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## Status of autonomic nervous system in patients with transient ischemic attack and stroke

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**Aim:** This study purpose was to determine the autonomic nervous system (ANS) parameters that may differ the pathogenesis of transient ischemic attack (TIA) from stroke.

**Methodology:** A prospective cohort study was conducted in the Department of Neurology and Neurosurgery at the Gomel State Medical University, Stroke Unit of the Gomel Regional Veterans Hospital, between May 2014 and March 2016 which includes 97 patients: TIA group - 13 patients and 84 stroke patients: 61 having size of stroke lower than 15 mm (lacunar stroke – LS), 23 having size of stroke greater than 15 mm (total stroke – TS). Heart rate variability (HRV) was used to describe status of the ANS. It was measured at 1<sup>st</sup> and 10<sup>th</sup> day after admission. Obtained HRV records were analyzed using the following four parameters: SDNN (standard deviation of the normal-to-normal R-R intervals, in ms),  $\Delta X$  (the difference between maximal and minimal R-R interval, in ms), Mo (mode of the duration of R-R intervals, in ms), AMo (amplitude of the R-R intervals mode, in percent).

**Results:** For the HRV taken on the 1<sup>st</sup> day, the dependence between  $\Delta X$  (representing activity of parasympathetic part of ANS) and Mo (representing sympathetic part of ANS) was found to be significantly different for TIA and TS groups ( $p=0.016$ ).

**Conclusion:** The key difference between TIA and TS is a difference in the relationship between the humoral regulation of the activities of the ANS and the parasympathetic part activity at 1<sup>st</sup> day, which determines specific features of pathogenesis of the transient ischemia.

### Biography

Natalia Halinouskaya has completed her PhD at the National Academy of Sciences of Belarus and Postdoctoral studies at Gomel State Medical University and National Science and Practice Centre of Medical Assessment and Rehabilitation. She is the Dean of the Postgraduate Faculty at Gomel State Medical University, the Coordinator of the Educational Program Today and Tomorrow for stroke patients and patients with stroke risk factors. She has published more than 150 papers in reputed journals and has been serving as an Editorial Board Member of reputed journals.

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**Notes:**