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IMMUNOENZYMATIC ASSAY OF ENDOGLIN IN ISCHEMIC STROKE IN CHILDREN

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Introduction

Stroke is a rare disease in children and adolescents, with an incidence of 2-13/100.000 children, and in the prenatal period - 1: 4000 of live births. Studies of stroke immune markers have become current.

Keywords

biomarkers, stroke, ischemic, children

Purpose

Assessment of endoglin (CD105) in ischemic stroke (IS) in children to determine its role in early diagnosis and predictive factors of the disease.

Material and methods

In 2017 – 2019 in the Republic of Moldova was carried out a prospective study on a sample of 53 children with IS (study sample, SS), investigated by ELISA in the acute phase of the process determining the serum levels of endoglin (CD105). At the same time, this marker was appreciated in 53 "practically healthy" children (control sample, CS).

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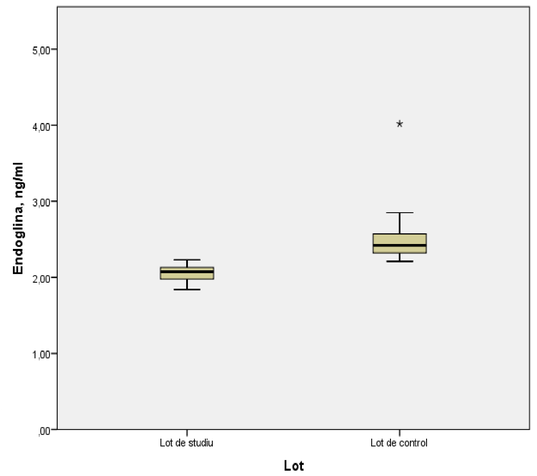
Results In SS statistically significant endoglin values were found to be significantly lower than in CS (F = 84.812, p<0.001), maximum values (4.02 ng/ml) and minimum values (1.88 ng/ml). The mean level of endoglin, 2.06 ± 0.012 ng / ml in SS, does not exceed the level of 2.23 ng/ml, while in CS, the mean value of endoglin was 2.51 ± 0.071 ng/ml, has the maximum value of 4.02 ng/ml.

Figure 1. Serum levels of Endogline in children with IS compared to the sample of “practically healthy” children, pg/ml.



Conclusions

In acute IS in children there is a significant decrease in serum endoglin, signifying its role as a biomarker of stroke and the need for therapeutic corrections indicated in cerebral ischemic processes. Experimental and clinical research on biomarkers promotes new discoveries in this field, to improve the diagnosis and treatment of IS in children.