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Comparison of prognostic value of different clinical scales for predicting early lethal outcome after acute spontaneous supratentorial intracerebral hemorrhage

A. Kuznietsov, O. Kozyolkin

Department of Nervous Diseases, Zaporozhye State Medical University, Zaporozhye, Ukraine

Background and aims: Identification of vital prognosis in patients with acute spontaneous supratentorial intracerebral hemorrhage (ASSICH) using clinical parameters is very important and relevant in modern angioneurology and can help the practicioners to improve treatment approaches. Therefore we decide to verify the clinical scale with the largest prognostic value for predicting early lethal outcome (ELO) after ASSICH.

Methods: 97 patients (mean age 64.0±1.3 years) were studied within first 72 hours after clinical onset of ASSICH. Clinical examination included evaluation by National Institute of Health Stroke Scale (NIHSS), Glasgow Coma Scale (GCS), Full Outline of UnResponsiveness scale (FOUR) and Essen-ICH scale. Comparison of prognostic values of FOUR, GCS, NIHSS, Essen-ICH scale for predicting ELO after ASSICH was done using comparative ROC-analysis.

Results: From 97 stroke patients, 22 (22.7%) were died during 21 days from the ASSICH clinical onset. Predictors of ELO were verified: FOUR score on the 1st day from the clinical onset of AISS ≤13 (Se=86.4%, Sp=86.7%) and FOUR score on the 2nd day from the clinical onset of AISS ≤12 (Se=100.0%, Sp=90.7%). On the 1st day from the clinical onset of AISS FOUR score has the largest area under the curve (AUC=0.91) for predicting ELO, than GCS score (AUC=0.82), NIHSS score (AUC=0.85), Essen-ICH score (AUC=0.83) (fig. 1). These differences were found also for scores on the 2nd day from the clinical onset of ASSICH.

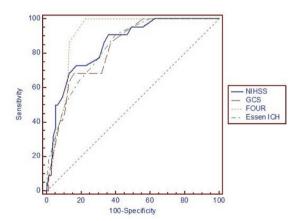


Fig. 1. Comparison ROC-analysis of different clinical scales.

Conclusion: Full Outline of UnResponsiveness scale might be a powerful tool for predicting ELO after ASSICH and improving effectiveness of treatment.

Disclosure: Nothing to disclose