebral hemorrhage patients.

Palabras clave

Palabras clave de autor: [Cerebral hemorrhage](#); [intracranial hemorrhage](#); [heparin](#); [outcome](#); [clinical trial](#); [venous thromboembolism](#); [prophylaxis](#)

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