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CHARACTERISTICS OF COGNITIVE DISORDERS IN SYMPTOMATIC EPILEPSY

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Abstract
Along with suffering as a result of seizures in epilepsy, cognitive disorders also have a negative impact on the lives of patients. According to the conducted studies, the development of cognitive disorders depends not only on the course of the disease, the frequency and duration of attacks, but also on the localization of the epileptic focus. Early detection and treatment of cognitive impairment can effectively improve patients' quality of life.

Keywords: symptomatic epilepsy, electroencephalography, cognitive disorders, neuropsychological tests

Introduction:

One of the characteristics of epilepsy as a disease is its chronic course (3,8). However, the course of the disease is affected by a number of factors, the main ones of which are the age-relatedness of some attacks and the change in susceptibility to convulsions during ontogenesis (1,2,5). Propensity to epilepsy, especially in young children, does not have a linear relationship, changing during periods of age crises. All this explains that the disease, which started in childhood, can have a different course (6,7). Spontaneous long-term remissions, and in some cases spontaneous recovery can also be observed, but usually one type of attack is followed by another type [4].

Materials and examination methods:

30 patients (27 boys, 3 girls) aged 12 months to 14 years (average age 6.8±1.9) were examined. The scientific work was carried out from 2019 to 2021 at Andijan regional multidisciplinary children's hospital. All patients were divided into 2 groups.
All patients underwent clinical neurological, neurophysiological and neuropsychological examination methods.

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Results and discussion:

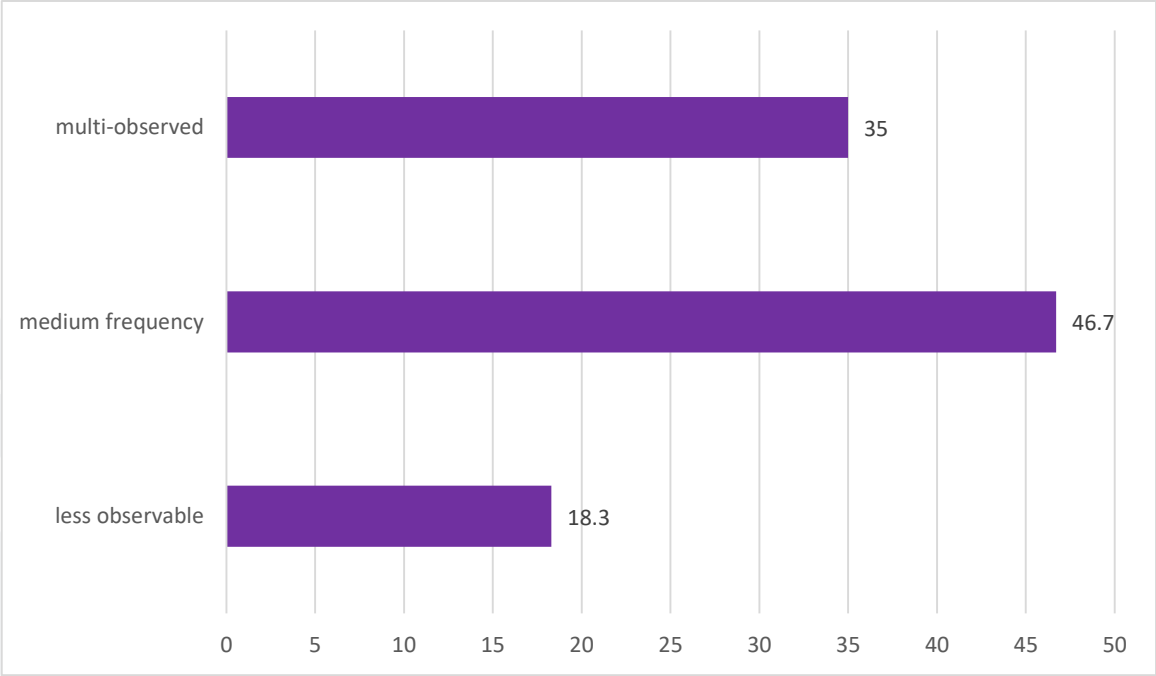
Among all examined patients, the manifestation of the disease was up to 7 years, average indicators - 5.8±0.4 years. The average duration of the disease was 2.8±0.5 years . The period of medication remission lasted 5.6±0.3 months on average .

Distribution of examined children according to the type of epilepsy

Type of epilepsy	number of children with S E examined , n = 30	
	Abs .	%*
Generalized type of symptomatic epilepsy	11	36.7
Partial type of symptomatic epilepsy: Temporal epilepsy Forehead epilepsy Epilepsy of the neck	19 9 6 4	63.3 47.7 31.6 21.1

Note : * is the percentage of the total number of examined children

According to the frequency, attacks are divided into infrequent attacks - 1-2 times a year , average frequency - up to 3 times in 1 month , frequent attacks - 4 or more attacks in 1 month (1st picture).



Symptomatic in epilepsy attacks frequency indicators (abs . /%)

According to the presented data, the most frequent and frequent seizures were observed in children with S E (46.7% of patients in the main group and 35.0% in the comparison group). The absolute number of attacks in the last 12 months was 6.4±0.23 attacks .

Each child was found to be receiving therapeutic doses of antiepileptic drugs (EPDs) at the time of hospitalization .

C group had good mastery - 53.3% (8 out of 16 children), excellent mastery - 20% (3 out of 16 children) , and satisfactory mastery - 26.7% (1 out of 6 children). in 4) .

When applying to the hospital, 66.7% of children in the main group complained of high fatigue, 38.3% of children complained of frequent headaches, and 19.2% of children complained of sleep disorders (difficulty sleeping, anxious and superficial sleep, nightmares). 14 children (46.7%) did not have time to master the information given during school. Behavioral changes were observed in 19 children (63.3%) in the form of abnormal behavior.

In the neurological status of all the children brought to the hospital, it was found that clinical drug remission for more than 3 months, general cerebral and autonomic disorders with mild or moderate expression and microsymptomatics with small foci, revival of joint reflexes.

In children with SE, the psychoemotional status is characterized by rapid fatigue and decreased concentration of attention, in focal seizures (19.4%), tonic-clonic seizures (12.2%), tonic seizures (5.1), atonic seizures (11 .2%), was absent in clonic attacks (3.1%).

Correlation between disturbances in psychoemotional status and the duration and frequency of attacks was determined ($r<0.001$), according to which it was determined that there are emotional rough changes among children who have been sick with symptomatic epilepsy for a long time and who have had multiple attacks.

Electroencephalographic changes have the following classification: irregular alpha rhythm was detected in 33.3% of children, increased diffuse slow wave activity in 14.2%, increased local slow wave activity - in 71.7% of patients, paroxysmal activity (nonspecific, diffuse) - 19, In 2%, local nonspecific activity - in 23.3% of patients, focal epileptiform activity - in 85.8%, left-sided localization - in 71.7% of children.

All children in the study group were examined using neuropsychological tests in order to evaluate cognitive activity. The study focused on attention, memory functions and psychological status of children with idiopathic epilepsy.

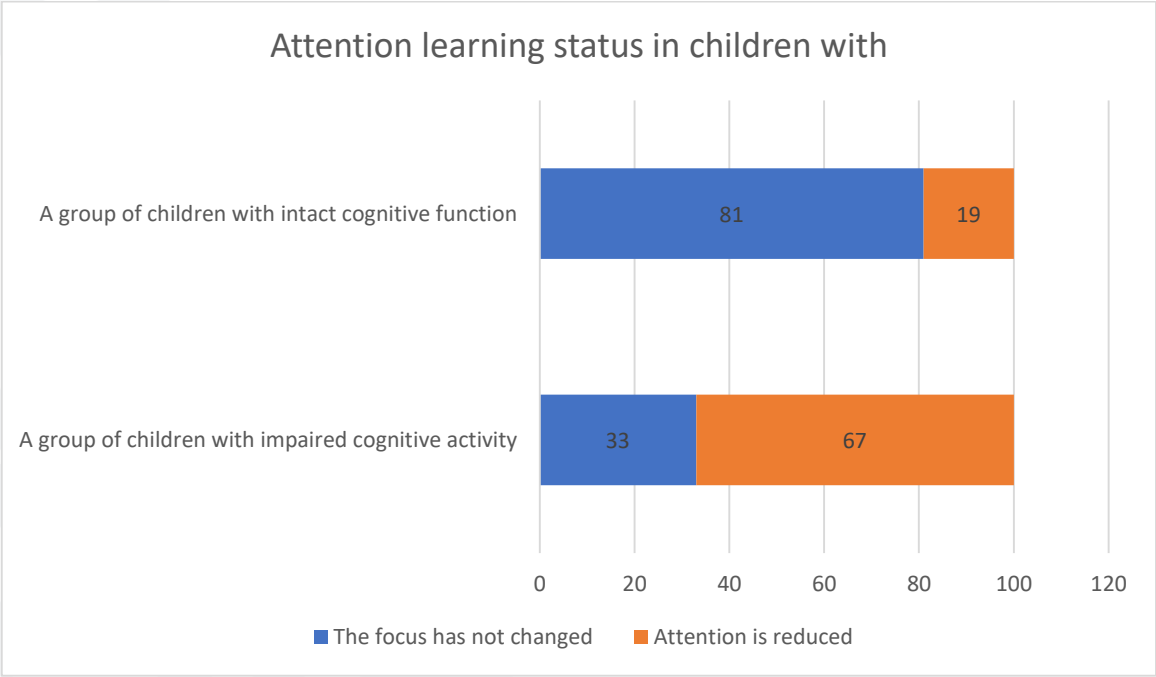
According to the results of the MMSE test, children with symptomatic epilepsy scored an average of 26.2±2.9 points, which is reliably different from almost healthy children of the same age and sex – 29.9±2.2 ($R<0.05$).

Most children in the main group (85.7% - 12 children) could not answer the questions related to concentration, reception and memory. 5 of them (41.7%) have 25.3±0.7, which corresponds to cognitive disorders before mental retardation, in 4 of them, 33.3% of children have an average score of 22.4±0.7, which indicates that these

children have mental retardation. it is possible to talk about a mild degree of mental retardation, and in 25% of cases, an average degree of mental retardation was determined, and the average score was 17.9±0.8.

When conducting the Stanford test, both groups of children and children of the healthy group were offered tasks consisting of several steps. In the first stage, children were given simple questions and tasks, and their speech and ability to answer questions were checked. According to him, 74% of the children of the first group had a low level of mental development (inability to fully answer questions and speech defects were detected), the remaining 26% of children were able to answer questions. In the reference group, 87% of children were able to answer questions, and 13% had some difficulties in performing tasks. And in the group of healthy children, all those who took part in the examination answered the questions completely and performed the tasks without difficulty.

At the next stage, attention, perception, memory and thinking states were evaluated. The "What's Changed" house was used to focus the children's attention. The results of this game are shown in the chart below.



According to the results shown in the diagram, 67% of children with CP and cognitive impairments also had changes in attention and did not find that the colored plastic cups were replaced, only 33% of children realized this, but could not explain exactly what kind of change was observed.

In the comparison group, 81% of children recognized the change and were able to explain what kind of change was observed. It was observed that 19% of children could not fully explain the change.

In the group of healthy children, this task was easily performed at 100%, so we did not find it necessary to show it in the diagram.

Conclusion

1. From the anamnestic and clinical-neurological data, it was established that neurological symptoms prevail in patients with generalized forms, compared with partial ones. While in partial seizures and at the time of the attack and in the interictal period, a distinct epiactivity is determined.
2. Symptomatic epilepsy in 50.8% of children is accompanied by the development of cognitive impairment, the severity of which depends both on the localization of the epileptic focus, and the frequency of seizures and the duration of the disease.
3. Neuropsychological testing revealed both a deficit in the cognitive sphere and in the development of speech. The results of the studies showed that in the group of patients with cerebral palsy with the presence of cognitive impairment, there was a deterioration in the development of attention, color perception (rangli idrok), visual memory and thinking.

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