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EP2040

Elaboration of new model for predicting early clinical deterioration in patients with acute spontaneous supratentorial intracerebral hemorrhage and secondary intraventricular hemorrhage

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Background and aims: Predicting early clinical deterioration (ECD) in patients with acute spontaneous supratentorial intracerebral hemorrhage (ASSICH) and secondary intraventricular hemorrhage (IVH) is a very important and relevant in modern angioneurology, that can help the practicioners choose optimal treatment approaches to improve its efficacy. The aim was elaboration new statistical model for predicting early clinical deterioration (ECD) in patients with ASSICH and secondary IVH.
Methods: 69 patients (mean age 64.4±1.5 years) were studied during first 24 hours after clinical onset of the disease. Clinical examination included vital signs verification and evaluation by National Institute of Health Stroke Scale, Glasgow Coma Scale, Full Outline of UnResponsiveness (FOUR). Early clinical deterioration was verified in patients with decrease FOUR score ≥1 during 24 hours from the beginning of the disease. Severity of IVH was verified by IVH score (IVHS) using parameters of computer tomography. Secondary IVH volume (IVHV) was calculated by formula: IVHV (mL)=e^(IVHS score/5). Elaboration of prognostic model was made by logistic regression and ROC-analysis.
Results: Out of 69 patients, 19 (27.5%) had ECD. The model with the largest AUC (0.98) was: β=0.04*(systolic blood pressure after 1 hour from admission (mmHg))+0.17 *(IVHV(mL))+0.87*(dislocation of transparent partition of the brain (mm))-15.94 (fig.1). Percent Concordant=94.8. The cut-off value of β>-1.06 predicts ECD with sensitivity=87.5% and specificity=95.2%.

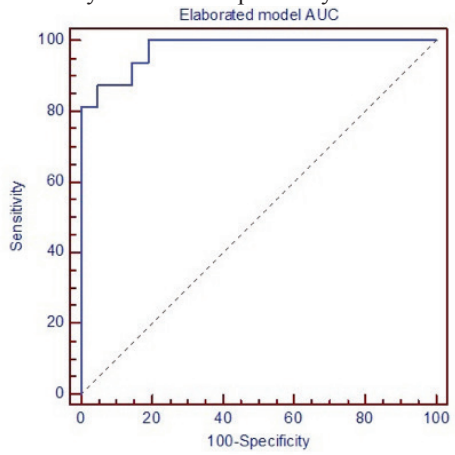

Fig. 1. Elaborated model AUC.

Conclusion: Elaborated prognostic model might be a powerful tool for predicting ECD in acute period of ASSICH and secondary IVH and improving efficacy of treatment.
Disclosure: Nothing to disclose

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New multivariate prognostic model for predicting early lethal outcome after acute period of spontaneous supratentorial intracerebral hemorrhage with secondary intraventricular hemorrhage

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Background and aims: Identification of vital prognosis in patients with acute spontaneous supratentorial intracerebral hemorrhage (ASSICH) with secondary intraventricular hemorrhage (SIVH) is a very important and relevant in modern angioneurology that can help the practicioners to improve treatment approaches. Therefore the aim was elaboration of new multivariate statistical for predicting ELO after ASSICH with SIVH using clinical and paraclinical parameters.
Methods: 69 patients (mean age 64.4±1.5 years) were studied during the acute period of disease. Clinical examination included evaluation by National Institute of Health Stroke Scale (NIHSS), Glasgow Coma Scale (GCS), Full Outline of UnResponsiveness score (FOUR). Severity of SIVH was verified by the different scores: IVH, Hemphill-ICH, mICH-A, mICH-B, ICH-GS using clinical parameters and parameters of computer tomography. Intracerebral hemorrhage volume (ICHV) and secondary IVH volume (IVHV) were calculated by formulas: ICHV=(a*b*c)/2 and IVHV (mL)=e^(IVHS score/5). Elaboration of prognostic model was made by logistic regression and ROC-analysis.
Results: Out of 69 stroke patients, 13 (18.8%) had died. The model with the largest AUC was: β=-0.09*age (years)+0.17*(NIHSS score at admission)+0.13*(IVHV (mL))-1.37. Percent Concordant=95.6. Elaborated model characterized by higher AUC (0.99) (fig. 1), than used in routine clinical practice standard scores: Hemphill-ICH (0.74), mICH-A (0.81), mICH-B (0.74) and ICH-GS (0.60). The cut-off value of β>-2.18 predicts ELO with sensitivity=91.7% and specificity=92.9%.

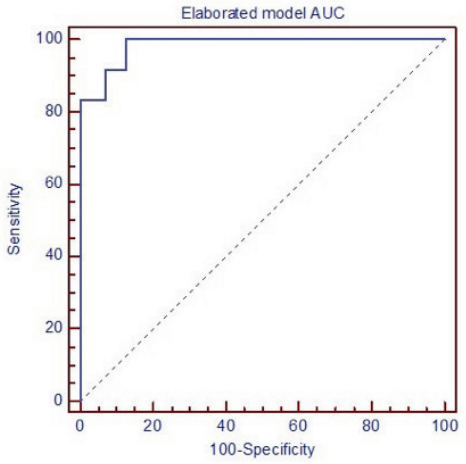

Fig. 1. Elaborated model AUC.

Conclusion: Elaborated prognostic model might be a powerful tool for predicting ELO in ASSICH with SIVH and improving efficacy of treatment.
Disclosure: Nothing to disclose

EP2042

Cancelled

EP2043

Stuttering as stroke presentation

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Background and aims: Acquired stuttering is a rare and poorly understood condition, the majority being of ischemic etiology. It has been described in both dominant and non-dominant hemispheric lesions and in all lobes except the occipital.
Methods: We describe a case of an acquired stuttering as stroke presentation.
Results: 38-year-old right-handed woman, recently diagnosed with hypertension, without history of development stuttering, presented in our hospital with sudden and recurrent episodes of speaking difficulty, with progressive worsening in the past two weeks. Repetitions and prolongations were noted, occurring on grammatical as well as on substantive words, in all positions of the words in the sentence, consistent across every speech tasks (reading, singing), and rarely paraphasias. The remaining neurological examination was unremarkable, except for mild attention deficit. Brain CT was described as normal. Electrocardiogram was unremarkable. Cervical and transcranial ultrasound was compatible with distal middle cerebral artery occlusion. Blood and cerebrospinal fluid investigations were normal, as well as the echocardiogram. Cerebral MRI and MR angiography revealed an acute ischemic lesion affecting the left fronto-parieto-temporo-occipital cortex and lenticulocapsular region, terminal internal carotid and anterior cerebral arteries stenosis, and middle cerebral artery occlusion. Conventional angiography confirmed the previous described and showed evidence of collateral circulation, compatible with a unilateral moyamoya pattern.
Conclusion: We describe a case of a large ischemic lesion presenting only with acute stuttering and rare paraphasias, with the further investigation revealing a moyamoya syndrome. Although frequently attributed to functional disturbances, we emphasize the need to investigate a structural cause in acquired stuttering.
Disclosure: Nothing to disclose