

## Visual disturbances following brain injury in school-aged children.

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**Introduction** As far as the statistic outline that the rate of brain trauma among children is all the time in progress rating double as speaking about school aged children, we find difficult evaluating this group of patients. That is why visual disturbances that may outcome of a brain trauma in a child will have a define role in its future development as an adult

**Keywords** traumatic brain injury, visual disorders in children, vision loss after head trauma.

**Purpose** is to determine and classify visual disturbances that appear after head trauma in children in order to assess a personalized, but also an objective approach to them.

**Material and methods** The study was a case control research based on 48 patients hospitalized at the neurosurgery department suffering from a traumatic brain injury (TBI) and 48 patients with visual disturbances but with no brain injury in the past five years. The patients have undergone a full ophthalmological evaluation.

**Results** Autorefraction data usually will reveal a slight hyperopia with a possible astigmatic component ranged between 1D to 3D. There have been also determined changes in visual field examination in the acute stage after trauma. Contrast sensitivity test outline a clear disturbance for color perception being present in 94%

**Conclusions** Due to some distinguished aspects in cerebral blood flow regulation, the pediatric age group is subject to the development of intracranial hypertension (ICH), the cause of the development of which is the expansion of the brain. Also it has been revealed that most of the standart ophthalmologic investigations should be indicated not in the acute stage since the values may be increased due to a transient picture of visual disturbances without a need in treatment but only with concern of future evaluation.