

00558 / #2443

E-Poster Presentations

E-POSTER PRESENTATION 19: RARE AND THE YOUNG

08-11-2020 6:00 PM – 7:00 PM

**THE ROLE OF BRAIN NEUROTROPHIC FACTOR IN PREDICTING EPILEPSY IN CHILDREN WITH PERINATAL ISCHEMIC STROKE****N. Lupusor<sup>1</sup>, S. Hadjiu<sup>1</sup>, M. Sprincean<sup>2</sup>, C. Calciu<sup>1</sup>, C. Griu<sup>1</sup>, S. Racovita<sup>2</sup>, L. Feghiu<sup>1</sup>, L. Cuznets<sup>1</sup>, R. Eremia<sup>1</sup> and N. Revenco<sup>1</sup>**

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**Group Name:**

**Background And Aims:** Data on the role of the Brain-derived neurotrophic factor (BDNF) in maintaining the trophic functions of the brain and in epileptogenesis are confirmed in experimental studies. The aim of the study was to assess the role of BDNF in the development of epilepsy in children after perinatal ischemic stroke (PNIS).

**Methods:** A group of 35 children who supported PNIS and 25 healthy children aged 1 to 12 months were investigated. BDNF serum levels were evaluated immediately after perinatal ischemic stroke and at 3 months after PNIS, using the immunoenzymatic method.

**Results:** The average BDNF serum values varied depending on the degree of impairment of the nervous system. Serum values were significantly increased ( $p < 0.04$ ) in children with severe degree of impairment compared to those with moderate affect ( $p < 0.01$ ) and those in the control group. Similarly, significantly increased BDNF serum levels after 3 months in the study group were observed in children who had PNIS, and subsequently developed epilepsy (28%).

**Conclusions:** The accumulated evidence on perinatal ischemic stroke supports a relationship between BDNF serum concentration and the degree of neurological disorders in children with stroke. The presence of a negative correlation between increased BDNF values and the occurrence of epilepsy suggests the involvement of this factor in epileptogenesis processes. This biomarker may be a predictor of neurological sequelae in children after perinatal stroke.

**Trial Registration Number:**

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