Poor utility of grading scales in acute intracerebral hemorrhage: results from the INTERACT2 trial

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Resumen

Background Several simple clinical grading scores have been developed for intracerebral hemorrhage, primarily to predict 30-day mortality.

Aims We aimed to determine the accuracy of three popular scores (original intracerebral hemorrhage, modified intracere-bral hemorrhage, and intracerebral hemorrhage grading scale) on 30-day mortality and 90-day death or major disability, and whether the magnitude of benefit varies according to prognosis graded by the three predictive scores.

Methods Data from the Intensive Blood Pressure Reduction in Acute Cerebral Hemorrhage Trial which included 2839 intracerebral hemorrhage patients (<6 hours) and elevated systolic blood pressure (150-220 mmHg), randomized to intensive (target systolic blood pressure <140 mmHg) or guideline-based (<180 mmHg) blood pressure management. Discrimination of scales for predicting death and poor outcome (modified Rankin scale 3-6) was evaluated in area under receiver operator characteristic curves.

Results Among 2556 (90%) participants with available data, the modified intracerebral hemorrhage had the highest discrimination (receiver operator characteristic 0.75) for 90-day poor outcome compared with the original intracerebral hemorrhage (receiver operator characteristic 0.68) and intracerebral hemorrhage grading scale (receiver operator characteristic 0.69). All scores had good positive predictive value (approximately 80-90%) for poor outcome but poor sensitivity and positive predictive value for death. The scores do not clearly discriminate a patient group most likely to benefit from blood pressure lowering.

Conclusions Intracerebral hemorrhage prognostic scores are not useful in defining patients at high probability of early death, but they are reliable for predicting poor outcome, defined by death or major disability. Potential benefits of early intensive blood pressure lowering are broadly applicable across grades of severity defined by such scores.

Palabras clave

Palabras clave de autor:BP lowering treatment; ICH scales; INTERACT2; intracerebral hemorrhage; prognosis
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