

## Assessment of intraocular pressure in children with cerebral palsy

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### ABSTRACT

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**Introduction:** Nearly half of the patients with cerebral palsy (CP) may face frequent ophthalmological problems including strabismus, refractive errors and abnormal intraocular pressure.

**Purpose:** In this study we aimed to investigate the relativeness between intraocular pressure and neurological pathologies in patients with selected types of CP.

**Material and methods:** The subject of the analysis was to show intraocular pressure in patients within two groups of CP: diplegia spastica and tetraparesis, with nervous system pathologies taken into account. Analysis consisted of 103 patients (66 boys, 64%) between 2-18 years old (mean age 9.7±3.87). 44 patients (42%) had diplegia spastica, while 59 patients had (58%) tetraparesis. During the diagnostics process the checking of intraocular pressure was carried out with a non-contact

tonometer. The data were evaluated with correlation, Chi Square and Fishers' Exact Test. The border value of significant statistical level was accepted p=0.05.

**Results:** In the statistical analysis of the study was proven some correlations between intraocular pressure and type of CP, type of delivery, term of birth, and possibility of walking of patients with CP.

**Conclusions:** The study affirmed that results of tonometry above the norm were more common in patients with tetraparesis than with diplegia spastica, mainly in non-walking patients. Abnormal intraocular pressure, both hypo and hypertony were diagnosed as being more common in children born naturally, from a full term pregnancy.

**Key words:** cerebral palsy, diplegia spastica, tetraparesis, intraocular pressure

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