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HEADACHES IN CHILDREN AND ADOLESCENTS: CLINICAL FEATURES AND PREVENTION

Kasimova Gulnora
Andijan State Medical Institute

Abstract: The publication examines the clinical features and methods of preventing primary headaches in children and adolescents: migraine and tension headaches. Modifiable and non-modifiable migraine trigger factors are analyzed, and methods of non-drug and drug prevention of headaches are discussed.
Keywords: primary headaches, adolescents, children, prevention.

INTRODUCTION

Headache is a common symptom in children and adolescents. According to research, the incidence of headache increases from 3–8% among preschoolers to 57–82% among adolescents [1]. That is why the report of experts from the World Health Organization "Headaches and Public Health" [2] named "improving the effectiveness of treatment and prevention of headaches in children" as one of the priority tasks. Complaints of headaches in children most often appear at the age of 4–5 years. It is by this age that the child develops the ability to differentiate, localize and correctly describe their pain. Headaches in young children can only be indirectly judged by their behavior [3].

MATERIALS AND METHODS

In most cases, headaches in children and adolescents have a favorable prognosis if an accurate diagnosis is made and therapy is prescribed in a timely and correct manner. However, the intense nature of the headache and its combination with other symptoms (nausea, vomiting, pallor, drowsiness, etc.) often cause excessive concern on the part of both parents and the patient. When visiting a doctor, parents try to make sure that the headache is not caused by a serious illness (for example, a brain tumor). On the other hand, there is an opinion that children may have headaches periodically, and this is associated with adolescence, and therefore does not require special attention. The only thing that can be true in this statement is that the peak incidence of headaches occurs during the "adolescent age" of 9–15 years, but the appearance of complaints indicates that in the process of age-related restructuring of the body, its functional and adaptive systems cannot cope with the increased load. Therefore, the child needs immediate help.

RESULTS AND DISCUSSION

Frequent absences from school and limitation of activity due to headaches lead to a child falling behind in the educational program, negatively affecting his psychological state and relationships with peers. Available preventive measures (regular meals, absence of such conditions as overfatigue, overexcitement, dehydration, etc.) along with drug therapy can prevent certain forms of headache.

Main types of headache

Primary headache is an independent pathology not caused by any diseases.

Secondary (or symptomatic) headache is a symptom of somatic pathology or underlying CNS disease.

The most common forms of primary headaches are migraine and tension headaches (TH), which are more common in patients with a complicated family history of these diseases.

Secondary headaches are most often caused by sinusitis and middle ear infections, systemic infections, as well as craniocerebral trauma, arterial hyper- or hypotension; less often by side

effects of drugs (causing vasodilation or vasoconstriction), intracranial tumor, meningitis or encephalitis.

The results of additional studies conducted on patients with headaches are essential for choosing prevention methods. Let us briefly dwell on the clinical significance of the main methods.

Electroencephalography (EEG). In most children with primary headaches, EEG changes are nonspecific. Most often, a weakening of the alpha rhythm in the occipital leads and a decrease in the amplitude of bioelectrical activity are noted. According to the research data of Yu. Nesterovsky et al., similar changes were detected in 64% of patients with headache, increased diffuse slow-wave activity in 12%, and EEG was normal in 21% of patients [4]. Approximately 4% of patients show epileptiform activity in the form of focal changes or generalized discharges both in the background recording and under loads (photostimulation, hyperventilation) during EEG examination. In this case, epileptiform changes on EEG do not clinically manifest as epileptic seizures, i.e., they are a subclinical sign. It was also established that among children with benign epileptiform activity on EEG who do not have epileptic seizures, 25% complain of frequent episodic headaches [5]. If epileptiform activity is detected in patients with migraine, drugs from the anticonvulsant group may be considered as a means of preventive therapy.

Ultrasound Dopplerography (USDG). USDG data allow us to judge the state of cerebral hemodynamics, in particular venous. Disturbances in venous cerebral blood flow affect the course of headaches. This is confirmed by the high frequency of disturbances in venous cerebral hemodynamics in children with primary headaches. Thus, when comparing 2 groups of children - with headaches and the control group (children who did not complain) - signs of venous disorders of varying severity were determined in 86% of patients with headaches and only in 7% in the control group. In addition, significant venous dysfunction in migraine with aura was found in 87% of patients, and in migraine without aura - only in 14%. Migraine attacks with aura have a more severe course. This is probably why the degree of venous disorders affects the clinical severity of a headache attack [6]. To prevent headaches accompanied by cerebral venous hemodynamic disorders, it is advisable to prescribe venotonic drugs. An ophthalmologist consultation allows one to assess not only visual acuity, but also the condition of the fundus to rule out intracranial hypertension. Impaired or incorrect vision correction in children is another cause of persistent headaches.

CONCLUSION

Disturbances in the regulation of cerebral hemodynamics are one of the factors in the pathogenesis of headaches in children and adolescents. The non-invasive method of ultrasound Doppler imaging allows not only to determine the type of regulatory disorders of cerebral hemodynamics, but also to track the dynamics of their changes during treatment. It should be noted that a clear positive trend in the group of patients during treatment with an antihypoxant was observed in cases of an initial increase in PS values, indicating the prevalence of increased peripheral resistance at the level of the arteriocapillary bed. After the course of the drug, PS normalization was noted, which was accompanied by a significant decrease in the frequency and intensity of headaches, the disappearance of cerebrosthenic symptoms in the examined patients.

REFERENCES:

1. Hershey A. D., Powers S. W., Winner P., Kabbouche M. A. Pediatric Headaches in Clinical Practice. — London: Wiley-Blackwell, 2019. — 223 p.
2. World Health Organization (2000). Headache disorders and public health / Education and management implications. — Geneva: WHO, 2014. — 11 p.
3. Neurology for general practitioners / edited by A. M. Vein. — Moscow: Eidos Media, 2011. — 502 p.

4. Nesterovsky Yu. E. Differential diagnostics and treatment of primary headaches in childhood. Modern aspects. Abstract of Cand. Sci. (Medicine). — Moscow: Russian State Medical University, 2016. — 32 p.
5. Nogovitsyn V. Yu., Nesterovsky Yu. E., Osipova G. N., et al. Polymorphism of the electroencephalographic pattern of benign epileptiform disorders in childhood // J. Neurology and Psychiatry. - 2014; 104 (10): 48–56.